Appendix F. Construction Impacts Technical Report

SEPULVEDA TRANSIT CORRIDOR PROJECT

Construction Impacts Technical Report

March 2025

Metro

SEPULVEDA TRANSIT CORRIDOR PROJECT

Contract No. AE67085000

Construction Impacts Technical Report

Task 5.24.11

Prepared for:

Metro

Los Angeles County
Metropolitan Transportation Authority

Prepared by:

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Abbreviations and Acronyms

AB	Assembly Bill
ACM	asbestos-containing material
ADA	Americans with Disabilities Act
AIA	airport influence area
APM	automated people mover
AQMP	Air Quality Management Plan
BBB	Big Blue Bus
BMP	best management practice
BRT	bus rapid transit
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Division of Occupational Safety and Health
CalEPA	California Environmental Protection Agency
CalGreen	California Green Building Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCB	Culver CityBus
CCR	California Code of Regulations
CDFW	the California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERS	California Environmental Reporting System
CFR	Code of Federal Regulations
CGP	construction general permit
CHP	California Highway Patrol
CIDH	cast-in-drilled-hole
CO	carbon monoxide
Cortese list	Hazardous Waste and Substances Sites List (Government Code Section 65962.5)
CRHR	California Register of Historical Resources
CRMMP	Cultural Resources Monitoring and Mitigation Plan
CRPR	California Rare Plant Rank
CWA	Clean Water Act of 1972, as amended

dBA	a-weighted decibel
DEIR	Draft Environmental Impact Report
DOC	California Department of Conservation
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
e-Bus	Electric Bus
EDR	EDR, Inc.
EPA	(U.S.) Environmental Protection Agency
ESA	Environmental Site Assessment
ExpressLanes project	Sepulveda Pass I-405 ExpressLanes project
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
GCP	Green Construction Policy
GHG	greenhouse gas
HABS/HAER/HABS	Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey
HASP	health and safety plan
HCP	Habitat Conservation Plan
HMBP	Hazardous Materials Business Plan
HRT	heavy rail transit
HTA	HTA Partners
I-405	Interstate 405
IGP	Industrial General Permit
in/sec	inch per second
LABOE	Los Angeles Bureau of Engineering
LADOT	Los Angeles Department of Transportation
LADWP	City of Los Angeles Department of Water and Power
LACFD	Los Angeles County Fire Department
LAFD	Los Angeles Fire Department
LAPD	Los Angeles Police Department
LASRE	LA SkyRail Express
LAX	Los Angeles International Airport
LBP	lead-based paint
LBT	Long Beach Transit
L_{eq}	equivalent noise level

LHZ	Landslide Hazard Zone
LID	low impact development
LOSSAN	Los Angeles-San Diego-San Luis Obispo
LRA	Local Responsibility Area
LRT	light rail transit
LRTP	Long Range Transportation Plan
LST	localized significance thresholds
LUST	leaking underground storage tank
MBTA	Migratory Bird Treaty Act
Metro	Los Angeles County Metropolitan Transportation Authority
MLD	Most Likely Descendant
MM	mitigation measure
MOW	maintenance-of-way
MRDC	Metro Rail Design Criteria
MRT	monorail transit
MS4	municipal separate storm sewer system
MSF	maintenance and storage facility
MWh	megawatt-hours
NAAQS	National Ambient Air Quality Standards
NCCP	Natural Community Conservation Plan
NFPA	National Fire Protection Association
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NOP	Notice of Preparation
NO_X	oxides of nitrogen
NZE	Near Zero Emissions
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
PCE	perchloroethylene
PHMSA	Pipeline and Hazardous Materials Safety Administration
PM_{10}	respirable particulate matter of 10 microns or less
$PM_{2.5}$	fine particulate matter of 2.5 microns or less
PPV	peak particle velocity
PRC	Public Resources Code
PRIMP	Paleontological Resources Impact Mitigation Program
Project	Sepulveda Transit Corridor Project

RCRA	Resource Conservation and Recovery Act
ROG	reactive organic gases
ROW	right-of-way
RSA	Resource Study Area
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCORE	Southern California Optimized Rail Expansion
SO_2	sulfur dioxide
SOI	Secretary of the Interior
SR	State Route
SRA	State Responsibility Area
SSC	species of special concern
STCP	Sepulveda Transit Corridor Partners
SUSMP	Standard Urban Storm Water Mitigation Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TBD	to be determined
TBM	Tunnel boring machine
TCE	temporary construction easement
TMP	transportation management plan
TPSS	traction power substation
TOD	transit-oriented development
TPZ	Tree Protection Zone
US/U.S.	United States
USPS	United States Postal Service
UCLA	University of California, Los Angeles
USFWS	U.S. Fish and Wildlife Service
VA	United States Department of Veterans Affairs
Valley	San Fernando Valley
VdB	decibel notation
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
VOC	volatile organic compounds
VSM	vertical shaft sinking machine

WBWG	Western Bat Working Group
WDR	waste discharge requirement
WEAP	Worker Environmental Assessment Program
Westside	Westside of Los Angeles
ZE	Zero Emissions

1 INTRODUCTION

1.1 Project Background

The Sepulveda Transit Corridor Project (Project) is intended to provide a high-capacity rail transit alternative to serve the large and growing travel market and transit needs currently channeled through the Sepulveda Pass and nearby canyon roads between the San Fernando Valley (Valley) and the Westside of Los Angeles (Westside). The Project would have a northern terminus with a connection to the Van Nuys Metrolink/Amtrak Station and a southern terminus with a connection to the Los Angeles County Metropolitan Transportation Authority's (Metro) E Line. In addition to providing local and regional connections to the existing and future Metro rail and bus network, the Project is anticipated to improve access to major employment, educational, and cultural centers in the greater Los Angeles area.

In 2019, Metro completed the *Sepulveda Transit Corridor Feasibility Study* and released the Project's *Final Feasibility Report* (Metro, 2019), which documented the transportation conditions and travel patterns in the Sepulveda Corridor; identified mobility problems affecting travel between the Valley and the Westside; and defined the Purpose and Need, goals, and objectives of the corridor. Using an iterative evaluation process, the Feasibility Study identified feasible transit solutions that met the Purpose and Need, goals, and objectives of the Project. The Feasibility Study determined that a reliable, high-capacity, fixed guideway transit system connecting the Valley to the Westside could be constructed along several different alignments. Such a transit system, operated as either heavy rail transit (HRT) or monorail transit (MRT), would serve the major travel markets in the Sepulveda Transit Corridor and would provide travel times competitive with the automobile.

1.2 Project Alternatives

In November 2021, Metro released a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act, for the Project that included six alternatives (Metro, 2021). Alternatives 1 through 5 included a southern terminus station at the Metro E Line Expo/Sepulveda Station, and Alternative 6 included a southern terminus station at the Metro E Line Expo/Bundy Station. The alternatives were described in the NOP as follows:

- Alternative 1: Monorail with aerial alignment in the Interstate 405 (I-405) corridor and an electric bus connection to the University of California, Los Angeles (UCLA)
- Alternative 2: Monorail with aerial alignment in the I-405 corridor and an aerial automated people mover connection to UCLA
- Alternative 3: Monorail with aerial alignment in the I-405 corridor and underground alignment between the Getty Center and Wilshire Boulevard
- Alternative 4: Heavy rail with underground alignment south of Ventura Boulevard and aerial alignment generally along Sepulveda Boulevard in the San Fernando Valley
- Alternative 5: Heavy rail with underground alignment including along Sepulveda Boulevard in the San Fernando Valley
- Alternative 6: Heavy rail with underground alignment including along Van Nuys Boulevard in the San Fernando Valley and a southern terminus station on Bundy Drive

The NOP also stated that Metro is considering a No Project Alternative that would not include constructing a fixed guideway line. Metro established a public comment period of 74 days, extending from November 30, 2021 through February 11, 2022. Following the public comment period, refinements to the alternatives were made to address comments received. Further refinements to optimize the designs and address technical challenges of the alternatives were made in 2023 following two rounds of community open houses.

In July 2024, following community meetings held in May 2024, Alternative 2 was removed from further consideration in the environmental process because it did not provide advantages over the other alternatives, and the remaining alternatives represent a sufficient range of alternatives for environmental review, inclusive of modes and routes (Metro, 2024a). Detailed descriptions of the No Project Alternative and the five remaining "build" alternatives are presented in Sections 4 through 9. It is anticipated that Metro will seek federal funding if an action alternative is approved by the Metro Board that would be anticipated to require preparation of an Environmental Impact Statement pursuant to the National Environmental Policy Act, which may rely on the consideration of environmental impacts addressed in this technical report.

1.3 Project Study Area

Figure 1-1 shows the Project Study Area. It generally includes Transportation Analysis Zones from Metro's travel demand model that are within 1 mile of the alignments of the four "Valley-Westside" alternatives from the *Sepulveda Transit Corridor Project Final Feasibility Report* (Metro, 2019). The Project Study Area represents the area in which the transit concepts and ancillary facilities are expected to be located. The analysis of potential impacts encompasses all areas that could potentially be affected by the Project, and the EIR will disclose all potential impacts related to the Project.

Figure 1-1. Sepulveda Transit Corridor Project Study Area

Source: HTA, 2024

1.4 Purpose of this Report and Structure

This technical report compiles the construction impacts of all technical reports in the Draft Environmental Impact Report (DEIR). Further information on existing conditions, regulatory frameworks, and operational impacts can be found in the individual technical reports within the DEIR.

The report is organized according to the following sections:

- Section 1 Introduction
- Section 2 Construction Methodology
- Section 3 Future Background Projects
- Section 4 No Project Alternative
- Section 5 Alternative 1
- Section 6 Alternative 3
- Section 7 Alternative 4
- Section 8 Alternative 5
- Section 9 Alternative 6
- Section 10 Preparers of the Technical Report
- Section 11 References

Additionally, this technical report includes four attachments that detail the construction methodology and sequencing for the Project, organized by technology and alternatives. Each attachment corresponds to a specific set of alternatives:

- Attachment 1. Alternatives 1 and 3: Construction Methodology and Sequencing (Monorail)
- Attachment 2. Alternative 4: Construction Methodology and Sequencing (Heavy Rail with Automated Train Operations)
- Attachment 3. Alternative 5: Construction Methodology and Sequencing (Heavy Rail with Automated Train Operations)
- Attachment 4. Alternative 6: Construction Methodology and Sequencing (Heavy Rail with Driver-Operated Train)

2 CONSTRUCTION METHODOLOGY

The Project's construction methodology is dependent on the Alternative and technology type and individual contractor's choices. Four attachments to this *Construction Impacts Technical Report* describe the construction methodology and sequencing and is organized by Alternatives and technology type (i.e., monorail [Alternatives 1 and 3], heavy rail with automated train operations [Alternatives 4 and 5], heavy rail with driver-operated trains [Alternative 6]).

- Attachment 1. Alternatives 1 and 3: Construction Methodology and Sequencing (Monorail)
- Attachment 2. Alternative 4: Construction Methodology and Sequencing (Heavy Rail with Automated Train Operations)
- Attachment 3. Alternative 5: Construction Methodology and Sequencing (Heavy Rail with Automated Train Operations)
- Attachment 4. Alternative 6: Construction Methodology and Sequencing (Heavy Rail with Driver-Operated Train)

3 FUTURE BACKGROUND PROJECTS

This section describes planned improvements to highway, transit, and regional rail facilities within the Project Study Area and the region that would occur whether or not the Project is constructed. These improvements are relevant to the analysis of the No Project Alternative and the project alternatives because they are part of the future regional transportation network within which the Project would be incorporated. These improvements would not be considered reasonably foreseeable consequences of not approving the Project as they would occur whether or not the Project is constructed.

The future background projects include all existing and under-construction highway and transit services and facilities, as well as the transit and highway projects scheduled to be operational by 2045 according to the *Measure R Expenditure Plan* (Metro, 2008), the *Measure M Expenditure Plan* (Metro, 2016), the Southern California Association of Governments (SCAG) *Connect SoCal, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS) (SCAG, 2020a, 2020b), and the Federal Transportation Improvement Program (FTIP), with the exception of the Sepulveda Transit Corridor Project (Project). The year 2045 was selected as the analysis year for the Project because it was the horizon year of SCAG's adopted RTP/SCS at the time Metro released the NOP for the Project.

3.1 Highway Improvements

The only major highway improvement in the Project Study Area included in the future background projects is the Interstate 405 (I-405) Sepulveda Pass ExpressLanes project (ExpressLanes project). This would include the ExpressLanes project as defined in the *2021 FTIP Technical Appendix, Volume II of III* (SCAG, 2021a), which is expected to provide for the addition of one travel lane in each direction on I-405 between U.S. Highway 101 (US-101) and Interstate 10 (I-10). Metro is currently studying several operational and physical configurations of the ExpressLanes project, which may also be used by commuter or rapid bus services, as are other ExpressLanes in Los Angeles County.

3.2 Transit Improvements

Table 3-1 lists the transit improvements that would be included in the future background projects. This list includes projects scheduled to be operational by 2045 as listed in the *Measure R and Measure M Expenditure Plans* (with the exception of the Project) as well as the Inglewood Transit Connector and LAX APM. In consultation with the Federal Transit Administration, Metro selected 2045 as the analysis year to provide consistency across studies for Measure M transit corridor projects. The Inglewood Transit Connector, a planned automated people mover (APM), which was added to the FTIP with *Consistency Amendment #21-05* in 2021, would also be included in the future background projects (SCAG, 2021b). These projects would also include the Los Angeles International Airport (LAX) APM, currently under construction by Los Angeles World Airports. The APM will extend from a new Consolidated Rent-A-Car Center to the Central Terminal Area of LAX and will include four intermediate stations. In addition, the new Airport Metro Connector Transit Station at Aviation Boulevard and 96th Street will also serve as a direct connection from the Metro K Line and Metro C Line to LAX by connecting with one of the APM stations.

During peak hours, heavy rail transit (HRT) services would generally operate at 4-minute headways (i.e., the time interval between trains traveling in the same direction), and light rail transit (LRT) services would operate at 5- to 6-minute headways. During off-peak hours, HRT services would generally operate at 8-minute headways and LRT services at 10- to 12-minute headways. Bus rapid transit (BRT) services would generally operate at peak headways between 5 and 10 minutes and off-peak headways between

10 and 14 minutes. The Inglewood Transit Connector would operate at a headway of 6 minutes, with more frequent service during major events. The LAX APM would operate at 2-minute headways during peak and off-peak periods.

Table 3-1. Fixed Guideway Transit System in 2045

Transit Line	Mode	Alignment Description[a]
Metro A Line	LRT	Claremont to downtown Long Beach via downtown Los Angeles
Metro B Line	HRT	Union Station to North Hollywood Station
Metro C Line	LRT	Norwalk to Torrance
Metro D Line	HRT	Union Station to Westwood/VA Hospital Station
Metro E Line	LRT	Downtown Santa Monica Station to Lambert Station (Whittier) via downtown Los Angeles
Metro G Line	BRT	Pasadena to Chatsworth[b]
Metro K Line	LRT	Norwalk to Expo/Crenshaw Station
East San Fernando Valley Light Rail Transit Line	LRT	Metrolink Sylmar/San Fernando Station to Metro G Line Van Nuys Station
Southeast Gateway Line	LRT	Union Station to Artesia
North San Fernando Valley Bus Rapid Transit Network Improvements	BRT	North Hollywood to Chatsworth[c]
Vermont Transit Corridor	BRT	Hollywood Boulevard to 120th Street
Inglewood Transit Connector	APM	Market Street/Florence Avenue to Prairie Avenue/Hardy Street
Los Angeles International Airport APM	APM	Aviation Boulevard/96th Street to LAX Central Terminal Area

Source: HTA, 2024

[a]Alignment descriptions reflect the project definition as of the date of the Project's Notice of Preparation (Metro, 2021).

[b]As defined in Metro Board actions of July 2018 and May 2021, the Metro G Line will have an eastern terminus near Pasadena City College and will include aerial stations at Sepulveda Boulevard and Van Nuys Boulevard.

[c]The North San Fernando Valley network improvements are assumed to be as approved by the Metro Board in December 2022.

3.3 Regional Rail Projects

The future background projects would include the Southern California Optimized Rail Expansion (SCORE) program, which is Metrolink's Capital Improvement Program that will upgrade the regional rail system (including grade crossings, stations, and signals) and add tracks as necessary to be ready in time for the 2028 Olympic and Paralympic Games. The SCORE program will also help Metrolink to move toward a zero emissions future. The following SCORE projects planned at Chatsworth and Burbank Stations will upgrade station facilities and allow 30-minute all-day service in each direction by 2045 on the Metrolink Ventura County Line:

1. Chatsworth Station: This SCORE project will include replacing an at-grade crossing and adding a new pedestrian bridge and several track improvements to enable more frequent and reliable service.
2. Burbank Station: This SCORE project will include replacing tracks, adding a new pedestrian crossing, and realigning tracks to achieve more frequency, efficiency, and shorter headways.

In addition, the Link Union Station project will provide improvements to Los Angeles Union Station that will transform the operations of the station by allowing trains to arrive and depart in both directions,

rather than having to reverse direction to depart the station. Link Union Station will also prepare Union Station for the arrival of California High-Speed Rail, which will connect Union Station to other regional multimodal transportation hubs such as Hollywood Burbank Airport and the Anaheim Regional Transportation Intermodal Center.

4 NO PROJECT ALTERNATIVE

The only reasonably foreseeable transportation project under the No Project Alternative would be improvements to Metro Line 761, which would continue to serve as the primary transit option through the Sepulveda Pass with peak-period headways of 10 minutes in the peak direction and 15 minutes in the other direction. Metro Line 761 would operate between the Metro E Line Expo/Sepulveda Station and the Metro G Line Van Nuys Station, in coordination with the opening of the East San Fernando Valley Light Rail Transit Line, rather than to its current northern terminus at the Sylmar Metrolink Station.

4.1 Impacts Evaluation

4.1.1 Air Quality

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-1.

Table 4-1. No Project Alternative: Air Quality Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Air Quality Construction Impacts		
Impact AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact AQ-2: Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under and applicable federal or state ambient air quality standard?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025f

AQ = air quality
LTS = less than significant
NA = not applicable

4.1.1.1 Impact AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

The No Project Alternative includes modifications to Metro Line 761. The modifications would include the construction of additional bus stops for Metro Line 761 to facilitate route changes under the No Project Alternative. Construction of Metro Line 761 elements would be temporary and would conform with applicable federal, state, regional, and local regulations and standards related to criteria pollutant emissions. Additionally, the project would undergo project-specific environmental clearance and would implement project-specific mitigation measures, as necessary to avoid or minimize potential criteria pollutant impacts. Construction of additional bus stops along Metro Line 761 would result in minimal

criteria pollutant emissions as installation of bus stop components (benches, enclosures, signage, etc.) could be installed in a few days and would not require substantial amounts of off-road equipment or truck hauling. Construction of the bus stops would be conducted in accordance with measures in Metro's *Green Construction Policy* to reduce criteria pollutant emissions where possible. Overall, because project alternatives would not be constructed under the No Project Alternative and construction of additional bus stops along Metro Line 761 would result in minimal criteria pollutant emissions and comply with Metro's *Green Construction Policy*, criteria pollutants generated under the No Project Alternative would be nominal and would not conflict with emission reduction goals in the 2022 AQMP; therefore, construction impacts for the No Project Alternative would be less than significant.

4.1.1.2 Impact AQ-2: Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under and applicable federal or state ambient air quality standard?

Under the No Project Alternative, construction of the project alternatives would not occur. As a result, construction-related emissions of criteria pollutants, such as NO_X, PM_{10} and $PM_{2.5}$ associated with off-road equipment, truck hauling, and construction activities would be avoided. This avoidance would eliminate the project's contribution to a cumulatively considerable net increase of criteria pollutants for which the region is in non-attainment under applicable federal and state ambient air quality standards. Because the project alternatives would not be constructed, the No Project Alternative would result in no project-specific emissions from construction activities. Therefore, there would be no contribution to a cumulative net increase of non-attainment pollutants under the No Project Alternative, and impacts would be less than significant.

4.1.1.3 Impact AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations?

The No Project Alternative includes modifications to Metro Line 761. The modifications would include the construction of additional bus stops for Metro Line 761 to facilitate route changes under the No Project Alternative. Construction of Metro Line 761 elements would be temporary and conform with applicable federal, state, regional, and local regulations and standards related to criteria pollutant emissions. Additionally, the project would undergo project-specific environmental clearance and would implement project-specific mitigation measures, as necessary, to avoid or minimize potential criteria pollutant impacts. Construction of additional bus stops along Metro Line 761 would result in minimal criteria pollutant emissions because installation of bus stop components (benches, enclosures, signage, etc.) could be installed in a few days and would not require substantial amounts of off-road equipment or truck hauling. Overall, because project alternatives would not be constructed under the No Project Alternative, and construction of additional bus stops along Metro Line 761 would result in minimal criteria pollutant and TAC emissions, sensitive receptors would not be exposed to substantial pollutant concentrations and impacts would be less than significant under the No Project Alternative.

4.1.1.4 Impact AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The No Project Alternative includes modifications to Metro Line 761. The modifications would include the construction of additional bus stops for Metro Line 761 to facilitate route changes under the No Project Alternative. Additionally, the project would undergo project-specific environmental clearance and would implement project-specific mitigation measures, as necessary, to avoid or minimize potential

odor impacts. Construction of additional bus stops along Metro Line 761 would result in minimal construction activity associated with installation of bus stop components (benches, enclosures, signage, etc.). These components could be installed in a few days and would not require substantial amounts of off-road equipment or truck hauling which are typical sources of odors related to engine exhaust. Due to the limited construction activity, construction related to the additional bus stops for Metro Line 761 would not be a significant source of odors. Overall, because project alternatives would not be constructed under the No Project Alternative and construction of additional bus stops along Metro Line 761 would result in minimal construction activity, the No Project Alternative would generate minimal odors and would not affect a substantial number of people. Therefore, odor impacts for the No Project Alternative would be less than significant.

4.1.1.5 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required.

4.1.2 Communities and Neighborhoods

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-2.

Table 4-2. No Project Alternative: Communities and Neighborhoods Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Communities and Neighborhoods Construction Impacts		
Impact POP-1: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact PUB-3: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI
Impact US-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

CEQA Impact Topic		No Project Alternative
Impact US-3: Would the project result in a determination by the wastewater treatment provider who serves, or may serve, the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI
Impact US-4: Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI
Impact US-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025b

LTS = less than significant
NA = not applicable
NI = no impact
POP = population, housing, and growth
PUB = public services
US -= utilities and service systems

4.1.2.1 Impact POP-1: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The rerouting of Metro Line 761 would potentially require construction of new bus stops which would entail limited construction activities and workers. The required construction personnel for such activities could potentially be accommodated by existing Metro staff such that there would be no potential influx of new construction workers to implement the rerouting of Metro Line 761. Thus, construction of the No Project Alternative Study would result in less than significant impacts related to substantial unplanned population growth.

4.1.2.2 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Under the No Project Alternative, the Project would not be constructed. Changes to Metro Line 761 operations would have no potential to displace people or housing as any physical improvements would be constructed within the public ROW. Therefore, the No Project Alternative would result in less than significant impacts related to the displacement of people or housing.

4.1.2.3 Impact PUB-3: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools or other public facilities.

Construction associated with revisions to Metro Line 761 would be minimal and would take place entirely within the existing street ROW. No existing schools or other public facilities would be affected by construction associated with rerouting Metro Line 761. Construction activities would not result in substantial adverse physical impacts associated with the provision of, or need for, new or physically

altered schools or other public facilities. The No Project Alternative would not result in project-related construction impacts; however, new transportation infrastructure currently under construction or funded for construction via the 2008 Measure R (Metro, 2008) or 2016 Measure M sales taxes (Metro, 2016) could be constructed within the Project Study Area. Local jurisdictions would also continue to approve new development projects according to existing land use plans and programs. Future construction activities would include, but would not be limited to, construction staging, materials stockpiling, hauling of dirt and materials, temporary street and lane closures, and use of temporary easements. Construction activities would be temporary and would not result in permanent impacts to surrounding schools. Future projects would also be required to implement project-specific construction-related measures to reduce and minimize potential impacts to school facilities. Therefore, impacts would be less than significant.

4.1.2.4 Impact US-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The No Project Alternative would not construct a new transit line, and therefore would not relocate or increase demand for utilities and service systems; however, new transportation infrastructure currently under construction or funded for construction via the 2008 Measure R or 2016 Measure M sales taxes (Metro 2008, 2016) as well as local jurisdiction development projects could be constructed within the Project Study Area. These projects could potentially result in construction impacts to existing utilities and service systems in the Project Study Area and create additional demand. It is anticipated that these projects would protect in place or prepare relocation plans to avoid interruption to service. As described, there is no potential for construction associated with Metro Line 761 would require the relocation of any utility facilities. Construction demand on utilities and service systems is not anticipated to exceed the planned capacity of these systems. The No Project Alternative would have no impact during construction related to utilities and service systems.

4.1.2.5 Impact US-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

The No Project Alternative would not construct a new additional transit line and would not increase consumption of water supplies; however, new transportation infrastructure currently under construction or funded for construction via the 2008 Measure R or 2016 Measure M sales taxes (Metro 2008, 2016) as well as local jurisdiction development projects could be constructed within the Project Study Area. The City of Los Angeles Department of Water and Power (LADWP), Metropolitan Water District of Southern California, and City of Santa Monica have indicated that water supplies are adequate to meet demand in normal, single-dry year, and multiple dry years. As described, there is no potential for construction associated with Metro Line 761 would require the relocation of any utility facilities. The No Project Alternative would have no impact during construction related to water supplies.

4.1.2.6 Impact US-3: Would the project result in a determination by the wastewater treatment provider who serves, or may serve, the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The No Project Alternative would not construct a new additional transit line and would not increase wastewater generation; however, new transportation infrastructure currently under construction or funded for construction via the 2008 Measure R or 2016 Measure M sales taxes (Metro 2008, 2016) could be constructed within the Project Study Area. Construction of the transportation infrastructure projects and local jurisdiction projects would generate wastewater temporarily during the construction phase. The additional temporary wastewater generation is not anticipated to exceed the treatment capacity of approximately 580 million gallons per day. Construction activities associated with Metro Line 761 modifications my involve generation of negligible amounts of wastewater which would be handled by existing wastewater treatment facilities. The No Project Alternative would have no impact during construction related to wastewater treatment.

4.1.2.7 Impact US-4: Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

The No Project Alternative would not construct a new additional transit line and would not generate solid waste; however, new transportation infrastructure currently under construction or funded for construction via the 2008 Measure R or 2016 Measure M sales taxes (Metro 2008, 2016) could be constructed within the Project Study Area. Projects that could be built under the No Project Alternative would not exceed the planned capacity of local infrastructure and would include their own solid waste assessments. Construction activities associated with the Metro Line 761 modifications would produce negligible amounts of solid waste in order to build or modify bus stops. The amount of solid waste potentially generated by construction would not exceed planned capacity. The No Project Alternative would have no impact during construction related to solid waste.

4.1.2.8 Impact US-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The No Project Alternative would not construct a new additional transit line and would not generate solid waste; however, new transportation infrastructure currently under construction or funded for construction via the 2008 Measure R or 2016 Measure M sales taxes (Metro 2008, 2016) as well as local jurisdiction development projects could be constructed within the Project Study Area. Other projects including modifications to Metro Line 761 would be required to comply with all solid waste statutes and regulations. The No Project Alternative would have no impact during construction related to solid waste standards.

4.1.2.9 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

4.1.3 Climate Change and Greenhouse Gas Emissions

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-3.

Table 4-3. No Project Alternative: Climate Change and Greenhouse Gas Emissions Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Climate Change and Greenhouse Gas Emissions Construction Impacts		
Impact GHG-1: Would the project result in greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Impacts Before Mitigation	PS
	Applicable Mitigation	NA
	Impacts After Mitigation	SU

Source: Metro, 2025d

GHG = greenhouse gas emissions
LTS = less than significant
NA = not applicable
PS = potentially significant
SU = significant and unavoidable

4.1.3.1 Impact GHG-1: Would the project result in greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The No Project Alternative includes modifications to Metro Line 761. The modifications would include the construction of additional bus stops for Metro Line 761 to facilitate route changes under the No Project Alternative. Construction of Metro Line 761 elements would be temporary and conform with applicable federal, state, regional, and local regulations and standards related to GHG emissions. The project would undergo project-specific environmental clearance and would implement project-specific mitigation measures, as necessary to avoid or minimize potential GHG impacts. Construction of additional bus stops along Metro Line 761 would result in minimal GHG emissions as installation of bus stop components (benches, enclosures, signage, etc.) could be installed in a few days and would not require substantial amounts of off-road equipment or truck hauling. Overall, because project alternatives would not be constructed under the No Project Alternative and construction of additional bus stops along Metro Line 761 would result in minimal GHG emissions, GHG emissions generated under the No Project Alternative would not have a significant impact on the environment and impacts would be less than significant.

4.1.3.2 Impact GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The No Project Alternative includes modifications to Metro Line 761. The modifications would include the construction of additional bus stops for Metro Line 761 to facilitate route changes under the No Project Alternative. Construction of Metro Line 761 elements would be temporary and conform with applicable federal, state, regional, and local regulations and standards related to GHG emissions. Construction of additional bus stops along Metro Line 761 would result in minimal GHG emissions as installation of bus stop components (benches, enclosures, signage, etc.) could be installed in a few days

and would not require substantial amounts of off-road equipment or truck hauling. Construction of the bus stops would be conducted in accordance with measures in Metro's Green Construction Policy to reduce GHG emissions where possible. The project would undergo project-specific environmental clearance and would implement project-specific mitigation measures, as necessary to avoid or minimize potential GHG impacts. Overall, because project alternatives would not be constructed under the No Project Alternative and would not generate GHG emissions, and construction of bus stops would be required to comply with Metro's Green Construction Policy, the No Project Alternative would not conflict with plans, policies, or regulations for reducing GHG emissions and impacts would be less than significant.

4.1.3.3 Mitigation Measures

Construction Impacts

The No Project Alternative would have a less than significant impact; therefore, no mitigation measures would be required.

Impacts After Mitigation

No mitigation measures would be required. Construction impacts would be less than significant.

4.1.4 Ecosystems and Biological Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-4

Table 4-4. No Project Alternative: Ecosystems and Biological Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Biological Resources Construction Impacts		
Impact BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact BIO-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

CEQA Impact Topic		No Project Alternative
Impact BIO-6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025k

BIO = biological resources
LTS = less than significant
NA = not applicable

4.1.4.1 Impact BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Construction impacts from the Project would not occur under the No Project Alternative. Changes to the Metro Line 761 would require minimal or no construction activities, as the existing Metro bus line would simply be rerouted to between the Metro E Line Expo/Sepulveda Station and the Van Nuys Metrolink/Amtrak Station. These potential termini already include transit infrastructure supporting bus feeder lines and would not require construction of new facilities to support the rerouted bus service. Minor bus stop modifications along the Metro Line 761 may be required; however, construction activities associated with these improvements would consist of minimal or no ground disturbance within existing sidewalks and street ROW. It is not anticipated that special-status species within the Project Study Area would be impacted since construction activities would be confined to areas of existing pavement. Impacts to special-status species associated with the No Project Alternative are anticipated to be less than significant during construction.

4.1.4.2 Impact BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Construction impacts from the Project would not occur under the No Project Alternative. Changes to the Metro Line 761 would require minimal or no construction activities, as the existing Metro bus line would simply be rerouted to between the Metro E Line Expo/Sepulveda Station and the Van Nuys Metrolink/Amtrak Station. These potential termini already include transit infrastructure supporting bus feeder lines and would not require construction of new facilities to support the rerouted bus service. Minor bus stop modifications along the Metro Line 761 may be required; however, construction activities associated with these improvements would consist of minimal or no ground disturbance within existing sidewalks and street ROW. It is not anticipated that riparian or sensitive natural communities within the Project Study Area would be impacted by such construction activities. Impacts to riparian or sensitive natural communities associated with the No Project Alternative would be less than significant during construction.

4.1.4.3 Impact BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Construction impacts from the Project would not occur under the No Project Alternative. Changes to the Metro Line 761 would require minimal or no construction activities, as the existing Metro bus line would simply be rerouted to between the Metro E Line Expo/Sepulveda Station and the Van Nuys Metrolink/Amtrak Station. These potential termini already include transit infrastructure supporting bus feeder lines and would not require construction of new facilities to support the rerouted bus service. Minor bus stop modifications along the Metro Line 761 may be required; however, construction activities associated with these improvements would consist of minimal or no ground disturbance within existing sidewalks and street ROW. It is not anticipated that state or federally protected wetlands or non-wetland waters under the jurisdictional of RWQCB or CDFW within the Project Study Area would be impacted by such construction activities. Impacts to state or federally protected wetlands associated with the No Project Alternative would be less than significant during construction.

4.1.4.4 Impact BIO-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Construction impacts from the Project would not occur under the No Project Alternative since no alternatives would be built. Changes to the Metro Line 761 would require minimal or no construction activities, as the existing Metro bus line would simply be rerouted to between the Metro E Line Expo/Sepulveda Station and the Van Nuys Metrolink/Amtrak Station. These potential termini already include transit infrastructure supporting bus feeder lines and would not require construction of new facilities to support the rerouted bus service. Minor bus stop modifications along the Metro Line 761 may be required; however, construction activities associated with these improvements would consist of minimal or no ground disturbance within existing sidewalks and street ROW. It is not anticipated that wildlife movement corridors or nursery sites within the Project Study Area would be impacted since construction activities would be limited to individuals bus stops (i.e., discrete locations with small footprints). Impacts to wildlife movement corridors and nursery sites associated with the No Project Alternative would be less than significant during construction.

4.1.4.5 Impact BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Construction impacts from the Project would not occur under the No Project Alternative. Changes to the Metro Line 761 would require minimal to no construction activities as the existing Metro bus line would simply be rerouted along existing streets and highways between the Metro E Line Expo/Sepulveda Station and the Van Nuys Metrolink/Amtrak Station. These potential termini already include transit infrastructure supporting bus feeder lines and would not require construction of new facilities to support the rerouted bus service. Minor bus stop modifications along the Metro Line 761 may be required; however, construction activities associated with these improvements would consist of minimal or no ground disturbance within existing sidewalks and street ROW. It is not anticipated that protected trees and shrubs within the Project Study Area would be impacted since construction activities would be

confined to areas of existing pavement. Impacts to protected trees and shrubs associated of No Project Alternative would be less than significant during construction.

4.1.4.6 Impact BIO-6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Construction impacts from the Project would not occur under the No Project Alternative. Construction activities associated with changes to the Metro Line 761 would not conflict with the provisions of an adopted HCP, or natural community conservation plan, or other approved local, regional, or state conservation plans because currently no such plans exist within the Project Study Area.

4.1.4.7 Mitigation Measures

Construction Impact

Construction impacts to biological resources are not anticipated from improvements to the Metro Line 761. Construction mitigation measures are not proposed for the No Project Alternative.

Impacts After Mitigation

Impacts to biological resources impacts related to the No Project Alternative are considered less than significant; no mitigation measures are proposed.

4.1.5 Energy

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-5.

Table 4-5. No Project Alternative: Energy Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Energy Construction Impacts		
Impact ENG-1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact ENG-2: Would the project conflict or obstruct a state or local plan for renewable energy or energy efficiency?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025p

ENG = energy
LTS = less than significant
NA = not applicable

4.1.5.1 Impact ENG-1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Under the No Project Alternative, none of the project alternatives would be constructed. As a result, the energy consumption associated with the construction activities, such as the operation of construction equipment, on-road vehicles, and the manufacturing and transport of materials for the Project, would

not occur. As no construction related to the Project would take place, there would be no temporary increase in demand for fossil fuels, energy, or other resources associated with construction activities. Therefore, no-construction related energy impacts would occur under the No Project Alternative.

4.1.5.2 Impact ENG-2: Would the project conflict or obstruct a state or local plan for renewable energy or energy efficiency?

The No Project Alternative would not include construction of any Project components that could interfere with energy plans. Construction activities associated with rerouting Metro Line 761 would involve limited use of power tools in order to install new bus stop infrastructure. However, all construction activities under the No Project Alternative would be consistent with state and local energy plans and policies to reduce energy consumption, because activities would comply with Metro's GCP, the California Green Building Standards Code, and Title 24. Therefore, the No Project Alternative would result in no construction impact related to energy plans.

Mitigation Measures

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

4.1.5.3 Mitigation Measures

Construction Impacts

The No Project Alternative would have a less than significant impact; therefore, no mitigation measures would be required.

Impacts After Mitigation

No mitigation measures would be required. Operational and construction impacts would be less than significant.

4.1.6 Geotechnical, Subsurface, Seismic, and Paleontological Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-6.

Table 4-6. No Project Alternative: Geotechnical, Subsurface, Seismic, and Paleontological Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Geotechnical, Subsurface, Seismic, and Paleontological Resources Construction Impacts		
Impact GEO-1: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-2: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking and/or seismic-related ground failure, including liquefaction?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-3: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-4: Would the project result in substantial soil erosion or the loss of topsoil?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-5: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-6: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-7: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?		NI
Impact GEO-8: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Impacts Before Mitigation	NA
	Applicable Mitigation	NI
	Impacts After Mitigation	NA

Source: Metro, 2025l

GEO = geotechnical
LTS = less than significant
NA = not applicable
NI = no impact

4.1.6.1 Impact GEO-1: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

The No Project Alternative would not include construction of the Project, and impacts associated with the Project would not occur. The No Project Alternative would include any construction activities associated with the rerouting of Metro Line 761. Construction associated with rerouting Metro Line 761 would be minimal and consist primarily of installing potentially new bus stops and potentially minor curb revisions. Construction activities for the No Project Alternative would not directly or indirectly exacerbate rupture of a known earthquake fault causing substantial adverse effects, including the risk of loss, injury, or death because these elements do not reach a depth or be of an intensity that would affect geological processes such as faults. Therefore, construction impacts associated with loss, injury, or death involving the Alquist-Priolo Earthquake Fault Zone would have no impact.

4.1.6.2 Impact GEO-2: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking and/or seismic-related ground failure, including liquefaction?

The No Project Alternative would not include construction of the Project, and impacts associated with the Project would not occur. The projects associated with the No Project Alternative are located in a seismically active area. In addition, the No Project Alternative would include any construction activities associated with the rerouting of Metro Line 761. Construction associated with rerouting Metro Line 761 would be minimal and consist primarily of installing potentially new bus stops and potentially minor curb revisions. However, construction of the No Project Alternative would not have the potential to cause liquefaction because construction would not produce seismic ground shaking such that loose granular soils below the groundwater table become to liquefy. Therefore, impacts associated with construction activities related to the No Project Alternative are less than significant.

4.1.6.3 Impact GEO-3: Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

The No Project Alternative would not include construction of the Project, and impacts associated with the Project would not occur. The CBC, County of Los Angeles, and City of Los Angeles guidelines as well as by Cal/OSHA contains site-specific slope-stability design standards as requirements for stabilization. No construction activities associated with the rerouting of Metro Line 761 would occur within a landslide zone. These construction activities do not have the potential to cause landslides and impacts associated with landslides and/or slope instability during construction activities would be less than significant.

4.1.6.4 Impact GEO-4: Would the project result in substantial soil erosion or the loss of topsoil?

The No Project Alternative would not include construction of the Project, and impacts associated with the Project would not occur. The rerouted Metro Line 761 would not involve construction activities in areas with exposed soil such that construction-related soil erosion may occur. Compliance with existing regulations would minimize any potential effects from erosion and ensure consistency with the Los

Angeles Regional Water Quality Control Board Water Quality Control Plan. By adhering to these requirements, the rerouted Metro Line 761 would have a less than significant impact associated with soil erosion or loss of topsoil during construction activities.

4.1.6.5 Impact GEO-5: Would the project be located on a geographic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Impacts related to liquefaction and landslides are addressed in Section 4.1.6.2 and Section 4.1.6.3, respectively. The No Project Alternative would not include construction.

Using unsuitable materials for fill and/or foundation support would have the potential to create future heaving, subsidence, spreading, or collapse problems leading to building settlement and/or utility line and pavement disruption. Rerouting Metro Line 761 would not use fill or foundation support because new structures associated with the bus route would be limited to typical bus stop facilities such as signage and potentially street furniture. Adherence to existing regulations and policies would ensure the maximum practicable protection available for users of buildings and infrastructure and associated trenches, slopes, and foundations. Therefore, the No Project Alternative would have a less than significant impact associated with the exposure of people or structures to hazards associated with unstable geologic units or soils.

4.1.6.6 Impact GEO-6: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property l?

The No Project Alternative would not include construction of the Project, and impacts associated with the Project would not occur. The No Project Alternative would be required to comply with applicable provisions of the CBC with regard to soil hazard-related design. The County of Los Angeles Building Code and City of Los Angeles Building Code require a site-specific foundation investigation and report for each construction site that identifies potentially unsuitable soil conditions and contains appropriate recommendations for foundation type and design criteria that conform to the analysis and implementation criteria described in the County of Los Angeles Building Code and the City of Los Angeles Building Code. Regulations exist to address weak soil issues, including expansion. With adherence to existing regulations, the No Project Alternative would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils.

4.1.6.7 Impact GEO-7: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

The No Project Alternative would not include construction of the Project, and impacts associated with the Project would not occur. In absence of the Project, the only reasonably foreseeable transit improvement in the Project Study Area would involve changes to Metro Line 761. The No Project Alternative would have no impact associated with soils incapable of adequately supporting such systems during construction activities.

4.1.6.8 Impact GEO-8: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The No Project Alternative would not include construction of the Project, and impacts associated with the Project would not occur. The only reasonably foreseeable transportation project under the No Project Alternative is a set of improvements to Metro Line 761, including bus stop facility updates. Bus stop facilities associated with the rerouting of Metro Line 761 would require minor ground disturbance at shallow depths within existing fill and does not involve excavation or use TBM construction. Therefore, the No Project Alternative for construction impacts would result in a less than significant impact.

4.1.6.9 Impact GEO-9: Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or an important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The No Project Alternative would not include construction of the Project, and impacts associated with the Project would not occur. The only reasonably foreseeable transportation project under the No Project Alternative is a set of improvements to Metro Line 761, including bus stop facility updates. Bus stop facilities associated with the rerouting of Metro Line 761 would require minor ground disturbance at shallow depths within existing fill and does not involve major excavation or use TBM construction. The No Project Alternative would have no construction impacts related to the loss of availability of a known mineral resource or an important mineral resource recovery.

4.1.7 Growth Inducing Impacts

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-7.

Table 4-7. No Project Alternative: Growth Inducing Impacts Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Growth Inducing Impacts		
Impact GI-1: Would the Project foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GI-2: Would the project remove obstructions to population growth … [or] encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025e

GI = growth inducing
LTS = less than significant
NA = not applicable

4.1.7.1 Impact GI-1: Would the project foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment?

For the No Project Alternative, the Project would not be constructed. Rerouting the existing Metro Line 761 would result in little or no construction-related impacts. Construction of the planned and ongoing developments listed in the *Sepulveda Transit Corridor Project Growth Inducing Impacts Technical Report* (Metro, 2025e), as well as all other projects identified in the SCAG 2024-2050 RTP/SCS, Metro's 2020 LRTP, the 2023 FTIP, and Measure M, would result in temporary environmental impacts. Construction activities for these projects would result in temporary daytime population and economic growth due to the addition of construction workers to the No Project Alternative RSA. However, these workers would likely be sourced from the local labor pool and commute daily to construction sites from residences in the region, and therefore should not result in a permanent increase in new employment growth in the No Project Alternative RSA. Thus, construction of the projects identified for the No Project Alternative are unlikely to directly result in the construction of additional housing for workers. Thus, construction of the No Project Alternative would result in less than significant impacts related to unplanned population, housing, or employment growth.

4.1.7.2 Impact GI-2: Would the project remove obstructions to population growth … [or] encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively?

For the No Project Alternative, the Project would not be constructed. Rerouting the existing Metro Line 761 would result in little or no construction-related impacts. Construction of planned and ongoing developments and all other transportation projects identified in the SCAG 2024-2050 RTP/SCS, Metro's 2020 LRTP, the 2023 FTIP, and Measure M would result in temporary influxes of construction workers, equipment, and vehicular trips in the No Project Alternative RSA. However, because these projects would be within a densely developed region, and because construction workers would likely reside in the wider metropolitan area, construction activities would not induce growth or extend environmental impacts into previously undeveloped areas. Construction activities for the No Project Alternative would not remove obstructions to population growth, nor encourage or facilitate other projects that have not already been identified in the SCAG 2024-2050 RTP/SCS, Metro's 2020 LRTP, the 2023 FTIP, or Measure M. Thus, construction of the No Project Alternative would result in less than significant impacts related to the removal of obstructions to population growth or encouragement and facilitation of other activities that could significantly affect the environment, either individually or cumulatively.

4.1.8 Hazards and Hazardous Materials

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-8.

Table 4-8. No Project Alternative: Hazards and Hazardous Materials Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Hazards and Hazardous Materials Construction Impacts		
Impact HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

CEQA Impact Topic		No Project Alternative
Impact HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025m

HAZ = hazards and hazardous materials
LTS = less than significant
NA = not applicable

4.1.8.1 Impact HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The No Project Alternative would not include construction of the Project, and impacts associated with the Project would not occur. Construction activities associated with rerouting Metro Line 761 would involve minor alterations to the street ROW for potential new bus stops. The No Project Alternative would be subject to the same comprehensive federal, state, regional, and local framework which is independent of the CEQA process and is intended to reduce the risks associated with the use, transport, and disposal of hazardous materials during construction. The use and disposal of hazardous materials is heavily regulated at both the federal and state level; these regulations are promulgated and enforced by agencies such as EPA, SWRCB, DTSC, Cal/OSHA, and the SCAQMD.

Transportation of hazardous materials would comply with state regulations governing hazardous materials transport included in the California Vehicle Code (Title 13 of the CCR), the State Fire Marshal Regulations (Title 19 of the CCR), and Title 22 of the CCR.

Adherence to federal and state regulations reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With adherence to existing federal, state and local regulations, the No Project Alternative is not anticipated to create significant hazards to the public or the environment through routine transport, storage, use, and disposal of hazardous materials during construction and the impact would be less than significant.

4.1.8.2 Impact HAZ-2: Would the project create a significant hazard to the public or the environment through the reasonable upset and accident conditions involving the release of hazardous materials into the environment?

The No Project Alternative would not include construction of the Project, and impacts associated with the proposed Project would not occur. Construction activities associated with Metro Line 761 would involve minor work in the street ROW that would not create a hazard to the public or environment through the release of hazardous materials into the environment. No activities are proposed that would result in the use or discharge of unregulated hazardous materials.

Storage and disposal of hazardous materials and waste would be conducted in accordance with all federal and state regulatory requirements that are intended to prevent or manage hazards, and if a spill does occur, it would be remediated accordingly. With adherence to existing federal, state and local regulations, the No Project Alternative is not anticipated to create a significant hazard related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials during construction and the impact would be less than significant.

4.1.8.3 Impact HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Construction of the No Project Alternative would involve handling of hazardous materials and use of diesel-powered equipment. Such activities, if not appropriately managed, could result in hazardous emissions that would potentially affect nearby schools.

The No Project Alternative would not include construction of the Project, and impacts associated with the proposed Project would not occur. The No Project Alternative would be subject to the same comprehensive federal, state, regional, which is independent of the CEQA process and is intended to reduce the risks associated with the use, transport, and disposal of hazardous materials. The use and disposal of hazardous materials is heavily regulated at both the federal and state level; these regulations are promulgated and enforced by agencies such as EPA, SWRCB, DTSC, Cal/OSHA), and the SCAQMD.

Transportation of hazardous materials would comply with state regulations governing hazardous materials transport included in the California Vehicle Code (Title 13 of CCR), the State Fire Marshal Regulations (Title 19 of the CCR), and Title 22 of the CCR.

Adherence to federal and state regulations reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With adherence to existing federal, state and local regulations, the No Project Alternative is not anticipated to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school during construction and the impact would be less than significant.

4.1.8.4 Impact HAZ-4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Finally, because no Project alternatives would be built in the RSA, no construction impacts are anticipated related to hazardous materials sites on the Hazardous Waste and Substances Sites (Cortese) list.

4.1.8.5 Impact HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The No Project Alternative would not include construction of the Project, and impacts associated with the proposed Project would not occur. Each of these projects would need to undergo their own environmental impact analysis to determine the hazardous site conditions related to Government Code Section 65962.5, commonly known as the Cortese List.

Construction of any infrastructure related to Metro Line 761 would be done on the street (painting) or on sidewalks (new bus shelters). During construction no ground-disturbing activities would occur at the Cortese-listed hazardous materials sites such that hazardous releases of contaminated soils could create a significant hazard to the public or the environment. With adherence to existing federal, state and local regulations, the No Project Alternative is not anticipated to create a significant hazard to the public or the environment during construction and the impact would be less than significant.

4.1.9 Land Use and Development

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-9.

Table 4-9. No Project Alternative: Land Use and Development Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Land Use and Development Construction Impacts		
Impact LUP-1: Would the project physically divide an established community?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI
Impact LUP-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025h

LUP = land use and planning
NA = not applicable
NI = no impact

4.1.9.1 Impact LUP-1: Would the project physically divide an established community?

Within the Project Study Area, the only reasonably foreseeable transit improvement under the No Project Alternative would include changes to Metro Line 761. Construction of transit elements such as bus stops or canopies for the bus stops would not require substantial traffic detours. Therefore, the No Project Alternative would not have construction impacts related to division of an established community.

4.1.9.2 Impact LUP-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Within the Project Study Area, the only reasonably foreseeable transit improvement under the No Project Alternative would include changes to Metro Line 761. Construction of transit elements such as bus stops or canopies for the bus stops would not require substantial traffic detours or land use development. The Project is identified in SCAG's 2024 RTP/SCS Project List (SCAG, 2024b), and would support the goal of the 2024-2050 RTP/SCS to provide a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. Since the Project would not be constructed under the No Project Alternative, the No Project Alternative would conflict with land use plans, policies, or regulations that prioritize public transportation improvements and reductions of vehicle trips, and impacts would be significant. Potential mitigation would be to implement the proposed Project, which would reduce this impact to less than significant.

4.1.9.3 Impact AFR-1: Would the Project convert Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The Project Study Area as defined in Section 5.1 of the *Sepulveda Transit Corridor Project Land Use and Development Technical Report* (Metro, 2025h) is located in densely developed areas on what the DOC Important Farmland map designates as Urban and Built-Up Land (DOC, 2022). Areas designated as Urban and Built-Up Land are not considered Important Farmland (i.e., Prime Farmland, Unique Farmland, or Farmland of Statewide Importance) under CEQA (PRC §§ 21060.1 and 21095 and CEQA Guidelines Appendix G). The DOC does not identify any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the Project Study Area. The No Project Alternative would neither directly affect nor result in the conversion of this land to non-agricultural uses as a result of construction; therefore, no impact would occur.

4.1.9.4 Impact AFR-2: Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?

There are no identified agricultural resources in the Project Study Area as defined in Section 5.1 of the *Sepulveda Transit Corridor Project Land Use and Development Technical Report* (Metro, 2025h) for the No Project Alternative, nor does the Project Study Area contain areas zoned for agricultural use. Los Angeles County does not participate in the Williamson Act program; thus, no parcels within the Project Study Area are under a Williamson Act contract. Operation of the No Project Alternative would not conflict with existing zoning for agricultural use or a Williamson Act contract; therefore, no impact would occur.

4.1.9.5 Impact AFR-3: Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

There are no areas of forest land as defined in PRC § 12220(g) or timberland as defined in PRC § 4526 within the Project Study Area as defined in Section 5.1 of the *Sepulveda Transit Corridor Project Land Use and Development Technical Report* (Metro, 2025h). Construction of the No Project Alternative would not conflict with existing zoning for agricultural use or a Williamson Act contract; therefore, no impact would occur. The No Project Alternative would not conflict with existing zoning for, or cause rezoning of, forest land or timberland; therefore, no impact would occur.

4.1.9.6 Impact AFR-5: Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

There are no areas of forest land as defined in PRC § 12220(g) or timberland as defined in PRC § 4526 within the Project Study Area as defined in Section 5.1 of the *Sepulveda Transit Corridor Project Land Use and Development Technical Report* (Metro, 2025h). The No Project Alternative would not conflict with existing zoning for agricultural use or a Williamson Act contract; therefore, no impact would occur. The No Project Alternative would not conflict with existing zoning for, or cause rezoning of, forest land or timberland; therefore, no impact would occur.

4.1.9.7 Mitigation Measures

No mitigation measures are required; impacts are less than significant.

4.1.10 Noise and Vibration

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-10.

Table 4-10. No Project Alternative: Noise and Vibration Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Noise and Vibration Construction Impacts		
Impact NOI-1: Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established by the Federal Transit Administration?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact NOI-2: Would the project result in generation of excessive groundborne vibration or groundborne noise levels?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025j

LTS = less than significant
NA = not applicable
NI = no impact
NOI = noise

4.1.10.1 Impact NOI-1: Would the project cause generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Under the No Project Alternative, the proposed Project would not be constructed. The only reasonably foreseeable transit improvement within the Project Study Area would be rerouting Metro Line 761 to serve the Metro G Line Van Nuys Station and the Metro E Line Expo/Sepulveda Station. Construction activities associated with rerouting Metro Line 761 would be limited to installation of bus stop infrastructure such as signs and street furniture. These activities would not require substantial heavy equipment or other particularly noisy equipment. It is not anticipated that construction noise impacts would occur and noise standards would not be exceeded under the conditions previously described. Therefore, the No Project Alternative would result in a less than significant impact related to construction noise.

4.1.10.2 Impact NOI-2: Would the project cause generation of excessive groundborne vibration or groundborne noise levels?

Under the No Project Alternative, the proposed Project would not be constructed. Construction activities associated with rerouting Metro Line 761 would be limited to installation of bus stop infrastructure such as signs and street furniture. These activities would not require substantial heavy equipment that would generate excessive vibration. No project-related construction vibration impacts would occur under the conditions previously described. Therefore, the No Project Alternative would result in a less than significant impact related to construction vibration.

4.1.10.3 Impact NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the Project Study Area to excessive noise levels?

The No Project Alternative would not construct any uses that would be exposed to excessive noise levels related to private airstrips or airports. No Impact would occur.

4.1.10.4 Mitigation Measures

Construction

The No Project Alternative would have a less than significant impact; therefore, no mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required. Construction impacts are less than significant.

4.1.11 Parklands

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-11.

Table 4-11. No Project Alternative: Parklands Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Recreation Construction Impacts		
Impact REC-1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? OR Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI
Impact REC-2: Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025q

NA = not applicable
NI = no impact
REC = recreation

4.1.11.1 Impact REC-1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Or

Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?

The No Project Alternative would not result in Project-related construction impacts that would increase the use of existing neighborhood and regional parks or other recreational facilities resulting in permanent physical deterioration. The No Project Alternative would not create temporary construction-related physical impacts in the Project Study Area that would increase the use of existing parks and recreational facilities such that substantial physical deterioration of existing parks would occur or be accelerated; or require new or expansion of parks or recreational facilities. Therefore, no impact would occur.

4.1.11.2 Impact REC-2: Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The No Project Alternative would not result in the construction of recreational facilities or require the construction or expansion of recreational facilities in the Project Study Area. Therefore, no impacts would occur.

4.1.11.3 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required, no impacts

4.1.12 Real Estate and Acquisitions

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-12.

Table 4-12. No Project Alternative: Real Estate and Acquisitions Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Population, Housing, and Growth Construction Impacts		
Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025i

LTS = less than significant
NA = not applicable
POP = population, housing, and growth

4.1.12.1 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Under the No Project Alternative, the Project would not be constructed. Changes to Metro Line 761 operations would have no potential to displace people or housing as any physical improvements would be constructed within the public ROW. Therefore, the No Project Alternative would result in less than significant impacts related to the displacement of people or housing.

4.1.12.2 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

4.1.13 Safety and Security

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-13.

Table 4-13. No Project Alternative: Safety and Security Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Safety and Security Construction Impacts		
Impact PUB-1: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered fire protection and emergency response facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the fire protection and emergency response?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact PUB-2: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the police protection?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact WFR-1: Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI
Impact WFR-2: Would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact WFR-3: Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Impacts Before Mitigation	NA
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact WFR-4: Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025o

LTS = less than significant
NA = not applicable
NI = no impact
PUB = public services
WFR = wildfire

4.1.13.1 Impact PUB-1: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered fire protection and emergency response facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the fire protection and emergency response?

Because construction activities would be limited to individual bus stops (i.e., discrete locations with small footprints), the No Project Alternative does not include housing components that would increase the population compared to the existing conditions during operations. However, it is anticipated that the No Project Alternative would require a small influx of construction workers. However, these workers would likely be sourced from the local labor pool. Thus, construction associated with the No Project Alternative is unlikely to directly foster the need for new or physically altered fire protection and emergency response facilities. Construction of the No Project Alternative would result in an increase in temporary employment opportunities and is unlikely to result in a permanent increase in employment.

Construction associated with rerouting of Metro Line 761 would be minimal and take place entirely within existing street ROW. It is not anticipated that construction activities would have any potential to affect emergency response times as construction can be accomplished without the need to affect street circulation. Under the compliance set forth by existing regulations by the LAFD Health and Safety Plans, construction associated with the No Project Alternative would have less than significant impacts related to new demands on fire services with impacts to service ratios, response times, or other performance objectives. Therefore, impacts related to the need for new or physically altered fire protection and emergency response facilities associated with the No Project Alternative would be less than significant during construction.

4.1.13.2 Impact PUB-2: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the police protection?

Construction associated with revisions to Metro Line 761 would be minimal and would take place entirely within the existing street ROW. It is not anticipated that construction activities would have any potential to affect emergency response times as construction can be accomplished without the need to affect street circulation. Because construction activities would be limited to individual bus stops (i.e., discrete locations with small footprints), the No Project Alternative does not include housing components that would increase the population. It is anticipated that the No Project Alternative would require a small influx of construction workers. However, these workers would likely be sourced from the local labor pool. Thus, construction associated with the No Project Alternative is unlikely to directly foster the need for new or physically altered police protection facilities. Construction of the No Project Alternative would result in an increase in temporary employment opportunities and is unlikely to result in a permanent increase in employment.

With police protection services' evaluation protocol, the development associated with the No Project Alternative would not place substantial new demands on police services including service ratios, response times, or other performance objectives. Therefore, impacts related to the need for new or

physically altered police protection facilities associated with the No Project Alternative would be less than significant during construction.

4.1.13.3 Impact WFR-1: Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Under the No Project Alternative, the Project would not be constructed. There could be minor improvements to Metro Line 761 infrastructure including bus stops, but that would be located off the street. Consequently, there would not be conflicts with emergency vehicles. Therefore, under the No Project Alternative, impacts would be less than significant during construction.

4.1.13.4 Impact WFR-2: Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?

Under the No Project Alternative, Metro would reroute bus services along Sepulveda Boulevard and therefore would not exacerbate wildfire risks during construction.

Therefore, impacts related to exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire due to slope, prevailing winds, and other factors that would exacerbate wildfire risks associated with the No Project Alternative would be less than significant during construction with mitigation.

4.1.13.5 Impact WFR-3: Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

4.1.13.6 Some areas within the Santa Monica Mountains region comprise undeveloped land that has natural habitats (e.g., grasslands, sage scrub) that experience extended droughts. These conditions, combined with the region's characteristic Mediterranean climate, result in large areas of dry vegetation and provide fuel for wildland fires. The Sepulveda Pass region serves as a channel for wind passing through and would increase the supply of oxygen to potential fires and push fire toward new fuel sources. Under the No Project Alternative, the Project would not be constructed. There could be minor improvements to Metro Line 761 infrastructure including bus stops, but that would be located off the street. Therefore, impacts related to exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire due to slope, prevailing winds, and other factors that would exacerbate wildfire risks associated with the No Project Alternative would be less than significant during construction with mitigation. Impact WFR-4: Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Under the No Project Alternative, the Project would not be constructed. There could be minor improvements to Metro Line 761 infrastructure including bus stops, but that would be located off the

street. Therefore, no impacts related to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes associated with the No Project Alternative would take place during construction.

4.1.14 Transportation

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-14.

Table 4-14. No Project Alternative: Transportation Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Transportation Construction Impacts		
Impact TRA-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact TRA-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI
Impact TRA-4: Would the project result in inadequate emergency access?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025a.

LTS = less than significant
NA = not applicable
NI = no impact
TRA = transportation

4.1.14.1 Impact TRA-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities?

Transit

Additional bus stops for Metro Line 761 may be constructed to facilitate route changes under the No Project Alternative. Future construction activities would be temporary and may include construction staging, materials stockpiling, hauling of dirt and materials, temporary lane closures, and use of temporary easements. Construction of Metro Line 761 service improvements would occur in accordance with applicable ADA, LABOE, and Metro design standards. Therefore, construction of Metro Line 761 under the No Project Alternative would not conflict with a program, plan, ordinance, or policy related to transit facilities and would result in no impact.

Roadways

Additional bus stops for Metro Line 761 may be constructed to facilitate route changes under the No Project Alternative. Future construction activities would be temporary and may include construction

staging, materials stockpiling, hauling of dirt and materials, temporary lane closures, and use of temporary easements. Construction of Metro Line 761 service improvements would occur in accordance with applicable ADA, LABOE, and Metro design standards. Therefore, construction of Metro Line 761 under the No Project Alternative would not conflict with a program, plan, ordinance, or policy related to roadway facilities and would result in no impact.

Bicycle and Pedestrian Circulation

Additional bus stops for Metro Line 761 may be constructed to facilitate route changes under the No Project Alternative. Future construction activities would be temporary and may include construction staging, materials stockpiling, hauling of dirt and materials, temporary lane closures, and use of temporary easements. Construction of Metro Line 761 service improvements would occur in accordance with applicable ADA, LABOE, and Metro design standards. Therefore, construction of Metro Line 761 under the No Project Alternative would not conflict with a program, plan, ordinance, or policy related to bicycle and pedestrian circulation and would result in no impact.

4.1.14.2 Impact TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Additional bus stops for Metro Line 761 may be constructed to facilitate route changes under the No Project Alternative. Construction activities associated with Metro Line 761 improvements would be temporary and may include construction staging, materials stockpiling, hauling of dirt and materials, temporary roadway and lane closures, and use of temporary easements. These construction activities would temporarily generate additional VMT. This additional VMT would terminate upon completion of construction. The temporary nature of construction-related VMT and construction-related traffic circulation changes (e.g., detours) would generally be localized to the work areas and construction staging locations. As a result, construction activities would not result in a substantial or long-term change in regional travel patterns. Therefore, construction of Metro Line 761 under the No Project Alternative would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and is considered a less than significant impact.

4.1.14.3 Impact TRA-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?

The No Project Alternative would not result in Project-related construction impacts. However, new infrastructure currently under construction or funded for construction via the 2008 Measure R or 2016 Measure M sales taxes (Metro 2008, 2016) would be constructed within the Project Study Area. Construction activity would result in temporary modifications of existing transportation facilities, such as full or partial street closures. Construction activity would meet all relevant and applicable safety standards, including OSHA, Cal/OSHA, and *California Manual on Uniform Traffic Control Devices* (Caltrans, 2024) standards to ensure that no significant geometric design hazards are introduced during construction. Each project would prepare its own traffic or transportation management plan to further reduce the hazards of construction activities. Safety for pedestrians, bicyclists, and motorists would be maintained during construction using signage, partial lane closures, construction barriers, and supervision by safety and security personnel at access points and throughout construction sites.

Therefore, because of compliance with the previously listed programs, construction of the No Project Alternative would result in a less than significant impact.

4.1.14.4 Impact TRA-4: Would the project result in inadequate emergency access?

Additional bus stops for Metro Line 761 may be constructed to facilitate route changes under the No Project Alternative. Construction activities associated with Metro Line 761 improvements would be temporary and may include construction staging, materials stockpiling, hauling of dirt and materials, temporary lane reductions, and use of temporary easements. Construction activities would maintain adequate emergency access in accordance with relevant Metro, ADA, OSHA, and Cal/OSHA standards. Therefore, construction of Metro Line 761 under the No Project Alternative would result in no impact.

4.1.14.5 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

Although no Project-related construction would occur under the No Project Alternative, the Sepulveda Transit Corridor is included within Metro's LRTP (Metro, 2020) with funding programmed through Measure M and in SCAG's RTP/SCS (SCAG, 2020a) as the "Sepulveda Pass Transit Corridor (Phase 2)." Therefore, the No Project Alternative would have a significant and unavoidable impact as it would conflict with adopted plans.

The No Project Alternative would also conflict with adopted plans related to transit ridership and passenger loads on municipal operator routes, resulting in a significant and unavoidable impact.

In addition, ambient population and employment growth would result in increased VMT under the No Project Alternative compared to existing conditions, resulting in a significant and unavoidable impact regarding VMT.

4.1.15 Cultural Resources and Tribal Cultural Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-15.

Table 4-15. No Project Alternative: Cultural Resources and Tribal Cultural Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Cultural Resources and Tribal Cultural Resources Construction Impacts		
Impact CUL-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact CUL-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact CUL-3: Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
	Impacts Before Mitigation	NI
	Applicable Mitigation	NA

CEQA Impact Topic		No Project Alternative
Impact TCR-1: Would the project cause a substantial adverse change in the significance of a TCR, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe?	Impacts After Mitigation	NI

Source: Metro, 2025n

CUL = cultural resources
LTS = less than significant
NA = not applicable
NI = no impact
TCR = tribal cultural resources

4.1.15.1 Impact CUL-1: Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Changes to the Metro Line 761 would require minimal or no construction activities, as the existing Metro bus line would simply be rerouted to between the Metro E Line Expo/Sepulveda Station and the Van Nuys Metrolink/Amtrak Station. These potential termini already include transit infrastructure supporting bus feeder lines and would not require construction of new facilities to support the rerouted bus service. Minor bus stop modifications along the Metro Line 761 may be required; however, construction activities associated with these improvements would consist of minimal or no ground disturbance within existing sidewalks and street ROW. It is not anticipated that any of the historical resources identified within the Built Environment RSA would be affected by such construction activities. Impacts to historical resources associated with the No Project Alternative would be less than significant during construction.

4.1.15.2 Impact CUL-2: Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Changes to the Metro Line 761 would require minimal or no construction activities, as the existing Metro bus line would simply be rerouted to between the Metro E Line Expo/Sepulveda Station and the Van Nuys Metrolink/Amtrak Station. These potential termini already include transit infrastructure supporting bus feeder lines and would not require construction of new facilities to support the rerouted bus service. Minor bus stop modifications along the Metro Line 761 may be required; however, construction activities associated with these improvements would consist of minimal or no ground disturbance within existing sidewalks and street ROW. The maximum depth of disturbance required to implement any bus stop modifications associated with the rerouting of Metro Line 761 would be within the artificial fill depth associated with the existing street and would have minimal potential to encounter any previously undiscovered archaeological resources. Impacts to archaeological resources would be less than significant.

4.1.15.3 Impact CUL-3: Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?

Within the Project Study Area, the only reasonably foreseeable transit improvement under the No Project Alternative would include changes to the Metro Line 761. Changes to the bus route would have no potential to affect historical resources, as the existing bus route would continue to operate along

existing streets and highways. Operational activities do not typically include excavation, which would potentially impact human remains. Therefore, the No Project Alternative would have no operational impacts to human remains in the Archaeological RSA.

4.1.15.4 Impact TCR-1: Would the Project cause a substantial adverse change in the significance of a TCR, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe?

Under the No Project Alternative, the Project would not be built, and its impacts on TCRs would not occur. Changes to the Metro Line 761 would require minimal or no construction activities, as the existing Metro bus line would simply be rerouted to between the Metro E Line Expo/Sepulveda Station and the Van Nuys Metrolink/Amtrak Station. These potential termini already include transit infrastructure supporting bus feeder lines and would not require construction of new facilities to support the rerouted bus service. Minor bus stop modifications along the Metro Line 761 may be required; however, construction activities associated with these improvements would consist of minimal or no ground disturbance within existing sidewalks and street ROW. The maximum depth of disturbance required to implement any bus stop modifications associated with the rerouting of Metro Line 761 would be within the artificial fill depth associated with the existing street and would have minimal potential to encounter any previously undiscovered archaeological resources or TCRs. Impacts to TCRs would be less than significant.

4.1.15.5 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

4.1.16 Visual Quality and Aesthetics

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-16.

Table 4-16. No Project Alternative: Visual Quality and Aesthetics Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Aesthetics Construction Impacts		
Impact AES-1: Would the project have a substantial adverse effect on a scenic vista?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI
Impact AES-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI
	Impacts Before Mitigation	NI
	Applicable Mitigation	NA

CEQA Impact Topic		No Project Alternative
Impact AES-3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vintage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Impacts After Mitigation	NI
Impact AES-4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025c

AES = aesthetics
NA = not applicable
NI = no impact

4.1.16.1 Impact AES-1: Would the project have a substantial adverse effect on a scenic vista?

No new major transit infrastructure would be constructed and implemented, and the No Project Alternative would avoid all potential visual impacts associated with the build alternatives. Changes to the Metro Line 761 would require minimal or no construction activities, as the existing Metro bus line would simply be rerouted to between the Metro E Line Expo/Sepulveda Station and the Van Nuys Metrolink/Amtrak Station. These potential termini already include transit infrastructure supporting bus feeder lines and would not require construction of new facilities to support the rerouted bus service. Minor bus stop modifications along the Metro Line 761 may be required; however, construction activities associated with these improvements would consist of minimal or no ground disturbance within existing sidewalks and street ROW. None of this construction equipment for the minor infrastructure work would be of any height that would block scenic vistas. Therefore, the No Project Alternative would have no construction impacts on scenic vistas.

4.1.16.2 Impact AES-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No new major transit infrastructure would be constructed and implemented, and the No Project Alternative would avoid all potential visual impacts associated with the build alternatives. Changes to the Metro Line 761 would require minimal or no construction activities, as the existing Metro bus line would simply be rerouted to between the Metro E Line Expo/Sepulveda Station and the Van Nuys Metrolink/Amtrak Station. These potential termini already include transit infrastructure supporting bus feeder lines and would not require construction of new facilities to support the rerouted bus service. Minor bus stop modifications along the Metro Line 761 may be required; however, construction activities associated with these improvements would consist of minimal or no ground disturbance within existing sidewalks and street ROW. None of this construction disturbance would damage know scenic resources. Therefore, the No Project Alternative would have no construction impacts on scenic resources within a state scenic highway.

4.1.16.3 Impact AES-3: Would the project in non-urbanized areas substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

No new major transit infrastructure would be constructed and implemented, and the No Project Alternative would avoid all potential visual impacts associated with the build alternatives. Changes to the Metro Line 761 would require minimal or no construction activities, as the existing Metro bus line would simply be rerouted to between the Metro E Line Expo/Sepulveda Station and the Van Nuys Metrolink/Amtrak Station. These potential termini already include transit infrastructure supporting bus feeder lines and would not require construction of new facilities to support the rerouted bus service. Minor bus stop modifications along the Metro Line 761 may be required; however, construction activities associated with these improvements would consist of minimal or no ground disturbance within existing sidewalks and street ROW. None of this construction disturbance would change existing visual character. Therefore, the No Project Alternative would have no construction impacts regarding conflict with applicable zoning and other regulations governing scenic quality.

4.1.16.4 Impact AES-4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No new major transit infrastructure would be constructed and implemented, and the No Project Alternative would avoid all potential visual impacts associated with the build alternatives. Changes to the Metro Line 761 would require minimal or no construction activities, as the existing Metro bus line would simply be rerouted to between the Metro E Line Expo/Sepulveda Station and the Van Nuys Metrolink/Amtrak Station. These potential termini already include transit infrastructure supporting bus feeder lines and would not require construction of new facilities to support the rerouted bus service. Minor bus stop modifications along the Metro Line 761 may be required; however, construction activities associated with these improvements would consist of minimal or no ground disturbance within existing sidewalks and street ROW. Some of this work may involve nighttime lighting, which would be consistent with other minor construction work in urbanized areas. Therefore, the No Project Alternative would have less than significant construction impacts related to creation of a new source of substantial light or glare which would adversely affect day or nighttime views.

4.1.16.5 Mitigation Measures

Construction Impacts

Construction of the No Project Alternative would have less than significant impacts; therefore, no project measures or mitigation measures would be required.

Impacts After Mitigation

No mitigation measures would be required; therefore, less than significant impacts related to visual resources would remain for the construction of the No Project Alternative.

4.1.17 Water Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 4-17.

Table 4-17. No Project Alternative: Water Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		No Project Alternative
Water Resources Construction Impacts		
Impact HWQ-1: Would the project violate any water quality standards or Waste Discharge Requirements or otherwise substantially degrade surface or groundwater quality?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would: i. result in substantial erosion or siltation on- or off-site; ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv. impede or redirect flood flows??	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-4: Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025g

HWQ = hydrology and water quality
LTS = less than significant
NA = not applicable

4.1.17.1 Impact HWQ-1: Would the project violate any water quality standards or Waste Discharge Requirements or otherwise substantially degrade surface or groundwater quality?

Construction, including temporary laydown yards/staging areas, associated with the No Project Alternative would be required to comply with all applicable water quality protection laws and regulations at the federal, state, regional, and local levels, as well as commonly used industry standards. These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Policies, NPDES CGP, the MS4 Permit, and the City of Los Angeles LID Ordinance. Rerouting Metro Line 761 would entail limited construction activities consisting of installation of bus stop infrastructure within the existing street right-of-way. Such construction would be required to comply with all applicable water quality protection laws and regulations.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or WDRs or substantial degradation of surface or groundwater quality during construction of the No Project Alternative would be less than significant.

4.1.17.2 Impact HWQ-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

If any bus shelters or minor construction is required, the Metro Line 761 rerouting would be required to comply with all applicable water quality protection laws and regulations at the federal, state, regional, and local levels, as well as commonly used industry standards. These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Policies, NPDES CGP, the MS4 Permit, the Caltrans NPDES Statewide Stormwater Permit, and the City of Los Angeles and County of Los Angeles LID Ordinance.

With adherence to existing regulations and proper implementation of stormwater compliance requirements and because any construction impacts would be temporary, potential impacts to groundwater supply and recharge during construction of the No Project Alternative would be less than significant.

4.1.17.3 Impact HWQ-3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on- or off-site

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv) impede or redirect flood flows?

During construction, improvements associated with Metro Line 761 would be required to comply with all applicable water quality protection laws and regulations at the federal, state, regional, and local levels, as well as commonly used industry standards. These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Policies, NPDES CGP, the MS4 Permit, the Caltrans NPDES Statewide Stormwater Permit, and the City of Los Angeles and County of Los Angeles LID Ordinance.

With adherence to existing laws and regulations and proper implementation of stormwater compliance requirements, and because any construction impacts would be temporary, potential impacts related to substantial erosion or siltation, a substantial increase in the rate or amount of surface runoff that would cause flooding, creation of runoff that would exceed drainage system capacity or provide additional sources of polluted runoff, or impede or redirect flood flows during construction of the No Project Alternative would be less than significant.

4.1.17.4 Impact HWQ-4: Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The majority of the Project Study Area is located outside of the FEMA-designated 100-year floodplain and portions of the Project Study Area include Zones D, AE, AO and AH, particularly in the vicinity of the Los Angeles River.

Other water features in the Project Study Area include the Encino Reservoir and the Stone Canyon Reservoir which are subject to Zones A and AE, respectively. These reservoirs have a risk of inundation with a 1 percent annual chance of flooding since they retain a significant amount of water; however, any oscillation and subsequent release of water in the reservoirs as part of a seiche would not likely cause inundation due to the distance from the Project Study Area.

The Los Angeles River and Ballona Creek are the major flood control measures for draining stormwater from the Project Study Area and directing it safely to the San Pedro Bay and Santa Monica Bay, respectively. The risk related to flooding would be considered low.

The No Project Alternative would have no impact related to risk of release of pollutants due to inundation by flood, tsunami, or seiche, and potential impacts during construction would be less than significant.

4.1.17.5 Impact HWQ-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

With adherence to existing laws and regulations and with proper implementation of stormwater compliance requirements, potential impacts related to conflict with implementation of a water quality control plan or sustainable groundwater management plan during construction would be less than significant.

4.1.17.6 Mitigation Measures

Construction Impacts

No mitigation measures are required with adherence to all existing local, regional, and federal regulations, guidelines, and standards. As such, all water-related impacts are less than significant.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

5 ALTERNATIVE 1

5.1 Alternative Description

Alternative 1 is an entirely aerial monorail alignment that would run along the Interstate 405 (I-405) corridor and would include eight aerial monorail transit (MRT) stations and a new electric bus route from the Los Angeles County Metropolitan Transportation Authority's (Metro) D Line Westwood/VA Hospital Station to the University of California, Los Angeles (UCLA) Gateway Plaza via Wilshire Boulevard and Westwood Boulevard. This alternative would provide transfers to five high-frequency fixed guideway transit and commuter rail lines, including the Metro E, Metro D, and Metro G Lines, the East San Fernando Valley Light Rail Transit Line, and the Metrolink Ventura County Line. The length of the alignment between the terminus stations would be approximately 15.1 miles. The length of the bus route would be 1.5 miles.

The eight aerial MRT stations and three bus stops would be as follows:

1. Metro E Line Expo/Sepulveda Station (aerial)
2. Santa Monica Boulevard Station (aerial)
3. Wilshire Boulevard/Metro D Line Station (aerial)
    a. Wilshire Boulevard/VA Medical Center bus stop
    b. Westwood Village bus stop
    c. UCLA Gateway Plaza bus stop
4. Getty Center Station (aerial)
5. Ventura Boulevard/Sepulveda Boulevard Station (aerial)
6. Metro G Line Sepulveda Station (aerial)
7. Sherman Way Station (aerial)
8. Van Nuys Metrolink Station (aerial)

5.1.2 Operating Characteristics

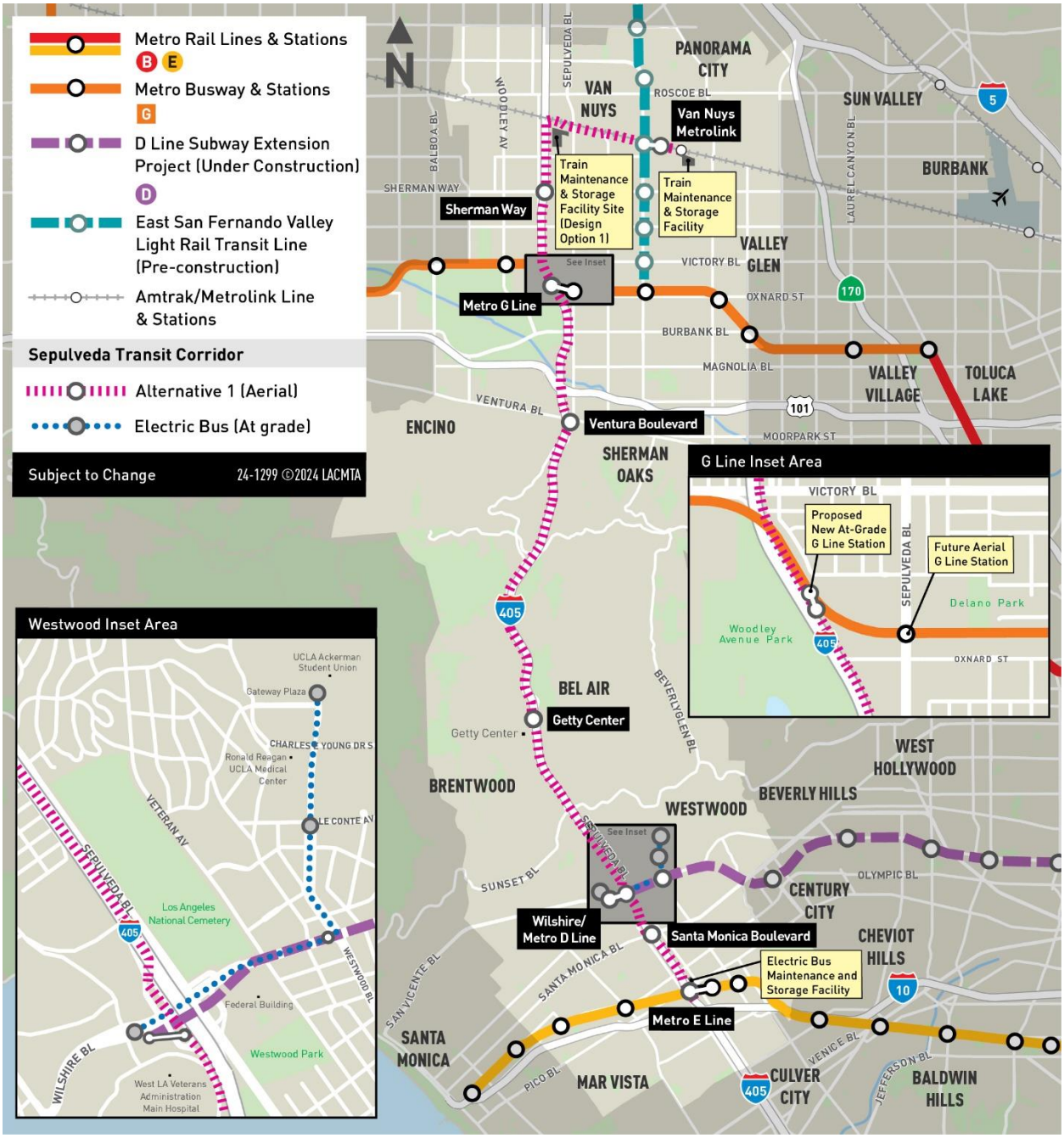
5.1.2.1 Alignment

As shown on Figure 5-1, from its southern terminus at the Metro E Line Expo/Sepulveda Station, the alignment of Alternative 1 would generally follow I-405 to the Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor near the alignment's northern terminus at the Van Nuys Metrolink Station. At several points, the alignment would transition from one side of the freeway to the other or to the median. North of U.S. Highway 101 (US-101), the alignment would be on the east side of the I-405 right-of-way and would then curve eastward along the south side of the LOSSAN rail corridor to Van Nuys Boulevard.

The proposed southern terminus station would be located west of the existing Metro E Line Expo/Sepulveda Station and east of I-405 between Pico Boulevard and Exposition Boulevard. Tail tracks would extend just south of the station adjacent to the eastbound Interstate 10 to northbound I-405 connector over Exposition Boulevard. North of the Metro E Line Expo/Sepulveda Station, a storage track would be located off the main alignment north of Pico Boulevard between I-405 and Cotner Avenue. The alignment would continue north along the east side of I-405 until just south of Santa Monica Boulevard, where a proposed station would be located between the I-405 northbound travel lanes and Cotner Avenue. The alignment would cross over the northbound and southbound freeway lanes north of Santa Monica Boulevard and travel along the west side of I-405, before reaching a proposed station within the

I-405 southbound-to-eastbound loop off-ramp to Wilshire Boulevard, near the Metro D Line Westwood/VA Hospital Station.

Figure 5-1. Alternative 1: Alignment



Source: LASRE, 2024; HTA, 2024

An electric bus would serve as a shuttle between the Wilshire Boulevard/Metro D Line Station and UCLA Gateway Plaza. From the Wilshire Boulevard/Metro D Line Station, the bus would travel east on Wilshire Boulevard and turn north on Westwood Boulevard to UCLA Gateway Plaza and make an intermediate stop in Westwood Village near the intersection of Le Conte Avenue and Westwood Boulevard.

North of Wilshire Boulevard, the monorail alignment would transition over the southbound freeway lanes to the freeway median, where it would continue north over the Sunset Boulevard overcrossing. The alignment would remain in the median to Getty Center Drive, where it would cross over the southbound freeway lanes to the west side of I-405, just north of the Getty Center Drive undercrossing, to the proposed Getty Center Station located north of the Getty Center tram station. The alignment would return to the median for a short distance before curving back to the west side of I-405 south of the Sepulveda Boulevard undercrossing north of the Getty Center Drive interchange. After crossing over Bel Air Crest Road and Skirball Center Drive, the alignment would return to the median and run under the Mulholland Drive Bridge, then continue north within the I-405 median to descend into the San Fernando Valley (Valley).

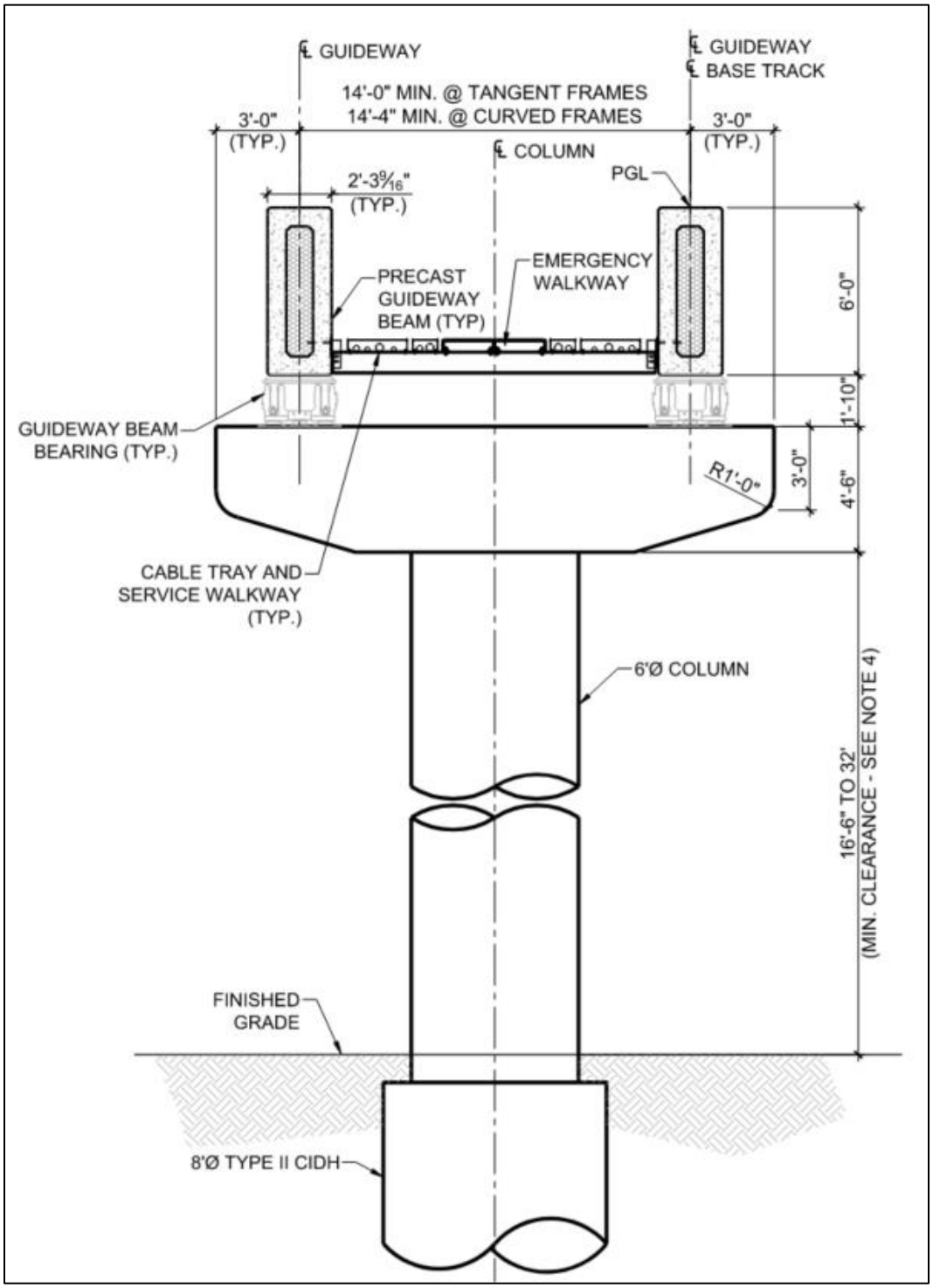
Near Greenleaf Street, the alignment would cross over the northbound freeway lanes and northbound on-ramps toward the proposed Ventura Boulevard Station on the east side of I-405. This station would be located above a transit plaza and would replace an existing segment of Dickens Street adjacent to I-405, just south of Ventura Boulevard. Immediately north of the Ventura Boulevard Station, the alignment would cross over the northbound I-405 to southbound US-101 connector and continue north between the connector and the I-405 northbound travel lanes. The alignment would continue north along the east side of I-405 — crossing over US-101 and the Los Angeles River — to a proposed station on the east side of I-405 near the Metro G Line Busway. A new at-grade station on the Metro G Line would be constructed for Alternative 1 adjacent to the proposed monorail station. These proposed stations are shown on the Metro G Line inset area on Figure 5-1.

The alignment would then continue north along the east side of I-405 to the proposed Sherman Way Station. The station would be located inside the I-405 northbound loop off-ramp to Sherman Way. North of the station, the alignment would continue along the eastern edge of I-405, then curve to the southeast parallel to the LOSSAN rail corridor. The alignment would remain aerial along Raymer Street east of Sepulveda Boulevard and cross over Van Nuys Boulevard to the proposed terminus station adjacent to the Van Nuys Metrolink/Amtrak Station. Overhead utilities along Raymer Street would be undergrounded where they would conflict with the guideway or its supporting columns. Tail tracks would be located southeast of this terminus station.

5.1.2.2 Guideway Characteristics

The monorail alignment of Alternative 1 would be entirely aerial, utilizing straddle-beam monorail technology, which allows the monorail vehicle to straddle a guide beam that both supports and guides the vehicle. Northbound and southbound trains would travel on parallel beams supported by either a single-column or straddle-bent structure. Figure 5-2 shows a typical cross-section of the aerial monorail guideway.

Figure 5-2. Typical Monorail Guideway Cross-Section



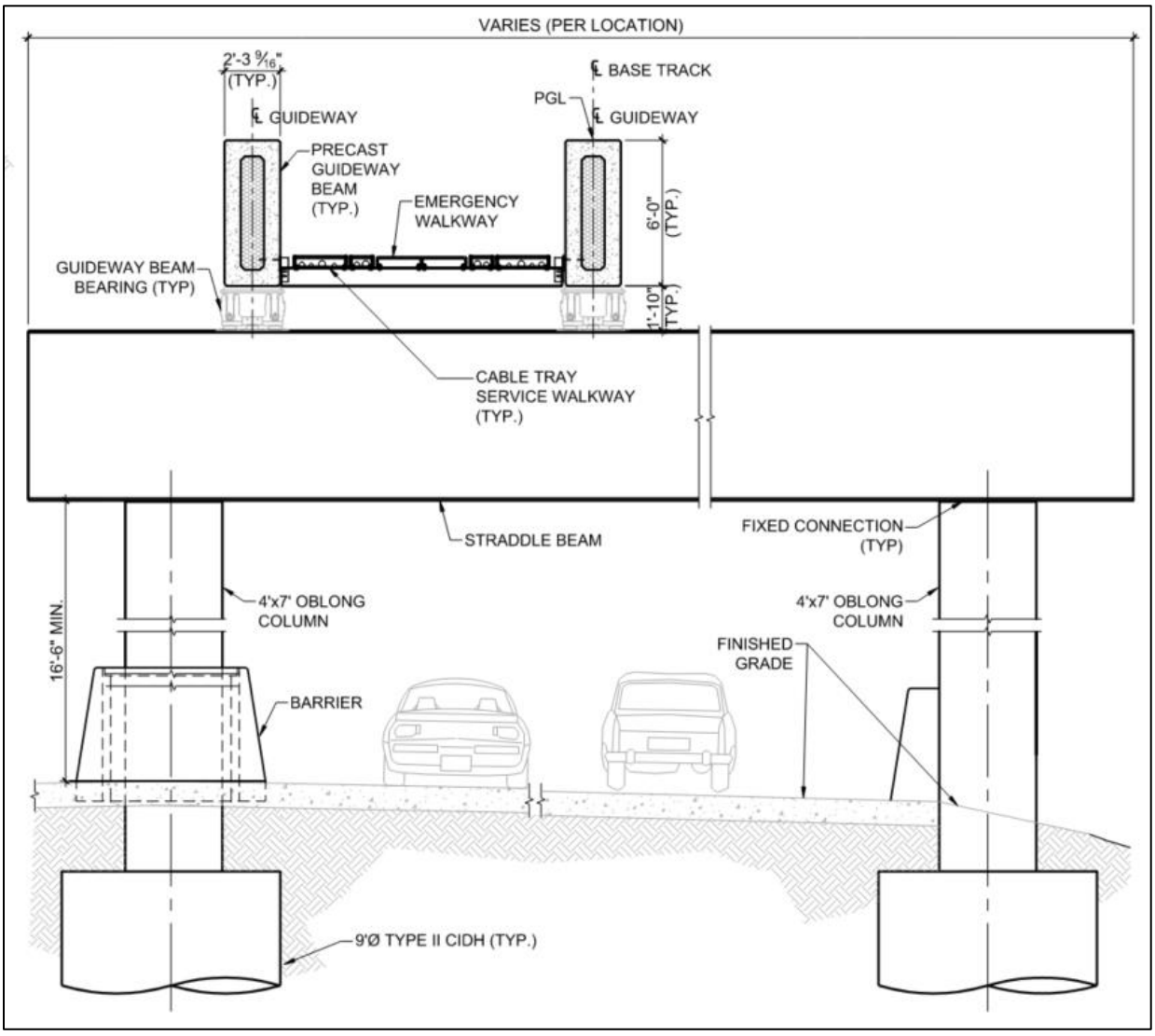
Source: LASRE, 2024

On a typical guideway section (i.e., not at a station), guide beams would rest on 20-foot-wide column caps (i.e., the structure connecting the columns and the guide beams), with typical spans (i.e., the

distance between columns) ranging from 70 to 150 feet. The bottom of the column caps would typically be between 16.5 feet and 32 feet above ground level.

Over certain segments of roadway and freeway facilities, a straddle-bent configuration, as shown on Figure 5-3, consisting of two concrete columns constructed outside of the underlying roadway would be used to support the guide beams and column cap. Typical spans for these structures would range between 65 and 70 feet. A minimum 16.5-foot clearance would be maintained between the underlying roadway and the bottom of the column caps.

Figure 5-3. Typical Monorail Straddle-Bent Cross-Section



Source: LASRE, 2024

Structural support columns would vary in size and arrangement by alignment location. Columns would be 6 feet in diameter along main alignment segments adjacent to I-405 and be 4 feet wide by 6 feet long in the I-405 median. Straddle-bent columns would be 4 feet wide by 7 feet long. At stations, six rows of dual 5-foot by- 8-foot columns would support the aerial guideway. Beam switch locations and long-span structures would also utilize different sized columns, with dual 5-foot columns supporting switch

locations and 9-foot- or 10-foot-diameter columns supporting long-span structures. Crash protection barriers would be used to protect the columns. Columns would have a cast-in-drilled-hole (CIDH) pile foundation extending 1 foot in diameter beyond the column width with varying depths for appropriate geotechnical considerations and structural support.

5.1.2.3 Vehicle Technology

Alternative 1 would utilize straddle-beam monorail technology, which allows the monorail vehicle to straddle a guide beam that both supports and guides the vehicle. Rubber tires would sit both atop and on each side of the guide beam to provide traction and guide the train. Trains would be automated and powered by power rails mounted to the guide beam, with planned peak-period headways of 166 seconds and off-peak-period headways of 5 minutes. Monorail trains could consist of up to eight cars. Alternative 1 would have a maximum operating speed of 56 miles per hour; actual operating speeds would depend on the design of the guideway and distance between stations.

Monorail train cars would be 10.5 feet wide, with two double doors on each side. End cars would be 46.1 feet long with a design capacity of 97 passengers, and intermediate cars would be 35.8 feet long and have a design capacity of 90 passengers.

The electric bus connecting the Wilshire Boulevard/Metro D Line Station, Westwood Village, and UCLA Gateway Plaza would be a battery electric, low-floor transit bus, either 40 or 60 feet in length. The buses would operate at the same headway as the monorail. The electric bus service would operate in existing mixed-flow travel lanes.

5.1.2.4 Stations

Alternative 1 would include eight aerial MRT stations with platforms approximately 320 feet long, elevated 50 feet to 75 feet above the existing ground level. The Metro E Line Expo/Sepulveda, Santa Monica Boulevard, Ventura Boulevard/Sepulveda Boulevard, Sherman Way, and Van Nuys Metrolink Stations would be center-platform stations where passengers would travel up to a shared platform that would serve both directions of travel. The Wilshire Boulevard/Metro D Line, Getty Center, and Metro G Line Sepulveda Stations would be side-platform stations where passengers would select and travel up to one of two station platforms, depending on their direction of travel. Each station, regardless of whether it has side or center platforms, would include a concourse level prior to reaching the train platforms. Each station would have a minimum of two elevators, two escalators, and one stairway from ground level to the concourse.

Station platforms would be approximately 320 feet long and would be supported by six rows of dual 5-foot by 8-foot columns. Station platforms would be covered, but not enclosed. Side-platform stations would be 61.5 feet wide to accommodate two 13-foot-wide station platforms with a 35.5-foot-wide intermediate gap for side-by-side trains. Center-platform stations would be 49 feet wide, with a 25-foot-wide center platform.

Monorail stations would include automatic, bi-parting fixed doors on all station platforms. These doors would be integrated into the automatic train control system and would not open unless a train is stopped at the platform.

The following information describes each station, with relevant entrance, walkway, and transfer information. Bicycle parking would be provided at each station.

Metro E Line Expo/Sepulveda Station

- This aerial station would be located near the existing Metro E Line Expo/Sepulveda Station, just east of I-405 between Pico Boulevard and Exposition Boulevard.
- A transit plaza and station entrance would be located on the east side of the station.
- An off-street passenger pick-up/drop-off loop would be located south of Pico Boulevard west of Cotner Avenue.
- An elevated pedestrian walkway would connect the concourse level of the proposed station to the Metro E Line Expo/Sepulveda Station within the fare paid zone.
- Passengers would be able to park at the existing Metro E Line Expo/Sepulveda Station parking facility, which provides 260 parking spaces. No additional automobile parking would be provided at the proposed station.

Santa Monica Boulevard Station

- This aerial station would be located just south of Santa Monica Boulevard, between the I-405 northbound travel lanes and Cotner Avenue.
- Station entrances would be located on the southeast and southwest corners of Santa Monica Boulevard and Cotner Avenue. The entrance on the southeast corner of the intersection would be connected to the station concourse level via an elevated pedestrian walkway spanning Cotner Avenue.
- No dedicated station parking would be provided at this station.

Wilshire Boulevard/Metro D Line Station

- This aerial station would be located west of I-405 and south of Wilshire Boulevard within the southbound I-405 loop off-ramp to eastbound Wilshire Boulevard.
- An elevated pedestrian walkway spanning the adjacent I-405 ramps would connect the concourse level of the proposed station to a station plaza adjacent to the Metro D Line Westwood/VA Hospital Station within the fare paid zone. The station plaza would be the only entrance to the proposed station.
- The station plaza would include an electric bus stop and provide access to the Metro D Line Station via a new station entrance and concourse constructed using a knock-out panel provided in the Metro D Line Station.
- The passenger pick-up/drop-off facility at the Metro D Line Station would be reconfigured, maintaining the original capacity.
- No dedicated station parking would be provided at this station.

Getty Center Station

- This aerial station would be located on the west side of I-405 near the Getty Center, approximately 1,000 feet north of the Getty Center tram station.
- An elevated pedestrian walkway would connect the concourse level of the proposed station to the Getty Center tram station. The proposed connection would occur outside of the fare paid zone.
- The pedestrian walkway would provide the only entrance to the proposed station.

- No dedicated station parking would be provided at this station.

Ventura Boulevard/Sepulveda Boulevard Station

- This aerial station would be located east of I-405, just south of Ventura Boulevard.
- A transit plaza, including two station entrances, would be located on the east side of the station. The plaza would require the closure of a 0.1-mile segment of Dickens Street between Sepulveda Boulevard and Ventura Boulevard, with a vehicle turnaround provided south of the station, off Sepulveda Boulevard.
- No dedicated station parking would be provided at this station.

Metro G Line Sepulveda Station

- This aerial station would be located near the Metro G Line Sepulveda Station, between I-405 and the Metro G Line Busway.
- Entrances to the MRT station would be located on both sides of a proposed new Metro G Line bus rapid transit (BRT) station.
- An elevated pedestrian walkway would connect the concourse level of the proposed station to the proposed new Metro G Line BRT station outside of the fare paid zone.
- Passengers would be able to park at the existing Metro G Line Sepulveda Station parking facility, which has a capacity of 1,205 parking spaces. Currently, only 260 parking spaces are used for transit parking. No additional vehicle parking would be provided at the proposed station.

Sherman Way Station

- This aerial station would be located inside the I-405 northbound loop off-ramp to Sherman Way.
- A station entrance would be located on the north side of Sherman Way.
- An on-street passenger pick-up/drop-off area would be provided on the north side of Sherman Way west of Firmament Avenue.
- No dedicated station parking would be provided at this station.

Van Nuys Metrolink Station

- This aerial station would be located on the east side of Van Nuys Boulevard, just south of the LOSSAN rail corridor, incorporating the site of the current Amtrak ticket office.
- A station entrance would be located on the east side of Van Nuys Boulevard just south of the LOSSAN rail corridor. A second entrance would be located north of the LOSSAN rail corridor with an elevated pedestrian walkway connecting to both the concourse level of the proposed station and the platform of the Van Nuys Metrolink/Amtrak Station.
- Existing Metrolink station parking would be reconfigured, maintaining approximately the same number of spaces, but 180 parking spaces would be relocated north of the LOSSAN rail corridor. Metrolink parking would not be available to Metro transit riders.

5.1.2.5 Station-to-Station Travel Times

Table 5-1 presents the station-to-station distance and travel times for Alternative 1. The travel times include both run time and dwell time. Dwell time is 30 seconds per station. Northbound and southbound travel times vary slightly because of grade differentials and operational considerations at end-of-line stations.

Table 5-1. Alternative 1: Station-to-Station Travel Times and Station Dwell Times

From Station	To Station	Distance (miles)	Northbound Station-to-Station Travel Time (seconds)	Southbound Station-to-Station Travel Time (seconds)	Dwell Time (seconds)
Metro E Line Station					*30*
Metro E Line	Santa Monica Boulevard	0.9	122	98	—
Santa Monica Boulevard Station					*30*
Santa Monica Boulevard	Wilshire/Metro D Line	0.7	99	104	—
Wilshire/Metro D Line Station					*30*
Wilshire/Metro D Line	Getty Center	2.9	263	266	—
Getty Center Station					*30*
Getty Center	Ventura Boulevard	4.7	419	418	—
Ventura Boulevard Station					*30*
Ventura Boulevard	Metro G Line	2.0	177	184	—
Metro G Line Station					*30*
Metro G Line	Sherman Way	1.5	135	134	—
Sherman Way Station					*30*
Sherman Way	Van Nuys Metrolink	2.4	284	284	—
Van Nuys Metrolink Station					*30*

Source: LASRE, 2024

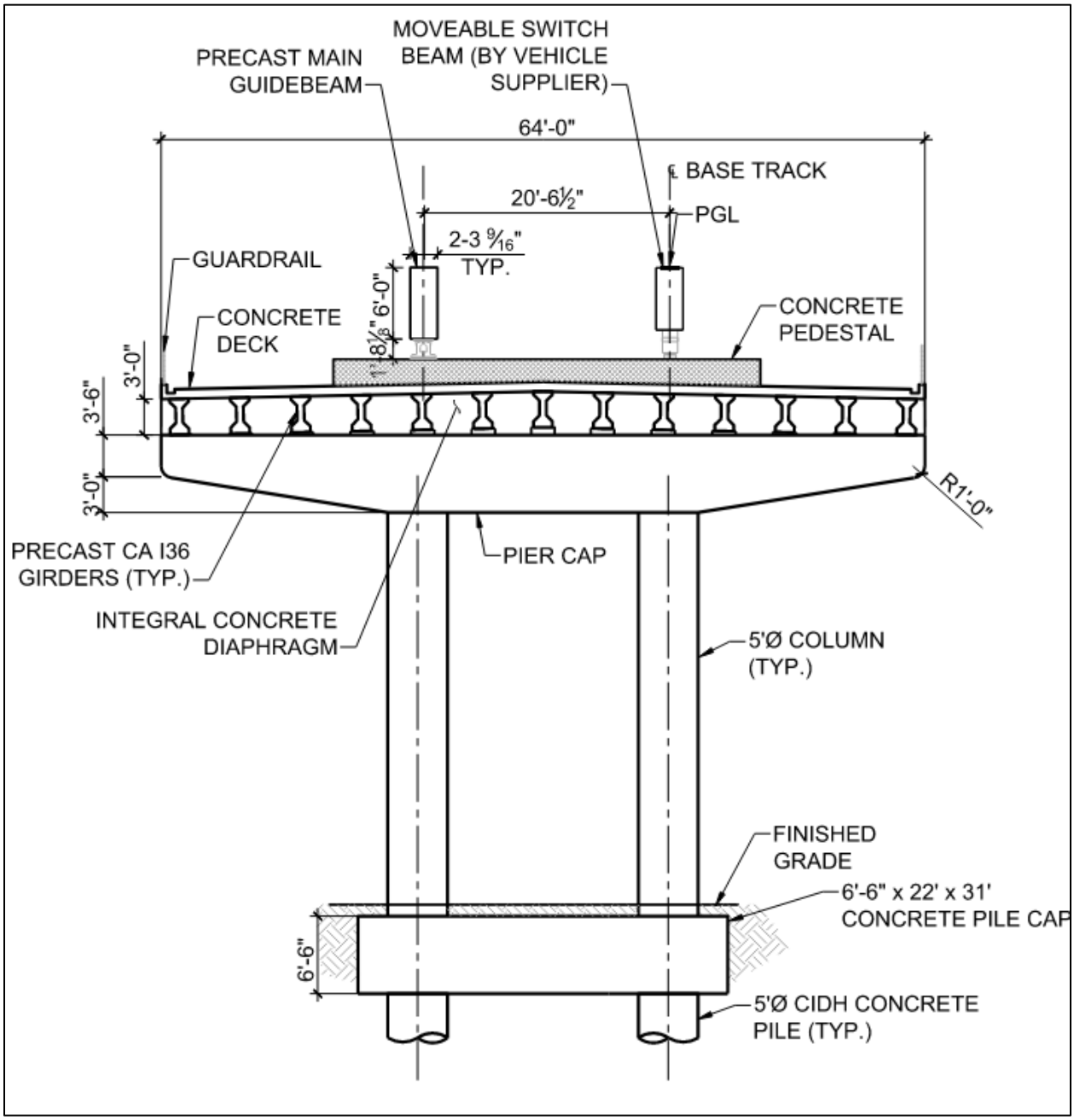
— = no data

5.1.2.6 Special Trackwork

Alternative 1 would include five pairs of beam switches to enable trains to cross over to the opposite beam. From south to north, the first pair of beam switches would be located just north of the Metro E Line Expo/Sepulveda Station. The second pair of beam switches would be located near the Wilshire Boulevard/Metro D Line Station on the north side of Wilshire Boulevard, within the Wilshire Boulevard westbound to I-405 southbound loop on-ramp. A third pair of beam switches would be located in the Sepulveda Pass just south of Mountaingate Drive and Sepulveda Boulevard. A fourth pair of beam switches would be located south of the Metro G Line Station between the I-405 northbound lanes and the Metro G Line Busway. The final pair would be located near the Van Nuys Metrolink Station.

At beam switch locations, the typical cross-section of the guideway would increase in column and column cap width. The column cap at these locations would be 64 feet wide, with dual 5-foot-diameter columns. Underground pile caps for additional structural support would also be required at beam switch locations. Figure 5-4 shows a typical cross-section of the monorail beam switch.

Figure 5-4. Typical Monorail Beam Switch Cross-Section



Source: LASRE, 2024

5.1.2.7 Monorail Maintenance and Storage Facility

MSF Base Design

In the maintenance and storage facility (MSF) Base Design for Alternative 1, the MSF would be located on City of Los Angeles Department of Water and Power (LADWP) property east of the Van Nuys Metrolink Station. The MSF Base Design site would be approximately 18 acres and would be designed to accommodate a fleet of 208 monorail vehicles. The site would be bounded by the LOSSAN rail corridor

to the north, Saticoy Street to the south, and property lines extending north of Tyrone and Hazeltine Avenues to the east and west, respectively.

Monorail trains would access the site from the main alignment's northern tail tracks at the northwest corner of the site. Trains would travel parallel to the LOSSAN rail corridor before curving southeast to maintenance facilities and storage tracks. The guideway would remain in an aerial configuration within the MSF Base Design, including within maintenance facilities.

The site would include the following facilities:

- Primary entrance with guard shack
- Primary maintenance building that would include administrative offices, operations control center and maintenance shop and office
- Train car wash building
- Emergency generator
- Traction power substation (TPSS)
- Maintenance-of-way (MOW) building
- Parking area for employees

MSF Design Option 1

In the MSF Design Option 1, the MSF would be located on industrial property, abutting Orion Avenue, south of the LOSSAN rail corridor. The MSF Design Option 1 site would be approximately 26 acres and would be designed to accommodate a fleet of 224 monorail vehicles. The site would be bounded by I-405 to the west, Stagg Street to the south, the LOSSAN rail corridor to the north, and Orion Avenue and Raymer Street to the east. The monorail guideway would travel along the northern edge of the site.

Monorail trains would access the site from the monorail guideway east of Sepulveda Boulevard, requiring additional property east of Sepulveda Boulevard and north of Raymer Street. From the northeast corner of the site, trains would travel parallel to the LOSSAN rail corridor before turning south to maintenance facilities and storage tracks parallel to I-405. The guideway would remain in an aerial configuration within the MSF Design Option 1, including within maintenance facilities.

The site would include the following facilities:

- Primary entrance with guard shack
- Primary maintenance building that would include administrative offices, operations control center and maintenance shop and office
- Train car wash building
- Emergency generator
- TPSS
- MOW building
- Parking area for employees

Figure 5-5 shows the locations of the MSF Base Design and MSF Design Option 1 for Alternative 1.

Figure 5-5. Alternative 1: Maintenance and Storage Facility Options

Source: LASRE, 2024; HTA, 2024

5.1.2.8 Electric Bus Maintenance and Storage Facility

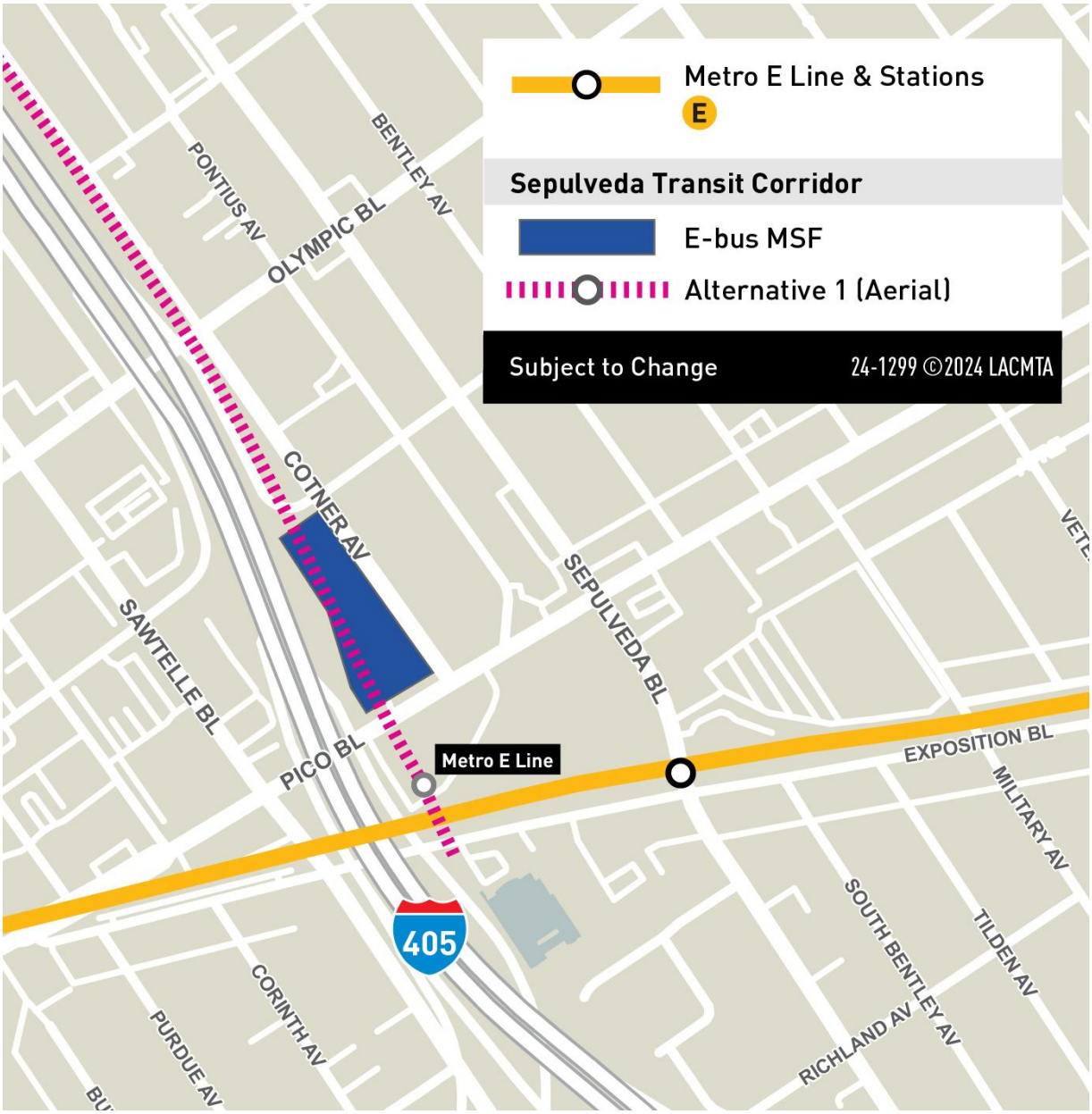
An electric bus MSF would be located on the northwest corner of Pico Boulevard and Cotner Avenue and would be designed to accommodate 14 electric buses. The site would be approximately 2 acres and would comprise six parcels bounded by Cotner Avenue to the east, I-405 to the west, Pico Boulevard to the south, and the I-405 northbound on-ramp to the north.

The site would include approximately 45,000 square feet of buildings and include the following facilities:

- Maintenance shop and bay
- Maintenance office
- Operations center
- Bus charging equipment
- Parts storeroom with service areas
- Parking area for employees

Figure 5-6 shows the location of the proposed electric bus MSF.

Figure 5-6. Alternative 1: Electric Bus Maintenance and Storage Facility



Source: LASRE, 2024; HTA, 2024

5.1.2.9 Traction Power Substations

TPSSs transform and convert high voltage alternating current supplied from power utility feeders into direct current suitable for transit operation. A TPSS on a site of approximately 8,000 square feet would be located approximately every 1 mile along the alignment. Table 5-2 lists the TPSS locations proposed for Alternative 1.

Figure 5-7 shows the TPSS locations along the Alternative 1 alignment.

Table 5-2. Alternative 1: Traction Power Substation Locations

TPSS No.	TPSS Location Description	Configuration
1	TPSS 1 would be located east of I-405, just south of Exposition Boulevard and the monorail guideway tail tracks.	At-grade
2	TPSS 2 would be located west of I-405, just north of Wilshire Boulevard, inside the Westbound Wilshire Boulevard to I-405 Southbound Loop On-Ramp.	At-grade
3	TPSS 3 would be located west of I-405, just north of Sunset Boulevard, inside the Church Lane to I-405 Southbound Loop On-Ramp.	At-grade
4	TPSS 4 would be located east of I-405 and Sepulveda Boulevard, just north of the Getty Center Station.	At-grade
5	TPSS 5 would be located west of I-405, just east of the intersection between Promontory Road and Sepulveda Boulevard.	At-grade
6	TPSS 6 would be located between I-405 and Sepulveda Boulevard, just north of the Skirball Center Drive Overpass.	At-grade
7	TPSS 7 would be located east of I-405, just south of Ventura Boulevard Station, between Sepulveda Boulevard and Dickens Street.	At-grade
8	TPSS 8 would be located east of I-405, just south of the Metro G Line Sepulveda Station.	At-grade
9	TPSS 9 would be located east of I-405, just east of the Sherman Way Station, inside the I-405 Northbound Loop Off-Ramp to Sherman Way westbound.	At-grade
10	TPSS 10 would be located east of I-405, at the southeast quadrant of the I-405 overcrossing with the LOSSAN rail corridor.	At-grade
11	TPSS 11 would be located east of I-405, at the southeast quadrant of the I-405 overcrossing with the LOSSAN rail corridor.	At-grade (within MSF Design Option)
12	TPSS 12 would be located between Van Nuys Boulevard and Raymer Street, south of the LOSSAN rail corridor.	At-grade
13	TPSS 13 would be located south of the LOSSAN rail corridor, between Tyrone Avenue and Hazeltine Avenue.	At-grade (within MSF Base Design)

Source: LASRE, 2024; HTA, 2024

Figure 5-7. Alternative 1: Traction Power Substation Locations

Source: LASRE, 2024; HTA, 2024

5.1.2.10 Roadway Configuration Changes

Table 5-3 lists the roadway changes necessary to accommodate the guideway of Alternative 1. Figure 5-8 shows the location of these roadway changes in the Sepulveda Transit Corridor Project (Project) Study Area, except for I-405 configuration changes, which would occur throughout the corridor.

Table 5-3. Alternative 1: Roadway Changes

Location	From	To	Description of Change
Cotner Avenue	Nebraska Avenue	Santa Monica Boulevard	Roadway realignment to accommodate aerial guideway columns
Beloit Avenue	Massachusetts Avenue	Ohio Avenue	Roadway narrowing to accommodate aerial guideway columns
I-405 Southbound On-Ramp, Southbound Off-Ramp, and Northbound On-Ramp at Wilshire Boulevard	Wilshire Boulevard	I-405	Ramp realignment to accommodate aerial guideway columns and I-405 widening
Sunset Boulevard	Gunston Drive	I-405 Northbound Off-Ramp at Sunset Boulevard	Removal of direct eastbound to southbound on-ramp to accommodate aerial guideway columns and I-405 widening. Widening of Sunset Boulevard bridge with additional westbound lane
I-405 Southbound On-Ramp and Off-Ramp at Sunset Boulevard and North Church Lane	Sunset Boulevard	Not Applicable	Ramp realignment to accommodate aerial guideway columns and I-405 widening
I-405 Northbound On-Ramp and Off-Ramp at Sepulveda Boulevard near I-405 Exit 59	Sepulveda Boulevard near I-405 Northbound Exit 59	Sepulveda Boulevard/I-405 Undercrossing (near Getty Center)	Ramp realignment to accommodate aerial guideway columns and I-405 widening
Sepulveda Boulevard	I-405 Southbound Skirball Center Drive Ramps (north of Mountaingate Drive)	Skirball Center Drive	Roadway realignment into existing hillside to accommodate aerial guideway columns and I-405 widening
I-405 Northbound On-Ramp at Mulholland Drive	Mulholland Drive	Not Applicable	Roadway realignment into the existing hillside between the Mulholland Drive Bridge pier and abutment to accommodate aerial guideway columns and I-405 widening
Dickens Street	Sepulveda Boulevard	Ventura Boulevard	Vacation and permanent removal of street for Ventura Boulevard Station construction. Pick-up/drop-off area would be provided along Sepulveda Boulevard at the truncated Dickens Street

Location	From	To	Description of Change
Sherman Way	Haskell Avenue	Firmament Avenue	Median improvements, passenger drop-off and pick-up areas, and bus pads within existing travel lanes
Raymer Street	Sepulveda Boulevard	Van Nuys Boulevard	Curb extensions and narrowing of roadway width to accommodate aerial guideway columns
I-405	Sunset Boulevard	Bel Terrace	I-405 widening to accommodate aerial guideway columns in the median
I-405	Sepulveda Boulevard Northbound Off-Ramp (Getty Center Drive interchange)	Sepulveda Boulevard Northbound On-Ramp (Getty Center Drive interchange)	I-405 widening to accommodate aerial guideway columns in the median
I-405	Skirball Center Drive	I-405 Northbound On-Ramp at Mulholland Drive	I-405 widening to accommodate aerial guideway columns in the median

Source: LASRE, 2024; HTA, 2024

Figure 5-8. Alternative 1: Roadway Changes

Source: LASRE, 2024; HTA, 2024

In addition to the changes made to accommodate the guideway, as listed in Table 5-3, roadways and sidewalks near stations would be reconstructed, which would result in modifications to curb ramps and driveways.

5.1.2.11 Fire/Life Safety – Emergency Egress

Emergency evacuation walkways would be provided continuously along the guideway. The walkways would typically consist of structural steel frames anchored to the guideway beams to support non-slip

walkway panels. The walkways would be located between the two guideway beams for most of the alignment; however, where the beams split apart, such as entering center-platform stations, short portions of the walkway would be located on the outside of the beams.

5.1.3 Construction Activities

Construction activities for Alternative 1 would include constructing the aerial guideway and stations, widening I-405, and constructing ancillary facilities. Construction of the transit through substantial completion is expected to have a duration of 6½ years. Early works, such as site preparation, demolition, and utility relocation, could start in advance of construction of the transit facilities.

Aerial guideway construction would begin at the southern and northern ends of the alignment and connect in the middle. Constructing the guideway would require a combination of freeway and local street lane closures throughout the work limits to provide sufficient work area. The first stage of I-405 widening would include a narrowing of adjacent freeway lanes to a minimum width of 11 feet (which would eliminate shoulders) and placing K-rail on the outside edge of the travel lanes to create outside work areas. Within these outside work zones, retaining walls, drainage infrastructure, and outer pavement widenings would be constructed to allow for I-405 widening. The reconstruction of on- and off-ramps would be the final stage of I-405 widening.

A median work zone along I-405 for the length of the alignment would be required for erection of the guideway structure. In the median work zone, demolition of the existing median and drainage infrastructure would be followed by the installation of new K-rail and installation of guideway structural components, which would include full directional freeway closures when guideway beams must be transported into the median work areas during late-night hours. Additional night and weekend directional closures would be required for installation of long-span structures over I-405 travel lanes where the guideway would transition from the median.

Aerial station construction is anticipated to last the duration of construction activities for Alternative 1 and would include the following general sequence of construction:

- Site clearing
- Utility relocation
- Construction fencing and rough grading
- CIDH pile drilling and installation
- Casting items and material transportation from other locations to on-site
- Elevator pit excavation
- Soil and material removal
- Pile cap and pier column construction
- Concourse level and platform level falsework for cast-in-place structural concrete
- Guideway beam installation
- Elevator and escalator installation
- Completion of remaining concrete elements such as pedestrian bridges
- Architectural finishes and mechanical, electrical, and plumbing installation

Alternative 1 would include constructing a concrete casting facility for columns and beams associated with the elevated guideway. A specific site has not been identified; however, the general location has been determined to be either in the Antelope Valley or Riverside County, which are outside the Project Study Area. It is assumed that when a site for the casting facility has been identified, a site-specific California Environmental Quality Act (CEQA) environmental review would be conducted in whichever

jurisdiction the facility is determined to be located. It is assumed that, as part of this separate CEQA review, the contractor would obtain all permits and approvals necessary from that jurisdiction as well as the appropriate air quality management entity.

TPSS construction would require additional lane closures. Large equipment including transformers, rectifiers, and switchgears would be delivered and installed through prefabricated modules where possible in at-grade TPSSs. The installation of transformers would require temporary lane closures on Exposition Boulevard, Beloit Avenue, Sepulveda Boulevard just north of Cashmere Street, and the I-405 northbound on-ramp at Burbank Boulevard.

Table 5-4 and Figure 5-9 show the potential construction staging areas for Alternative 1. Staging areas would provide the necessary space for the following activities:

- Contractors' equipment
- Receiving deliveries
- Storing materials
- Site offices
- Work zone for excavation
- Other construction activities (including parking and change facilities for workers, location of construction office trailers, storage, staging and delivery of construction materials and permanent plant equipment, and maintenance of construction equipment)

Table 5-4. Alternative 1: Construction Staging Locations

No.	Location Description
1	Public Storage between Pico Boulevard and Exposition Boulevard, east of I-405
2	South of Dowlen Drive and east of Greater LA Fisher House
3	At 1400 North Sepulveda Boulevard
4	At 1760 North Sepulveda Boulevard
5	East of I-405 and north of Mulholland Drive Bridge
6	Inside of I-405 Northbound to US-101 Northbound Loop Connector, south of US-101
7	ElectroRent Building south of Metro G Line Busway, east of I-405
8	Inside the I-405 Northbound Loop Off-Ramp at Victory Boulevard
9	Along Cabrito Road east of Van Nuys Boulevard

Source: LASRE, 2024; HTA, 2024

Figure 5-9. Alternative 1: Construction Staging Locations

Source: LASRE, 2024; HTA, 2024

5.2 Impacts Evaluation

5.2.1 Air Quality

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-5.

Table 5-5. Alternative 1: Air Quality Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Air Quality Construction Impacts		
Impact AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact AQ-2: Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under and applicable federal or state ambient air quality standard?	Impacts Before Mitigation	SU
	Applicable Mitigation	MM AQ-1 through MM AQ-3
	Impacts After Mitigation	SU
Impact AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations?	Impacts Before Mitigation	SU
	Applicable Mitigation	MM AQ-1 through MM AQ-3
	Impacts After Mitigation	SU
Impact AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025f

AQ = air quality
LTS = less than significant
MM = mitigation measure
NA = not applicable
SU = significant and unavoidable

5.2.1.1 Impact AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Construction projects within the jurisdiction of the SCAQMD must comply with several rules and regulations aimed at controlling air pollution and minimizing environmental impact. Key SCAQMD rules that typically apply to construction projects include the following, among others:

- Rule 403 – Fugitive Dust, to reduce emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area. Requires that contractors implement best management practices such as watering down construction sites, covering trucks, and using windbreaks.
- Rule 401 – Visible Emissions, which prohibits the discharge of visible air contaminants into the atmosphere. Contractors must ensure that emissions from construction activities do not exceed the visible emissions limits, typically by controlling dust and particulate matter.
- Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities, to regulate the emissions of asbestos during demolition and renovation activities. Contractors must conduct thorough inspections for asbestos, notify SCAQMD before starting work, and follow specific procedures for handling and disposing of asbestos-containing materials.
- Rule 1113 – Architectural Coatings, which limits the volatile organic compound (VOC) content in architectural coatings. Contractors must use paints and coatings that comply with the VOC content limits specified by the rule.

- Rule 1108 – Cutback Asphalt, which limits the VOC emissions from the use of cutback asphalt and emulsified asphalt. Contractors must use compliant asphalt products with low VOC content.
- Rule 1157 – PM_{10} Emission Reductions from Aggregate and Related Operations, which serves to reduce PM_{10} emissions from aggregate operations, which can be a component of construction projects involving earth-moving activities. Contractors must implement dust control measures during material handling and processing operations.

Alternative 1 would comply with all relevant SCAQMD rules, and as such, would implement all required AQMP emissions control measures during construction. Impacts would be less than significant.

5.2.1.2 Impact AQ-2: Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under and applicable federal or state ambient air quality standard?

Alternative 1 construction activities would generate criteria pollutant emissions from off-road equipment, mobile sources including workers, vendor trucks, and haul trucks traveling to and from construction sites, demolition, soil handling activities, paving, application of architectural coatings, and operation of temporary concrete batch plants. These emissions sources would be related to constructing the monorail aerial alignment, stations, TPSSs, monorail MSF Base Design or MSF Design Option 1, and Electric Bus MSF. The Alternative 1 alignment would be completely aerial and would not require use of a TBM.

Construction emissions would vary substantially from day to day, depending on the level of activity and the specific type of construction activity. The peak daily construction emissions for Alternative 1 were estimated for each construction year. Based on the construction schedule for Alternative 1, construction phases for components could potentially overlap; therefore, the estimates of peak daily emissions included these potential overlaps by combining the relevant construction phase daily emissions. The peak daily emissions are predicted values for the worst-case day and do not represent the emissions that would occur for every day of construction. Table 5-6 summarizes the peak daily regional emissions for each construction year.

Table 5-6. Alternative 1: Unmitigated Peak Daily Regional Construction Criteria Pollutant Emissions

Construction Year	Daily Emissions (lbs/day)					
	VOC	NO_x	CO	SO_2	PM_{10}[a]	$PM_{2.5}$[a]
2029	12	86	319	<1	16	5
2030	12	95	305	<1	31	10
2031	14	112	419	<1	40	14
2032	32	202	776	1	41	14
2033	25	157	679	1	48	17
2034	20	96	425	<1	17	6
2035	13	71	308	<1	11	4
2036	<1	5	21	<0.1	<1	<1
Peak Daily Emissions	**32**	**202**	**776**	**1**	**48**	**17**
SCAQMD Regional Significance Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	**Yes**	**Yes**	No	No	No

Source: HTA, 2024

[a]PM_{10} and $PM_{2.5}$ emissions include exhaust and fugitive dust emissions.

CO = carbon monoxide

lbs/day = pounds per day
NO_X = nitrogen oxides
PM_{10} = respirable particulate matter of 10 microns or less
$PM_{2.5}$ = fine particulate matter of 2.5 microns or less
SCAQMD = South Coast Air Quality Management District
SO_2 = sulfur dioxide
VOC = volatile organic compounds

As shown in Table 5-6, Alternative 1 construction emissions would exceed the SCAQMD regional significance thresholds for NO_X and CO emissions. SCAQMD's cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. Because Alternative 1 construction emissions would exceed the applicable SCAQMD's regional construction significance thresholds for NO_X and CO, Alternative 1 construction emissions would be cumulatively considerable. Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the NAAQS and CAAQS, which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, Alternative 1's contribution of pollutant emissions during short-term construction activities may result in appreciable human health impacts on a regional scale.

NO_x emissions can have various regional health and environmental impacts. Exposure to NO_x may cause eye and respiratory tract irritation and contribute to broader environmental issues such as acid rain and nitrate contamination in stormwater. Additionally, NO_x is a precursor to O_3 formation, which poses significant health and ecological risks. High concentrations of O_3 can irritate the lungs, and prolonged exposure may lead to damaged lung tissue, increased cancer risk, and harm to plant materials. Long-term O_3 exposure can damage vegetation, reduce crop productivity, and disrupt ecosystems.

CO emissions primarily affect human health by reducing the blood's ability to carry oxygen, leading to symptoms such as headaches, dizziness, confusion and, in severe cases, loss of consciousness or death. These health effects are more pronounced in individuals with pre-existing cardiovascular conditions, because CO exposure can exacerbate symptoms like chest pain or arrhythmias.

As discussed in the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f), the emissions analysis incorporated Tier 4 Final engines for off-road equipment greater than or equal to 50 horsepower, trucks with model years 2007 or newer, and included dust control measures to be implemented during each phase of construction, as required by SCAQMD Rule 403. The construction analysis for Alternative 1 conservatively assumed all equipment would be diesel powered. The Metro *Green Construction Policy* contains measures that aim to reduce construction emissions through utilization of hybrid drive off-road equipment and using electric power instead of diesel power.

Mitigation measures (MM) AQ-1, MM AQ-2, and MM AQ-3 prescribed in the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f) would reduce criteria pollutant emissions during construction, but mitigation measures would not reduce Alternative 1 NO_X and CO emissions below SCAQMD significance thresholds; therefore, Alternative 1 construction emissions would result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard, and impacts would be significant and unavoidable.

5.2.1.3 Impact AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations?

Using the conservative methodology described in Section 3.3 of the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f) to assess the potential localized air quality impacts resulting from Alternative 1 on nearby receptors during construction, the daily on-site construction emissions from the Alternative 1 components (alignment, stations, TPSSs, MSFs) were compared to SCAQMD's applicable construction LSTs. As described in Chapter 2, Project Description, the monorail MSF Base Design and MSF Design Option 1 would have the same facilities; therefore, construction emissions for MSF Design Option 1 would be equivalent to the criteria pollutant emissions modeled for the MSF Base Design. Regardless of which MSF is selected in future final design decisions, the analysis adequately accounted for emissions from either of these MSFs. Alternative 1 localized emissions included exhaust emissions from off-road equipment and trucks, and fugitive dust from demolition, earth movement activities, and truck travel. As shown in Table 5-7, Alternative 1 localized construction emissions would exceed the PM_{10} LST for construction activity in the Valley; therefore, Alternative 1 localized construction emissions would have adverse health risk implications and would be considered to be significant.

Table 5-7. Alternative 1: Unmitigated Localized Construction Criteria Pollutant Emissions

Construction Area	Daily Emissions (lbs/day)[a]			
	NO_X	CO	PM_{10}[b]	$PM_{2.5}$[b]
Valley Construction Components[c]				
MRT Segment 1-Van Nuys Metrolink to Getty Center	43.1	190.6	2.9	1.3
Van Nuys MRT Station	5.0	23.4	0.2	0.1
Sherman Way MRT Station	5.0	23.4	0.2	0.1
Metro G Line MRT Station	5.0	23.4	0.5	0.2
Sherman Oaks-Ventura Boulevard MRT Station	5.0	23.4	0.5	0.2
TPSS 6 – Skirball	4.1	13.3	2.4	1.0
TPSS 11 – Raymer-Van Nuys	4.1	13.3	2.7	1.1
MSF	4.1	13.3	3.7	1.3
Components In Proximity to Each Other				
MRT Segment 1 + Van Nuys Station + TPSS 11 + MSF	56.2	240.6	9.6	3.8
Peak Daily Localized Emissions	**56.2**	**240.6**	**9.6**	**3.8**
SCAQMD Localized Significance Threshold[d]	114	786	7	4
Exceeds Threshold?	No	No	**Yes**	No
Westside Construction Component[c]				
MRT Segment 2 – Getty Center to North of I-405-Wilshire Interchange	23.1	96.9	1.1	0.5
MRT Segment 3 – I-405-Wilshire Interchange Stretch	13.3	50.2	0.9	0.4
MRT Segment 4 – South of I-405-Wilshire Interchange to Metro E Line	18.4	73.6	1.4	0.4
Getty Center MRT Station	5.0	23.4	0.3	0.2
Wilshire Blvd-Metro D Line-VA Hospital MRT Station	4.7	20.5	0.2	0.1
Santa Monica Boulevard MRT Station	5.0	23.4	0.3	0.2
Exposition Boulevard MRT Station	5.0	23.4	0.3	0.2
TPSS 2 – Wilshire Boulevard	4.1	13.3	2.4	1.0
TPSS 3 – Sunset On-ramp	4.1	13.3	2.3	1.0
TPSS 4 – I-405-Near Getty Center on East side of I-405	4.1	13.3	2.4	1.0

Construction Area	Daily Emissions (lbs/day)[a]			
	NO_X	CO	PM_{10}[b]	$PM_{2.5}$[b]
e-Bus MSF	4.1	13.3	3.3	1.2
Components In Proximity to Each Other				
MRT Segment 2 + MRT Segment 3 + Wilshire Blvd MRT Station + TPSS 2	45.2	180.8	4.6	2.1
Peak Daily Localized Emissions	**45.2**	**180.8**	**4.6**	**2.1**
SCAQMD Localized Significance Threshold[e]	147	827	6	4
Exceeds Threshold?	No	No	No	No

Source: HTA, 2024

[a]Daily emissions for each construction component represent the contribution to the maximum daily localized emissions in the Valley or Westside.

[b]PM10 and PM2.5 emissions include exhaust and fugitive dust emissions.

[c]TPSSs listed in table would be located at standalone locations and not within the construction area of a station, MSF, track alignment, or tunnel. Each of these standalone TPSSs had their own construction phasing in the construction emissions analysis. For TPSSs located within the construction area of a station, MSF, track alignment, or tunnel, their construction activity was accounted for in the overall construction activity for the component.

[d]LST values are based on a 2-acre site with a 25-meter receptor distance in SRA 7 East San Fernando Valley.

[e]LST values are based on a 2-acre site with a 25-meter receptor distance in SRA 2 Northwest Coastal LA County.

SCAQMD = South Coast Air Quality Management District

Short-term exposure to elevated PM_{10} levels during construction can lead to significant health effects, particularly for sensitive populations such as children, the elderly, and individuals with pre-existing respiratory or cardiovascular conditions. These health impacts include respiratory irritation, which can manifest as coughing, wheezing, shortness of breath, and worsened asthma symptoms. Additionally, PM_{10} exposure can exacerbate cardiovascular conditions, increasing heart rate variability, inflammation, and the risk of cardiac events. Acute respiratory infections, such as bronchitis, may also occur, particularly affecting vulnerable groups like children and older adults.

DPM, a component of PM_{10} from diesel engines, poses additional risks. It is associated with respiratory irritation, acute inflammation, and oxidative stress. Prolonged or high-level exposure can elevate the risk of lung cancer and cardiovascular issues. These impacts are particularly pronounced near construction sites, where emissions are concentrated and receptors in close proximity are exposed.

The emissions analysis incorporated Tier 4 Final engines for off-road equipment greater than or equal to 50 horsepower, trucks with model years 2007 or newer, and included dust control measures to be implemented during each phase of construction, as required by SCAQMD Rule 403. The construction analysis for Alternative 1 conservatively assumed all equipment would be diesel powered. The Metro *Green Construction Policy* contains measures that aim to reduce construction emissions through utilization of hybrid drive off-road equipment and using electric power instead of diesel power.

Although MM AQ-1, MM AQ-2, and MM AQ-3 prescribed as follows would reduce criteria pollutant emissions during construction, including localized PM_{10} emissions, mitigation measures would not reduce Alternative 1 PM_{10} emissions below SCAQMD localized significance thresholds; therefore, Alternative 1 construction emissions would potentially expose sensitive receptors to substantial concentrations and impacts would be significant and unavoidable.

The SCAQMD's LSTs for each SRA represent the maximum emissions a project can emit without causing or contributing to a violation of any short-term NAAQS or CAAQS. As noted previously, the NAAQS and CAAQS are health-protective standards that define the maximum amount of ambient pollution that can be present without harming public health. Consequently, projects with emissions below the applicable LSTs would not be in violation of the NAAQS or CAAQS and, thus, EPA and CARB health-protective standards. Because Alternative 1 construction emissions would exceed the PM_{10} LST, Alternative 1 would cause or contribute to a violation of one or more health-protective CAAQS and NAAQS. Given that DPM emissions would constitute a portion of localized PM_{10} emissions, impacts related to localized DPM emissions during construction are also considered to be significant and unavoidable due to the following: (1) the elevated background carcinogenic risk, (2) the duration of construction activity, and (3) the proximity of sensitive receptors to DPM emissions sources.

5.2.1.4 Impact AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

During construction of Alternative 1, exhaust from equipment, activities associated with the application of architectural coatings and other interior and exterior finishes, and paving activities may produce discernible odors typical of most construction sites. Such odors would be, at worst, a temporary source of nuisance to adjacent uses, if at all, and would not affect a substantial number of people. Alternative 1 would use architectural coatings compliant with SCAQMD Rule 1113, which would limit the odors associated with off-gassing from those coatings. Additionally, material deliveries and heavy-duty haul truck trips could occasionally produce odors from diesel exhaust. These odors would not affect a substantial number of people because construction would be temporary, and construction-generated emissions dissipate rapidly with increasing distance from the source. Overall, odors associated with Alternative 1 construction would be temporary and intermittent in nature and would not create a significant level of objectionable odors affecting a substantial number of people.

5.2.1.5 Mitigation Measures

Construction Impacts

As previously discussed, Alternative 1 would exceed SCAQMD regional thresholds for NO_X and CO, as well as SCAQMD localized thresholds for $PM_{10,}$ and would result in significant and unavoidable impacts. Therefore, the following mitigation measures shall be implemented for Alternative 1 construction.

MM AQ-1: *The Project shall require zero emissions or near zero emissions on-road haul trucks such as heavy-duty trucks with natural gas engines that meet or exceed the California Air Resources Board's adopted optional nitrogen oxides emissions standard at 0.02 grams per brake horsepower hour (g/bhp-hr), if and when feasible. Operators shall maintain records of all trucks associated with project construction to document that each truck used meets these emission standards. These records shall be submitted monthly to Metro for review and shall be made available to regulatory agencies upon request. To ensure compliance, Metro or its designated representative shall conduct regular inspections of construction operations, including on-site verification of truck compliance. Inspections shall occur at least twice per month during active construction. Any contractor found to be using non-compliant trucks without prior approval from Metro shall be subject to penalties, including suspension of operations until compliance is achieved.*

MM AQ-2: *Construction contracts shall include language that compels contractors to implement all policies and emissions control measures as presented in Metro's Green Construction Policy.*

MM AQ-3: *Construction contracts shall include language that compels contractors to implement all fugitive dust control measures as detailed in South Coast Air Quality Management District.*

Impacts After Mitigation

Although construction of the Project alternatives would require implementation of MM AQ-1, it is not technically feasible at the time of document preparation to verify the commercial availability of zero emissions (ZE) and near zero emissions (NZE) trucks to the extent needed to reduce construction-period NO_X, CO, PM_{10}, and $PM_{2.5}$ emissions below SCAQMD's regional and localized emissions thresholds. MM AQ-2 and MM AQ-3 simply enforce Metro and SCAQMD policies that are already required, independent of any additional prescribed mitigation. Given the current uncertainty around the availability of sufficient ZE and NZE trucks to reduce construction period impacts, impacts regarding construction period emissions would remain significant and unavoidable. Due to this uncertainty, all of the project alternatives would result in NO_X and PM_{10} construction emissions that cannot be reduced below SCAQMD's regional and localized emissions thresholds. In addition to significant and unavoidable construction-period NO_X and PM_{10} emissions, Alternatives 1 and 3 would also result in significant and unavoidable construction emissions of CO, and Alternatives 4 and 5 would result in significant and unavoidable construction emissions of CO and $PM_{2.5}$.

5.2.2 Communities and Neighborhoods

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-8.

Table 5-8. Alternative 1: Communities and Neighborhoods Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Communities and Neighborhoods Construction Impacts		
Impact POP-1: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact PUB-3: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternative 1
Impact US-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-3: Would the project result in a determination by the wastewater treatment provider who serves, or may serve, the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-4: Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025b

LTS = less than significant
NA = not applicable
POP = population, housing, and growth
US = utilities and service systems

5.2.2.1 Impact POP-1: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Alternative 1 would result in temporary economic growth through the influx of construction workers to the Alternative 1 RSA. However, these workers would likely be sourced from the local labor pool, and thus the temporary employment opportunities under Alternative 1 are unlikely to directly foster the construction of permanent housing for workers in the Alternative 1 RSA. Thus, construction of Alternative 1 would result in less than significant impacts related to unplanned economic or population growth.

Maintenance and Storage Facilities

MSF Base Design

Construction of the MSF Base Design would not construct any new housing units, and therefore the MSF Base Design would not directly generate new or unplanned population and housing growth. Potential employment resulting from construction of the MSF Base Design would not exceed SCAG forecasted projections for the Alternative 1 RSA. Thus, construction of the MSF Base Design would result in less than significant impacts related to unplanned economic or population growth.

MSF Design Option 1

Construction of the MSF Design Option 1 would not construct any new housing units, and therefore, would not generate new or unplanned population and housing growth. Potential employment resulting from the construction of the MSF Design Option 1 would not exceed SCAG forecasted projections for the Alternative 1 RSA. Thus, construction of the MSF Design Option 1 would result in less than significant impacts related to unplanned economic or population growth.

Electric Bus MSF

The Electric Bus MSF is not anticipated to generate population and housing growth as no new housing units would be constructed. Construction of the Electric Bus MSF would not generate employment

growth that would exceed SCAG forecasted projections for the Alternative 1 RSA. Thus, construction of the Electric Bus MSF would result in less than significant impacts related to unplanned economic or population growth.

5.2.2.2 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Construction of Alternative 1 would involve site preparation and demolition of structures; utility relocation; construction of the MRT alignment, stations, MSF, TPSS, auxiliary facilities, and parking facilities; street widening; and street and sidewalk reconstruction. Some parcels that would be permanently acquired for the operations of Alternative 1 would also be used for construction purposes, such as for construction access, staging, and laydown. Temporary acquisitions would be required for parcels that would only be used as temporary construction easements (TCE). These TCEs would only occupy portions of the affected residential properties as required to support construction vehicle access and would not substantially interfere with the habitability of the impacted residential properties.

Construction activities associated with Alternative 1 would not result in the temporary displacement of any residential dwelling units. Therefore, no impacts related to the displacement of residential units and residents that would necessitate the construction of replacement units would occur as a result of construction.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design site is currently developed as a materials storage site supporting LADWP operations. No residential uses are located on the MSF Base Design site; therefore, while property acquisitions would be required to develop the MSF Base Design, no residential displacements would occur that would necessitate the construction of replacement unit. The MSF Base Design would result in no impact.

MSF Design Option 1

The proposed MSF Design Option 1 site is currently developed with industrial uses. No residential uses are located on the MSF Design Option 1 site; therefore, while property acquisitions would be required to develop the MSF Base Design, no residential displacements would occur that would necessitate the construction of replacement unit. The MSF Design Option 1 would result in no impact.

Electric Bus MSF

The proposed Electric Bus MSF site is currently developed with commercial and light industrial uses adjacent to the I-405 freeway where there are residential uses located on the site. Therefore, while property acquisitions would be required to develop the Electric Bus MSF, no residential displacements would occur that would necessitate the construction of replacement unit. The Electric Bus MSF would result in no impact.

5.2.2.3 Impact PUB-3: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools or other public facilities?

Construction of Alternative 1 would be temporary and does not require the expansion of existing school facilities. Construction of the aerial viaduct, retaining walls, and I-405 on- and off-ramps would require street detours that would temporarily affect access to school facilities. Other than UCLA, no educational facilities are located immediately adjacent to the proposed alignment or transit stations though multiple educational facilities are located within 500 feet of the I-405 and associated affected roadways. Table 6-5 of the *Sepulveda Transit Corridor Project Communities and Neighborhoods Technical Report* (Metro, 2025b) lists the school facilities located within the RSA, most of which would be subject to construction-related disruptions. Construction of the UCLA electric bus station would result in some disruptions to vehicle and pedestrian circulation; however, such disruptions would be temporary and would not affect regular educational operations on the UCLA campus. Roadways that intersect I-405 would require temporary closure or lane reductions to accommodate construction activities associated with constructing the proposed aerial guideway and associated I-405 improvements. Closures and lane reductions along local roadways could impede the vehicle circulation network in the RSA. Despite these temporary disruptions, it is anticipated that access to all schools in the Alternative 1 RSA would be maintained throughout construction.

The Alternative 1 aerial alignment tail tracks and TPSS facility would be constructed adjacent to the Rancho Park Station post office including acquisition of a TCE along the northwest corner of the post office property. Construction activities would result in temporary access disruptions to the Rancho Park Station, including potential short-term closure of the commercial driveway to the post office parking lot. No disruption to regular post office operations is anticipated as there is a separate driveway for postal vehicles and deliveries along the east side of the property. Other than the USPS Rancho Park Station, no other community facilities are located immediately adjacent to the proposed alignment or transit stations. Table 6-6 of the *Sepulveda Transit Corridor Project Communities and Neighborhoods Technical Report* (Metro, 2025b) lists the libraries and post office facilities located within the RSA most of which would be subject to construction-related disruptions. Despite these temporary disruptions, it is anticipated that access to all public facilities in the Alternative 1 RSA would be maintained throughout construction.

Since construction-related disruptions to the roadway network would be temporary and access to all schools and other public facilities would be maintained throughout construction, no new or temporary schools or other public facilities would be needed. Impacts to schools and other public facilities would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design would not create new residential populations that directly increase the use or enrollment of existing schools or other public facilities in the surrounding community. The proposed MSF Base Design site is currently developed as a materials storage site supporting LADWP operations. No public facilities are located on or adjacent to the site. The nearest school is Panorama High School located approximately 0.5 miles northwest of the proposed MSF Base Design site. The nearest community facility is the Panorama City Post Office located approximately 1 mile north of the proposed

MSF Base Design site. The MSF Base Design would not affect on-site or street parking or otherwise affect access to Panorama High School or the Panorama City Post Office. Therefore, impacts to schools or other public facilities associated with the MSF Base Design would be less than significant. Implementation of MM TRA-4 would require a Transportation Management Plan (TMP) (refer to Section 5.2.14.5) that specifies measures to lessen disruption during construction and to maintain access to schools and associated circulation patterns.

MSF Design Option 1

The proposed MSF Design Option 1 site would not create new residential populations that directly increase the use or enrollment of existing schools or other public facilities in the surrounding community. The proposed MSF Design Option 1 site is currently developed with industrial uses where there are no school facilities located on or adjacent to the site. The nearest school is North Hills Prep located approximately 0.25 miles south of the proposed MSF Design Option 1 site. The nearest community facility is the USPS Post Office located on Sherman Way approximately 0.90 miles southwest of the proposed MSF Option 1 site. MSF Design Option 1 would not affect on-site or street parking or otherwise affect access to North Hills Prep or the post office. Therefore, impacts to schools and other public facilities associated with MSF Design Option 1 would be less than significant. Implementation of MM TRA-4 would require a TMP that specifies measures to lessen disruption during construction and to maintain access to schools and associated circulation patterns. (Refer to Section 5.2.14.5.)

Electric Bus MSF

The proposed Electric Bus MSF Site would not create new residential populations that directly increase the use or enrollment of existing school facilities in the surrounding community. The proposed Electric Bus MSF site is currently developed with commercial and light industrial uses adjacent to the I-405 freeway where there are no school facilities located on or adjacent to the site. The nearest school is Samuel Goldwyn Foundation Children's Center located approximately 0.25 miles north of the proposed Electric Bus MSF site. The nearest community facility is USPS Rancho Park Station located approximately 600 feet south of the proposed Electric Bus MSF site. The Electric Bus MSF would not affect on-site or street parking or otherwise affect access to Samuel Goldwyn Foundation Children's Center or the USPS Rancho Park Station. Therefore, impacts to schools or other public facilities associated with the Electric Bus MSF would be less than significant. As discussed in the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), implementation of MM TRA-4 would require a TMP that specifies measures to lessen disruption during construction and to maintain access to schools and associated circulation patterns. The TMP would include coordination with emergency service providers as well as property owners, such as UCLA, to maintain adequate access and services.

5.2.2.4 Impact US-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Utility conflicts would primarily occur within the proposed station areas, columns and support for the aerial structure, construction at the MSF site, and roadway relocations to accommodate Alternative 1's footprint. Since not all utility depth data is available and the condition of each utility is unknown, additional subsurface utility investigation is recommended to verify the assumptions and impacts. Potentially impacted utilities are shown in Table 5-9. Approximately 89 components of utility infrastructure would be potentially impacted including 39 electrical, 49 storm drainage, 8 telecommunications, 4 sewer, 1 oil, and 2 natural gas.

These components would likely be relocated near existing facilities, typically within a few feet of existing locations. The utility relocation efforts could potentially result in environmental effects related to construction and the temporary disruption of services, including generating construction emissions, disrupting roadway circulation, and temporarily decreased capacity of the electrical, natural gas, water supply, water treatment system, and telecommunications systems. These potential impacts are included in the assessments of construction-related impacts in the relevant resource technical reports prepared for the Project. Pursuant to project feature (PF)-US-1, Utility Identification and Coordination, if relocations are required, the construction contractor would verify the locations of existing utilities potentially affected by construction activities and determine specific relocation and setback and, pursuant to PF-US-2, Service Interruption Notification, the construction contractor would develop a construction plan that minimizes interruptions to utilities services to the greatest extent feasible and notify the public if/when interruptions would occur. Therefore, construction of Alternative 1 would result in a less than significant impact related to utilities and service systems.

Table 5-9. Alternative 1: Potentially Impacted Utilities

Utility Type	Number of Potentially Impacted Utilities
Electrical	39
Gas	2
Oil	1
Sewer	4
Storm Drainage	49
Telecommunications	8
Water	0
Total	**103**

Source: LASRE, 2023

Water Facilities

Construction of Alternative 1 would not require substantial consumption of potable water. Water use would occur primarily through water trucks required for dust control. Although water use for construction would occur over a multi-year construction period, the water supply in the RSA has been determined to be adequate to meet demand, including construction water use, in normal, single-dry year, and multiple dry years. Construction of Alternative 1 would therefore not require the expansion or construction of new water facilities. Therefore, construction of the Alternative 1 would result in a less than significant impact related to water facilities.

Wastewater Treatment

Construction activities would generate negligible wastewater through the use of temporary portable restrooms, which would have no potential to necessitate the construction of new or expanded wastewater facilities as they are serviced by private companies. Wastewater treatment facilities would not be required to be relocated during construction of the Project. Therefore, construction of Alternative 1 would result in a less than significant impact related to wastewater facilities.

Stormwater Drainage

Stormwater runoff would be increased in the study as a result of construction. As described in the *Sepulveda Transit Corridor Project Water Resources Technical Report*, any drainage pattern impacts from construction would be minor and temporary, minimizing the potential for exceeding stormwater drainage systems (Metro, 2025g). In accordance with the Construction General Permit and Municipal Separate Storm Sewer Systems Permits, Alternative 1 would be required to prepare and submit a

construction Stormwater Pollution Prevention Plan (SWPPP), which must be submitted to the State Water Resources Control Board prior to construction and adhered to during construction. The construction SWPPP would identify the Best Management Practices (BMP) that would be in place prior to the start of construction activities and during construction. These measures would help reduce stormwater runoff velocity, thereby limiting its capacity to cause stormwater drainage systems exceedance. If necessary, new stormwater drainage facilities constructed at stations or along the alignment would comply with design requirements established by state and local regulations. For additional information regarding state and local regulations governing stormwater pollution prevention, refer to the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g). Compliance with these state and local regulations would reduce construction related impacts to stormwater drainage facilities. Therefore, a less than significant impact would occur related to stormwater drainage facilities.

Electric Power

Construction of Alternative 1 has no potential to require new or expanded electric power facilities. Temporary lighting or some electrically powered pieces of construction equipment may temporarily consume electricity. Minimal electricity would be used to power field offices for the construction contractor. Therefore, construction of Alternative 1 would result in a less than significant impact related to electric power facilities.

Natural Gas

Construction of Alternative 1 has no potential to require new or expanded natural gas or oil facilities. Minimal natural gas would be required. Therefore, construction of Alternative 1 would result in a less than significant impact related to natural gas and oil infrastructure.

Telecommunication Facilities

Construction activities would have no potential to necessitate the construction of new or expanded telecommunication facilities. It is anticipated that existing telecommunication facilities would still be able to adequately serve construction crews and the RSA. Therefore, a less than significant impact would occur related to telecommunication facilities.

Maintenance and Storage Facilities

MSF Base Design

Construction of the proposed MSF Base Design would require relocation of existing utilities. A significant portion of the proposed MSF Base Design is occupied by industrial uses. These utilities would likely be relocated near existing facilities, typically within a few feet of existing locations. The utility relocation efforts could potentially result in environmental effects related to construction and the temporary disruption of services, including generating construction emissions, disrupting roadway circulation, and temporarily decreased capacity of the electrical, natural gas, water supply, water treatment system, and telecommunications systems. These potential impacts are included in the assessments of construction-related impact in the relevant resource sections of the Draft Environmental Impact Report. Pursuant to PF-US-1, Utility Identification and Coordination, if relocations are required, the construction contractor would verify the locations of existing utilities potentially affected by construction activities and determine specific relocation and setback and, pursuant to PF-US-2, Service Interruption Notification, the construction contractor would develop a construction plan that minimizes interruptions to utilities services to the greatest extent feasible and notify the public if/when interruptions would occur. Therefore, construction of the proposed MSF Base Design would result in a less than significant impact related to utilities and service systems.

MSF Design Option 1

Construction impacts related to MSF Design Option 1 would be similar to those described for the proposed MSF Base Design. There is potential for the construction of the MSF to require relocating existing utilities components and the utility relocation efforts could result in detrimental environmental effects. Pursuant to PF-US-1, Utility Identification and Coordination, if relocations are required, the construction contractor would verify the locations of existing utilities potentially affected by construction activities and determine specific relocation and setback and, pursuant to PF-US-2, Service Interruption Notification, the construction contractor would develop a construction plan that minimizes interruptions to utilities services to the greatest extent feasible and notify the public if/when interruptions would occur. Therefore, construction of MSF Design Option 1 would result in a less than significant impact related to utilities and service systems.

Electric Bus MSF

Construction impacts related to the Electric Bus MSF would be similar to those described for the proposed MSF Base Design. There is potential for the construction of the Electric Bus MSF to require relocating existing utilities components and the utility relocation efforts could result in detrimental environmental effects. Pursuant to PF-US-1, Utility Identification and Coordination, if relocations are required, the construction contractor would verify the locations of existing utilities potentially affected by construction activities and determine specific relocation and setback and, pursuant to PF-US-2, Service Interruption Notification, the construction contractor would develop a construction plan that minimizes interruptions to utilities services to the greatest extent feasible and notify the public if/when interruptions would occur. Therefore, construction of the Electric Bus MSF would result in a less than significant impact related to utilities and service systems.

5.2.2.5 Impact US-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Construction of Alternative 1 would not require substantial consumption of potable water. Water use would occur primarily related to water trucks required for dust control. This short-term use of water requires minimal water supplies when compared to regional supplies. Therefore, construction of Alternative 1 would result in a less than significant impact related to water supplies.

Maintenance and Storage Facilities

MSF Base Design

Similar to construction of the transit line, the proposed MSF Base Design would not require substantial consumption of potable water. Water use would occur primarily related to water trucks required for dust control. The short-term use of water would require minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities. Therefore, construction of proposed MSF Base Design would result in a less than significant impact related to water supplies.

MSF Design Option 1

Construction impacts related to MSF Design Option 1 would be similar to those described for the proposed MSF Base Design. Water use would occur primarily related to water trucks required for dust control. The short-term use of water requires minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities.

Therefore, construction of MSF Design Option 1 would result in a less than significant impact related to water supplies.

Electric Bus MSF

Construction impacts related to the Electric Bus MSF would be similar to those described for the proposed MSF Base Design. Water use would occur primarily related to water trucks required for dust control. The short-term use of water requires minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities. Therefore, construction of the Electric Bus MSF would result in a less than significant impact related to water supplies.

5.2.2.6 Impact US-3: Would the project result in a determination by the wastewater treatment provider who serves, or may serve, the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Alternative 1 would generate wastewater during construction through the use of temporary worker restrooms and limited construction uses. Any wastewater generated during construction would be transported to wastewater facilities via vacuum service trucks. The RSA is serviced by the Joint Water Pollution Control Plant, Hyperion Water Reclamation Plant, Donald C. Tillman Water Reclamation Plant, and the Los Angeles-Glendale Water Reclamation Plant, which have a combined capacity of 950 million gallons of wastewater per day. The City of Santa Monica has an additional 1 million gallons per day of wastewater treatment capacity from its sustainable Water Infrastructure Project wastewater treatment facility. Wastewater generated by temporary worker restrooms for construction of Alternative 1 would represent a negligible proportion of the daily wastewater processed by the regional water reclamation plants and the facilities are anticipated to have adequate capacity to serve Alternative 1. Therefore, construction of Alternative 1 would result in a less than significant impact related to wastewater treatment capacity.

Maintenance and Storage Facilities

MSF Base Design

Similar to construction of the transit line, the proposed MSF Base Design would generate wastewater during construction through the use of temporary worker restrooms and limited construction uses. Any wastewater generated during construction would be transported to wastewater facilities via vacuum service trucks. Wastewater generated by temporary worker restrooms for construction of the proposed MSF Base Design would represent a negligible proportion of the daily wastewater processed by the regional water reclamation plants and the facilities are anticipated to have adequate capacity. Therefore, construction of the proposed MSF Base Design would result in a less than significant impact related to wastewater treatment capacity.

MSF Design Option 1

Construction impacts related to MSF Design Option 1 would be similar to those described for the proposed MSF Base Design. Wastewater generation would occur primarily related temporary worker restrooms. Wastewater generated by temporary worker restrooms for construction of the proposed MSF Design Option 1 would represent a negligible proportion of the daily wastewater processed by the regional water reclamation plants and the facilities are anticipated to have adequate capacity. Therefore, construction of the proposed MSF Design Option 1 would result in a less than significant impact related to wastewater treatment capacity.

Electric Bus MSF

Construction impacts related to the Electric Bus MSF would be similar to those described for the proposed MSF Base Design. Wastewater generation would occur primarily related temporary worker restrooms. Wastewater generated by temporary worker restrooms for construction of the proposed Electric Bus MSF would represent a negligible proportion of the daily wastewater processed by the regional water reclamation plants and the facilities are anticipated to have adequate capacity. Therefore, construction of the proposed Electric Bus MSF would result in a less than significant impact related to wastewater treatment capacity.

5.2.2.7 Impact US-4: Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Construction of Alternative 1 would generate solid waste related to discarded construction material. Solid waste would be hauled to regional landfills that have a remaining approximate capacity of 256,156,907 cubic yards (CY). Contaminated soils and hazardous building materials will be disposed of at permitted landfills. Landfills that accept contaminated soils include the Clean Harbors Button Willow Landfill located in Button Willow, California, the South Yuma County Landfill located in Yuma, Arizona, and the US Ecology Landfill located in Beatty, Nevada. The Clean Harbors Button Willow Landfill has a maximum permitted capacity of 10,500 tons per day and a maximum remaining capacity of 13,250,000 CY.

Based on the processing capacity of the Button Willow, California Landfill and the other two sites as a representative sample of contaminated soil processing capacity, landfills would be able to adequately process the small amount of contaminated soil anticipated to be generated by Alternative 1. Contaminated soil processing would not be limited to the identified landfills and could potentially occur at other permitted landfills. Alternative 1 would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Additionally, construction of Alternative 1 would be required to comply with all applicable federal, state, and local statutes and regulations pertaining to solid waste disposal. The construction contractor would comply with Assembly Bill 939, which requires a Solid Waste Diversion Program and diversion of at least 50 percent of the solid waste generated during construction activities from landfills to recycling facilities. Regional facilities have capacity for construction-related solid waste. Therefore, construction of Alternative 1 would result in a less than significant impact related to compliance with solid waste standards and capacity.

Maintenance and Storage Facilities

MSF Base Design

Construction of the proposed MSF Base Design would generate solid waste related to discarded construction material. Solid waste would be hauled to regional landfills that have a remaining approximate capacity of 256,156,907 CY. Due to the industrial nature of the existing uses, contaminated soils would also be encountered during construction. Contaminated soils would be transported to the Clean Harbors Button Willow Landfill, the South Yuma County Landfill, the US Ecology Landfill, or other permitted hazardous materials landfills. The proposed MSF Base Design would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Additionally, construction of the MSF would be required to comply with all applicable federal, state, and local statutes and regulations pertaining to solid waste disposal, including AB939.

Therefore, construction of the MSF would result in a less than significant impact related to compliance with solid waste standards and capacity.

MSF Design Option 1

Construction impacts related to MSF Design Option 1 would be similar to those described for the proposed MSF Base Design and construction of MSF Design Option 1 would generate solid waste related to discarded construction material. MSF Design Option 1 would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Therefore, construction of MSF Design Option 1 would result in a less than significant impact related to solid waste.

Electric Bus MSF

Construction impacts related to the Electric Bus MSF would be similar to those described for the proposed MSF Base Design and construction of the Electric Bus MSF would generate solid waste related to discarded construction material. The Electric Bus MSF would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Therefore, construction of the Electric Bus MSF would result in a less than significant impact related to solid waste.

5.2.2.8 Impact US-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Alternative 1 would generate typical construction waste such as wood, concrete, and asphalt. Additionally, because Alternative 1 would be constructed within an urban built out environment, Alternative 1 is anticipated to encounter contaminated soil. As described previously, regional permitted facilities are anticipated to have the capacity to process all contaminated and non-contaminated construction related solid waste. Alternative 1 would fully comply with all federal, state, and local statutes and regulations regarding proper disposal, including AB 939 and AB 1327. Additionally, California Green Building Standards requires construction projects to recycle and/or salvage for reuse a minimum 65 percent of the nonhazardous construction and demolition waste or meet a local construction and demolition waste management ordinance, whichever is more stringent. There is no element of construction activities that would be outside of compliance. Therefore, no impact would occur related to compliance with solid waste regulations.

Maintenance and Storage Facilities

MSF Base Design

Solid waste generated during construction activities associated with the proposed MSF Base Design would comply with AB 939, AB 1327 and all federal, state, and local statutes and regulations regarding proper disposal. Therefore, no impact would occur related to compliance with solid waste regulations.

MSF Design Option 1

Solid waste generated during construction activities associated with MSF Design Option 1 would comply with AB 939, AB 1327 and all federal, state, and local statutes and regulations regarding proper disposal. Therefore, no impact would occur related to compliance with solid waste regulations.

Electric Bus MSF

Solid waste generated during construction activities associated with the Electric Bus MSF would comply with AB 939, AB 1327 and all federal, state, and local statutes and regulations regarding proper disposal. Therefore, no impact would occur related to compliance with solid waste regulations.

5.2.2.9 Mitigation Measures

Construction Impacts

Construction of Alternative 1 would have a less than significant impact with mitigation. Construction of Alternative 1 would require implementation of MM TRA-4 (refer to Section 5.2.14.5) to reduce disruption caused by construction work zones.

Impacts After Mitigation

After implementation of mitigation measures, Alternative 1 would result in less than significant impacts with mitigation.

5.2.3 Climate Change and Greenhouse Gas Emissions

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-10.

Table 5-10. Alternative 1: Climate Change and Greenhouse Gas Emissions Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Climate Change and Greenhouse Gas Emissions Construction Impacts		
Impact GHG-1: Would the project result in greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025d

GHG = greenhouse gas emissions
LTS = less than significant
NA = not applicable

5.2.3.1 Impact GHG-1: Would the project result in greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction of Alternative 1 would result in GHG emissions from off-road equipment, mobile sources (including worker vehicles, vendor trucks, and haul trucks), as well as electricity consumptions from on-site portable offices. These emissions sources would be related to constructing the monorail aerial alignment, TPSSs, stations, monorail MSF, and e-bus MSF. For Alternative 1, its precast concrete facility would be offsite in Antelope Valley or Riverside County. GHG emissions related to hauling precast components from the precast facility to the construction worksites were included in the emissions analysis. The Alternative 1 alignment would be completely aerial and would not require use of a TBM.As

As discussed in Section 3.1 of the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025d), construction GHG emissions are inherently cumulative in nature and the SCAQMD guidance states construction-related GHG emissions should be amortized over the lifetime of a project and the amortized construction emissions should be combined with annual operational emissions to evaluate a project's potential impacts from long-term emissions (SCAQMD, 2008). Based on this, the Alternative 1 construction emissions were amortized over its design lifetime of 30 years, then combined with the Alternative 1 annual operational GHG emissions. Table 5-11

summarizes the Alternative 1 GHG emissions throughout the construction period. Alternative 1 construction would generate a total of 60,653 $MTCO_2e$ and would result in 2,022 $MTCO_2e$ annually when amortized over the project lifetime of 30 years.

Table 5-11. Alternative 1: Construction Greenhouse Gas Emissions

Construction Year	GHG Emissions ($MTCO_2e$)[a,b]
2029	4,906
2030	5,999
2031	8,898
2032	14,860
2033	13,240
2034	8,605
2035	3,916
2036	163
TBM Electricity Consumption	– [c]
Portable Office Electricity Consumption	66
Total	**60,653**
Amortized Construction Emissions (30 Years)	2,022

Source: HTA, 2024

[a]Totals may vary due to rounding.

[b]GHG emissions related to electricity consumption represent the total GHG emissions over the entire construction period.

[c]Alternative 1 would not require a TBM.

– = no data
$MTCO_2e$ = million metric tons of carbon dioxide equivalents

It should be noted that total and annual construction GHG emissions represent a conservative assessment because GHG emissions would decrease in future years as the construction industry shifts toward implementation of cleaner fuels (i.e., electrified equipment) and more efficient technologies. Additionally, Metro's Green Construction Policy requires contractors to use renewable diesel which would reduce upstream GHG emissions related to producing the fuel, as well as reduce GHG emissions from fuel combustion in off-road equipment and trucks as compared to petroleum diesel. Thus, the annual construction GHG emissions associated with Alternative 1 would decrease with time and are likely to be lower than estimated herein. Alternative 1 construction emissions were amortized over Alternative 1's design lifetime of 30 years, then combined with Alternative 1 annual operational GHG emissions. Annual operations of Alternative 1 compared to 2045 without Project conditions would result in a net reduction of GHG emissions; therefore, impacts from Alternative 1 construction emissions would be considered less than significant.

5.2.3.2 Impact GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Construction of Alternative 1 would generate short-term GHG emissions related to off-road equipment, mobile sources, and electricity consumption. Alternative 1 construction would comply with Metro's Green Construction Policy, which requires idling restrictions for off-road equipment and trucks, using trucks with model years 2007 or newer, requiring contractors to use renewable diesel for all diesel engines, and implementing best management practices (such as using electric powered equipment in

lieu of diesel equipment where available). Upon completion of Alternative 1 construction, these emissions would cease. As GHG emissions are exclusively cumulative impacts, the Alternative 1 amortized construction emissions were included with the long-term operational emissions for Alternative 1. Based on the discussion in the following sections, annual operational emissions, which included amortized construction emissions, were found to not conflict with plans or policies to reduce GHG emissions; therefore, impacts for construction-related GHG emissions would be less than significant.

5.2.3.3 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

5.2.4 Ecosystems and Biological Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-12.

Table 5-12. Alternative 1: Biological Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Biological Resources Construction Impacts		
Impact BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-4 through MM BIO-10, MM BIO-16 through MM BIO-20, MM BIO-22 through MM BIO-27, MM BIO-29
	Impacts After Mitigation	LTS
Impact BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-10, MM BIO-16 through MM BIO-18, MM BIO-23 through MM BIO-25
	Impacts After Mitigation	LTS
Impact BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-15, MM BIO-18, MM BIO-21
	Impacts After Mitigation	LTS
Impact BIO-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-4, MM BIO-5, MM BIO-7, MM BIO-14
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternative 1
Impact BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-3, MM BIO-5 through MM BIO-9, MM BIO-14, MM BIO-23
	Impacts After Mitigation	LTS
Impact BIO-6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025k

BIO = biological resources
LTS = less than significant
MM = mitigation measure
NA = not applicable
NI = no impact
PS = potentially significant

5.2.4.1 Impact BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Impacts to vegetation within the Ground Disturbance Area have potential to affect sensitive vegetation communities, as well as special-status wildlife or plant species, both directly and through modifications to their habitat. No impacts are anticipated from the electric bus shuttle since the route would be within existing developed roadways and the UCLA Gateway Plaza. Clearing and grading of vegetation would be required for construction of components of Alternative 1, including the structural support beams for the guideway track, staging yards, cut-and-cover construction of TPSSs, and aerial monorail transit (MRT) stations. While most of the vegetation that would be impacted consists of non-native and ornamental landscaping, some native vegetation is also present within the Ground Disturbance Area. Construction activities for Alternative 1 would result in significant impacts to special-status wildlife including nesting birds, special-status plant species, and sensitive vegetation communities if mitigation measures are not implemented. These potentially significant impacts include injury or mortality of individuals, habitat loss due to permanent vegetation removal, behavioral or health modifications from noise pollution or exposure to fugitive dust from prolonged heavy equipment operation, and behavioral modifications extended human disturbances within species habitats during construction.

Other anticipated construction impacts related to the construction along Sepulveda Pass for Alternative 1 include the possibility of increased noise, dust, and vibration during drilling of the aerial track footings. Excessive noise generated from the drilling and heavy equipment operation would significantly disturb nesting avian species. Vibration related disturbance could also disrupt their normal behavioral patterns. Construction-related dust would significantly impact habitat quality by depositing on vegetation, which may reduce photosynthesis and increase leaf temperature, making vegetation more susceptible to drought (Farmer, 1993). Evaluation of the Project's impact on wildfire risk and occurrence is discussed in the wildfire chapter of the *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Metro, 2025o).

Vegetation Communities/Land Cover Types and Sensitive Vegetation Communities

Direct impacts to vegetation communities would occur within the Ground Disturbance Area; acreages of temporary and permanent impacts to vegetation communities within Alternative 1 are detailed in Table 5-13. Due to the sparse vegetation, lack of diversity, and continued anthropogenic disturbance, special-status species are less likely to be found in land cover types developed, cleared land, and ruderal vegetation. Excluding these areas, construction of Alternative 1 is anticipated to result in 41 acres of temporary impacts and 9.3 acres of permanent impacts. Approximately 97 percent (442.4 acres) of the acreage in Alternative 1 planned for ground disturbing activities consists of developed, undifferentiated artificial cuts/embankments, cleared land, or ruderal areas. Within the vegetated areas subject to impacts, less than 1 percent (1.9 acres) is undifferentiated exotic vegetation. The remaining vegetation communities are native vegetation across nine communities. These represent approximately 3 percent (12.8 acres) of the impacted area, of which 4.0 acres are anticipated to be permanently impacted and 8.9 acres are anticipated to be temporarily impacted from construction of Alternative 1. Indirect impacts to vegetation communities may also occur during construction activities. For example, fugitive dust deposition on foliage may reduce photosynthesis and increase plant vulnerability to drought. Additionally, vegetation removals may increase edge effects, including incursion of nonnative, weedy plants that compete with natives for space and resources.

Approximately 0.7 acre of identified sensitive vegetation communities California walnut woodland and sugar bush scrubland would be permanently and temporarily impacted by clearing and grading for I-405 highway improvements along Briarwood Drive, as well as construction of the Getty Center MRT Station and adjacent drainage improvements. An additional five vegetation communities have the potential to be considered sensitive (denoted with ** in Table 5-13) depending upon the associated codominant plant species present (as described in the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* [Metro, 2025k]). Up to an additional 3.2 acres of potentially sensitive vegetation communities are also within the Alternative 1 RSA along I-405; Metro is conservatively considering impacts to these communities to be significant pending further analysis and refinement of vegetating mapping.

The removal and degradation of native and sensitive vegetation communities would constitute potentially significant impacts.

Table 5-13. Alternative 1: Impacts on Land Cover Types and Vegetation Communities

Vegetation Community/Land Cover Type [a]	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Project Impacts (acres) [b]	Percent of Total Project Impacts
Developed	135.6	268.7	404.4	88.4
Ruderal	1.6	1.4	2.9	0.6
Cleared Land	0	0.1	0.1	<0.1
Developed, Ruderal, Cleared Land Total	**137.2**	**270.1**	**407.3**	**89.0**
Post Fire Shrub Regeneration and Undifferentiated Categories including Artificial Cuts/Embankments and Exotic Vegetation	5.3	32.0	37.4	8.2
Ceanothus Chaparral	2.4	5.7	8.1	1.8
Laurel Sumac Shrubland**	0.6	1.3	1.9	0.4
Mexican Elderberry Shrubland	0.6	0.3	0.9	0.2
California Sycamore Woodland**	0.1	0.6	0.7	0.2
Sugar Bush Shrubland*	0.2	0.2	0.4	0.1

Vegetation Community/Land Cover Type [a]	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Project Impacts (acres) [b]	Percent of Total Project Impacts
California Walnut Woodland*	0	0.3	0.3	0.1
Toyon Shrubland**	0	0.3	0.3	0.1
Black Sage Shrubland**	0.1	0.1	0.2	<0.1
California Sagebrush Shrubland**	0	0.1	0.1	<0.1
Total	**9.3**	**41.0**	**50.3**	**11.0**
GRAND TOTAL	**146.5**	**311.1**	**457.6**	**100.0**

Source: HTA, 2024

[a]Vegetation communities based on the classifications provided in *A Manual of California Vegetation*, 2nd Edition (Sawyer et al., 2009).

[b]Inconsistencies in calculations due to rounding.

*Sensitive vegetation community
** Potential sensitive vegetation community based on codominant species on-site.

Special-Status Invertebrates

One special-status invertebrate, Crotch's bumble bee, has potential to be present within the Alternative 1 RSA during construction activities. Despite having a relatively narrow range, they are known to occupy a wide variety of natural and disturbed habitat for nesting and foraging and could be present throughout the RSA in undeveloped areas where pavement is not present and the earth is not regularly maintained through grading, tilling or planting. Based on their broad range of suitable habitat and generalist foraging behavior, Crotch's bumble bee are likely to forage throughout the RSA where preferred flowering plants are present (e.g., native sage species [*Salvia* spp.], milkweeds [*Asclepias* spp.], and plants within the pea family [*Fabaceae*]) and nest where abandoned rodent burrows are present.

Individuals in occupied burrow nests or overwintering queens in surface soils would be crushed or trapped during construction if present within the Ground Disturbance Area. Additionally, foraging Individuals also would be injured or killed if they are foraging during vegetation clearing activities. This species would also be impacted through removal of nectar sources and nests in the Ground Disturbance Area resulting from construction of Alternative 1 features, including structural support beams for the guideway track, stations, I-405 widening, retaining wall reconstructions, and TPSS sites. Ground-disturbing impacts from grading and vegetation clearing throughout the RSA would likely result in loss of suitable habitat that would be used for nesting, breeding, shelter, and/or foraging for Crotch's bumble bee.

The loss of individual Crotch's bumble bees and suitable habitat for this species would constitute a significant impact.

Special-Status Reptiles

Three special-status reptiles known to occur and two have moderate potential to occur within the Alternative 1 RSA individuals of these species may be present during construction activities. Reptiles present during construction activities would be directly injured or killed due to collisions with vehicles and equipment or during vegetation clearing activities. Species that shelter in burrows or under debris would be entrapped and suffocate or be crushed during grading activities; buried nests would be similar crushed or destroyed. Additionally, if individuals become entrapped in open trenches or excavations during construction activities, special-status reptiles would be subject to injury or mortality due to dehydration, opportunistic predation, inability to properly thermoregulate, starvation, or other causes

associated with constrained movement. Indirect impacts would include disruption of normal feeding, basking, sheltering, and breeding behaviors due to avoidance of excessive noise and vibration, fugitive dust, and increased human presence. Normal movement patterns throughout a home range also may be disrupted temporarily by avoidance of areas adjacent to construction activities, or permanently by habitat structure modifications. During construction, special-status reptiles also may be subject to higher predation rates by opportunistic predators such as common ravens (*Corvus corax*), coyote, or skunk, that would be attracted to work areas if food debris is present.

Two of the species, southwestern pond turtle and two-striped garter snake, are most likely to occur near aquatic resources such as the ponds in the Sepulveda Basin and UCLA Mathias Botanical Garden. Based on habitat requirements, the remaining three are most likely to be found in the Sepulveda Pass and Santa Monica Mountains. Individuals would be found in or proximate to work areas along I-405 in the Santa Monica Mountains. Roadway realignment along I-405 between Sunset Boulevard and Mulholland Drive would involve clearing and grading of native vegetation adjacent to the freeway. The clearing of vegetation in the Sepulveda Pass would likely result in injury or mortality of individuals, disruptions of natural behaviors, and loss of suitable habitat that would be used for nesting, breeding, shelter, and/or foraging for the following five special-status reptiles:

- Southwestern pond turtle (*Actinemys pallida,* federal candidate for listing)
- Southern California legless lizard (*Anniella stebbinsi*, SSC)
- Coastal whiptail (*Aspidoscelis tigris stejnegeri*, SSC)
- Coast horned lizard (*Phrynosoma blainvillii*, SSC)
- Two-striped garter snake (*Thamnophis hammondii*, SSC)

The loss of individuals and suitable habitat for these special-status species would constitute a significant impact.

Special-Status Birds

Four special-status bird species were identified as likely to be present and five have high potential to occur within the Alternative 1 RSA. Based on habitat requirements for these nine species, special-status birds are likely to be found throughout the RSA in transit, resting, and/or foraging from the Los Angeles National Cemetery in the south to the Sepulveda Basin in the north. Birds in transit are unlikely to be affected by construction activities; adults are highly mobile and can be expected to relocate away from construction activities of their own volition. However, migratory individuals may experience temporary or permanent loss of transitory habitat. If overwintering burrowing owls are present, individuals would be entrapped and suffocate or be crushed if burrows are present in the work areas during grading and vegetation removal. Additionally, grading could result in loss of suitable wintering burrows for migratory burrowing owls. If native birds breeding within or adjacent to work areas, nests, eggs, and nestlings would be vulnerable to destruction, injury, or mortality if special-status birds are present during vegetation clearing and other construction activities. Ground nests may be vulnerable to crushing, trampling, or destruction by pedestrians and vehicles. Nests in adjacent areas also may be exposed to noise, fugitive dust, human presence, and vibration that could disrupt natural breeding behaviors including incubation of eggs and care and feeding of young; these disruptions could result in failure of a nest to successfully produce young. Excessive disruption, or substantial changes in habitat during the nesting period, could also result in abandonment of nest sites, eggs, or young. Further, impacts associated with clearing and grading of vegetation adjacent to I-405 would likely result in loss of suitable habitat that would be used for nesting, breeding, sheltering, and/or foraging for the following nine special-status species and nesting birds protected under the MBTA:

- Tricolored blackbird (*Agelaius tricolor*, state threatened and SSC)
- Burrowing owl (*Athene cunicularia*, state candidate and SSC)
- Swainson's hawk (*Buteo swainsoni*, state threatened)
- Northern harrier (*Circus hudsonius*, SSC)
- Olive-sided flycatcher (*Contopus cooperi*, SSC)
- Bald eagle (*Haliaeetus leucocephalus*, state endangered and fully protected)
- Loggerhead shrike (*Lanius ludovicianus*, SSC)
- Vermilion flycatcher (*Pyrocephalus obscurus*, SSC)
- Least Bell's vireo (*Vireo bellii pusillus*, FE and SE)

The loss of nests, eggs, or nestlings, impacts to natural breeding behaviors, eviction from wintering burrows, and loss of suitable habitat for these special-status species would constitute a significant impact.

Special-Status Mammals

Three special-status mammals were identified as present and one has high potential to occur within the Alternative 1 RSA, including mountain lion, silver-haired bat, and hoary bat. Mountain lions are known to occur within the Santa Monica Mountains, while the silver-haired and hoary bat have broader habitat requirements and have potential to forage in both natural and developed habitats. Within the Sepulveda Pass and Santa Monica Mountains, special-status mammals would occur in or proximate to work areas along I-405. Impacts from roadway realignment along I-405 into existing hillsides between Sunset Boulevard and Mulholland Drive would include clearing and grading of native vegetation adjacent to the freeway.

Within the developed northern and southern ends of the projects, special-status bats would be present in ornamental street trees or on existing infrastructure, such as bridges and buildings. Individuals may be subject to injury or mortality if special-status bats are present as roosting adults during vegetation clearing activities. Roosting adults also may be disturbed by construction-related noise and vibration, causing them to flee roosts during daylight hours. Maternal roosts would also be vulnerable to injury or mortality if present, as pups are unable to take flight and would be likely to be killed if present. Suitable foraging, sheltering, and roosting habitats have potential to be removed during vegetation clearing and grading, or temporarily impacts by construction noise, fugitive dust, and increased human presence. Nighttime construction lighting also may impact foraging habitat by attracting prey species, which may attract some bat species and repel others.

Individual larger mammals, including mountain lions, are unlikely to be directly impacted by construction activities as they are highly mobile and can be anticipated to relocate away from work areas of their own volition. Individuals are not likely to be vulnerable to collisions with slower moving construction equipment and vehicles. However, natural foraging, sheltering, and breeding behaviors may be disrupted by construction activities, both temporarily through avoidance of areas with construction-related noise, human presence, vibration, and fugitive dust, and permanently through changes in habitat due to vegetation clearing and grading.

The clearing of vegetation in the Sepulveda Pass and along city streets and demolition of structures with suitable roosts would likely result in loss of suitable habitat that would be used for roosting, breeding, shelter, and/or foraging for the following three special-status mammals:

- Mountain lion (*Puma concolor*; state candidate for listing)
- Silver-haired bat (*Lasionycteris noctivagans*; WBWG Medium priority)

- Hoary bat (*Lasiurus cinereus*; WBWG Medium priority)

Specifically for mountain lions, Alternative 1 is not expected to result in significant impacts to suitable habitat due to the small size and linear nature of the clearing and grading activities in comparison to the species' large home range size. However, the construction of Alternative 1, specifically the widening of I-405 between Sunset Boulevard and Mulholland Drive, has the potential to result in a significant impact to mountain lion movement and usage of wildlife corridors. Impacts to mountain lion movement and usage of wildlife corridors are further discussed in DEIR *Section 3.3.5.4, Biological Resources*.

The loss of suitable habitat for silver-haired bats and hoary bats would constitute a significant impact.

Special-Status Plants

Five special-status plant species were identified with medium or high potential to occur within the Alternative 1 RSA; none were present. Based on habitat requirements, these five species are most likely to occur in chaparral and/or coastal sage scrub which occurs on the Project in the Sepulveda Pass and would be in or proximate to work areas along I-405 in the Santa Monica Mountains. Impacts from roadway realignment along I-405 into existing hillsides between Sunset Boulevard and Mulholland Drive would include clearing and grading of native vegetation adjacent to the freeway. Clearing and grading of vegetation would also be required for construction of the structural support beams for the guideway track, staging yards, TPSSs, and aerial MRT stations; although vegetation to be impacted is largely non-native and/or ornamental landscaping, native vegetation is also present. If individuals are present during clearing and grading activities, special-status plants would be subject to trampling, crushing, and removal. Individuals present in adjacent areas may be exposed to fugitive dust, which can settle on vegetation and interrupt natural photosynthesis. Following vegetation clearing, adjacent areas also may be subject to edge effects including higher exposure to sun, dust, and wind, and incursion by nonnative, weedy species, which can increase competition for space and resources and decrease habitat value for special-status plants.

The clearing of vegetation in the Sepulveda Pass would likely result in loss of suitable habitat for the following special-status plant species:

- Braunton's milk-vetch (*Astragalus brauntonii*, federally endangered, CRPR 1B.1)
- Slender mariposa lily (*Calochortus clavatus* var. *gracilis*, CRPR 1B.2)
- Davidson's bushmallow (*Malacothamnus davidsonii*, CRPR 1B.2)
- Chaparral nolina (*Nolina cismontana*, CRPR 1B.2)
- Nuttall's scrub oak (*Quercus dumosa*, CRPR 1B.1)

Further detail on each species' potential to occur in the Alternative 1 RSA is provided in the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k).

The loss of individuals or suitable habitat for these special-status plants would constitute a significant impact.

Mitigation Measures

Mitigation measures would be implemented to reduce construction-related impacts to special-status plant and wildlife species and their habitats to less than significant through establishment of survey and monitoring requirements (MM BIO-4 through MM BIO-9, MM BIO-17, MM BIO-29); monitoring of bird nests and determination if no-disturbance buffers require adjustments (such as due to noise from construction activities) (MM BIO-4); education and training of personnel about Project 's biological concerns and requirements (MM BIO-18); establishment and demarcation of Environmentally Sensitive

Areas (MM BIO-16); and creation of a habitat restoration plan (MM BIO-9). General construction measures to protect special-status species include protection from wildfire (MM BIO-19), domestic pets (MM BIO-20), impacts from night lighting (MM BIO-22), invasive plants (MM BIO-23), dust (MM BIO-24), vehicular collisions (MM BIO-25), entrapment (MM BIO-26), and construction-related trash (MM BIO-27).

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design for Alternative 1 would be on developed property currently occupied by the LADWP facility, located east of the Van Nuys Metrolink Station and directly south of the LOSSAN rail corridor; no habitat modifications or removal would be required for the construction of the MSF. No impacts to special-status plant species would result from the construction of the MSF since suitable habitat is not present. Roosting bats and MBTA-protected nesting birds do have potential to be impacted during construction of the MSF Base Design if ornamental trees and/or shrubs located within the Ground Disturbance Area of the MSF Base Design are trimmed or removed; this would be a potential significant impact. Impacts may include disruption of natural breeding and sheltering behaviors; injury or morality to bat pups; destruction, injury, or mortality of nests, eggs, nestlings, and individuals; loss of roosting and breeding habitat; and temporary impacts to roosting sites and nesting sites in adjacent areas due to noise, vibration, and human presence. MM BIO-4 and MM BIO-5, included in Section 5.2.4.7, are specified to reduce construction-related impacts related to vegetation removal to nesting birds and special-status bats to less than significant by requiring pre-activity surveys for nesting birds and roosting bats during the relevant seasons, and implementing no-disturbance buffers as relevant.

MSF Design Option 1

The MSF Design Option 1 for Alternative 1 would be located on developed property abutting Orion Avenue, south of the LOSSAN rail corridor; no habitat modification or removal would be required for the construction of the MSF Design Option 1. No impacts to special-status plant species would result from the construction of the MSF Design Option 1 since suitable habitat is not present. Roosting bats and MBTA-protected nesting birds have potential to be impacted during construction of the MSF if ornamental trees and/or shrubs located within the Ground Disturbance Area of the MSF are trimmed or removed. This would be a potential significant impact. Impacts may include disruption of natural breeding and sheltering behaviors; injury or morality to bat pups; destruction, injury, or mortality of nests, eggs, nestlings, and individuals; loss of roosting and breeding habitat; and temporary impacts to roosting sites and nesting sites in adjacent areas due to noise, vibration, and human presence. MM BIO-4 and MM BIO-5, included in Section 5.2.4.7, are specified to reduce construction-related impacts to nesting birds and special-status bats from vegetation trimming or removal to less than significant.

Electric Bus MSF

The Electric Bus MSF for Alternative 1 would be located on developed property on the corner of Pico Boulevard and Cotner Avenue; no habitat modifications or removal would be required for the construction of the Electric Bus MSF. No impacts on special-status plant species would result from the construction of the Electric Bus MSF since suitable habitat is not present. Roosting bats and MBTA-protected nesting birds have potential to be impacted during construction of the MSF if ornamental trees and/or shrubs located within the Ground Disturbance Area of the MSF are trimmed or removed; this would potentially be a significant impact. Impacts may include disruption of natural breeding and sheltering behaviors; injury or morality to bat pups; destruction, injury, or mortality of nests, eggs, nestlings, and individuals; loss of roosting and breeding habitat; and temporary impacts to roosting sites

and nesting sites in adjacent areas due to noise, vibration, and human presence. MM BIO-4 and MM BIO-5, included in Section 5.2.4.7, are specified to reduce construction-related impacts to nesting birds and special-status bats from vegetation trimming or removal to less than significant.

5.2.4.2 Impact BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

No riparian habitat occurs within the Ground Disturbance Area; 1.1 acres of undifferentiated riparian habitat located in the RSA along Haskell Creek in the northeastern corner of Sepulveda Basin in the 500-foot buffer. No impacts from construction to this riparian habitat are anticipated since construction activities would be on the east side of I-405, over 300 feet away from the riparian habitat on the west side of I-405.

Sensitive natural vegetation communities (California walnut woodland and sugar bush shrubland) are known to occur within the Ground Disturbance Area along the Sepulveda Pass in the Santa Monica Mountains; 0.7 acre of these communities are present within the Alternative 1 Ground Disturbance Area. Construction activities adjacent to these locations are associated with aerial guideway construction in the Santa Monica Mountains, specifically I-405 widening and construction of the Getty Center MRT Station and drainage improvements next to the station. Installation of the structural support columns would occur along the aerial alignment next to the sensitive vegetation communities. Within freeway-widening work zones, retaining walls, drainage, and outer pavement widenings would be constructed, which would require clearing and grading of native habitat. The five potentially sensitive vegetation communities occur along I-405 through the Santa Monica Mountains, with 3.2 acres present within the Alternative 1 Ground Disturbance Area. Clearing of vegetation for construction activities in this area would likely result in loss of sensitive natural communities within the Ground Disturbance Area of the Alternative 1 RSA. Vehicle tires on equipment used for construction of Alternative 1 have potential to transport invasive plant seeds into native habitat during clearing and grading. An additional risk to sensitive natural community would exist from elevated levels of particulate matter from tires. Dust deposition on vegetation from active construction and particulate matter from tires that can disrupt photosynthesis and other processes critical for plant survival.

Alternative 1 would result in significant impacts to sensitive natural communities from construction activities, including permanent vegetation removal activities associated with the construction for Alternative 1. MM BIO-10, MM-BIO 16 through MM BIO-18, and MM BIO-23 through MM BIO-25, described in Section 5.2.4.7, are included to reduce construction-related impacts to sensitive natural communities to less than significant through establishment of Environmentally Sensitive Areas, biological monitoring of work within these communities, environmental training to Project workers, protection from invasive weeds and protection from dust from speeding or other sources.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design for Alternative 1 would be located on land currently occupied by the LADWP facility located east of the Van Nuys Metrolink Station and directly south of the LOSSAN rail corridor. There are no riparian habitat or sensitive natural communities present within the Ground Disturbance Area or the 500-foot buffer of the MSF Base Design. No impacts to riparian habitat or sensitive natural communities are expected from the construction of the MSF Base Design.

MSF Design Option 1

The MSF Design Option 1 for Alternative 1 would be located on industrial property abutting Orion Avenue, south of the LOSSAN rail corridor. No riparian habitats or sensitive natural communities are present within the Ground Disturbance Area or the 500-foot buffer of the MSF Design Option 1. No impacts to riparian habitat or sensitive natural communities are expected from the construction of the MSF Design Option 1.

Electric Bus MSF

The Electric Bus MSF for Alternative 1 would be located on developed property near the southern end of the Alternative 1 RSA on the corner of Pico Boulevard and Cotner Avenue. No riparian habitat or sensitive natural communities are present within the Ground Disturbance Area or the 500-foot buffer of the Electric Bus MSF. No impacts to riparian habitat or sensitive natural communities are expected from the operation or construction of the Electric Bus MSF.

5.2.4.3 Impact BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The Los Angeles River is concrete-lined and devoid of riparian or herbaceous wetland vegetation where Alternative 1 traverses above the river; no wetlands are associated with the river at this location. There are no state or federally protected wetlands that occur within the Ground Disturbance Area for Alternative 1; consequently, no impacts to protected wetlands are anticipated from construction of Alternative 1.

The Los Angeles River is considered WOTUS under the jurisdiction of the USACE, RWQCB and CDFW within the Alternative 1 Ground Disturbance Area. A total of 0.11 acres of non-wetland waters is associated with the Los Angeles River within the Alternative 1 Ground Disturbance Area. Construction activities would occur outside of jurisdictional areas associated with the Los Angeles River; therefore, no direct impacts to the Los Angeles River are anticipated during construction.

Additionally, there is one unnamed ephemeral channel, including 164 linear feet of non-wetland waters, under the jurisdiction of the RWQCB and CDFW present within the Alternative 1 Ground Disturbance Area. This includes temporary impacts to 0.02 acres of Waters of the State under the jurisdiction of RWQCB and 0.03 acre of CDFW-jurisdictional streambed. Construction-related impacts to these features would include temporary filling of, or sedimentation or erosion into the waterways, or disturbance of the bank or bed during construction activities. This would be a potentially significant impact to aquatic resources.

Impacts to aquatic resources would be avoided, minimized, and mitigated for through implementation of MM BIO-15, MM BIO-18, and MM BIO-21, which require monitoring of aquatic features during work near jurisdictional waters, work area delineation, BMP implementation to protect against sedimentation, worker education on sensitive aquatic resources, and avoidance of work near jurisdictional waters during and following rain events.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design for Alternative 1 would be on developed property currently occupied by the LADWP facility located east of the Van Nuys Metrolink Station and directly south of the LOSSAN rail corridor. Since there are no wetlands or non-wetland waters present within the Ground Disturbance Area of the MSF Base Design, no impacts to protected wetlands or jurisdictional waters are expected from the construction of the MSF Base Design.

MSF Design Option 1

The MSF Design Option 1 for Alternative 1 would be developed property abutting Orion Avenue located south of the LOSSAN rail corridor. Since no wetlands or non-wetland waters are present within the Ground Disturbance Area of the MSF Design Option 1, no impacts to protected wetlands or jurisdictional waters are expected from the construction of the MSF Design Option 1.

Electric Bus MSF

The Electric Bus MSF for Alternative 1 would be located on developed property on the corner of Pico Boulevard and Cotner Avenue. No wetlands or non-wetland waters are present within the Ground Disturbance Area of the Electric Bus MSF. No impacts to protected wetlands or jurisdictional waters are expected from the construction of the Electric Bus MSF.

5.2.4.4 Impact BIO-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Native Resident or Migratory Fish

There are no native resident or migratory fish with established native resident corridors or migration routes present within the Alternative 1 RSA. Thus, no construction-related impacts to the movement of resident or migratory fish is anticipated for Alternative 1.

Native Resident or Migratory Wildlife

Mountain lion movement is already dramatically impacted within the Alternative 1 RSA due to I-405; construction activities associated with Alternative 1 would temporarily further hinder movement in the Santa Monica Mountains.

The Ground Disturbance Area of Alternative 1 along the Sepulveda Pass would include aerial guideway construction in the Santa Monica Mountains and the widening of I-405 at discrete locations through the Santa Monica Mountains. Within these freeway work zones, retaining walls construction, drainage improvements, and pavement expansion would be conducted for the I-405 widening. Construction of Alternative 1 would impact movement of mountain lions and other vertebrates across I-405 as a result of construction activities including equipment and lighting and prolonged human presence, thereby decreasing the potential of a successful crossing and increasing barriers to movement. This would be a significant impact. MM BIO-14, included in Section 5.2.4.7, is included to reduce construction-related impacts to the movement of native wildlife species, specifically mountain lions and other vertebrates, to less than significant through preconstruction surveys, protection of natal dens if located, limiting vegetation removal, vegetation restoration, and creation of a 5-year monitoring plan.

Local movement through corridors may be temporarily impacted due to construction noise, lights, anthropogenic presence, and air pollution. Although resident species are assumed to be exposed to, and therefore acclimated to, at least some level of existing disturbance associated with I-405 and other nearby development, an increase in disturbances related to project construction would further disrupt behavior patterns in an already urbanized environment. Urban-adapted wildlife may alter their pathways through the region based on construction. Impacts to migratory birds and bats from construction of Alternative 1 may occur due to equipment and lighting associated with nightwork. Bat species have differing reactions to light, with some being attracted and some repelled, but the insects they prey on are influenced by artificial lighting. If artificial lighting for nightwork is adjacent to roosting habitat, it can negatively affect the quality of the habitat. One special-status migratory bat species, the hoary bat, has moderate potential to occur within the Alternative 1 RSA during migratory flyover events. The Santa Monica Mountains provide habitat for the hoary bat for roosting and foraging resources during their migration from south to north, and vice-versa. Migratory special-status birds also have the potential to occur in the Alternative 1 RSA during construction of Alternative 1. Ground disturbance activities such as, removal of vegetation/habitat, drilling, excavating, pile driving, topsoil removal, grading, associated with the construction of Alternative 1, would therefore result in a potentially significant impact to migratory bat and migratory avian species.

MM BIO-4, MM BIO-5, MM BIO-7, and MM BIO-14, included in Section 5.2.4.7, are recommended to reduce construction-related impacts to migratory species to less than significant through protection to nesting birds, special-status bats, least Bell's vireo, and wildlife movement corridors.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design for Alternative 1 would be on developed property currently occupied by the LADWP facility located east of the Van Nuys Metrolink Station and directly south of the LOSSAN rail corridor. Since there is no open habitat, waterways, or native vegetation present no impacts to the movement of native resident or migratory fish or wildlife would be expected from the operation or construction of the MSF Base Design.

MSF Design Option 1

The MSF Design Option 1 for Alternative 1 would be located on developed property abutting Orion Avenue, south of the LOSSAN rail corridor. Since there is no open habitat, waterways, or native vegetation present in MSF Design Option 1, no impacts to the movement of native resident or migratory fish or wildlife would be expected from the operation or construction of MSF Design Option 1.

Electric Bus MSF

The Electric Bus MSF for Alternative 1 would be located on developed property on the corner of Pico Boulevard and Cotner Avenue. Since there is no open habitat, waterways, or native vegetation present in the Electric Bus MSF, no impacts to the movement of native resident or migratory fish or wildlife would be expected from the operation or construction of the Electric Bus MSF.

5.2.4.5 Impact BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

For the purpose of this assessment, protected trees and shrubs that meet the size and species criteria and whose Tree Protection Zone (TPZ) (dripline or canopy) falls at least partially within the Tree Survey Area are presumed to require removal during construction.

Table 5-14 provides a summary of the protected trees and shrubs potentially affected by Alternative 1. A total of 3,282 protected trees and shrubs are mapped within the Alternative 1 Tree Survey Area. Of those, 246 are protected by the City of LA Ordinance, irrespective of land ownership, and require permits for alterations made to protected trees and shrubs during construction, including trimming and encroaching into the tree/shrub protection zone in any manner that would cause a protected tree or shrub to die, such as damaging the root system with compaction or injury and changing the grade around the trunk.

Table 5-14. Alternative 1: Ordinance-Protected Trees and Shrubs within Ground Disturbance Area

Jurisdiction	Scientific Name	Common Name	Quantity	Mitigation Amount (# replacement trees)
City of LA Protected Tree and Shrub Ordinance	*Heteromeles arbutifolia*	Toyon	55	220
	Juglans californica	Southern California black walnut	31	124
	Platanus racemosa	Western sycamore	24	104
	Quercus agrifolia	Coast live oak	109	436
	Quercus chrysolepis	Canyon live oak	3	12
	Quercus lobata	Valley oak	2	8
	Sambucus mexicana	Mexican elderberry	22	88
LA County Oak Tree Ordinance[a]	*Quercus agrifolia*	Coast live oak	3	6
	Quercus ilexa	Holly oak	1	2
TOTAL			**250**	**992**
Santa Monica Mountains National Recreation Area	6 native, 5 non-native, and 1 unknown tree species[b]		98	196 to 392[d]
City of Santa Monica Tree Code	Numerous native and non-native tree species[b]		—	—
Metro Tree Policy or City of Los Angeles Street Tree Policy	Numerous native and non-native tree species[b]		2,934	5,868 plus additional for heritage trees
GRAND TOTAL			**3,282**	**7,056 to 7,252 plus TBD and heritage trees**

Source: HTA, 2024

[a]Los Angeles County Oak Tree Ordinance states “any tree of the oak genus”; therefore, non-native oak species are included in this inventory and mitigation calculations.

[b]Full list of SMMNRA and Policy-protected trees listed in the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report (Metro, 2025k), Appendix B – Attachment 1, Tree Inventory Tables.

[c]SMMNRA and City of Santa Monica Tree Code mitigation amounts presumed to be within range of ordinances and policies within the area; final mitigation would be decided through coordination with appropriate entities.

[d]Mitigation amounts would be at discretion of City of Santa Monica.

*Mitigation amount describes the number of replacement trees required for mitigation as per applicable tree ordinance or policy.
SMMNRA = Santa Monica Mountains National Recreation Area
TBD = to be determined

Four individual oak trees are protected under the County Oak Tree Ordinance, since they occur on unincorporated County land within 200 feet of the Ground Disturbance Area; any modification to them would require a permit beforehand from the Director of Public Works. However, no impacts are anticipated to these four oak trees due to their distance from the Ground Disturbance Area (i.e., outside the 10-foot buffer but within the 200-foot buffer required by the County Oak Tree Ordinance).

The remaining 2,934 trees within the Tree Survey Area of Alternative 1 are protected under the Metro Tree Policy and LA Street Tree Policy. Within SMMNRA, 98 trees of 11 tree species and 1 unknown species are within the Tree Survey Area. Heritage or protected trees, as determined by local ordinances or policy, may be present within the Alternative 1 Tree Survey Area; impacts such as substantial trimming or removal of these heritage or protected trees would constitute a significant impact. Unless mitigated, the anticipated removal and alteration of protected trees and shrubs during construction of Alternative 1 would conflict with the City and County tree ordinances and with Metro and City tree policies. This is considered a significant impact. Refer to the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k), Appendix B – Attachment 1, Tree Inventory Tables for the full list of these recorded trees.

To address this impact, Alternative 1 would implement MM BIO-11, described in Section 5.2.4.7, which would require installation and maintenance of replacement trees or shrubs when impacts are unavoidable. With implementation of MM BIO-11, impacts associated with the removal of protected trees and shrubs during construction of Alternative 1 would be reduced to less than significant.

Maintenance and Storage Facilities

Trees present within any of the MSF locations associated with Alternative 1 are summarized below; they are policy-protected by either the LA Street Tree Policy or Metro Tree Policy. Permitting would be required for trees on the public ROW and covered by the LA Street Tree Policy. Tree impacts under the Metro Tree Policy would not require permits; instead, coordination and negotiation with landowners would be required to reconcile for tree removals. Mitigation amounts required for trees located in MSFs are included in Table 5-14.

MSF Base Design

The MSF Base Design is not within unincorporated County land, so the Los Angeles County General Plan and Sustainability Plan “OurCounty” are not applicable.

The MSF Base Design for Alternatives 1 would be on developed property currently occupied by the LADWP facility located east of the Van Nuys Metrolink/Amtrak Station and directly south of the LOSSAN rail corridor. Within the MSF Base Design, there are 32 ornamental trees, including Chinese elm (*Ulmus parvifolia*), jacaranda *(Jacaranda mimosifolia*), Canary Island pine (*Pinus canariensis*), and shamel ash (*Fraxinus uhdei*), among others. Since the MSF would be within Los Angeles Metro property lines, Metro is responsible for trees within the MSF; these trees are covered by the Metro Tree Policy.

Trees within the MSFs are anticipated to be removed during construction.

Tree removal at the MSF Base Design during construction would conflict with the Los Angeles Street Tree and Metro Tree Policies, which would constitute a significant impact. To address this impact, the MSF Base Design would implement MM BIO-11, described in Section 5.2.4.7, which would require the installation and maintenance of replacement trees or shrubs following requirements of the pertinent tree preservation policy or ordinance. With implementation of MM BIO-11, impacts associated with removal of protected trees and shrubs during construction of the MSF Base Design would be reduced to less than significant.

MSF Design Option 1

The MSF Design Option 1 is not within unincorporated County land, so the Los Angeles County General Plan and Sustainability Plan "OurCounty" are not applicable.

The MSF Design Option 1 for Alternative 1 would be located on developed property abutting Orion Avenue, south of the LOSSAN rail corridor. Within the MSF Design Option 1, there are 206 ornamental trees including carob (*Ceratonia siliqua*), eucalyptus (*Eucalyptus* spp.), sweetgum (*Liquidambar styraciflua*), cajeput (Melaleuca *spp*.), jacaranda, and assorted palm species among others. Since the MSF would be within Los Angeles Metro property lines, Metro is responsible for trees within the MSF. Tree removal at the MSF Design Option 1 during construction would conflict with the Los Angeles Street Tree and Metro Tree Policies, which would constitute a significant impact. To address the impact, the MSF Design Option 1 would implement MM BIO-11, described in Section 5.2.4.7, which would require the installation and maintenance of replacement trees or shrubs following requirements of the pertinent tree preservation policy or ordinance. With implementation of MM BIO-11, impacts associated with removal of protected trees and shrubs during construction of the MSF Design Option 1 would be reduced to less than significant.

Electric Bus MSF

The Electric Bus MSF is not within unincorporated County land, so the Los Angeles County General Plan and Sustainability Plan "OurCounty" are not applicable.

The Electric Bus MSF for Alternative 1 would be located on developed property on the corner of Pico Boulevard and Cotner Avenue near the southern end of the Alternative 1 RSA. This area has 15 ornamental trees including Brisbane box (*Lophostemon confertus*), crape myrtle (*Lagerstroemia* spp.), brush box (*Lophostemon confertus*) and queen palm trees (*Syagrus romanzoffiana***)**. Since the MSF would be within Los Angeles Metro property lines, Metro is responsible for trees within the MSF. Tree removal at the Electric Bus MSF during construction would conflict with the Los Angeles Street Tree and Metro Tree Policies, which would constitute a significant impact.

To address this impact, the Electric Bus MSF for Alternative 1 would implement MM BIO-11, described in Section 5.2.4.7, which would require the installation and maintenance of replacement trees or shrubs following requirements of the pertinent tree preservation policy or ordinance. With implementation of MM BIO-11, impacts associated with removal of protected trees and shrubs during construction of the Electric Bus MSF for Alternative 1 would be reduced to less than significant.

5.2.4.6 Impact BIO-6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

There are no adopted HCPs, NCCPs, or other approved regional, or state HCPs that occur within the Alternative 1 RSA. Therefore, no impacts to an adopted HCP, NCCP, or other state HCP would occur.

Maintenance and Storage Facilities

MSF Base Design

There are no adopted HCPs, NCCPs, or other approved regional, or state HCPs that occur within the Alternative 1 RSA. Therefore, no impacts to an adopted HCP, NCCP, or other state HCP would occur.

MSF Design Option 1

There are no adopted HCPs, NCCPs, or other approved regional, or state HCPs that occur within the Alternative 1 RSA. Therefore, no impacts would occur.

Electric Bus MSF

There are no adopted HCPs, NCCPs, or other approved regional, or state HCPs that occur within the Alternative 1 RSA. Therefore, no impacts to an adopted HCP, NCCP, or other state HCP would occur.

5.2.4.7 Mitigation Measures

Construction Impacts

MM BIO-4: ***Avoid and Minimize Construction-Related Impacts to Nesting Birds.*** *Vegetation clearance for construction of the Project shall occur outside of the nesting bird season (generally February 15 through September 15) to the extent feasible. If vegetation removal outside this time period is not feasible, the following additional measures shall be employed to avoid and minimize impacts to special-status bird species and nesting birds protected under the Migratory Bird Treaty Act and California Fish and Game Code:*

- *A preconstruction nesting bird survey of the work area (as defined by the Ground Disturbance Area, including staging and laydown yards) plus a 300-foot buffer shall be conducted by a Qualified Biologist within three days prior to the start of ground disturbing activities (including vegetation removal activities) to determine whether active nests (defined as nests with eggs or young) are present within or adjacent to (i.e., within 100 feet for non-special status songbirds, 300 feet for raptors and special-status species) the work zone. Any active nests found shall be recorded and a nest avoidance zone shall be established where no work shall occur. If project activities are delayed beyond 72 hours, a new nesting bird survey should be completed within 72 hours prior to the resumption of ground disturbing activities.*
- *Active bird nests for species protected by the Migratory Bird Treaty Act shall have a clearly demarcated (via flagging, fencing and/or signage) no-disturbance buffer established as follows: 300-foot radius buffer for raptors and special-status birds (see MM BIO-7 for additional least Bell's vireo measures) and 100-foot-radius buffer for non-raptor and non-special status avian nests. The Qualified Biologist can adjust buffer distances to increase or decrease the radius contingent on topography, existing noise levels, planned operational activities, species specific tolerances to disturbances such as noise and vibration from construction activities, and observations specific nesting pair tolerance to disturbances. Nest monitoring by the Qualified Biologist shall be required following buffer modifications to ensure new buffer is appropriate; adjustments can be made only following monitoring of nesting pair to determine if buffer is adequate to protect nest from construction impacts including from noise and vibrations. Installation of temporary noise barriers between the work area and nest can also be evaluated, if installation can occur in a manner to not disturb the nesting pair based on the Qualified Biologist's recommendation. If a Qualified Biologist determines work activities may result in nest failure, project work shall cease*

within the recommended no-disturbance buffer until a Qualified Biologist determines nest status. Additional follow-up surveys shall be conducted as necessary to determine nest status. Once the nest is determined to be fledged or no longer active, the buffer shall be removed.

- *A Qualified Biologist shall inform maintenance personnel of any active nests, facilitate avoidance measures, and verify operational activities do not cause disturbance. Maintenance personnel shall be updated on nest status and when avoidance buffers are no longer necessary.*
- *A Qualified Biologist shall monitor each nest on a biweekly basis and project activities shall not occur within the buffer until a Qualified Biologist determines the nest is no longer active (either by fledging or failing naturally). If a nest is adjacent to an access road where no project activities are being conducted, vehicles can drive past the nest without stopping or parking. Signage stating no stopping of idling vehicles will be posted (facing outwards from the buffer) at the start and end of the nest buffer where it crosses the road.*
- *A Qualified Biologist can determine a nest to be inactive (defined as eggs and young no longer present or reliant on the nest site, including fledged young that still depend upon the nest), following no observations of activity at the nest location for 1 hour for non-raptor avian nests and 4 hours for raptors.*
- *A summary of nesting bird surveys, monitoring efforts, and any no-disturbance buffers that were installed shall be documented by the biologist at the conclusion of each nesting season and submitted to Metro. In the event that an active bird nest identified is associated with a special-status species afforded protection under the California Endangered Species Act or the federal Endangered Species Act, then the appropriate agency will be immediately informed, and additional coordination will occur, as needed.*

MM BIO-5: ***Avoid and Minimize Construction-Related Impacts to Roosting Special-Status Bat Species.*** *To reduce impacts on roosting bats resulting from construction activities, the following shall be implemented:*

- *A bat habitat assessment will be conducted during the bat maternity season (generally April 15 through August 31 for southern California, yearly timing dependent on weather conditions) at least one year prior to construction. A Qualified Bat Biologist will conduct surveys to determine the presence of bat roosting or maternity habitat within suitable areas where vegetation trimming, tree removal, bridge repair activities, structure demolition, or other construction-related activities may occur and bats may be present. A visual inspection and/or one-night emergence survey of potential bat habitat that may be impacted by activities shall be completed utilizing acoustic recognition technology to determine if any maternity roosts are present. Results from this survey will be used to create a Bat Habitat Mitigation and Monitoring Plan (BHMMP) by a Qualified Bat Biologist which will include site-specific minimization and avoidance measures for operations and construction of the Project that will include but not be limited to establishment of no-disturbance buffers, monitoring of roosting bats to ensure tolerance to disturbances such as noise and vibration from Project*

activities, mitigation for habitat impacts, and humane eviction or exclusion. If monitoring indicates established no-disturbance buffer is not adequate to prevent disturbances to roosting bats, a Qualified Bat Biologist can adjust as needed.

- *Flight pathways, i.e., line of flight into and out of the roost, shall be maintained during maintenance Project work. Modifications to ingress and egress routes are not allowed including but not limited to obstacles presented from construction equipment use and staging, location and type of lighting or reconfiguration of staged materials (vehicles, equipment, etc.) at night relative to roosting locations.*
- *If swallow nests need to be removed during construction, removal should occur in the fall (September 1 to October 31 or based on local expert bat biologist input as long as it is outside of bat maternity or hibernation season), preferably at night. Nests should be inspected for occupancy by a Qualified Bat Biologist and if empty, removed. If a bat is present, if feasible a small portion of the nest can be carefully removed to make the nest a less suitable for roosting. The following night, if the nest is empty, it can be removed entirely. If not, another small portion can be removed if feasible. If removal is not feasible or bats are still present, consultation with CDFW may be appropriate.*
- *Trees or structures to be removed as part of the Project shall be evaluated for their potential to support bat roosts. An experienced bat biologist shall conduct a one-night emergence survey during acceptable weather conditions, before the start of removal. The following measures shall apply to trees or structures to be removed that provide potential bat roost habitat; these shall be implemented by a Qualified Bat Biologist.*
  - *If roosting bats are determined present in a tree or on a structure during the maternity season (April 15 through August 31), the tree/structure shall be avoided until after the maternity season when young are self-sufficient. If other trees/structures in the immediate vicinity are slated for removal, or other work will occur in the immediate vicinity that might disturb roosting bat, a no-work buffer may be needed.*
  - *If roosting bats are determined to be present during the winter months when bats are in torpor (i.e., a state in which the bats have significantly lowered their physiological state that occurs generally October 31 through February 15), and if conditions permit, a Qualified Bat Biologist shall physically examine the roost for the presence or absence of bats before the start of project activities; equipment such as an electric lift may be utilized to conduct the inspection. If the roost is determined to be occupied during this time, the tree or structure shall be avoided until after the winter season when bats are once again active.*
- *Trees or structures with potential colonial bat habitat can be removed outside of the maternity season and winter season (generally February 16 through April 14 and September 1 through October 30, or as determined by a Qualified Bat Biologist) using a two-step process that occurs over two consecutive days.*

  - *Day 1, Step 1: Under the supervision of a Qualified Bat Biologist, tree branches and limbs with no cavities shall be removed by hand (e.g., using handsaws) or smaller components of the structure should begin to be removed by hand (e.g., hammer, screwdriver). The associated vibrational and noise disturbance and physical alteration of the tree/structure shall likely cause bats roosting to either abandon the roost immediately or avoid returning to the roost after emergence.*
  - *Day 2, Step 2: Removal of the remainder of the tree or structure can occur the following day under the supervision of a Qualified Bat Biologist.*

- *Trees that are only to be trimmed and not removed shall also require a two-step process with these deviations from the removal process explained above: if a branch with a potential roost must be removed, all surrounding branches shall be trimmed on Day 1 under supervision of a Qualified Bat Biologist and then the limb with the potential roost shall be removed on Day 2.*
- *The results of bat surveys, evaluations, and monitoring efforts that are undertaken shall be documented in a report by the biologist and provided to CDFW in electronic format at the conclusion of all bat-related mitigation activities.*

MM BIO-6: ***Avoid and Minimize Construction-Related Impacts to Crotch's Bumble Bee.*** *To reduce impacts on Crotch's bumble bee from construction activities, the following shall be implemented:*

- *A pre-construction habitat assessment for Crotch's bumble bee shall be conducted by a Qualified Biologist within the Ground Disturbance Area and a surrounding 100-foot buffer to demarcate potentially suitable nesting and foraging habitat.*
- *Nesting surveys and foraging surveys shall be conducted during the most active flight period and peak blooming period of nectar and pollen sources (generally April 1 through July 31). The survey shall be conducted between at least 1 hour after sunrise and at least 2 hours before sunset, with ambient air temperature between 60- and 90-degrees Fahrenheit. Surveys shall not be conducted during windy periods with speeds of over 10 mph, during fog or low visibility, or precipitation heavier than drizzling rain.*
- *Foraging surveys shall focus on areas of high abundance of nectar and pollen sources with meandering transects within these areas at a rate of no more than 2.5 acres per hour.*
- *Nesting surveys shall focus on areas with existing, abandoned, rodent burrows; the biologist shall focus on detecting potential Crotch's bumble bee nest within suitable habitat.*
- *If a nest is documented, a 50-foot "no-disturbance" buffer shall be established and clearly identified in the field for avoidance. Construction activities shall avoid the nest location and surrounding buffer until the nest has senesced.*

- *Results of all survey efforts will be summarized in writing and submitted to Metro for documentation. In the event species presence is confirmed and/or a nest is located, CDFW will be informed, and additional coordination will occur as needed.*

MM BIO-7: ***Avoid and Minimize Project-Related Impacts to Least Bell's Vireo.*** *To reduce impacts on least Bell's vireo from construction activities, the following shall be implemented:*

- *Prior to initiation of construction activities, the Project shall perform one full season of protocol surveys for least Bell's vireo in suitable habitat within 500 feet of construction activities following the accepted U.S. Fish and Wildlife Service protocol. Focused surveys shall be completed prior to construction initiation and results shall be used to inform a consultation process with the U.S. Fish and Wildlife Service for project permitting. Eight surveys shall be conducted between April 10 and July 31, with each survey spaced at least 10 days apart. Reduction in the prescribed number of individual surveys may be evaluated in accordance with the U.S. Fish and Wildlife Service protocol. Surveys shall be conducted between dawn and 11:00am and outside of periods of inclement weather (excessive heat or cold, high winds, rain, etc.). Surveys shall not be conducted concurrently with other surveys. Per the U.S. Fish and Wildlife Service protocol, surveyors shall not survey more than 3 linear kilometers or more than 50 hectares in one day.*
- *Following completion of protocol surveys, pre-construction presence/absence clearance surveys shall be required if construction is planned to begin within the nesting season. Clearance surveys shall be required within 500 feet of suitable habitat and must occur 3 or fewer days prior to start of activities. Presence/absence surveys shall be conducted by a Qualified Biologist familiar with species visually and aurally who is able to differentiate similar species. The Qualified Biologist shall not be required to have an Endangered Species Act Section 10(a) recovery permit covering this species since recorded vocalizations shall not be used to illicit responses and nest monitoring (i.e., locate and monitor the nest, including removal of brown-headed cowbird (Molothrus ater) eggs and chicks from parasitized nests) and handling of individual are not proposed.*
- *If protocol and pre-construction survey results are negative, construction activities can commence, and a Qualified Biologist shall conduct presence/absence surveys weekly during the breeding season while construction is occurring within 500 feet of suitable habitat. If least Bell's vireo are detected during a survey, a Qualified Biologist shall be required to monitor construction activities within 500 feet of suitable habitat until the end of the breeding season. If construction within 500 feet of suitable habitat is paused for more than 3 days, a new survey must be conducted to verify if least Bell's vireo are present.*

- *If an active nest is documented, a no-disturbance 300-foot radius buffer shall be established and clearly identified in the field. Construction activities shall avoid the nest location and buffer until a Qualified Biologist declares the nest inactive. A Qualified Biologist shall be required to monitor construction activities within 500 feet of suitable habitat every day work is occurring while the nest is active. Noise monitoring shall be required weekly on varying days for changes in construction-related noise levels from before the nest is active to after. Monitoring shall be to ensure noise levels remain at or below 60 A-weighted decibels (dBA) or to the ambient noise level if it already exceeds 60 dBA before construction at specified monitoring locations within 100 feet of the nest. The Qualified Biologist shall either conduct the noise monitoring or escort the noise monitor if they are not a Qualified Biologist.*
- *The results of the surveys shall be used to design project features and temporary work areas to avoid direct impacts to occupied habitat for listed riparian bird species. Results of all survey efforts shall be summarized in writing and submitted to Metro for documentation. In the event species presence is confirmed, the U.S. Fish and Wildlife Service shall be informed, and additional coordination will occur as needed and in compliance with Section 7 of the Endangered Species Act.*

MM BIO-8: ***Avoid and Minimize Construction-Related Impacts to Special-Status Reptiles.*** *To reduce Impacts on special-status reptiles from construction activities, the following shall be implemented:*

- *Prior to the start of vegetation removal, the Ground Disturbance Area shall be clearly fenced (usually with silt fencing) to delineate the extent of the construction area.*
- *Once fencing is in place, a Qualified Biologist shall conduct a pre-vegetation clearance sweep to look for and remove any special-status reptile species (e.g., coast horned lizard, two-striped garter snake, southwestern pond turtle, coastal whiptail, and southern California legless lizard) that may occur within the Ground Disturbance Area. If any special-status reptile species are detected within the Ground Disturbance Area, personnel shall allow the species to escape unimpeded if possible. Alternatively, the Qualified Biologist shall move the species outside of the fencing to the closest suitable habitat pending authorization from USFWS or CDFW, if required.*
- *Trash and food items will be contained in closed containers and removed daily to reduce the attraction of opportunistic predators such as common ravens, coyotes, and feral cats and dogs that may prey on sensitive species.*
- *Any observations of special-status reptiles will be summarized in writing and submitted to Metro. In the event that an observed special-status species is afforded protection under CESA or ESA, then the appropriate agency will be immediately informed and additional coordination will occur, as needed.*

MM BIO-9: ***Avoid and Minimize Construction-Related Impacts to Special-Status Plants.*** *Impacts to special-status plants shall be avoided, minimized and/or mitigated through incorporation of the following:*

- *Prior to any Project activities that may modify vegetation, focused rare plant surveys shall be conducted following California Department of Fish and Wildlife protocols. Focused surveys shall occur during optimal blooming periods for special-status species likely to occur, which typically results in multiple visits within one growing season (e.g., early, mid- and late-season surveys). In the event species presence is confirmed, the U.S. Fish and Wildlife Service shall be informed, and additional coordination will occur as needed and in compliance with Section 7 of the Endangered Species Act.*
- *If focused rare plant data is more than 1 year old at commencement of construction, pre-construction surveys during the optimal blooming periods shall occur to demarcate special-status plant populations for avoidance (where feasible). The results of the focused surveys shall be used to design project features and temporary work areas to avoid direct impacts to federally and state-listed plant species.*
- *Any observations of special-status plants will be summarized in writing and submitted to Metro. In the event that an observed special-status species is afforded protection under CESA or ESA, then the appropriate agency will be immediately informed and additional coordination will occur, as needed. When impacts to special-status plants are unavoidable, mitigation would be required and would be implemented by the Project consistent with a Mitigation Monitoring and Reporting Program, as required under California Environmental Quality Act. Furthermore, the Project shall prepare a Habitat Restoration Plan to meet the conditions stated in the Project's Mitigation Monitoring and Reporting Program. Mitigation may include restoring impacted areas through seeding, plantings, and weed abatement if project activities result in non-native species within the Ground Disturbance Area that were not present before activities began, as described below:*
  - *If feasible, special-status plant species observed during focused surveys within or adjacent to the Ground Disturbance Area that can be transplanted, such as the slender mariposa lily (Calochortus clavatus var. gracilis), may be dug up from the Ground Disturbance Area before work begins, stored in an appropriate manner depending on species, and replanted within the Ground Disturbance Area close to its original location at project conclusion.*
  - *When the location of special-status plant population is at risk from human access not related to the Project, fencing or staking may be installed to reduce or eliminate public access once construction is completed.*
  - *If proposed repair and restoration efforts are not feasible or adequate to mitigate for impacted plants, additional options shall be explored, including off-site compensation, such as mitigation banking or permanent protection of an existing off-site native or introduced population. This option would*

require determination of appropriateness and approval from appropriate agencies to be enacted.

MM BIO-10: ***Avoid and Minimize Construction-Related Impacts to Sensitive Vegetation Communities.*** *Impacts to sensitive vegetation communities shall be avoided, minimized, and/or mitigated as follows:*

- *The Project shall minimize impacts to sensitive vegetation communities California walnut woodland and sugar bush shrubland (and any other communities determined to be state ranked S1 to S3 by California Department of Fish and Wildlife following mapping refinement) by planning for impacts to occur in previously disturbed areas when feasible.*
- *Impacts to any natural vegetation communities designated sensitive, such as California walnut woodland and sugar bush shrubland, shall be reduced by attempting to trim vegetation instead of removing entire trees and shrubs where feasible. Where warranted, removal will be implemented such as when trimming to provide necessary clearance for the Project to be constructed and operate safely would result in permanent damage or adversely affect plant health and result in death.*
- *When feasible, temporary impact areas shall have vegetation trimmed and rootballs left intact to enable revegetation once construction is complete.*
- *In conjunction with appropriate entities with jurisdiction (i.e., Caltrans for their ROW, Santa Monica Mountains Conservancy for SMMNRA), Metro shall design and develop a 5-year restoration plan which shall include monitoring, irrigation, and native plantings/seedings to native vegetation communities that are disturbed by construction activities. If feasible, native species that can be transplanted, such as succulents, bulb species, and cactus, may be moved from the Ground Disturbance Area before work begins, stored in an appropriate manner depending on species, and replanted within the Ground Disturbance Area close to its original location at project conclusion as part of the restoration efforts. Preconstruction assessment of sensitive vegetation communities will be conducted to collect comprehensive species list, community structure data, cover assessments for native, nonnative annual, and nonnative perennial plants, and preconstruction photos for permanent photo points. Success standards to indicate restoration is complete will include native cover restored to or exceeding preconstruction conditions by the end of the five-year period, along with nonnative annual cover of 10 percent or less. Nonnative perennials shall not be present within the restoration site. If the cover success standards are not met by year five, additional measures such as replanting, remedial seeding, supplemental watering shall be considered. The monitoring period shall extend until success criteria are met.*

MM BIO-11: ***Avoid and Minimize Construction-Related Impacts to Protected Trees and Shrubs (Applicable to Alternatives 1 and 3).*** *Impacts to protected trees and shrubs shall be avoided, minimized, and/or mitigated by incorporation of the following:*

- *A Tree Expert, as defined in the City of Los Angeles Protected Tree and Shrub Ordinance, shall utilize the Initial Protected Tree and Shrub Inventory Memorandum (Appendix B of the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report) to complete a separate, more in-depth tree survey report prior to the start of construction and when access is procured for properties within the alignment; the Tree Expert Report shall include field survey methods and details of each protected tree or shrub in height, diameter, canopy spread, physical condition, and location of each protected tree and shrub. The City of Los Angeles Protected Tree and Shrub Ordinance has jurisdiction in the Project; therefore, a Tree Expert shall be required to conduct the detailed survey and procure permit for protected tree/shrub removal from the Los Angeles Board of Public Works. The Tree Expert's follow-up report shall expand upon the initial assessment to provide a comprehensive dataset with verification of tree/shrub species, height, canopy width, and tree/shrub health for the Ground Disturbance Area. This follow-up report shall be used to procure the required permit prior to commencement of tree impacts within the City of Los Angeles.*
- *Impacts to protected trees and shrubs shall be minimized to the maximum extent feasible. When trimming and/or encroachment into the tree/shrub protection zone (defined as the dripline or canopy) is needed, the following measures shall be required.*
- *Trimming of protected trees/shrubs must comply with the pruning standards set forth by the Western Chapter of the International Society of Arboriculture in a manner that does not cause permanent damage or adversely affect the health of the trees or shrubs. Since the Metro Tree Policy Trimming shall require coordination and permitting with the appropriate entities as follows:*
  - *Species protected under the Los Angeles Protected Tree and Shrub Ordinance shall coordinate with the City of Los Angeles Board of Public Works, Urban Forestry Division.*
  - *Trees protected under the City of Los Angeles Street Tree Policy shall require coordination with the City of Los Angeles Department of Public Works, Urban Forestry Division.*
  - *Trees covered by the Metro Tree Policy designated for retention shall require the Project to prepare a tree protection plan identifying Tree Protection Zones for all trees designated for retention and will protect larger trees from immediate damage during construction and delayed damage from construction activities, such as loss of root area or soil compaction. The Project will prepare a mitigation plan for damaged and removed trees with a minimum replacement ratio of 2:1 per removed street tree.*
  - *Trees protected by the Los Angeles County Oak Tree Ordinance shall require coordination with the Los Angeles County Director of Public Works prior to tree work.*

  - *Trees within the Santa Monica Mountains National Recreation Area shall require coordination for tree trimming or removal with the appropriate entities (e.g., National Park Service, Santa Monica Mountains Conservancy, Mountains Recreation and Conservation Authority).*

- *For impacts to protected trees and shrubs beyond trimming, the required tree removal permits shall be obtained, and replacement shall occur at the below rates. Mitigation locations of replacement trees shall be determined through the permitting process.*
  - ***Los Angeles County Oak Tree Ordinance:** All trees within the oak genus (Quercus) shall be replaced at a ratio of 2:1 per individual oak tree.*
  - ***City of Los Angeles Protected Tree and Shrub Ordinance:** Protected trees and shrubs included trees of the oak genus (indigenous to California), western sycamore, southern California black walnut and California bay, and two shrub species (Mexican elderberry and toyon). Individual trees and shrubs shall be replaced at a 4:1 ratio by plants that are the same species of protected plant.*
  - ***Policy-Protected Trees:** All policy-protected trees, which fall under the purview of the Los Angeles Street Tree Policy or the Metro Tree Policy, shall be replaced at a ratio of 2:1 per individual. The Los Angeles Street Tree Policy allows for an in-lieu fee to be made with approval of the Board of Public Works following verification that replacement trees cannot be feasibly planted onsite. Trees under the Metro Tree Policy that are designated as heritage trees in a local ordinance shall be replaced at a 4:1 ratio with trees of the same variety.*
  - ***Santa Monica Mountains National Recreation Area:** Any tree within the Santa Monica Mountains National Recreation Area shall be replaced by trees of a species and ratio at the discretion of National Park Service, Santa Monica Mountains Conservancy, Mountains Recreation and Conservation Authority.*
- *All trees occurring on private property or Caltrans right-of-way shall not require permitting but shall require coordination and negotiation with property owners. Mitigation implementation shall follow Metro Tree Policy's replacement ratio of 2:1 per individual.*
- *For protected trees and shrubs that are not anticipated to be impacted, a Tree Protection Zone shall be established around each tree/shrub or cluster of trees/shrubs prior to the commencement of work. The Tree Protection Zone shall be erected using temporary fencing in an environmentally sensitive manner and remain in place until all site work has been completed. Specific installation timeframe may vary but the Tree Protection Zone must be inspected and approved by a Qualified Arborist prior to construction work occurring, including staging of equipment. Work can commence directly following arborist inspection and approval. No construction-related materials shall be stored or staged within the Tree Protection Zone (fenced areas).*

- *The LA Street Tree Policy would require coordination with the City of Los Angeles Department of Public Works for removal or maintenance of protected trees; this policy does not apply to trees within private property, UCLA, or within the Caltrans ROW. Metro Tree Policy would not require permitting but would require coordination with the landowners (i.e., private landowners, UCLA, Caltrans) when a tree must be removed. Additionally, Metro Tree Policy states a mitigation plan would be required to be developed in consultation with a Certified Arborist if construction impacts resulted in a damaged or removed tree; decisions would be made in accordance with local ordinances identifying protected trees.*

MM BIO-14: ***Avoid and Minimize Construction-Related Impacts to Mountain Lion and Vertebrate Movement Corridors.*** *Impacts to mountain lion and other vertebrate movement corridors shall be avoided, minimized, and/or mitigated as follows:*

- *After a preferred alternative is selected and prior to any ground-disturbing activity, a Qualified Biologist shall conduct a detailed analysis of wildlife movement and corridors within the Santa Monica Mountains as they relate to ground disturbance activities for the Project. Analysis shall include desktop review of publicly available documentation — including research publications, project reports, environmental analyses, and high-quality aerial imagery — to anticipate wildlife movement patterns within the project vicinity. Field surveys shall also be conducted to identify and document wildlife crossings.*
- *Prior to construction, Metro shall coordinate with the California Department of Fish and Wildlife, Caltrans, the Santa Monica Mountains Conservancy/Santa Monica Mountains National Recreation Area, and species experts (as appropriate) to identify and implement appropriate minimization and avoidance measures to facilitate mountain lion and other vertebrate movement and connectivity across the Santa Monica Mountains. Performance standards for wildlife connectivity and movement shall ensure that post-construction conditions are maintained or improved. This includes achieving a 0% increase in road mortality for mountain lions and other sensitive species in the Project Study Area, as measured through tracking and monitoring for at least five years after construction.*
- *Prior to any ground-disturbing activities, field surveys will be conducted by a Qualified Biologist to survey for (1) mountain lion presence/absence (2) known or potential mountain lion natal dens within suitable habitat within the 600 feet of ground disturbance activities during the breeding season (April through September) and (3) to identify and document wildlife crossing locations. Presence/absence and den surveys will be conducted at dawn and dusk to increase probability of detection.*
- *If a mountain lion natal den is identified during the survey, the Qualified Biologist will establish a clearly demarcated (via flagging, fencing and/or signage) no-disturbance buffer where work will cease until the den is no longer occupied or the cubs have successfully reared. The size of the buffer will be determined based on characteristics of the den (i.e., distance, direction facing, observed behavior)*

and through consultation with species experts and CDFW to ensure the buffer is of appropriate size to not adversely affect rearing of cubs.

- *Vegetation removal shall be limited wherever possible, particularly within the Santa Monica Mountains.*
- *Within the Habitat Restoration Plan (MM BIO-9), vegetation restoration of temporarily disturbed areas adjacent to wildlife crossings will be done in a manner to facilitate usage of installed vegetation to act as "stepping stones" on the approach to the freeway, i.e., to provide cover for wildlife to approach crossings.*
- *A summary of survey results from presence/absence and den surveys will include maps of the survey area and possible denning locations and will be submitted to Metro and CDFW. If a natal den or presence is confirmed, CDFW will be immediately informed, and additional coordination will occur, as needed.*
- *Metro shall also develop a five-year monitoring plan, in coordination with CDFW and species experts, to track wildlife movement across corridors during and after construction. Monitoring shall use camera traps, radio collars, or other wildlife tracking technologies. If the data indicate that mountain lion or other vertebrate movement is negatively impacted, additional mitigation measures, such as enhanced crossing infrastructure or more extensive wildlife funneling fencing, shall be implemented within six months. During the five-year monitoring phase, annual reports summarizing the effectiveness of the mitigation measures, any observed impacts on wildlife movement, and the results of the monitoring program will be submitted to CDFW, Caltrans, and the Santa Monica Mountains Conservancy. These reports shall also include recommendations for adjustments to ensure compliance with wildlife connectivity standards.*

MM BIO-15: ***Avoid and Minimize Construction-Related Impacts to Jurisdictional Aquatic Resources.*** *Potential impacts to drainages shall be avoided and/or minimized when working in or adjacent to aquatic resources as defined in the Aquatic Resources Delineation Report (Appendix A of the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report) through incorporation of the following:*

- *A Qualified Biologist/Aquatic Specialist shall monitor construction activities adjacent to jurisdictional aquatic resources during vegetation clearing and/or initial ground-disturbance activities. Additionally, they shall support impact avoidance and minimization measures detailed in permits and approvals obtained for the Project.*
- *Limits of the Ground Disturbance Areas shall be designated with lathe staking or a similar method. All equipment and workers shall remain within approved work limits.*
- *Wherever possible, construction personnel shall utilize existing access roads or previously disturbed areas to reach the project area or stage their vehicles and equipment.*

- *Maintenance personnel will also not leave any waste or debris behind which could impact natural habitats.*
- *To protect water quality:*
  - *Appropriate BMPs shall be installed to prevent erosion and guide runoff during rain events.*
  - *Equipment and materials shall be staged within the alignment and away from water drainages. Parked equipment shall have secondary containment to prevent any fluid leaks from coming into contact with the ground surface.*
  - *Water containing mud, silt, or other pollutants from construction activities shall not be allowed to enter into an aquatic resource.*
  - *Disposal or temporary placement of excess fill, brush, or other debris shall not be allowed in Waters of the United States, Waters of the State, and California Department of Fish and Wildlife streambeds or their banks.*

General Construction Measures

The following general construction measures are proposed for implementation during construction activities:

MM BIO-16: *Prior to vegetation clearing, grading, and/or construction activities that may impact habitats of special-status species, a Qualified biologist(s) shall oversee installation of appropriate temporary Environmentally Sensitive Area fencing and/or flagging to delineate the limits of construction and the approved construction staging areas for protection of identified sensitive resources outside the approved construction/staging zones. All construction access and circulation shall be limited to designated construction/staging zones. Fencing shall be of a type that will not entangle or otherwise detrimentally effect wildlife or the environment. Fencing should be checked weekly to ensure it is intact and functioning as intended, to look for signs of degradation that might cause harm to wildlife or the environment, and to ensure fenced construction limits are not exceeded. This fencing shall be removed upon completion of construction activities.*

MM BIO-17: *A Qualified biologist(s) shall monitor project activities during vegetation clearing, grading, and/or construction within or adjacent to areas identified as sensitive habitat and/or jurisdictional aquatic resources. If special-status species and/or sensitive habitats adjacent to the project sites are inadvertently impacted by activities, then the Qualified biologist(s) shall immediately inform the on-site construction supervisor who shall temporarily halt or redirect work away from the area of impact. If unanticipated impacts occur to occupied habitat for special-status species, the Project shall consult with the appropriate regulatory agencies.*

MM BIO-18: *A Worker Environmental Awareness Plan (WEAP) shall be developed and implemented prior to the start of construction. Environmental training shall be led by the Qualified Biologist(s) and shall cover the sensitive resources found on-site, flagging/fencing of exclusion areas, permit requirements, and other environmental issues. New workers added to construction after the initial training at project start shall be required to receive WEAP training before they may begin work on the*

Project. Documentation of personnel who have attended WEAP training will be maintained and submitted to Metro. All information included in WEAP training should be kept on Project sites to be readily accessible to any personnel in a form deemed appropriate for the Project (e.g., wallet cards, printed flyers, etc.).

MM BIO-19: *Wildfires shall be prevented by exercising care when driving to prevent sparks and by not parking construction vehicles where catalytic converters could ignite dry vegetation. All construction vehicles shall carry water and shovels or fire extinguishers in the field. The use of shields, protective mats, or other fire prevention equipment shall be used during grinding and welding to prevent or minimize the potential for fire. Smoking shall take place within designated areas and away from vegetated areas.*

MM BIO-20: *Construction workers shall be prohibited from bringing pets and firearms to the site.*

MM BIO-21: *To prevent unnecessary erosion, runoff, and sedimentation, all construction activities within 100 feet of drainages or wetlands shall cease during Stormwater Pollution Prevention Plan-defined rain events and shall not resume until conditions are suitable for the movement of equipment and materials. Vehicle access along unpaved access routes shall not occur during saturated soil condition to avoid rutting or other soil disturbance.*

MM BIO-22: *If night work should occur, all lighting used during night construction shall be temporary and shall be implemented to reduce lighting effects onto adjacent open space areas (i.e., downcast, away from habitat) and/or shall also be directed away from nests/roosting sites on man-made structures. Light shields shall be used to minimize light pollution adjacent to the Project.*

MM BIO-23: *Prior to entering the construction areas, equipment and personnel shall be free of mud, debris, or vegetation to prevent the introduction and spread of weeds or invasive species to the Project. If required, vehicle washing shall occur within designated areas within project construction areas where appropriate containment has been established, or at a suitable off-site facility.*

MM BIO-24: *Dust suppression measures shall be implemented during construction to minimize the creation of dust clouds and possible degradation of sensitive vegetation communities and special-status species suitable habitat. These measures shall include applying water at least once per day or as determined necessary by the Qualified biologist(s) to prevent visible dust emissions from exceeding 100 feet in length in any direction. In addition, watering frequency shall be increased to four times per day if winds exceed 25 miles per hour. Nontoxic soil stabilizers may be used on access roads to control fugitive dust, as needed.*

MM BIO-25: *Vehicle speeds shall be restricted to posted speed limits on existing paved roads and to 15 miles per hour on dirt or gravel access roads during all phases of the Project. Speed limit signs shall be posted on dirt or gravel access roads throughout the site to remind workers of travel speed restrictions.*

MM BIO-26: *Trenches and excavations located within open areas shall be backfilled with earth at the end of each workday or have one edge sloped into an escape ramp with a less than 1:1 (45 degree) slope to prevent wildlife entrapment. A non-slip material may be used (e.g., wooden ramp with traction) when an earthen escape ramp cannot be created. For instances when these methods are not feasible (e.g., deep, long-term excavations for underground segments), temporary exclusion fencing can be installed around the perimeter of the work area to prevent animal entrapment. The Qualified Biologist shall ensure the temporary exclusion fencing is sufficiently supported to maintain integrity under all conditions and shall be checked daily to ensure integrity is maintained and inspect it daily while work is occurring. Fencing will be repaired each day, as needed to ensure integrity is maintained. A Qualified biologist shall inspect all trenches and excavations for trapped animals at the beginning and end of each day, as well as before excavations are backfilled. Should wildlife become trapped in any trenches or excavations, a Qualified biologist(s) shall remove and relocate them outside the construction zone. When entrapped wildlife is a listed species with handling restrictions, relocation must be conducted by a biologist permitted to handle the species. Where trenches or excavations cannot be immediately backfilled or sloped, open excavations shall be covered and the end of each day with boards or plates. The edges of the boards shall be sealed with native spoils to prevent wildlife from entering the excavation in gaps at the board edges.*

MM BIO-27 *Spoils, trash, and any construction-generated debris will be removed to an approved off-site disposal facility. Trash and food items will be contained in closed containers and removed daily to reduce the attraction of opportunistic predators such as common ravens, coyotes, and feral cats and dogs that may prey on sensitive species.*

Impacts After Mitigation

Implementation of the mitigation measures listed in this subsection shall reduce biological resources impacts related to project operations and construction to a level that is considered less than significant.

5.2.5 Energy

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-15.

Table 5-15. Alternative 1: Energy Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Energy Construction Impacts		
Impact ENG-1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact ENG-2: Would the project conflict or obstruct a state or local plan for renewable energy or energy efficiency?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025p

ENG = energy
LTS = less than significant
NA = not applicable

5.2.5.1 Impact ENG-1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Alternative 1 would require petroleum-based transportation fuels and electricity to construct the transit system. Construction activities would comply with Metro's GCP, and construction equipment would be maintained in accordance with manufacturers' specifications. Construction would result in a one-time expenditure of approximately 5,609,190 gallons of diesel fuel, 515,777 gallons of gasoline, and 255 megawatt-hours (MWh) of electricity. Table 5-16 provides a summary of the energy consumption estimated for construction of Alternative 1.

Table 5-16. Alternative 1: Construction Fuel and Electricity Consumption

Source Type	Fuel Consumption (gal)	Electricity Consumption (MWh)
Mobile Source Fuel Consumption		
Off-Road Equipment (Diesel)	4,881,426	NA
Worker Vehicles (Gasoline)	515,777	NA
Vendor Trucks (Diesel)	169,976	NA
Haul Trucks (Diesel)	557,789	NA
Electricity Consumption		
Onsite Portable Offices	NA	255
Summary		
Total Gasoline (gal):	**515,777**	**NA**
Total Diesel (gal):	**5,609,190**	**NA**
Total Electricity (MWh):	**NA**	**255**

Source: HTA, 2024

gal = gallons
MWh = megawatt-hour
NA = not applicable

All equipment and vehicles used in construction activities would comply with applicable California Air Resources Board regulations, Low Carbon Fuel Standards, and the CAFE Standards. Construction would not place an undue burden on available energy resources. The one-time expenditure of energy associated with diesel fuel consumption would be offset by operations within approximately 7.5 years through transportation mode shift, and the one-time expenditure of energy associated with gasoline consumption would be offset by operations within 1 year. The temporary additional transportation fuels consumption does not require additional capacity provided at the local or regional level. CEC transportation energy demand forecasts indicate that gasoline and diesel fuel production is anticipated to increase between 2021 and 2035, while demand for both gasoline and diesel transportation fuels is projected to decrease over the same time period (CEC, 2021). Construction vehicles and equipment activities would not place an undue burden on available petroleum fuel resources during construction of Alternative 1.

Construction activities may include lighting for security and safety in construction zones. Nighttime construction would be limited; lighting would be sparse and would not require additional capacity provided at the local or regional level.

The GCP requires and commits project contractors to using newer engines for off-road, diesel-powered construction equipment that are more fuel efficient than older models. All equipment and vehicles would be maintained in accordance with manufacturer specifications and would be subject to idling

limits. As required by the California Green Building Standards (CALGreen) Code Tier 2, at least 80 percent of the nonhazardous construction debris generated by demolition activities will be diverted from landfills. Also, CALGreen includes the mandatory requirement to reuse or recycle all clean soil that would be displaced during construction of Alternative 1, which would result in reduced energy consumption from hauling trucks. Furthermore, the Metro 2020 Moving Beyond Sustainability Strategic Plan and the Metro Design Criteria and Standards require and commit contractors to using high-efficiency lighting as opposed to less energy-efficient lighting sources in alignment with Leadership in Energy and Environmental Design (LEED) sustainability energy standards.

Based on the substantiation previously described, construction would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, Alternative 1 results in a less-than-significant impact related to construction activities.

Maintenance and Storage Facilities

MSF Base Design

Construction of the MSF Base Design would require petroleum-based transportation fuels and electricity to construct the facility. Construction activities would comply with Metro's GCP and adhere to Metro's policy for aligning with LEED Silver sustainable certification. The required energy demand to construct and operate the MSF Base Design would be more than offset by the energy savings in the forms of petroleum fuels and natural gas, and the consumption would support a mass transit system that would contribute to regional efforts to enhance energy efficiency and reduce reliance on nonrenewable resources. Construction of the MSF Base Design would not result in wasteful, inefficient, or unnecessary consumption of energy resources and the MSF Base Design would result in a less than significant impact.

MSF Design Option 1

MSF Design Option 1 would locate the MSF at a different address than the MSF Base Design. Energy use would be similar as presented for the MSF Base Design. Like the MSF Base Design, the required energy demand to construct the MSF Design Option 1 would be more than offset by the energy savings in the forms of petroleum fuels and natural gas, and the consumption would support a mass transit system that would contribute to regional efforts to enhance energy efficiency and reduce reliance on nonrenewable resources. Furthermore, MSF Design Option 1 would adhere to Metro's policy for aligning with LEED Version 4 Building and Design Construction (LEED v4 BD+C) Level Silver certification and Envision Version 3 certification if LEED is not applicable. Therefore, construction would not result in wasteful, inefficient, or unnecessary consumption of energy resources and MSF Design Option 1 would result in a less than significant impact

Electric Bus MSF

The Electric BUS MSF energy demand is included in the discussion of the MSF Base Design.

Like the MSF Base Design, the required energy demand to construct and operate the Electric Bus MSF would be more than offset by the energy savings in the forms of petroleum fuels and natural gas, and the consumption would support a mass transit system that would contribute to regional efforts to enhance energy efficiency and reduce reliance on nonrenewable resources. Furthermore, the Electric Bus MSF would adhere to Metro's policy for aligning with LEED Silver sustainable certification. Therefore, construction of the Electric bus MSF would not result in wasteful, inefficient, or unnecessary consumption of energy resources, and construction of the Electric bus MSF would result in a less than significant impact.

5.2.5.2 Impact ENG-2: Would the project conflict or obstruct a state or local plan for renewable energy or energy efficiency?

Alternative 1 would require petroleum-based transportation fuels and electricity to construct the transit system. Construction would result in a one-time expenditure of approximately 5,609,190 gallons of diesel fuel, 515,777 gallons of gasoline, and 255 MWh of electricity. Alternative 1 would be consistent with state and local energy plans and policies to reduce energy consumption as activities would comply with Metro's GCP, CALGreen Code, Title 24, and LEED Version 4 Building and Design Construction (LEED v4 BD+C) Level Silver certification. The GCP requires and commits project contractors to using newer engines for off-road, diesel-powered construction equipment that are more fuel efficient than older models, as well as using renewable diesel fuel for all applicable on-road truck and off-road equipment. Compliance with GCP would limit excess petroleum fuels consumption. The CALGreen Code requires reduction, disposal, and recycling of at least 80 percent of nonhazardous construction materials and requires demolition debris to be recycled and/or salvaged, which would ultimately result in reductions of indirect energy use associated with waste disposal and storage. Alternative 1 would comply with state and local plans for energy efficiency in construction activities. Therefore, Alternative 1 would result in a less-than-significant impact related to construction activities.

Maintenance and Storage Facilities

MSF Base Design

Construction of the MSF Base Design would not conflict with any adopted plan or regulation to enhance energy efficiency or reduce transportation fuels consumption and would support the initiatives of the Metro Climate Action and Adaptation Plan. In addition, construction of the MSF Base Design would not interfere with renewable portfolio targets and would not result in a wasteful or inefficient expenditure of energy resources. The MSF Base Design would positively contribute to statewide, regional, and local efforts to create a more efficient and sustainable transportation infrastructure network. Therefore, construction of the MSF Base Design would result in a less than significant impact related to conflicting with or obstructing renewable energy and energy efficiency planning initiatives.

MSF Design Option 1

The MSF Design Option 1 would locate the MSF at a different address than the MSF Base Design. Energy use would be similar as presented for the MSF Base Design. Construction of the MSF Design Option 1 would positively contribute to statewide, regional, and local efforts to create a more efficient and sustainable transportation infrastructure network. Therefore, construction of the MSF Design Option 1 would result in a less than significant impact.

Electric Bus MSF

Construction of the Electric Bus MSF would not conflict with any adopted plan or regulation to enhance energy efficiency or reduce transportation fuels consumption and would support the initiatives of the Metro Climate Action and Adaptation Plan. In addition, construction of the Electric Bus MSF would not interfere with renewable portfolio targets and would not result in a wasteful or inefficient expenditure of energy resources. The Electric Bus MSF would positively contribute to statewide, regional, and local efforts to create a more efficient and sustainable transportation infrastructure network. Therefore, construction of the Electric Bus MSF would result in a less than significant impact.

5.2.5.3 Mitigation Measures

Construction Impacts

Alternative 1 would not have a significant impact related to construction activities. Therefore, no mitigation measures are required to reduce potential impacts.

Impacts After Mitigation

No mitigation measures would be required to reduce potential impacts associated with energy. Operational and construction activities would not result in significant impacts related to energy.

5.2.6 Geotechnical, Subsurface, Seismic, and Paleontological Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-17.

Table 5-17. Alternative 1: Geology, Soils, Seismicity, and Paleontological Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Geology, Soils, Seismicity, and Paleontological Resources Construction Impacts		
Impact GEO-1: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-2: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking and/or seismic-related ground failure, including liquefaction?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-3: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-4: Would the project result in substantial soil erosion or the loss of topsoil?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-5: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-1 through MM GEO-5
	Impacts After Mitigation	LTS
Impact GEO-6: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-5
	Impacts After Mitigation	LTS
Impact GEO-7: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

CEQA Impact Topic		Alternative 1
Impact GEO-8: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-6 through MM GEO-9
	Impacts After Mitigation	SU

Source: Metro, 2025l

GEO = geotechnical
LTS = less than significant
MM = mitigation measure
NA = not applicable
NI = no impact
PS = potentially significant
SU = significant and unavoidable

5.2.6.1 Impact GEO-1: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Construction of Alternative 1 would occur within the Santa Monica Fault zone, north of Santa Monica Boulevard and along I-405. This construction would involve installing cast-in-drilled-hole (CIDH) piles, precast beams, and precast bent caps within the I-405 ROW. These elements would not reach a depth or involve an intensity of activity that would affect geological processes such as faults. Compliance with applicable seismic and geotechnical regulations would ensure that construction activities are conducted in a manner that accounts for the presence of active faults. The CIDH piles, for instance, would be engineered to remain stable under seismic conditions without triggering or exacerbating fault activity. Because the depth and intensity of construction activities would not be sufficient to influence geological processes such as fault rupture, and due to adherence to strict safety and design standards, construction of Alternative 1 would not directly or indirectly exacerbate rupture of a known earthquake fault in a manner that could result in substantial adverse effects, including the risk of loss, injury, or death. Therefore, construction impacts related to fault rupture would be less than significant.

While Alternative 1's construction would not rupture a known earthquake fault, Alternative 1 would be located in an earthquake-prone area (Southern California). Construction activities would be carried out in compliance with the regulatory requirements as defined in PM GEO-1 to account for the potential effects of ground shaking and the portion of Alternative 1 within the Santa Monica Fault. Moreover, while temporary structures such as office trailers and staging areas would be located throughout the alignment, no habitable structures would be involved within the Alquist-Priolo Earthquake Fault Zone associated with construction activities

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design is not within an Alquist-Priolo Earthquake Fault Zone. The closest Alquist-Priolo Earthquake Fault Zone is the Hollywood Fault located approximately 8.5 miles southeast from the proposed MSF Base Design. Therefore, during construction, the proposed MSF would cause no

impacts related to loss, injury, or death involving the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map.

MSF Design Option 1

Construction of the proposed MSF Design Option 1 is not within an Alquist-Priolo Earthquake Fault Zone. The closest Alquist-Priolo Earthquake Fault Zone is the Hollywood Fault located approximately 9.5 miles southeast from the proposed MSF Design Option 1. Therefore, during construction, no impacts related to loss, injury, or death involving the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map.

Electric Bus MSF

The proposed Electric Bus MSF is not within the Alquist-Priolo Earthquake Fault Zone. The closest Alquist-Priolo Earthquake Fault Zone is the Santa Monica Fault located approximately 0.9 miles north from the proposed Electric Bus MSF. Therefore, during construction no impacts related to loss, injury, or death involving the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map.

5.2.6.2 Impact GEO-2: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking and/or seismic-related ground failure, including liquefaction?

Construction of Alternative 1 would occur within the Santa Monica Fault zone, north of Santa Monica Boulevard and along I-405. This construction would involve installing CIDH piles, precast beams, and precast bent caps within the I-405 ROW. Construction activities for Alternative 1 would not reach a depth or involve ground disturbances of sufficient intensity to trigger liquefaction or affect geological processes such as faults. As a result, construction would not directly or indirectly cause strong seismic ground shaking or seismic-related ground failure. As such, impacts related to seismic ground shaking including liquefaction would be less than significant during construction activities.

Special construction considerations to protect workers and future users of the alternative against liquefaction hazards can be found within the *Sepulveda Transit Corridor Project, Detailed Geotechnical Exploration Plan* (Metro, 2024b).

Maintenance and Storage Facilities

MSF Base Design

Construction of the proposed MSF Base Design does not involve extensive excavation and does not reach a depth or be of an intensity that would affect geological processes such as faults. As such, impacts related to seismic ground shaking including liquefaction would be less than significant during construction.

MSF Design Option 1

Construction of the proposed MSF Design Option 1 does not involve extensive excavation and do not reach a depth or be of an intensity that would affect geological processes such as faults. As such, impacts related to seismic ground shaking including liquefaction would be less than significant during construction.

Electric Bus MSF

Construction of the proposed electric bus MSF does not involve extensive excavation and do not reach a depth or be of an intensity that would affect geological processes such as faults. As such, impacts

related to seismic ground shaking including liquefaction would be less than significant during construction.

5.2.6.3 Impact GEO-3: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

The Santa Monica Mountains are within a designated Landslide Hazard Zone (LHZ). Alternative 1 would be an entirely aerial monorail alignment that would run along the I-405 corridor and include eight aerial MRT stations and TPSS sites. Areas that affect the existing slope along I-405 and increase landslides would be further investigated consistent with local requirements for slope stability during the design phase when site-specific data and final geometry of improvements are available. The foundation types would be determined as part of the required geotechnical investigation conducted during the final design phase and would ensure that the potential for landslides would not cause potential for substantial adverse effects, including the risk of loss, injury, or death.

Construction activities for Alternative 1 would include widening the freeway and demolishing and rebuilding the retaining walls that hold back the mountains. Retaining-wall construction would occur in the Sepulveda Pass at the proposed reconfigured northbound I-405 Getty On-Ramp and require the excavation of existing hills and slopes within the Santa Monica Mountains. Temporary engineering structures, such as shoring or bracing, would be erected to support the retaining walls while excavation is underway. However, because these activities would occur within a designated LHZ, there is a heighted risk of landslides, particularly during periods of heavy rainfall or seismic activity. Such landslides could result in the destabilization of the slopes, potentially leading to injury or death of construction workers and substantial damage to the infrastructure under construction.

To address these risks, all grading and construction activities would be carried out in compliance with the regulatory requirements including state regulations and the equivalent seismic design criteria such as the MRDC, to account for the portion of Alternative 1 that would be within a landslide zone. The final design of the retaining walls and the temporary engineering required to construct them would abide with structural engineering standards set forth in the provisions listed in the CBC.

Alternative 1 would be compliance with the regulatory requirements as defined in PM GEO-1 through PM GEO-3. PM GEO-1 requires a site-specific slope-stability design, and a design to address landslide potentials as required by the standards contained in the CBC and County of Los Angeles and City of Los Angeles guidelines, as well as by Cal/OSHA requirements for stabilization. Alternative 1 would include manufactured slopes in the retention basins, which would occur mostly on the perimeter of the sites. PM GEO-2 would recommend site-specific evaluations of unstable soil conditions and also provides recommendations for necessary ground preparation in conformance with CBC and other applicable regulations. Finally, PM GEO-3 would require that the alternative demonstrate that the design complies with all applicable provisions including the CBC.

Provisions provided in the CBC relating to the construction and design of the retaining walls include requirements for foundation and soil investigations, excavation, grading, fill-allowable, and load-bearing values of soils. Section 1810 of the CBC also includes regulations related to the design of footings, foundations, and slope clearances, retaining walls, and pier, pile, driven, and CIP foundation support systems. Chapter 33 of the CBC includes requirements for safeguards at work sites to ensure stable excavations and cut or fill slopes. CBC Appendix J includes grading requirements for the design of excavations and fills (Sections J106 and J107) and for erosion control (Section J110). Construction activities are subject to occupational safety standards for excavation, shoring, and trenching as specified in Cal/OSHA regulations (CCR Title 8).

In terms of temporary slopes, excavation activities at Alternative 1 could occur in unstable soils. In general, the risk of slope failure is considered higher for temporary slopes due to generally steeper gradients versus permanent, manufactured slopes. Similar to the construction of permanent slopes, temporary slopes would be required to adhere to the Cal/OSHA and CBC requirements for shoring and stabilization. In summary, the design and construction of Alternative 1 would be in compliance with the regulatory requirements as defined in PM GEO-1, PM GEO-2, and PM GEO-3 as integral components of the project. These measures would provide site-specific slope stability designs, evaluations of unstable soil conditions, and necessary ground preparation to address landslide potentials and slope stability. Combined with adherence to applicable regulatory standards, including the CBC and Cal/OSHA requirements, these project measure ensure that impacts associated with landslides and/or slope instability during construction activities would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design would be located west of Hazeltine Avenue and south of the LOSSAN rail corridor ROW. The proposed MSF Base Design would not be located on land designated as a LHZ Area. The closest landslide zone would be located 4.16 miles south from the proposed MSF Base Design site. Therefore, the proposed MSF Base Design would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides, and no impact would occur.

MSF Design Option 1

The proposed MSF Design Option 1 would abut Orion Avenue west of Sepulveda Boulevard and south of the LOSSAN rail corridor ROW. The proposed MSF Design Option 1 would not be located on land designated as an LHZ Area. The closest landslide zone would be located 4.14 miles south from the proposed MSF Design Option 1. Therefore, the proposed MSF Design Option 1 would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides, and no impact would occur.

Electric Bus MSF

The proposed Electric Bus MSF would be located on the northwest corner of Pico Boulevard and Cotner Avenue. The proposed Electric Bus MSF would not be located on land designated as an LHZ Area. The closest landslide zone would be located 3.08 miles north from the proposed Electric Bus MSF site. Therefore, the proposed Electric Bus MSF would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides, and no impact would occur.

5.2.6.4 Impact GEO-4: Would the project result in substantial soil erosion or the loss of topsoil?

Ground-disturbing activities occurring during construction would temporarily expose surficial soils to wind and water erosion and have the potential to temporarily increase erosion and loss of topsoil. Construction work that would involve ground-disturbing activities include installation of CIDH piles for the MRT aerial guideway, I-405 widening, street construction and reconstruction, installation of TPSS sites, utility relocations, and grading relating to these activities. In the Sepulveda Pass area, adjacent to the Santa Monica Mountains, areas of pervious surfaces could be particularly susceptible to erosion. Retaining-wall installation would be required to accommodate the reconfiguration of Sepulveda Boulevard and Getty Center on- and off-ramps. Such construction would involve considerable earth-

moving activities, including the partial excavation of the Santa Monica Mountains to increase the setback of the retaining walls. However, construction activities would be required to comply with existing regulatory requirements including implementation of BMPs and other erosion and sedimentation control measures that would ensure grading, excavation, and other earth-moving activities would avoid a significant impact.

Metro would be required to prepare a site-specific Standard Urban Storm Water Mitigation Plan (SUSMP), which is part of the NPDES Municipal General Permit. Preparation of the site-specific SUSMP would describe the minimum required BMPs to be incorporated into Alternative 1 design and ongoing operation of the facilities. Prior to the initiation of grading activities associated under Alternative 1, Metro would submit a site-specific SUSMP to reduce the discharge of pollutants to the maximum extent practical using BMPs, control techniques and systems, design and engineering methods, and other provisions that are appropriate during construction activities. All development activities associated with Alternative 1 would comply with the site-specific SUSMP.

Preparation of a site-specific SUSMP and adherence to existing regulations would ensure the maximum practicable protection available for soils excavated during the construction of buildings and associated infrastructure. Compliance with existing regulations would minimize effects from erosion and ensure consistency with the Regional Water Quality Control Board Water Quality Control Plan. In view of these requirements, Alternative 1 would have a less than significant impact associated with soil erosion or loss of topsoil during construction activities.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design would comply with post-construction measures in applicable NPDES permits and LID standards required by Los Angeles County and the City of Los Angeles that aim to minimize erosion impacts from development projects. Therefore, the proposed MSF Base Design would result in a less than significant impact related to substantial soil erosion or the loss of topsoil during construction.

MSF Design Option 1

The proposed MSF Design Option 1 would comply with post-construction measures in applicable NPDES permits and LID standards required by Los Angeles County and the City of Los Angeles that aim to minimize erosion impacts from development projects. Therefore, the proposed MSF Design Option 1 would result in a less than significant impact related to substantial soil erosion or the loss of topsoil during construction.

Electric Bus MSF

The proposed Electric Bus MSF would comply with post-construction measures in applicable NPDES permits and LID standards required by Los Angeles County and the City of Los Angeles that aim to minimize erosion impacts from development projects. Therefore, the proposed Electric Bus MSF would result in a less than significant impact related to substantial soil erosion or the loss of topsoil during construction.

5.2.6.5 Impact GEO-5: Would the project be located on a geographic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Section 5.2.6.2 addresses impacts related to liquefaction and Section 5.2.6.3 addresses impacts related to landslides. This analysis addresses impacts related to unstable soils as a result of subsidence, differential settlement, lateral spreading, or collapse. Construction activities for Alternative 1 would involve foundation support installation and earthwork along the alignment. Certain construction activities, such as CIDH drilling for the aerial guideway and excavation and erection of the temporary engineering of the retaining walls along the Santa Monica Mountains in Sepulveda Pass, could affect soil stability leading to ground movements (both lateral movements and settlements) or subsidence. Additionally, the use of unsuitable materials for fill and/or foundation support could have the potential to create future heaving, subsidence, spreading, or collapse problems leading to foundation or roadway settlement and impacts would be potentially significant.

Alternative 1 would be in compliance with the regulatory requirements as defined in PM GEO-2. Implementation of PM GEO-2 would require preparation of a site-specific evaluation of soil conditions that shall contain recommendations for ground preparation, earthwork, and compaction specification based on the geological conditions specific to the site.

In addition, Alternative 1 would implement MM GEO-1 through MM GEO-5. MM GEO-3 would also ensure compliance with the recommendations of the final soils and geotechnical report for the Project, which would provide site-specific information pertaining to the depths and areal extents of lateral spreading, subsidence, or collapse. Additionally, prior to construction, MM GEO-5 specifies that the Alternative 1 developer shall prepare a Construction Management Plan (CMP) detailing how to address geologic constraints and minimize or avoid impacts to geologic hazards during construction.

Adherence to existing regulations and policies and implementation of MM GEO-1 through MM GEO-5 would ensure the maximum practicable protection available for users of buildings and infrastructure and associated trenches, slopes, and foundations. With the implementation of these mitigation measures, Alternative 1 would have a less than significant impact associated with the exposure of people or structures to hazards associated with unstable geologic units or soils.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design would be located on stable soils where no liquefaction or landslide zones are present as addressed in Section 5.2.6.2 and Section 5.2.6.3, respectively. Construction would not occur on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed MSF Base Design, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. The proposed MSF Base Design would be designed in compliance with applicable local, state, or federal laws or regulations, including recommendations on engineering and design considerations and with implementation of MM GEO-1 through MM GEO-5. Thus, construction of the proposed MSF Base Design would have less than significant impacts related to soil stability that could potentially result in landslides, lateral spreading, subsidence, liquefaction, or collapse.

MSF Design Option 1

The proposed MSF Design Option 1 would be located on stable soils where no liquefaction or landslide zones are present as addressed in Section 5.2.6.2 and Section 5.2.6.3, respectively. Construction would not occur on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed MSF Design Option 1, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. As with the Alternative 1, the proposed MSF Design Option 1 would be designed in compliance with applicable local, state, or federal laws or regulations, including recommendations on engineering and design considerations and with implementation of MM GEO-1 through MM GEO-5. Thus, construction of the proposed MSF Design Option 1 would have less than significant impacts related to soil stability that could potentially result in landslides, lateral spreading, subsidence, liquefaction, or collapse.

Electric Bus MSF

The proposed Electric Bus MSF would be located on stable soils where no liquefaction or landslide zones are present as addressed in Section 5.2.6.2 and Section 5.2.6.3, respectively. Construction would not occur on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed Electric Bus MSF, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. As with the Alternative 1, the proposed Electric Bus MSF would be designed in compliance with applicable local, state, or federal laws or regulations, including recommendations on engineering and design considerations and with implementation of MM GEO-1 through MM GEO-5. Thus, construction of the proposed Electric Bus MSF would have less than significant impacts related to soil stability that could potentially result in landslides, lateral spreading, subsidence, liquefaction, or collapse.

5.2.6.6 Impact GEO-6: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Construction activities associated with Alternative 1 primarily pertain to the construction of the aerial guideway, and aerial stations. Construction of the guideway would take place within the median along I-405 and local street lanes. Aerial station construction related to groundwork includes drilling and installation of CIDH piles, pile cap, and pier column construction, and excavation of elevator pits.

As previously mentioned, expansive soils can be found almost anywhere including the Los Angeles Basin and San Fernando Valley. Expansive soils could have an impact on project elements, including the proposed aerial stations, guideway, and TPSS sites. Though construction is primarily on developed land, since the construction of Alternative 1 includes excavation and surface ground disturbances, if expansive soils do exist, construction activities have the potential to create substantial direct or indirect risks to life or property. As such, impacts related to construction activities could be potentially significant.

To reduce these risks, Alternative 1 would be designed in accordance with the equivalent seismic design criteria such as the MRDC or equivalent criteria, Los Angeles County and other applicable local building codes, and the CBC. This includes compliance with equivalent MRDC Section 5 (or equivalent seismic design criteria), which requires preparation of a geotechnical investigation during final design. This design-level geotechnical investigation must include a detailed evaluation of geologic hazards, including the depths and areal extents of liquefaction, soil expansiveness, lateral spread, and seismically induced settlement. This investigation would include collecting soil samples and performing tests to assess the potential for corrosion, consolidation, expansion, and collapse. Based on the investigation and test

results, specific design recommendations, including potential remediation of expansive soils, would be developed to address any identified issues. Expansive soil remediation could include soil removal and replacement, chemical treatment, or structural enhancements.

Alternative 1 would be in compliance with the regulatory requirements as defined in PM GEO-2 which calls for a California-registered geologist and geotechnical engineer to submit to and conduct a site-specific evaluation of unstable soil conditions to confirm the existence of expansive soils. The evaluation would also provide recommendations for ground preparation and earthwork activities specific to the site.

Moreover, Alternative 1 would be required to demonstrate compliance with applicable provisions of the CBC and the MRDC or equivalent criteria with regard to soil hazard-related design, as described by PM GEO-3. The MRDC or equivalent criteria and the County of Los Angeles and City of Los Angeles building codes require site-specific investigations and reports for each construction site. The reports must identify any unsuitable soil conditions and provide recommendations for foundation type and design criteria consistent with the analysis and building code standards. Regulations exist to address weak soil issues, including expansion. As mandated by PM GEO-3, Alternative 1 would comply with applicable local, state, or federal laws or regulations. Finally, prior to construction, the Project shall implement MM GEO-5, which requires preparation of a CMP which addresses geologic hazards such as soils with shrink-swell potential (expansive soils) and outlines strategies to minimize or avoid impacts.

With compliance with the regulatory requirements as defined in PM GEO-2, PM GEO-3, and implementation of MM GEO-5, Alternative 1 would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils during construction.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design would be required to comply with applicable provisions of the MRDC or equivalent criteria, Los Angeles County and other applicable local building codes, and CBC with regard to soil hazard-related design. The County of Los Angeles Building Code and City of Los Angeles Building Code require a site-specific foundation investigation and report for each construction site that identifies potentially unsuitable soil conditions and contains appropriate recommendations for foundation type and design criteria that conform to the analysis and implementation criteria described in the County of Los Angeles Building Code and the City of Los Angeles Building Code. Regulations exist to address weak soil issues, including expansion. With compliance with the regulatory requirements as defined in PM GEO-3 and adherence to existing regulations, the proposed MSF Base Design would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils.

MSF Design Option 1

Construction of the proposed MSF Design Option 1 may involve grading, excavation, or other ground disturbances. If expansive soils exist at these sites, construction activities could have the potential to create substantial direct or indirect risks to life or property. The proposed MSF Design Option 1 would be in compliance with the regulatory requirements as defined in PM GEO-2 which calls for a California-registered geologist and geotechnical engineer to submit to and conduct a site-specific evaluation of unstable soil conditions to confirm the existence of expansive soils. The evaluation would also provide recommendations for ground preparation and earthwork activities specific to the site. Moreover, the proposed MSF Design Option 1 would be required to comply with applicable provisions of the CBC and the MRDC or equivalent criteria with regard to soil hazard-related design, as described by PM GEO-3. Finally, prior to construction, the proposed MSF Design Option 1 shall implement MM GEO-5, which

requires the preparation of a CMP which addresses geologic hazards such as soils with shrink-swell potential (expansive soils) and outlines strategies to minimize or avoid impacts.

With compliance with the regulatory requirements as defined in PM GEO-2, PM GEO-3, and implementation of MM GEO-5, the proposed MSF Design Option 1 would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils during construction.

Electric Bus MSF

Construction of the proposed Electric Bus MSF may involve grading, excavation, or other ground disturbances. If expansive soils exist at these sites, construction activities could have the potential to create substantial direct or indirect risks to life or property. The proposed Electric Bus MSF would be in compliance with the regulatory requirements as defined in PM GEO-2 which calls for a California-registered geologist and geotechnical engineer to submit to and conduct a site-specific evaluation of unstable soil conditions to confirm the existence of expansive soils. The evaluation would also provide recommendations for ground preparation and earthwork activities specific to the site. Moreover, the proposed Electric Bus MSF would be required to comply with applicable provisions of the CBC and the MRDC or equivalent criteria with regard to soil hazard-related design, as described by PM GEO-3. Finally, prior to construction, the proposed Electric Bus MSF shall implement MM GEO-5, which requires the preparation of a CMP which addresses geologic hazards such as soils with shrink-swell potential (expansive soils) and outlines strategies to minimize or avoid impacts.

With compliance with the regulatory requirements as defined in PM GEO-2, PM GEO-3, and implementation of MM GEO-5, the proposed Electric Bus MSF would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils during construction.

5.2.6.7 Impact GEO-7: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No septic systems or alternative wastewater disposal systems are proposed for Alternative 1. Alternative 1 would have no impact associated with soils incapable of adequately supporting such systems during construction activities.

Maintenance and Storage Facilities

MSF Base Design

No septic systems or alternative wastewater disposal systems are proposed for the proposed MSF Base Design. Therefore, the proposed MSF Base Design would have no impact associated with soils incapable of adequately supporting such systems during operations and construction.

MSF Design Option 1

No septic systems or alternative wastewater disposal systems are proposed for the proposed MSF Design Option 1. Therefore, the proposed MSF Design Option 1 would have no impact associated with soils incapable of adequately supporting such systems during operations and construction.

Electric Bus MSF

No septic systems or alternative wastewater disposal systems are proposed for the proposed Electric Bus MSF. Therefore, the proposed Electric Bus MSF would have no impact associated with soils incapable of adequately supporting such systems during operations and construction.

5.2.6.8 Impact GEO-8: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Alternative 1 is a transportation infrastructure project that would operate a public transportation line with a fixed aerial guideway as well as operation of an electric bus route. The electric bus connection that would extend to Wilshire and Westwood Boulevards (or Kinross Avenue) to accommodate new electric bus stops and to the limits of the Metro Division 7 property. Construction of Alternative 1 would impact the ground surface by requiring designated access and staging and laydown areas for building the foundations and columns of the monorail. Specifically, an approximately 8-foot-wide work area would be needed along each guideway beam, on each side of the concrete straddle beams, and around each column/foundation. Additionally, construction activities would extend along the I-405 corridor to provide construction access and staging/laydown areas within and adjacent to the Caltrans ROW.

Most of the ground disturbance activities from Alternative 1 would result from the construction of the foundation columns for the MRT alignment and the foundations needed for the aerial MRT stations, switch locations, and long-span structures. The columns involved in Alternative 1 would range from 6 feet in diameter in the main alignment with a 7-foot-diameter foundation; 4-foot to 7-foot columns with an 8-foot-wide foundation at the I-405 median; 5-foot to 8-foot columns with a 9-foot foundation at the aerial MRT stations; 5-foot-diameter columns with a 6-foot foundation at the switch locations; and lastly 10-foot diameter columns with a foundation of 11 feet in diameter for the long-span structures. It is expected that the CIDH method would be used during the construction of the foundations for the columns. CIDH excavation in areas mapped as paleontologically sensitive geologic formations has the potential to encounter and disturb paleontological resources.

Because of the uncertainty regarding the depth of sensitive sediments and the potential for encountering unique paleontological resources during ground disturbance, the impact would be significant. To address this significant impact, MM GEO-6 through MM GEO-9 would be implemented. These measures include the use of onsite paleontological monitors who can quickly identify and protect resources until any discovered localities can be safely removed. These mitigation measures are designed to minimize impacts to paleontological resources by ensuring that any discoveries are properly documented, evaluated, and protected during construction activities. With the implementation of MM GEO-6 through MM GEO-9, impacts to paleontological resources would be reduced to less than significant).

Maintenance and Storage Facilities

MSF Base Design

The impacts involved with the MSF include the construction of the administrative buildings, maintenance buildings, wash facilities, drive aisles, storage tracks, and the columns for the aerial MSF. The surface rocks in the underground portions of the proposed MSF are mapped as Qya2 but may be more paleontologically sensitive (older) than indicated, at depth. With the implementation of MM GEO-6 through MM GEO-9, including construction monitoring, impacts associated with the MSF Base Design would be less than significant.

MSF Design Option 1

The impacts involved with the MSF include the construction of the administrative buildings, maintenance buildings, wash facilities, drive aisles, storage tracks, and the columns for the aerial MSF. The surface rocks in the underground portions of the proposed MSF are mapped as Qya2 but may be more paleontologically sensitive (older) than indicated, at depth. Since the depth and extent of sensitive

sediments are unknown, there is a potential to impact sensitive paleontological resources during ground disturbance activities. This would constitute a significant impact.

To address these impacts, Monorail MSF Design Option 1 would be required to implement MM GEO-6 through MM GEO-9, which include requirements for construction monitoring and resource management. With the implementation of these measures, the impact on paleontological resources from construction of the Monorail MSF Design Option 1 would be reduced to less than significant.

Electric Bus MSF

The type of buildings and uses in the Electric Bus MSF would not likely require deep excavation. Therefore, no impacts related to paleontological resources would occur.

5.2.6.9 Impact GEO-9: Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or an important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Construction of Alternative 1 would require excavation for columns, but Alternative 1 would not be located in an area with known mineral deposits. Alternative 1 is located in areas designated as MRZ-1 and MRZ-3. The California Department of Conservation, Division of Mines and Geology has classified areas of regional significance as MRZ-2 (CGS, 2021). Alternative 1 would not be located within an area designated as MRZ-2. Alternative 1 would be located within areas designated as MRZ-1 in the northern portion of the Project in the Valley as well as the southern portion of the Project near West Los Angeles. MRZ-1 designated areas indicate that no significant mineral deposits are present, or little likelihood exists for their presence. No mining operations are present within the Alternative 1 RSA, so construction of Alternative 1 would not disrupt mining operations. Therefore, Alternative 1 would have no construction impacts related to the loss of availability of a known mineral resource or a locally important mineral resource recovery site.

Maintenance and Storage Facilities

MSF Base Design

Construction of the MSF Base Design would require excavation for columns, but the MSF Base Design would not be located in an area with known mineral deposits. No mining operations are present within or in the vicinity of MSF Base Design, so construction of the MSF Base Design would not disrupt mining operations. Therefore, the MSF Base Design would have no construction impacts related to the loss of availability of a known mineral resource or a locally important mineral resource recovery site.

MSF Design Option 1

Construction of the MSF Design Option 1 would require excavation for columns, but the MSF Design Option 1 would not be located in an area with known mineral deposits. No mining operations are present within or in the vicinity of the MSF Design Option 1, so construction of the MSF Design Option 1 would not disrupt mining operations. Therefore, the MSF Design Option 1 would have no construction impacts related to the loss of availability of a known mineral resource or a locally important mineral resource recovery site.

Electric Bus MSF

Construction of the Electric Bus MSF would not require excavation that may affect mineral resources. No mining operations are present within or in the vicinity of the Electric Bus MSF, and construction of the Electric Bus MSF would not disrupt mining operations. Therefore, the Electric Bus MSF would have no

construction impacts related to the loss of availability of a known mineral resource or a locally important mineral resource recovery site.

5.2.6.10 Project and Mitigation Measures

Alternative 1 would implement the following project and mitigation measures to ensure that impacts to the geology, soils, and seismicity remain less than significant during construction activities:

PM GEO-1: *The Project shall demonstrate to the County of Los Angeles and the City of Los Angeles that the design of the Project complies with all applicable provisions of the California Building Code with respect to seismic design. Compliance shall include the following:*

- *California Building Code Seismic Zone 4 Standards as the minimum seismic-resistant design for all proposed facilities*
- *Seismic-resistant earthwork and construction design criteria (i.e., for the construction of the tunnel below ground surface, liquefaction, landslide, etc.), based on the site-specific recommendations of a California Registered Geologist in cooperation with the Project Engineers.*
- *An engineering analysis to characterize site specific performance of alluvium or fill where either forms part or all of the support.*

PM GEO-2: *A California-registered geologist and geotechnical engineer shall submit to and have approval by the Project a site specific evaluation of unstable soil conditions, including recommendations for ground preparation and earthwork activities specific to the site and in conformance with City of Los Angeles Building Code, County of Los Angeles Building Code, the California Building Code, Metro Rail Design Criteria (as applicable), and Caltrans Structure Seismic Design Criteria.*

PM GEO-3: *The Project shall demonstrate that the design of the Project complies with all applicable provisions of the County of Los Angeles Building Code and City of Los Angeles Building Code.*

MM GEO-1: *The Project's design shall include integration and installation of early warning system to detect and respond to strong ground motion associated with ground rupture. Known active fault(s) (i.e., Santa Monica Fault) shall be monitored. Linear monitoring systems such as time domain reflectometers or equivalent or more effective technology shall be installed along fixed guideway in the zone of potential ground rupture.*

MM GEO-2: *Where excavations are made for the construction of the below surface tunnel, the Project shall either shore excavation walls with shoring designed to withstand additional loads or reduce the slope of the excavation walls to a shallower gradient. Excavation spoils shall not be placed immediately adjacent to excavation walls unless the excavation wall is shored to support the added load. Spoils should be stored at a safe distance from the excavation site to prevent undue pressure on the walls.*

MM GEO-3: *The Project shall comply with the recommendations of the final soils and geotechnical report. These recommendations shall be implemented in the design of the Project, including but not limited to measures associated with site preparation, fill placement, temporary shoring and permanent dewatering, groundwater seismic design features, excavation stability, foundations, soil stabilization, establishment of deep foundations, concrete slabs and pavements, surface drainage, cement type and corrosion measures, erosion control, shoring and internal bracing, and plan review.*

MM GEO-4: *In locations where soils have a potential to be corrosive to steel and concrete, the soils shall be removed, and buried structures shall be designed for corrosive conditions, and corrosion-protected materials shall be used in infrastructure.*

MM GEO-5: *Prior to construction, the Project shall prepare a Construction Management Plan (CMP) that addresses geologic constraints and outlines strategies to minimize or avoid impacts to geologic hazards during construction. The plan shall address the following geological and geotechnical constraints/resources and incorporate standard mitigation measures (shown in parentheses):*

- *Groundwater withdrawal (using dewatering pumps and proper disposal of contaminated groundwater according to legal requirements)*
- *Risk of ground failure from unstable soils (retaining walls and inserting soil stabilizers)*
- *Subsidence (retaining walls and shoring)*
- *Erosion control methods (netting on slopes, bioswales, sediment basins, re-vegetation)*
- *Soils with shrink-swell potential (inserting soil stabilizers)*
- *Soils with corrosive potential (protective coatings and protection for metal, steel or concrete structures, soil treatment, removal of corrosive soils and proper disposal of any corrosive soils)*
- *Impact to topsoils (netting, and dust control)*
- *The recommendations of the CMP would be incorporated into the project plans and specifications.*

MM GEO-6: *The potential to avoid impacts to previously unrecorded paleontological resources shall be avoided by having a qualified Paleontologist or Archaeologist cross-trained in paleontology, meeting the Society of Vertebrate Paleontology Standards retained as the project paleontologist, with a minimum of a bachelor's degree (B.S./B.A.) in geology, or related discipline with an emphasis in paleontology and demonstrated experience and competence in paleontological research, fieldwork, reporting, and curation. A paleontological monitor, under the guidance of the project paleontologist, shall be present as required by the type of earth-moving activities in the Project, specifically in areas south of Ventura Boulevard that have been deemed areas of high sensitivity for paleontological resources. The monitor shall be a trained paleontological monitor with experience and knowledge of sediments, geologic formations, and the identification and treatment of fossil resources.*

MM GEO-7: *A Paleontological Resources Impact Mitigation Program (PRIMP) shall be prepared by a qualified paleontologist. The PRIMP shall include guidelines for developing and implementing mitigation efforts, including minimum requirements, general fieldwork, and laboratory methods, threshold for assessing paleontological resources, threshold for excavation and documentation of significant or unique paleontological resources, reporting requirements, considerations for the curation of recovered paleontological resources into a relevant institution, and process of documents to Metro and peer review entities.*

MM GEO-8: *The project paleontologist or paleontological monitor shall perform a Workers Environmental Awareness Program training session for each worker on the project site to familiarize the worker with the procedures in the event a paleontological resource is discovered. Workers hired after the initial Workers Environmental Awareness Program training conducted at the pre-grade meeting shall be required to take additional Workers Environmental Awareness Program training as part of their site orientation.*

MM GEO-9: *To prevent damage to unanticipated paleontological resources, a paleontological monitor shall observe ground-disturbing activities including but not limited to grading, trenching, drilling, etc. Paleontological monitoring shall start at full time for geological units deemed to have "High" paleontological sensitivity. Geological units deemed to have "Low" paleontological sensitivity shall be monitored by spot checks. No monitoring is required for geologic units identified as having "No" paleontological sensitivity. "Unknown" paleontological sensitivity is assigned to the less metamorphosed portions of the Santa Monica Slate, as detailed below.*

- *The monitor shall be empowered to temporarily halt or redirect construction efforts if paleontological resources are discovered. The paleontological monitor shall flag an area 50 feet around the discovery and notify the construction crew immediately. No further disturbance in the flagged area shall occur until the qualified paleontologist has cleared the area. In consultation with the qualified paleontologist, the monitor shall quickly assess the nature and significance of the find. If the specimen is not significant, it shall be quickly removed, and the area cleared. In the event paleontological resources are discovered and deemed by the project paleontologist to be scientifically important, the paleontological resources shall be recovered by excavation (i.e., salvage and bulk sediment sample) or immediate removal if the resource is small enough and can be removed safely in this fashion without damage to the paleontological resource. If the discovery is significant, the qualified paleontologist shall notify Metro immediately. In consultation with Metro, the qualified paleontologist shall develop a plan of mitigation, which will likely include salvage excavation and removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation of the find in a local qualified repository, and preparation of a report summarizing the find.*

- *Generally, geologic units that have endured metamorphic processes (i.e., extreme heat and pressure over long periods of time) do not contain paleontological resources. The Santa Monica Slate, originally a fossiliferous shale, has been subjected to various levels of metamorphism and thus, in areas of "low-grade metamorphism," paleontological resources may be discovered. Due to the rarity of paleontological resources dating to the Mesozoic (between approximately 65.5 to 252 million years ago) of Southern California, any such materials have high importance to the paleontology of the region. When encountered, the project paleontologist shall assess the levels of metamorphism that portion of the Santa Monica Slate has experienced. The Santa Monica Slate shall be monitored part time where the project paleontologist has determined lower levels of metamorphism have taken place and the preservation of paleontological resources is possible. If exposures of the Santa Monica Slate have been subjected to high levels of metamorphism (i.e., phyllite components of Jsmp), paleontological monitoring in that portion of the formation is not necessary.*
- *Recovered paleontological resources shall be prepared, identified to the lowest taxonomic level possible, and curated into a recognized repository (i.e., Natural History Museum of Los Angeles County). Bulk sediment samples, if collected, shall be "screen-washed" to recover the contained paleontological resources, which will then be identified to the lowest taxonomic level possible, and curated (as above). The report and all relevant field notes shall be accessioned along with the paleontological resources.*

Impacts After Mitigation

Adherence to existing regulations and implementation of PM GEO-1 and MM GEO-1 would result in a less than significant impact associated with exposing people or structures to seismic ground shaking, including effects related to seismic-related ground failure during construction activities.

Adherence to existing regulations and implementation of PM GEO-1, would ensure that Alternative 1 has a less than significant impact with the exposure of people or structures to liquefaction during construction activities.

With adherence to existing regulations, Alternative 1 would have a less than significant impact associated with landslides and/or slope instability during construction activities.

Adherence to existing regulations and policies and with implementation of PM GEO-2 and MM GEO-3 through MM GEO-5 would ensure the maximum practicable protection available for users of buildings and infrastructure and associated trenches, slopes, and foundations. Therefore, Alternative 1 would have a less than significant impact associated with the exposure of people or structures to hazards associated with unstable geologic units or soils.

With implementation of PM GEO-3 and adherence to existing regulations, Alternative 1 would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils.

When grading and trenching activities are employed, observation of MM GEO-6 through MM GEO-9 would reduce the impact to paleontological resources to less than significant.

5.2.7 Growth Inducing Impacts

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-18.

Table 5-18. Alternative 1: Growth Inducing Impacts Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Growth Inducing Impacts		
Impact GI-1: Would the Project foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GI-2: Would the project remove obstructions to population growth … [or] encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025e

GI = growth inducing
LTS = less than significant
NA = not applicable

5.2.7.1 Impact GI-1: Would the project foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment?

Construction of Alternative 1 would result in temporary environmental impacts within the RSA due to the necessary addition of construction workers. However, these workers would likely be sourced from the local labor pool, and thus the temporary employment opportunities for Alternative 1 would not directly foster the construction of permanent housing for workers in the Alternative 1 RSA. Thus, construction of Alternative 1 would result in less than significant impacts related to unplanned population, housing, and employment growth.

Maintenance and Storage Facilities

MSF Base Design

Construction of the MSF Base Design would not construct any new housing units; therefore, the MSF Base Design would not generate new or unplanned population and housing growth. Thus, construction of the MSF Base Design would result in less than significant impacts related to unplanned population, housing, and employment growth.

MSF Design Option 1

Construction of the MSF Design Option 1 would not construct any new housing units, and therefore would not generate new or unplanned population and housing growth. Thus, construction of the MSF Design Option 1 would result in less than significant impacts related to unplanned population, housing, and employment growth.

Electric Bus MSF

The Electric Bus MSF would not include construction of any new housing units, and therefore would not generate new or unplanned population and housing growth. Thus, construction of the Electric Bus MSF

would result in less than significant impacts related to unplanned population, housing, and employment growth.

5.2.7.2 Impact GI-2: Would the project remove obstructions to population growth…[or] encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively?

Construction of Alternative 1 would result in temporary influxes of construction workers, equipment, and vehicular trips to the Alternative 1 RSA. However, because the Alternative 1 RSA would be within a densely developed region, and because construction workers would likely reside in the wider metropolitan area, construction activities would not induce growth or extend environmental impacts into previously undeveloped areas. Construction activities for Alternative 1 would not remove obstructions to population growth, nor encourage or facilitate other projects that have not already been identified in the SCAG 2024-2050 RTP/SCS, Metro's 2020 LRTP, the 2023 FTIP, or Measure M. Thus, construction of Alternative 1 would result in less than significant impacts related to the removal of obstructions to population growth or encouragement and facilitation of other activities that could significantly affect the environment, either individually or cumulatively.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design would be within an urbanized region and would be constructed on a previously developed area. The MSF Base Design would not construct any housing units and thus would not generate unplanned population or housing growth. The construction of the MSF Base Design would not remove obstruction to population growth, nor encourage or facilitate other unplanned projects. Thus, construction of the MSF Base Design would result in less than significant impacts related to the removal of obstructions to population growth or encouragement and facilitation of other activities that could significantly affect the environment, either individually or cumulatively.

MSF Design Option 1

Similar to the MSF Base Design, the MSF Design Option 1 would be constructed in a previously developed area and would not generate unplanned population or housing growth, nor result in the development of TOCs in the surrounding areas. Thus, construction of the MSF Design Option 1 would result in less than significant impacts related to the removal of obstructions to population growth or encouragement and facilitation of other activities that could significantly affect the environment, either individually or cumulatively.

Electric Bus MSF

Similar to the MSF Base Design, the Electric Bus MSF would be constructed in a previously developed area and would not generate unplanned population or housing growth, remove obstruction to population growth, encourage or facilitate other unplanned projects, nor result in the development of TOCs in the surrounding areas. Thus, construction of the Electric Bus MSF would result in less than significant impacts related to the removal of obstructions to population growth or encouragement and facilitation of other activities that could significantly affect the environment, either individually or cumulatively.

5.2.7.3 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

5.2.8 Hazards and Hazardous Materials

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-19.

Table 5-19. Alternative 1: Hazards and Hazardous Materials Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Hazards and Hazardous Materials Construction Impacts		
Impact HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM HAZ-1 through MM HAZ-5
	Impacts After Mitigation	LTS
Impact HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025m

HAZ =hazards and hazardous materials
LTS = less than significant
MM = mitigation measure
NA = not applicable
PS = potentially significant

5.2.8.1 Impact HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction of Alternative 1 could expose the public or the environment to hazardous materials if the following situations occurred: improper handling or use of hazardous materials or hazardous wastes, (particularly if used or handled by untrained personnel); transportation accident; environmentally unsound disposal methods; or fire, explosion, or other emergencies. The severity of potential effects would vary with the activity conducted, the concentration of and type of hazardous material or wastes present, and the proximity of sensitive receptors.

There is an established, comprehensive federal, state, regional, and local framework independent of the CEQA process that is intended to reduce the risks associated with the use, transport, and disposal of hazardous materials. Transportation of hazardous materials on area roadways is regulated by the CHP and Caltrans. The use and disposal of hazardous materials is heavily regulated at both the federal and state level; these regulations are declared and enforced by agencies such as EPA, SWRCB, DTSC, Cal/OSHA, and the SCAQMD. Metro would be required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases. In accordance with the SWRCB and PM HAZ-2, Metro would obtain and comply with a National Pollutant Discharge Elimination System (NPDES) permit. In addition, coverage under the SWRCB's Construction General Permit would be obtained. As part of the Construction General Permit, the contractor would be required to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP), which would include best management practices (BMP) as mandated by PM HAZ-2, including measures to minimize the risk of accidental spills of hazardous materials during construction. The types and amounts of hazardous materials would vary according to the nature of the construction activity. Construction of Alternative 1 would require use of typical construction equipment (e.g., gasoline- or diesel-powered machinery) and vehicles containing fuel, oil, and grease, as well as use and transport of these materials. Limited quantities of certain hazardous materials such as paints, solvents, and glues would be used during construction. Construction staging and laydown would occur at multiple locations along the alignment and station sites and could include storage of excavated or demolished materials, construction offices, equipment storage, mechanical shops, and plants (grout, water treatment, foam, etc.). There is low likelihood that substantial quantities of hazardous materials would be stored during construction. Moreover, these hazardous materials would not include acutely hazardous materials or substances listed in 40 CFR 355 *Appendix A: Extremely Hazardous Substances and Their Threshold Planning Quantities* that could harm construction workers or the general public.

Whether a person exposed to a hazardous substance suffers adverse health effects as a result of that exposure depends upon a complex interaction of factors, including the following: the exposure pathway (the route by which a hazardous material enters the body); the amount of material to which the person is exposed; the physical form of the hazardous material (e.g., liquid or vapor) and its characteristics (e.g., toxicity); the frequency and duration of exposure; and the individual's unique biological characteristics, such as age, gender, weight, and general health. Adverse health effects from exposure to hazardous materials may be short term (acute) or long term (chronic). Acute effects can include damage to organs or systems in the body and possibly death. Chronic adverse effects, which may result from acute short-term or long-term exposure to a hazardous material, can also include organ or systemic damage, but chronic effects of particular concern include birth defects, genetic damage, and cancer.

Transportation of hazardous materials, such as contaminated soils; hazardous building materials, including asbestos, lead, and PCBs; and other hazardous wastes (i.e., TWW, roadway demolition debris, and hazardous building materials) would occur along designated truck routes within the Alternative 1 corridor and/or along major streets connecting to construction staging areas and the nearest freeways (e.g., I-405, I-10, US-101). Consistent with local plans, truck routes that may be used for transporting and hauling hazardous materials include Van Nuys Boulevard, Ventura Boulevard, Beverly Glen Boulevard, Santa Monica Boulevard, and Bundy Drive. As mandated by PM HAZ-2, transportation of hazardous materials would comply with state regulations governing hazardous materials transport as stated in the California Vehicle Code (Title 13 of the CCR), the State Fire Marshal Regulations (Title 19 of the CCR), and Title 22 of the CCR. Restrictions on haul routes can be incorporated into the construction specifications according to local permitting requirements.

Contaminated soils and hazardous building materials and wastes would be disposed of in accordance with federal, state, and local requirements at the following landfills:

- South Yuma County Landfill located at 19536 South Avenue 1E, Yuma, AZ
- Clean Harbors Buttonwillow Landfill located at 2500 West Lokern Road, Buttonwillow, CA
- U.S. Ecology located at Highway 95 South, Beatty, NV (EPA, 2023)

The Los Angeles County Public Health Department manages enforcement and permitting for facilities that receive and dispose of solid waste, including hazardous waste. Table 5-20 provides a representative list of the hazardous waste disposal landfills and potential haul routes.

Table 5-20. Alternative 1: Hazardous Waste Disposal Landfills and Potential Haul Routes

Landfill Site Name	Hazardous Waste Accepted	General Potential Haul Route
South Yuma County Landfill 19536 South Avenue 1E Yuma, AZ	Contaminated soil, PCBs, asbestos	I-405 South to SR-91 East to I-15 South to I-8 East to Yuma, Arizona
Clean Harbors Buttonwillow 2500 West Lokern Road Buttonwillow, CA	Acutely hazardous materials[a], contaminated soil, PCBs, asbestos, RCRA waste with heavy metals	I -405 North to I-5 North to SR-58 West to Lokern Road
U.S. Ecology Highway 95 South Beatty, NV	Contaminated soil, PCBs, asbestos	I-405 North to I-10 East to I-15 North to I-95 North to Beatty, Nevada

Source: HTA, 2024

[a]Acutely hazardous materials are defined as waste containing dangerous chemicals that could pose a threat to human health and the environment even when properly managed.

PCB = polychlorinated biphenyls
RCRA = Resource Conservation and Recovery Act

Adherence to federal and state regulations stipulated by PM HAZ-2 reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With compliance with existing regulations, impacts related to the creation of significant hazards to the public or the environment through the routine transport, storage, use, and disposal of hazardous materials during construction of Alternative 1 would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

The types and amounts of hazardous materials would vary according to the nature of the activity. Construction of the MSF Base Design would require use of typical construction equipment (e.g., gasoline- or diesel-powered machinery) and vehicles containing fuel, oil, and grease, as well as use and transport of these materials. Limited quantities of certain hazardous materials such as paints, solvents, and glues would be used during construction.

Maintenance of monorail vehicles and equipment would occur at an MSF. Multiple buildings would be constructed, including a multi-level maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, and traction power substation structure. Operation of the MSF would involve the use of small amounts of hazardous substances such as oil, grease, solvents, paints, common household-type cleaning materials, and pesticides/herbicides. Cleaning and maintenance products are

required to be labeled with appropriate cautions and instructions for handling, storage and disposal, and do not represent a significant threat to human health and the environment. Staff would be required to use, store, and dispose of these materials properly in accordance with label directions. The types and amounts of hazardous materials used at the MSF Base Design would not pose any greater risk than the existing uses at other similar development elsewhere in the vicinity of the MSF Base Design. Operation of the MSF Base Design would not require the use, handling, or storage of quantities of hazardous materials in excess of regulatory thresholds. If the quantity of hazardous materials used, handled, or stored on-site would exceed the regulatory thresholds, there is an established comprehensive regulatory framework independent of the CEQA process that would be followed, including preparation and submittal of a Hazardous Materials Business Plan (HMBP), as mandated by PM HAZ-1.

As previously discussed, adherence to federal and state regulations stipulated by PM HAZ-2 reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With compliance to existing regulations, impacts related to the creation of significant hazards to the public or the environmental through the routine transport, storage, use, and disposal of hazardous materials during construction of the MSF Base Design would be less than significant.

MSF Design Option 1

The types and amounts of hazardous materials would vary according to the nature of the activity. Construction of the MSF Design Option 1 would require use of typical construction equipment (e.g., gasoline- or diesel-powered machinery) and vehicles containing fuel, oil, and grease, as well as use and transport of these materials. Limited quantities of certain hazardous materials such as paints, solvents, and glues would be used during construction.

As previously discussed, adherence to federal and state regulations stipulated by PM HAZ-2 reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With compliance with existing regulations, impacts related to the creation of significant hazards to the public or the environment through the routine transport, storage, use, and disposal of hazardous materials during construction of the MSF Design Option 1 would be less than significant.

Electric Bus MSF

The types and amounts of hazardous materials would vary according to the nature of the activity. Construction of the Electric Bus MSF would require use of typical construction equipment (e.g., gasoline- or diesel-powered machinery) and vehicles containing fuel, oil, and grease, as well as use and transport of these materials. Limited quantities of certain hazardous materials such as paints, solvents, and glues would be used during construction.

Maintenance of electric buses and equipment would occur at the Electric Bus MSF. Multiple buildings would be constructed, including a multi-level maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, and traction power substation structure.

As previously discussed, adherence to federal and state regulations stipulated by PM HAZ-2 reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically

designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With compliance with existing regulations, impacts related to the creation of significant hazards to the public or the environment through the routine transport, storage, use, and disposal of hazardous materials during construction of the Electric Bus MSF would be less than significant.

5.2.8.2 Impact HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction activities for the proposed Project, such as grading and mass excavation, including use of a TBM, could result in the exposure of construction personnel and the public to previously unidentified hazardous substances in the soil. Exposure to unanticipated hazardous substances could occur from previously unidentified soil contamination caused by the contaminants originating at nearby listed sites (e.g., roadways and industrial uses). Or from construction-related soil contamination caused by spillage and/or mixing of construction trash and debris into the soil. EDR searched various regulatory databases and identified several sites in the surrounding area as being contaminated or having the potential to become contaminated from the release of hazardous substances. A summary and details of these sites are detailed in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m).

Exposure to hazardous materials during construction activities could occur as a result of any of the following:

- Direct dermal contact with hazardous materials
- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking)
- Inhalation of airborne dust released from dried hazardous materials

The Santa Monica Boulevard Station and the Wilshire/Metro D Line Station would be within the methane hazard zone. Under Alternative 1, all stations would be above street level and there would be no potential hazards associated with methane and/or hydrogen sulfide. In addition, the proposed Project would be required to comply with PM HAZ-3 that requires BMPs for activities within methane hazard zones to address potential impacts associated with methane gas and/or hydrogen sulfide.

The Area 4 Pollock OU could potentially extend near the northern portions of Alternative 1 north of Saticoy Street (ICF, 2022a). A historical manufacturing work in the Valley groundwater basin, dating back to World War II, contaminated the groundwater in the region with volatile organic compounds (VOCs), including trichloroethylene (TCE) and tetrachloroethylene (PCE). Use of contaminated groundwater poses the greatest risk at this site. The Valley Area 4 groundwater contamination is being addressed through the coordination of federal, state and municipal agencies including EPA, DTS, SRWQCB, and Los Angeles Regional Water Quality Control Board (LARWQCB). EPA conducted rounds of indoor sampling in the Atwater Village area (outside of the RSA) and determined that the VOCs migrating from the groundwater did not impact the area. Based on these results, it can be inferred that VOCs would not affect proposed stations under Alternative 1.

Several high-pressure pipelines containing crude oil traverse the RSA. A review of the PHMSA Pipeline Map Viewer (PHMSA, 2023) indicated there have been no recorded pipeline releases within the RSA.

However, Project-related excavation and earthmoving activities could encounter buried pipelines resulting in accidental rupture or leaks, which could cause a human health and environmental hazard. For security reasons, the PHMSA Pipeline Map Viewer (PHMSA, 2023) cannot be used for field verification of exact high-pressure pipeline locations, and the potential presence of other pipelines is unknown. In addition, it is possible buried underground utility lines may be within the RSA (such as stormwater, sewer, electrical, or communication cables). In addition, utility relocation could result in TWW that requires disposal.

Construction would require demolition of existing structures. Demolition of structures could potentially expose construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials such as ACM, LBP, or PCBs. Both the federal OSHA and Cal/OSHA regulate worker exposure during construction activities that disturb LBP. Any ACMs, if present, would need appropriate abatement of identified asbestos prior to demolition pursuant to the SCAQMD Rule 1403 and PM HAZ-4.

Additional effects from construction activities, such as excavation, tunneling, demolition, and grading, could include the potential exposure of construction workers and/or the public to chemical compounds in soils, and soil gases. These activities may also result in the localized spread of contamination if disturbed soils or materials are improperly handled, leading to the migration of contaminants to previously uncontaminated areas. In addition, airborne chemical compounds released from construction or demolition areas, such as dust containing hazardous substances, could pose inhalation risks to workers, nearby residents, and the environment. Transportation of contaminated slurry or soils off-site for disposal could also result in accidental releases, such as spills or leaks, if proper containment measures are not implemented. Therefore, construction impacts related to creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials would be potentially significant.

Alternative 1 would be required to implement MM HAZ-1 through MM HAZ-5, which would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling, transporting, and disposing of hazardous materials. Implementation of MM HAZ-1 through MM HAZ-5would minimize the risk of exposing construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials such as ACM, LBP, or PCBs during demolition activities. Regulations stipulated by PM HAZ-3 would ensure that the city's methane mitigation measures to reduce the potential exposure of construction workers and the public to methane gas would be implemented. Therefore, with implementation of MM HAZ-1 through MM HAZ-5, and adherence to PM HAZ-3, applicable local, state, and federal regulations would reduce impacts related to the upset and accidental release of hazardous materials to a less than significant level.

Maintenance and Storage Facilities

MSF Base Design

Construction activities for the proposed Project, such as grading and excavation, could result in the exposure of construction personnel and the public to previously unidentified hazardous substances in the soil. Exposure to unanticipated hazardous substances could occur from previously unidentified soil contamination caused by the contaminants originating at nearby listed sites (e.g., roadways and industrial uses). Or from construction-related soil contamination caused by spillage and/or mixing of construction trash and debris into the soil. EDR searched various regulatory databases and identified several sites in the surrounding area as being contaminated or having the potential to become

contaminated from the release of hazardous substances. A summary and details of these sites are presented in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m). Exposure to hazardous materials during construction activities could occur as a result of any of the following:

- Direct dermal contact with hazardous materials
- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking)
- Inhalation of airborne dust released from dried hazardous materials

If any unidentified sources of contamination are encountered during demolition, grading, or excavation, the removal activities required could pose health and safety risks capable of resulting in various short-term or long-term adverse health effects in exposed persons.

Construction would require demolition of existing structures. Demolition of structures could potentially expose construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials (such as ACM, LBP, or PCBs). Both the federal OSHA and Cal/OSHA regulate worker exposure during construction activities that disturb LBP. Any ACMs, if present, would need appropriate abatement of identified asbestos before demolition begins, pursuant to the SCAQMD Rule 1403 and PM HAZ-4.

Additional effects could include the potential exposure of construction workers and/or the public to chemical compounds in soils, and soil gases; potential localized spread of contamination; potential exposure of workers, the public, and the environment to airborne chemical compounds migrating from the construction or demolition areas; and potential accidents during transportation of contaminated slurry or soils. Therefore, construction impacts related to creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials would be potentially significant.

The MSF Design Option would be required to implement MM HAZ-1 through MM HAZ-4, which would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling hazardous materials and would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials. Therefore, with implementation of MM HAZ-1 through MM HAZ-4, and adherence to applicable local, state, and federal regulations would reduce impacts related to the upset and accidental release of hazardous materials to a less than significant level.

MSF Design Option 1

Construction activities for the proposed Project, such as grading and excavation, could result in the exposure of construction personnel and the public to previously unidentified hazardous substances in the soil. Exposure to unanticipated hazardous substances could occur from previously unidentified soil contamination caused by the contaminants originating at nearby listed sites (e.g., roadways and industrial uses). Or from construction-related soil contamination caused by spillage and/or mixing of construction trash and debris into the soil. EDR searched various regulatory databases and identified several sites in the surrounding area as being contaminated or having the potential to become contaminated from the release of hazardous substances. A summary and details of these sites are detailed in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report*

(Metro, 2025m). Exposure to hazardous materials during construction activities could occur as a result of any of the following:

- Direct dermal contact with hazardous materials
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- Inhalation of airborne dust released from dried hazardous materials

If any unidentified sources of contamination are encountered during demolition, grading, or excavation, the removal activities required could pose health and safety risks capable of resulting in various short-term or long-term adverse health effects in exposed persons.

Construction would require demolition of existing structures. Demolition of structures could potentially expose construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials (such as ACM, LBP, or PCBs). Both the federal OSHA and Cal/OSHA regulate worker exposure during construction activities that disturb LBP. Any ACMs, if present, would need appropriate abatement of identified asbestos before demolition begins, pursuant to the SCAQMD Rule 1403 and PM HAZ-4.

Additional effects could include the potential exposure of construction workers and/or the public to chemical compounds in soils, and soil gases; potential localized spread of contamination; potential exposure of workers, the public, and the environment to airborne chemical compounds migrating from the construction or demolition areas; and potential accidents during transportation of contaminated slurry or soils. Therefore, construction impacts related to creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials would be potentially significant.

The MSF Design Option would be required to implement MM HAZ-1 through MM HAZ-4, which would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling hazardous materials and would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials. Therefore, with implementation of MM HAZ-1 through MM HAZ-4, and adherence to applicable local, state, and federal regulations would reduce impacts related to the upset and accidental release of hazardous materials to a less than significant level.

Electric Bus MSF

Construction activities for the proposed Project, such as grading and excavation, could result in the exposure of construction personnel and the public to previously unidentified hazardous substances in the soil. Exposure to unanticipated hazardous substances could occur from previously unidentified soil contamination caused by the contaminants originating at nearby listed sites (e.g., roadways and industrial uses). Or from construction-related soil contamination caused by spillage and/or mixing of construction trash and debris into the soil. EDR searched various regulatory databases and identified several sites in the surrounding area as being contaminated or having the potential to become contaminated from the release of hazardous substances. A summary and details of these sites are presented in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m). Exposure to hazardous materials during construction activities could occur as a result of any of the following:

- Direct dermal contact with hazardous materials
- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking)
- Inhalation of airborne dust released from dried hazardous materials

If any unidentified sources of contamination are encountered during demolition, grading, or excavation, the removal activities required could pose health and safety risks capable of resulting in various short-term or long-term adverse health effects in exposed persons.

Construction would require demolition of existing structures. Demolition of structures could potentially expose construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials such as ACM, LBP, or PCBs. Both the federal OSHA and Cal/OSHA regulate worker exposure during construction activities that disturb LBP. Any ACMs, if present, would need appropriate abatement of identified asbestos prior to demolition pursuant to the SCAQMD Rule 1403 and PM HAZ-4.

Additional effects could include the potential exposure of construction workers and/or the public to chemical compounds in soils, and soil gases; potential localized spread of contamination; potential exposure of workers, the public, and the environment to airborne chemical compounds migrating from the construction or demolition areas; and potential accidents during transportation of contaminated slurry or soils. Therefore, construction impacts related to creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials would be potentially significant.

MM HAZ-1 through MM HAZ-4 would be implemented. Implementation of MM HAZ-1 through MM The Electric Bus MSF would be required to implement MM HAZ-1 through MM HAZ-4, which would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling hazardous materials and would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials. Therefore, with implementation of MM HAZ-1 through MM HAZ-4, and adherence to applicable local, state, and federal regulations would reduce impacts related to the upset and accidental release of hazardous materials to a less than significant level.

5.2.8.3 Impact HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Construction of Alternative 1 would involve handling of hazardous materials and use of diesel-powered equipment within 0.25 mile of schools. Such activities, if not appropriately managed, could result in hazardous emissions that would potentially affect nearby schools.

There is an established, comprehensive federal, state, regional, and local framework independent of the CEQA process that is intended to reduce the risks associated with handling of hazardous materials, including transport, use, storage, and disposal. The use and disposal of hazardous materials is heavily regulated at both the federal and state level; these regulations are promulgated and enforced by agencies such as EPA, the SWRCB and DTSC, Cal/OSHA, and the SCAQMD. By implementing the SWPPP and associated BMPs, as mandated by the SWRCB Construction General Permit and described in PM HAZ-2, construction-related hazardous substances, such as oil and greases, would be managed through

appropriate material handling and BMPs. In addition, transportation of hazardous materials would comply with state regulations governing hazardous materials transport included in the California Vehicle Code (Title 13 of the CCR), the State Fire Marshal Regulations (Title 19 of the CCR), and Title 22 of the CCR. Cooperation with the corridor cities would occur throughout the construction process, and the public would be notified of road closures. Restrictions on haul routes would be incorporated into the construction specifications according to local permitting requirements as set forth in PM HAZ-2.

Adherence to federal and state regulations reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a faster, more coordinated response to emergencies. By adhering to existing regulations, construction of Alternative 1 would have less than significant impacts associated with the transportation, use, storage, and handling of acutely hazardous materials within 0.25 mile of an existing school.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design is not located within 0.25 miles of a school. Therefore, the MSF Base Design would have no impact related to emissions or handling of acutely hazardous materials within 0.25 miles of a school.

MSF Design Option 1

MSF Design Option 1 is not located within 0.25 miles of a school. Therefore, the MSF Design Option 1 would have no impact related to emissions or handling of acutely hazardous materials within 0.25 miles of a school.

Electric Bus MSF

The Electric Bus MSF is not located within 0.25 miles of a school. Therefore, the Electric Bus MSF would have no impact related to emissions or handling of acutely hazardous materials within 0.25 miles of a school.

5.2.8.4 Impact HAZ-4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Alternative 1 includes 51 LUST sites that are identified on the Cortese List as having confirmed releases of hazardous materials, including petroleum hydrocarbons, VOCs, and metals to soil and groundwater. These sites are identified in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m). The LUST sites have been remediated and are classified as “Closed” by the regulatory agency, which signifies that they have been remediated to the satisfaction of the agency with oversight. Based on the regulatory status of case closed, these sites are not anticipated to have a negative environmental impact on the project site. Alternative 1 is located on a site that is included on one or more hazardous materials lists compiled in accordance with Government Code Section 65962.5. With adherence to existing regulations, Alternative 1 would not create or result in a significant hazard to people or the environment, and the Alternative 1 would result in a less than significant impact.

Maintenance and Storage Facilities

MSF Base Design

The hazardous site conditions for the MSF Base Design related to Government Code Section 65962.5, commonly known as the Cortese List, are associated with contaminated soils, and these sites are listed as "Closed," which signifies that they have been remediated to the satisfaction of the agency with oversight (refer to the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* [Metro, 2025m]). Based on the regulatory status of case closed, these sites are not anticipated to have a negative environmental impact on the project site. With adherence to existing regulations, MSF Base Design would not create or result in a significant hazard to people or the environment, and the MSF Base Design would result in a less than significant impact.

MSF Design Option 1

The hazardous site conditions for the MSF Design Option 1 related to Government Code Section 65962.5, commonly known as the Cortese List, are associated with contaminated soils, and these sites are listed as "Closed," which signifies that they have been remediated to the satisfaction of the agency with oversight (refer to the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* [Metro, 2025m]). Based on the regulatory status of case closed, these sites are not anticipated to have a negative environmental impact on the project site. With adherence to existing regulations, MSF Design Option 1 would not create or result in a significant hazard to people or the environment, and the MSF Design Option 1 would result in a less than significant impact.

Electric Bus MSF

The hazardous site conditions for the Electric Bus MSF related to Government Code Section 65962.5, commonly known as the Cortese List, are associated with contaminated soils, and these sites are listed as "Closed," which signifies that they have been remediated to the satisfaction of the agency with oversight (refer to the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* [Metro, 2025m]). Based on the regulatory status of case closed, these sites are not anticipated to have a negative environmental impact on the project site. With adherence to existing regulations, Electric Bus MSF would not create or result in a significant hazard to people or the environment, and the Electric Bus MSF would result in a less than significant impact.

5.2.8.5 Impact HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Alternative 1 is 0.9 mile from the Van Nuys Airport and 1.2 miles from the Santa Monica Municipal Airport. The Van Nuys Airport Plan for the Van Nuys Airport and the Los Angeles County ALUP for the Santa Monica Municipal Airport implements relevant policies and guidelines for land-use compatibility and specific findings of compatibility or incompatibility of land uses within the AIA, airport safety zones, and noise impact zones. These plans also address airport land-use compatibility concerns regarding exposure to aircraft noise, land use safety with respect both to people and property on the ground and the occupants of the aircraft, protection of airport airspace, and general concerns related to aircraft overflights. According to the Van Nuys Airport Plan for the Van Nuys Airport and the Los Angeles County ALUP for the Santa Monica Municipal Airport, Alternative 1 is located outside the AIA for both airports. Alternative 1 is not located within the safety zone or the noise impact zone for the airports. (DCP, 2006; LA County Planning, 1991; ALUC, 2003a, 2003b, 2023).

Alternative 1 would not interfere with CFR Title 14 Part 77.13 which requires that any construction or alterations to structures that exceed 200 feet in height above ground level must notify the FAA for project approval. The Alternative 1 is not within the AIA, Safety Zones, and Noise Impact Zones. Adherence to existing local, state, and federal regulations would ensure that during construction of the Alternative 1, impacts associated with potential aviation hazards would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design would be approximately 2.6 miles from the Van Nuys Airport and outside the airport's AIA. Because the MSF Base Design would be outside of the AIA, there are no airport land use plans applicable to MSF. Thus, construction of the MSF Base Design would have no impact with respect to safety hazards for people residing or working in the vicinity of the MSF Base Design.

MSF Design Option 1

MSF Design Option 1 is 0.9 mile from the Van Nuys Airport. The Van Nuys Airport Plan for the Van Nuys Airport implements relevant policies and guidelines for land-use within the AIA, airport safety zones, and noise impact zones. These plans also address airport land-use compatibility concerns regarding exposure to aircraft noise, land use safety with respect both to people and property on the ground and the occupants of the aircraft, protection of airport airspace, and general concerns related to aircraft overflights. According to the Van Nuys Airport Plan for the Van Nuys Airport, MSF Design Option 1 is located outside the AIA. MSF Design Option 1 would not interfere with CFR Title 14 Part 77.13 which requires that any construction or alterations to structures that exceed 200 feet in height above ground level must notify the FAA for project approval. With adherence to existing federal, state and local regulations, the MSF Design Option 1 would not result in a safety hazard or excessive noise related airports and construction impacts would be less than significant.

Electric Bus MSF

The Electric Bus MSF would not be within 2 miles of an airport. Thus, construction of the Electric Bus MSF would have no impact with respect to safety hazards for people residing or working in the vicinity of the Electric Bus MSF.

5.2.8.6 Project and Mitigation Measures

Project Measures

The following project measures are design features, BMPs, or other measures required by law and/or permit approvals. These measures are components of the Project and are applicable to Alternative 1.

PM HAZ-2: *Construction BMPs shall include but not be limited to:*

- *The Project shall be required to obtain permits before construction begins and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases in accordance with the U.S. Environmental Protection Agency, State Water Resources Control Board, Department of Toxic Substances Control, California Division of Occupational Safety and Health, and the South Coast Air Quality Management District.*
- *The Project shall develop a Stormwater Pollution Prevention Plan in accordance with the State Water Resources Control Board's Construction Clean Water Act Section 402 General Permit conditions, and subject to regular inspections by applicable jurisdiction(s) to ensure compliance. The Stormwater Pollution*

Prevention Plan shall include specifications for, but not be limited to, the following:

- *Maintain proper working conditions for vehicles and equipment to minimize potential fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials.*
- *Conduct servicing, refueling, and staging of construction equipment only at designated areas where a spill would not flow to drainages. Conduct equipment washing, if needed, only in designated locations where water would not flow into drainage channels.*
- *Implement drainage best management practices to protect water quality (such as oil/water separators, catch basin inserts, storm drain inserts, media filtration, and catch basin screens).*
- *Report hazardous spills to the designated Certified Unified Program Agency (i.e., Los Angeles County Fire Department Health Hazardous Materials Division or Santa Fe Springs Department of Fire and Rescue) and implement clean up immediately and proper disposal of contaminated soil at a licensed facility.*
- *Establish properly designed, centralized storage areas to keep hazardous materials fully contained.*
- *Keep spill cleanup materials (e.g., rags, absorbent materials, and secondary containment) properly stored and maintained at the work site when handling materials.*
- *Implement monitoring program by the construction site supervisor that includes both dry and wet weather inspections.*

- *Transportation of hazardous materials by the Project shall comply with state regulations governing hazardous materials transport included in the California Vehicle Code (Title 13 of the California Code of Regulations), the State Fire Marshal Regulations (Title 19 of the California Code of Regulations), and Title 22 of the California Code of Regulations. These regulations include the following :*
  - *Require all motor carrier transporters of hazardous materials to have a Hazardous Materials Transportation license issued by the California Highway Patrol.*
  - *Require the transport of hazardous materials via routes with the least overall travel time.*
  - *Prohibit the transport of hazardous materials through residential neighborhoods.*
  - *Require transporters to take immediate action to protect human health and the environment in the event of spill, release, or mishap.*
  - *Incorporate restrictions on haul routes into the construction specifications according to local permitting requirements.*

- *Contaminated soils and hazardous building materials and wastes shall be disposed of in accordance with federal, state, and local requirements at landfills serving Los Angeles County. The removal and disposal of hazardous building materials shall be the responsibility of a California Division of Occupational Safety and Health-certified contractor in accordance with South Coast Air Quality Management District Rule 1403 (Asbestos Emissions from Renovation/Demolition Activities).*
- *Traffic control during construction shall follow local jurisdiction guidelines. For specialized construction tasks, it may be necessary to work during nighttime hours to minimize traffic disruptions.*

PM HAZ-3: *Construction best management practices for activities within methane hazard zones shall include, but not be limited to, the following:*

- *Pursuant to Section 91.7104.1 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619), site testing of subsurface geological formations shall be conducted by a Project-approved testing agency under the supervision of a licensed architect or registered engineer or geologist. The licensed architect or registered engineer or geologist shall indicate the testing instruments used and testing procedure followed. The testing procedure shall meet the Methane Mitigation Standards established by the Superintendent of Building.*
- *All paving work, building construction, tunneling and underground station construction within the methane zone or methane buffer zone as defined by Los Angeles Department of Building and Safety shall be required to comply with Methane Mitigation Standards established by the Superintendent of Building as well as the requirements outlined in Sections 91.7103 and 91.7104 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619).*
- *All building and underground structures, including tunneling and stations, located in the Methane Zone shall provide a methane mitigation system as required by Los Angeles Municipal Code Table 71 in Section 91.7104.2 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619) based on the appropriate Site Design Level. The Superintendent of Building may approve an equivalent methane mitigation system designed by an architect, engineer, or geologist.*

PM HAZ-4: *Construction best management practices for demolition of existing structures shall include, but shall not be limited to, the following:*

- *Both the federal Occupational Safety and Health Administration and California Division of Occupational Safety and Health regulate worker exposure during construction activities that disturb lead-based paint. Any asbestos-containing materials, if present, shall require appropriate abatement of identified asbestos prior to demolition pursuant to South Coast Air Quality Management District Rule 1403.*
- *Polychlorinated biphenyls (PCB)-containing fluorescent light fixtures and electrical transformers that are not labeled "No PCBs" shall be assumed to*

contain polychlorinated biphenyls and shall be removed prior to demolition activities and shall be disposed of by a licensed and certified polychlorinated biphenyls removal contractor, in accordance with local, state, and federal regulations. The removal and disposal of the electrical transformers shall be the responsibility of the utility owner in accordance with all standards and practices.

PM HAZ-5: *Construction best management practices for the areas with known or previously undiscovered hazardous materials shall include, but not be limited to, the following:*

- *The Project shall hire a qualified professional to sample soil suspected of contamination (obvious signs of contamination include indicators such as odors, stains, or other suspect materials) for the purpose of classifying material and determining disposal requirements before construction begins. If excavated soil is suspected or known to be contaminated, the Project shall:*
  - *Segregate and stockpile the excavated material in a way that shall facilitate measurement of the stockpile volume.*
  - *Spray the stockpile with water or a South Coast Air Quality Management District-approved vapor suppressant and cover the stockpile with a heavy-duty plastic (i.e., Visqueen) to prevent soil volatilization in the atmosphere or exposure to nearby workers per South Coast Air Quality Management District Rule 1166.*
- *Existing groundwater monitoring wells shall remain under ongoing groundwater investigations associated with off-site sources.*

Mitigation Measures

MM HAZ-1: ***Phase II Environmental Site Assessment.*** *Prior to the issuance of a grading permit and before any substantial ground disturbance occurs on or near the properties with documented releases, the Project shall hire a qualified environmental professional to conduct a Phase II Environmental Site Assessment to determine the potential presence of petroleum hydrocarbons, metals, and volatile organic compounds in soil and/or groundwater.*

- *If the Phase I Environmental Site Assessment identifies any recognized environmental conditions or other indicators of potential contamination, a Phase II Environmental Site Assessment shall be conducted. The Phase II Environmental Site Assessment shall include sufficient soil and groundwater sampling and laboratory analysis to identify the types of chemicals and their respective concentrations. The Phase II Environmental Site Assessment shall compare soil and groundwater sampling results against applicable environmental screening levels developed by the Los Angeles Regional Water Quality Control Board and/or Department of Toxic Substances Control. If the Phase II Environmental Site Assessment identifies contaminant concentrations above the screening levels, a site-specific Soil and Groundwater Management Plan shall be prepared and implemented as described in MM HAZ-2. The Project shall consult with the Department of Toxic Substances Control, California Environmental Protection Agency, and/or other appropriate regulatory agencies to ensure sufficient minimization of risk to human health and the environment is completed.*

MM HAZ-2: ***Soil and Groundwater Management Plan.*** *Prior to the issuance of a grading permit, a site-specific Soil and Groundwater Management Plan shall be prepared by a qualified professional environmental contractor to address handling and disposal of contaminated soil and groundwater prior to demolition, excavation, and construction activities.*

- *The Project shall implement the Soil and Groundwater Management Plan during construction activities. The Soil and Groundwater Management Plan shall specify all necessary procedures to ensure the safe handling and disposing of excavated soil, groundwater, and/or dewatering effluent in a manner that is protective of human health and in accordance with federal and state hazardous waste disposal laws, and with state and local stormwater and sanitary sewer requirements. At a minimum, the plan shall include the following:*
  - *Identification and delineation of contaminated areas and procedures for limiting access to such areas to properly trained personnel.*
  - *Step-by-step procedures for handling, excavating, characterizing, and managing excavated soils and dewatering effluent, including procedures for containing, handling, and disposing of hazardous waste; procedures for containing, handling, and disposing of groundwater generated from construction dewatering; the method used to analyze excavated materials and groundwater for hazardous materials likely to be encountered at specific locations; appropriate treatment and/or disposal methods. Removal of soil and materials shall be performed by a licensed engineering contractor with a Class A license and hazardous-substance removal certification.*
  - *Requirements to water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, and staging.*
  - *Requirements to cover or maintain at least 2 feet of free board space on haul trucks transporting soil or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.*
  - *Requirements to use wet power vacuum street sweepers to remove any visible track out mud or dirt onto adjacent public roads at least once a day. Use of dry powered sweeping is prohibited.*
  - *Procedures for handling volatile organic compound-contaminated soil, including, but not limited to, segregating volatile organic compound-contaminated stockpiles from non-volatile organic compound-contaminated stockpiles, spraying volatile organic compound-contaminated soil stockpiles with water and/or approved vapor suppressant and covering them with plastic sheeting for all periods of inactivity lasting more than 1 hour, conducting a daily visual inspection of all covered volatile organic compound-contaminated soil stockpiles to ensure the integrity of the plastic covered surfaces, and removing contaminated soil from an excavation or grading site within 30 days from the time of excavation to a licensed facility.*

- *Procedures for notification and reporting, including notifying and reporting to internal management and to local agencies.*
- *Minimum requirements for site-specific Health and Safety Plans to protect the general public and workers in the construction area. Prior to the issuance of grading permits, the Soil and Groundwater Management Plan and the results of environmental sampling shall be provided to contractors who shall be responsible for developing their own construction worker Health and Safety Plan and training requirements, per MM HAZ-4.*
- *The Project shall hire a qualified environmental professional to sample groundwater suspected of contamination. If any suspected groundwater contamination is encountered during construction, the contractor shall stop work in the vicinity, cordon off the area, and contact the Los Angeles County Metropolitan Transportation Authority who shall immediately notify the Regional Water Quality Control Board. In coordination with the Regional Water Quality Control Board, an investigation and remediation plan shall be developed by a qualified environmental professional in order to protect public health and the environment. Any hazardous or toxic materials shall be disposed of according to local, state, and federal regulations.*
- *Trucking operations shall comply with the California Department of Transportation and any other applicable regulations, and all trucks shall be licensed and permitted to carry the appropriate waste classification. The tracking of dirt by trucks leaving the project site shall be minimized by cleaning the wheels upon exit and cleaning the loading zone and exit area as needed.*

MM HAZ-3: ***Contractor Specifications.*** *The Project shall include in its contractor specifications the following requirement relating to hazardous materials:*

- *During all ground-disturbing activities, the contractor(s) shall inspect the exposed soil and groundwater for obvious signs of contamination, such as odors, stains, or other suspect materials. Qualified personnel shall monitor for volatile organize compounds and other subsurface gases for concentrations exceeding South Coast Air Quality Management District levels with a photoionization detector. Should signs of unanticipated contamination be encountered, work shall be suspended, and the Los Angeles County Department of Public Health shall be notified, and the area secured. Contaminated soil and/or groundwater shall be segregated and characterized, and a site-specific Soil and Groundwater Management Plan, as described under MM HAZ-2, shall be prepared and implemented.*

MM HAZ-4: ***Worker Health and Safety Plan.*** *The contractor shall prepare site-specific Worker Health and Safety Plan to protect the general public and workers in the construction area. The Health and Safety Plan shall be prepared in accordance with California and federal Occupational Safety and Health Administration regulations. Copies of the Health and Safety Plan shall be made available to construction workers for review during their orientation and/or regular health and safety meetings. The Health and Safety Plan shall identify chemicals of concern, potential hazards, worker training requirements, personal protective equipment and devices, decontamination procedures, the need for personal or area monitoring, and emergency response procedures. The Health and Safety Plan shall be amended, as necessary, if new information becomes available that could affect implementation of the plan.*

MM HAZ-5: ***Hazardous Building Survey and Abatement.*** *Prior to demolition activities of any structures, the Project shall retain a California Division of Occupational Safety and Health-certified contractor to determine the presence or absence of building materials or equipment that contains hazardous materials, including asbestos, lead-based paint, and polychlorinated biphenyl-containing equipment. If such substances are found to be present, the contractor shall prepare and submit a workplan to the relevant oversight agency to demonstrate how these hazardous materials would be properly removed and disposed of in accordance with federal and state law, including South Coast Air Quality Management District Rule 1403 (Asbestos Emissions from Renovation/Demolition Activities). The removal and disposal of hazardous building materials shall be the responsibility of a California Division of Occupational Safety and Health-certified contractor. Following completion of removal activities, the Project shall submit documentation to the relevant oversight agency verifying that all hazardous materials were properly removed and disposed of.*

Impacts After Mitigation

Implementation of MM HAZ-1 through MM HAZ-5 would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling hazardous materials, and would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials such as ACM, LBP, or PCBs during demolition activities; thus, impacts would be reduced to less than significant.

5.2.9 Land Use and Development

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-21.

Table 5-21. Alternative 1: Land Use and Development Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Land Use and Development Construction Impacts		
Impact LUP-1: Would the project physically divide an established community?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternative 1
Impact LUP-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025h

LTS = less than significant
LUP = land use and planning
MM = mitigation measure
NA = not applicable
PS = potentially significant
TRA = transportation

5.2.9.1 Impact LUP-1: Would the project physically divide an established community?

Construction activities for Alternative 1 would result in temporary, but not permanent, physical divisions of established communities in the existing setting. Temporary street detours would be required to accommodate the proposed aerial guideway and stations, soundwall, and I-405 on- and off-ramp construction. The proposed aerial guideway and stations would be constructed within or adjacent to I-405 and within the existing LOSSAN rail corridor ROW. Without mitigation, this could be a significant impact due to the potential for temporary access disruptions.

In locations where the alignment is adjacent to the I-405 corridor or the LOSSAN rail corridor, or where I-405 widening is necessary for Alternative 1, temporary street detours and encroachment permits would be required. These detours could temporarily limit access to established communities located within the RSA. Although they would not alter the land uses or zoning within the RSA, the temporary access limitations could result in significant impacts without mitigation.

During construction, Alternative 1 would close Dickens Street between Ventura Boulevard and Sepulveda Boulevard to vehicle traffic for the conversion of a bus loop and transit plaza. In addition, the existing I-405 southbound on-ramp from Sunset Boulevard would be closed. Street and sidewalk closures during construction would temporarily limit property access between established communities. However, these closures would be temporary and periodic and would not permanently restrict access to or from an established community because alternative routes would be provided as needed, and access between the established communities would be restored post construction. Nevertheless, without mitigation, temporary closures could result in significant impacts related to access or from an established community.

Construction of Alternative 1 would require construction easements (i.e., the areas needed during construction activities) for the aerial guideway and station installation, staging areas, soundwall installation, I-405 widening, street reconstruction, demolition, and utility relocation. These construction easements would consist of properties with land uses designated as commercial, public facilities, residential, open space/recreation, industrial, vacant, and institutions. While vehicle and non-vehicle access for communities within the RSA of the proposed alignment and stations would be maintained, without mitigation, access disruptions could result in a significant impact. The properties under construction easements would retain their original land use designation and zoning classifications.

To address these potential impacts, Alternative 1 would be required implement of MM TRA-4, which would require preparation and implementation of a TMP to reduce the impacts of construction work zones, provide wayfinding signage to inform the public of reroutes due to closed pedestrian areas and

roadways, and require Metro and the contractor to notify and coordinate with surrounding communities regarding the construction schedule. With implementation of MM TRA-4, the potential significant impacts would be reduced to less than significant.

Maintenance and Storage Facilities

MSF Base Design

Construction activities for the proposed MSF Base Design would not create any permanent physical divisions within the surrounding community. Street and sidewalk closures during construction would result in temporary limitations on movement for pedestrians, bicyclists, and vehicles within and between local communities. Without mitigation, these closures could result in significant impacts related to community access.

The *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a) further analyzes the potential impacts on circulation and pedestrian access to adjoining or nearby properties. As discussed in that report, street and sidewalk closures may be required during construction of the MSF Base Design that would temporarily limit property access between established communities. These closures would be temporary and periodic. However, without mitigation, these temporary closures could still result in significant impacts related to community access.

To address these impacts, the proposed MSF Base Design would implement MM TRA-4, which would require preparation and implementation of a construction TMP to minimize disruptions from construction work zones, provide wayfinding signage to inform the public of reroutes, and require Metro and the contractor notify and coordinate with surrounding communities regarding the construction schedule. With implementation of MM TRA-4, the potential significant impacts would be reduced to less than significant.

Metro and the contractor would notify and work with surrounding communities regarding the construction schedule and would use wayfinding signage to inform the public of reroutes due to closed pedestrian areas and roadways. Therefore, construction of the proposed MSF Base Design would not physically divide an established community and would result in a less than significant impact.

MSF Design Option 1

Construction activities for the proposed MSF Design Option 1 would not create any permanent physical divisions within the surrounding community. Street and sidewalk closures during construction would result in temporary limitations on movement for pedestrians, bicyclists, and vehicles within and between local communities. Without mitigation, these closures could result in significant impacts related to community access.

The *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a) further analyzes the potential impacts on circulation and pedestrian access to adjoining or nearby properties. As discussed in that report, street and sidewalk closures may be required during construction of the MSF Design Option 1 that would temporarily limit property access between established communities. These closures would be temporary and periodic. However, without mitigation, these temporary closures could still result in significant impacts related to community access and connectivity.

To address these impacts, the proposed MSF Design Option 1 would implement MM TRA-4, which would require preparation and implementation of a construction TMP to minimize disruptions from construction work zones, provide wayfinding signage to inform the public of reroutes, and require Metro and the contractor notify and coordinate with surrounding communities regarding the

construction schedule. With implementation of MM TRA-4, the potential significant impacts would be reduced to less than significant.

Electric Bus MSF

Construction activities for the proposed Electric Bus MSF would not create any permanent physical divisions within the surrounding community. Street and sidewalk closures during construction would result in temporary limitations on movement for pedestrians, bicyclists, and vehicles within and between local communities. Without mitigation, these closures could result in significant impacts related to community access.

The *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a) further analyzes the potential impacts on circulation and pedestrian access to adjoining or nearby properties. As discussed in that report, street and sidewalk closures may be required during construction of the Electric Bus MSF that would temporarily limit property access between established communities. These closures would be temporary and periodic. However, without mitigation, these temporary closures could still result in significant impacts related to community access and connectivity.

To address these impacts, the proposed Electric Bus MSF would implement MM TRA-4, which would require preparation and implementation of a construction TMP to minimize disruptions from construction work zones, provide wayfinding signage to inform the public of reroutes, and require Metro and the contractor notify and coordinate with surrounding communities regarding the construction schedule. With implementation of MM TRA-4, the potential significant impacts would be reduced to less than significant.

5.2.9.2 Impact LUP-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Construction of Alternative 1 would require construction easements and encroachment permits for the construction activities, including aerial guideway and station installation, soundwall installation, I-405 widening for Alternative 1, street reconstruction, demolition, and utility relocation. Construction easements and encroachment permits would vary along the Alternative 1 guideway alignment and proposed stations, depending on the type of construction and adjacent land use. The properties under construction easements would retain their original land use designation and zoning classifications. The construction easements would consist of properties with land use designated as commercial, public facilities, residential, industrial, vacant, and institutions.

Construction activities associated with the widening of I-405, grading, and the soundwall to support the proposed alignment and stations would be temporary and would not alter the distinct residential character and integrity of the Brentwood-Pacific Palisades Community as a whole. Alternative 1 would support Goal 11 to “encourage alternative modes of transportation to the use of single occupancy vehicles in order to reduce vehicle trips,” and Policy 1-3.3 in “considering factors such as neighborhood character and identity, compatibility of land uses, impacts on livability, impacts on services and public facilities, and impacts on traffic levels when changes in residential densities are proposed.”

Although construction activities associated with Alternative 1 would result in construction easements, they would not conflict with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the construction of Alternative 1 would result in a less than significant impact.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design would require construction easements and acquisition of properties with industrial uses. The parcels within the proposed MSF Base Design and in the vicinity are zoned as Light Industrial and Public Facilities Zone (City of Los Angeles, 2023a). A significant portion of the proposed MSF Base Design is occupied by the industrial uses owned by the LADWP Valley Center. The construction easements would be temporary, and the properties would retain their original land use designation and zoning classifications. Given the existing industrial uses of the parcels to be acquired and of the parcels in the surrounding area, construction of the proposed MSF Base Design would not be considered a change in land use type and would not conflict with adjacent land uses.

The proposed MSF Base Design would not create any new land uses that could generate conflicts with land uses adjacent to the alignment, or conflict with local land use plans, policies, or regulations; therefore, impacts would be less than significant during construction. Operation of the proposed MSF Base Design would conflict with the LADWP Urban Water Management Plan (LADWP, 2020), which has identified this site for the Mid-Valley Water Facility project. The Mid-Valley Water Facility project would replace outdated buildings and trailers currently situated at various locations throughout the San Fernando Valley. The proposed facility is intended to improve efficiencies across LADWP divisions, support LADWP's mainline replacement program, and ensure infrastructure resiliency. LADWP's Board of Water and Power Commissioners approved a Mitigated Negative Declaration for the project on February 11, 2020 and construction is anticipated to begin in 2027. Due to the conflict with the proposed facility, the proposed MSF Base Design may result in the need to relocate or construct a new facility which may have significant environmental effects. If it is determined that a new facility in a new location is needed, environmental review of the proposal would be required to determine potential environmental effects and identify feasible mitigation measures to address those effects. Metro has been in coordination with LADWP and continued coordination is required to identify a solution to the conflict and determine if a new or relocated facility is required. Therefore, since the conflict with the proposed LADWP facility is unresolved and no solution has been identified, construction of the proposed MSF Base Design would result in a significant and unavoidable impact related to conflicting with local land use plans.

MSF Design Option 1

The proposed MSF Design Option 1 would require construction easements and acquisition of properties with industrial uses. The parcels within the proposed MSF Design Option 1 and in the vicinity are zoned as Commercial Manufacturing, Light Industrial, and Automobile Parking Zone (City of Los Angeles, 2023a). A significant portion of the proposed MSF Design Option 1 is occupied by industrial and manufacturing businesses and warehouses. The construction easements would be temporary, and the properties would retain their original land use designation and zoning classifications. Given the existing industrial and manufacturing uses of the parcels to be acquired and of the parcels in the surrounding area, construction of the proposed MSF Design Option 1 would not be considered a change in land use type and would not conflict with adjacent land uses.

The proposed MSF Design Option 1 would not create any new land uses that could generate conflicts with land uses adjacent to the alignment, or conflict with local land use plans, policies, or regulations; therefore, impacts would be less than significant during construction.

Electric Bus MSF

The proposed Electric Bus MSF would require construction easements and acquisition of properties with facilities, general office, and commercial and services land uses. However, the parcels within the proposed Electric Bus MSF and in the vicinity are zoned as a Transit Priority Area for the Metro Exposition Corridor (City of Los Angeles, 2023a). The construction easements would be temporary, and the properties would retain their original land use designation and zoning classifications. Therefore, construction of the proposed Electric Bus MSF would not be considered a change in land use type and would not conflict with adjacent land uses.

The proposed Electric Bus MSF would not create any new land uses that could generate conflicts with land uses adjacent to the alignment, or conflict with local land use plans, policies, or regulations; therefore, impacts would be less than significant during construction.

5.2.9.3 Impact AFR-1: Would the project convert Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

There are no parcels designated as agricultural within the Alternative 1 RSA. Implementation of Alternative 1 during construction activities would not involve changes that could result in conversion of farmland to non-agricultural uses and no impact would occur during construction.

Maintenance and Storage Facilities

MSF Base Design

The parcels that are part of the proposed MSF Base Design are not zoned for agricultural uses. Therefore, the proposed MSF Base Design would not involve conversion of Prime Farmland, Unique Farmland, or Farmlands of Statewide Importance to non-agricultural use, and no impact would occur during construction.

MSF Design Option 1

The parcels that are part of the proposed MSF Design Option 1 are not zoned for agricultural uses. Therefore, proposed MSF Design Option 1 would not involve conversion of Prime Farmland, Unique Farmland, or Farmlands of Statewide Importance to non-agricultural use, and no impact would occur during construction.

Electric Bus MSF

The parcels that are part of the proposed Electric Bus MSF are not zoned for agricultural uses. Therefore, the proposed Electric Bus MSF would not involve conversion of Prime Farmland, Unique Farmland, or Farmlands of Statewide Importance to non-agricultural use, and no impact would occur during construction.

5.2.9.4 Impact AFR-2: Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Implementation of Alternative 1 would not conflict with existing agricultural zoning during construction activities. Alternative 1 and surrounding areas within the RSA are neither zoned for agricultural use nor a part of a Williamson Act contract. Implementation of Alternative 1 would not conflict with existing zoning for agricultural use or affect land under a Williamson Act Contract. Therefore, Alternative 1 would have no impact on agricultural zoning during construction.

Maintenance and Storage Facilities

MSF Base Design

The parcels that are part of the proposed MSF Base Design are not zoned for agricultural uses. Therefore, the proposed MSF Base Design would not conflict with existing zoning for agricultural use or affect land under a Williamson Act Contract, and no impact would occur during construction.

MSF Design Option 1

The parcels that are part of the proposed MSF Design Option 1 are not zoned for agricultural uses. Therefore, the proposed MSF Design Option 1 would not conflict with existing zoning for agricultural use or affect land under a Williamson Act Contract, and no impact would occur during construction.

Electric Bus MSF

The parcels that are part of the proposed Electric Bus MSF are not zoned for agricultural uses. Therefore, the proposed Electric Bus MSF would not conflict with existing zoning for agricultural use or affect land under a Williamson Act Contract, and no impact would occur during construction.

5.2.9.5 Impact AFR-3: Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

Alternative 1 and the surrounding areas within the RSA are characterized by features typical of the urban landscape. There are no properties zoned as forest land or timberland within the RSA for Alternative 1. According to the USDA Forest Services, the closest designated forest land is the Angeles National Forest located approximately 12.53 miles east of the northern portion of Alternative 1 (USDA, 2023). Implementation of Alternative 1 would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

Maintenance and Storage Facilities

MSF Base Design

The parcels that are part of the proposed MSF Base Design are not zoned as forest lands or timberland. Therefore, the proposed MSF Base Design would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

MSF Design Option 1

The parcels that are part of the proposed MSF Design Option 1 are not zoned as forest lands or timberland. Therefore, proposed MSF Design Option 1 would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

Electric Bus MSF

The parcels that are part of the proposed Electric Bus MSF are not zoned as forest lands or timberland. Therefore, the proposed Electric Bus MSF would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

5.2.9.6 Impact AFR-4: Would the project result in the loss of forest land or conversion of forest land to non-forest land use?

Alternative 1 and the surrounding areas within the RSA are characterized by features typical of the urban landscape. There are no properties zoned as forest land or timberland within the RSA for Alternative 1. According to the USDA Forest Services, the closest designated forest land is the Angeles National Forest located approximately 12.53 miles east of the northern portion of Alternative 1 (USDA, 2023). Implementation of Alternative 1 would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

Maintenance and Storage Facilities

MSF Base Design

The parcels that are part of the proposed MSF Base Design are not zoned as forest lands or timberland. Therefore, the proposed MSF Base Design would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

MSF Design Option 1

The parcels that are part of the proposed MSF Design Option 1 are not zoned as forest lands or timberland. Therefore, proposed MSF Design Option 1 would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

Electric Bus MSF

The parcels that are part of the proposed Electric Bus MSF are not zoned as forest lands or timberland. Therefore, the proposed Electric Bus MSF would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

5.2.9.7 Impact AFR-5: Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Alternative 1 and surrounding areas within the RSA are characterized by features typical of the urban landscape. Implementation of Alternative 1 would not involve changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use. There are no agricultural uses, farmland, or forest land within or in close proximity to the RSA for Alternative 1. Therefore, there would be no impact associated with conversion of farmland or forest land during construction.

Maintenance and Storage Facilities

MSF Base Design

The parcels that are part of the proposed MSF Base Design are not zoned as agricultural land, forest lands, or timberland. Therefore, the proposed MSF Base Design would not result in conversion of farmland or forest land, and no impact would occur during construction.

MSF Design Option 1

The parcels that are part of the proposed MSF Design Option 1 are not zoned as agricultural land, forest lands, or timberland. Therefore, proposed MSF Design Option 1 would not result in conversion of farmland or forest land, and no impact would occur during construction.

Electric Bus MSF

The parcels that are part of the proposed Electric Bus MSF are not zoned as agricultural land, forest lands, or timberland. Therefore, the proposed Electric Bus MSF would not result in conversion of farmland or forest land, and no impact would occur during construction.

5.2.9.8 Mitigation Measures

Construction Impacts

Construction of Alternative 1 requires implementation of MM TRA-4 to reduce disruption caused by construction work zones to a less than significant impact.

The following mitigation measure would be implemented for Alternative 1:

MM TRA-4 *The project contractor shall prepare a Transportation Management Plan to facilitate the flow of traffic and transit service in and around construction zones. The Transportation Management Plan shall include, at minimum, the following measures:*

- *Where feasible, schedule construction-related travel (i.e., deliveries, hauling, and worker trips) during off-peak hours and maintain two-way traffic circulation along affected roadways during peak hours. Avoid the closure of two major adjacent streets where feasible.*
- *Designated routes for project haul trucks shall primarily utilize the I-405, I-10, US-101 corridors. Throughout the construction process, these routes shall be coordinated with the City of Los Angeles and Veterans Affairs to ensure consistency with land use and mobility plans. Additionally, the routes shall be situated to minimize noise, vibration, and other possible impacts.*
- *Develop detour routes to facilitate traffic movement through construction zones without significantly increasing cut-through-traffic in adjacent residential areas.*
- *Where construction encroaches on the Los Angeles-San Diego-San Luis Obispo rail corridor right-of-way, coordinate construction activities with Union Pacific, Metrolink, and Amtrak to minimize disruptions to service and coordinate on outreach to inform passengers of service impacts. Provide temporary parking and drop-off facilities at the Van Nuys Metrolink/Amtrak Station to minimize passenger impacts.*
- *Develop and implement an outreach program and public awareness campaign in coordination with Caltrans, the City of Los Angeles, the City of Santa Monica, and the County of Los Angeles to inform the general public about the construction process and planned roadway closures, potential impacts, and mitigation measures, including temporary bus stop relocation.*
- *Where feasible, temporarily restripe roadways to maximize the vehicular capacity at locations affected by construction closures.*

- *Provide wayfinding signage, lighting, and access to specify pedestrian safety amenities (such as handrails, fences, and alternative walkways) during construction.*
- *Where construction encroaches on pedestrian facilities, special pedestrian safety measures shall be used, such as detour routes and temporary pedestrian barricades.*
- *Where construction encroaches onto the University of California, Los Angeles campus, the project contractor shall ensure that access to campus buildings is maintained through temporary decking and the construction of temporary stairs and ramps.*
- *During final design, the project contractor shall coordinate with Metro Operations to minimize construction impacts on existing Metro rail operations in and around existing stations. Where construction results in the interruption of Metro rail operations, buses shall provide temporary service between rail stations.*
- *Provide on-street bicycle detour routes and signage to address temporary effects to bicycle circulation and minimize inconvenience (e.g., lengthy detours) as to minimize users potentially choosing less safe routes if substantially rerouted.*
- *During final design, the project contractor shall coordinate with first responders and emergency service providers to minimize impacts on emergency response. Coordination efforts shall include the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing.*
- *Maintain customer and delivery access to all operating businesses near construction work areas. Access shall be maintained to allow for reasonable business operations, including clear signage for alternate routes, temporary driveways, or entry points as necessary. Coordination with businesses shall be conducted to address specific access needs and minimize disruptions, ensuring that any restrictions are communicated in advance and alternative arrangements are provided as appropriate.*

Impacts After Mitigation

Regarding Impact LUP-1, implementation of MM TRA-4 would require preparation and implementation of a TMP during construction to minimize disruptions caused by construction activities of each of the project alternatives. The TMP would facilitate the flow of traffic and transit service in and around construction zones, ensuring access to and from established communities is maintained. With implementation of MM TRA-4, construction impacts associated with Alternatives 1 under Impact LUP-1 would be reduced to than significant.

5.2.10 Noise and Vibration

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-22.

Table 5-22. Alternative 1: Noise and Vibration Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Noise and Vibration Construction Impacts		
Impact NOI-1: Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established by the Federal Transit Administration?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM NOI-1.2
	Impacts After Mitigation	SU
Impact NOI-2: Would the project result in generation of excessive groundborne vibration or groundborne noise levels?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM VIB-1.2
	Impacts After Mitigation	SU
Impact NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025j

MM = mitigation measure
NA = not applicable
NOI = noise
NI = no impact
PS = potentially significant
SU = significant and unavoidable
VIB = vibration

5.2.10.1 Impact NOI-1: Would the project cause generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction of Alternative 1 would include various phases that would involve the use of construction equipment at specific locations along the proposed alignment. Construction noise levels from Alternative 1 were predicted in terms of 8-hour L_{eq} for each phase of construction based upon the number and types of off-road construction equipment to be employed during the given phase. Table 5-23 shows the results of the construction noise predictions at a reference distance of 50 feet from construction activities and at the nearest sensitive receptors.

The FTA has provided guidance for assessing construction noise associated with transit projects. The criteria are based upon an 8-hour L_{eq}. For residential uses, the threshold is 80 dBA for daytime construction and 70 dBA for nighttime construction. Commercial uses are held to an 85-dBA daytime and nighttime noise construction threshold, while industrial uses are held to a 90-dBA daytime and nighttime construction noise threshold. For the purposes of this analysis, FTA's detailed assessment construction noise limit criteria of 8-hour L_{eq} have been applied. Table 5-23 is a summary of expected construction noise levels at locations of nearest noise-sensitive receptors to each construction activity. Additional details regarding construction equipment and noise levels by phase are included in Attachment 4 of the *Sepulveda Transit Corridor Project Noise and Vibration Technical Report* (Metro, 2025j). Construction noise would range from 8-hour L_{eq} noise levels of approximately 79 to 101 dBA at the nearest sensitive receptors. As shown in Table 5-23, construction activities would result in levels that exceed the FTA 80-dBA daytime and 70-dBA nighttime 8-hour L_{eq} thresholds for residential land uses.

The construction noise contours are depicted graphically, which represent the noise levels that could potentially occur along the entirety of the alignment. The noisiest phase of construction is used to depict the contours. An interval of 5 dBA is used for each contour and each contour was calculated based on the distance at which noise would decrease by 5 dBA, starting at a noise level of 90 dBA L_{eq} to 70 dBA L_{eq}. The 90 dBA L_{eq} noise level is representative of the FTA daytime and nighttime construction noise threshold for industrial uses. The 70 dBA L_{eq} contour shows the areas where construction noise levels would exceed the nighttime construction noise threshold for residential uses. Between the proposed Van Nuys Metrolink Station and the Getty Center, the 90 dBA L_{eq} contour includes areas within a distance of 100 feet from the nearest construction activity. The 70 dBA L_{eq} contour extends to a maximum distance of 1,000 feet. South of the Getty Center, the 90 dBA L_{eq} contour covers areas within a distance of 63 feet from the nearest construction activity. The 70 dBA L_{eq} contour extends to a maximum distance of 630 feet. The construction noise contours do not include noise reductions that may occur as a result of terrain or intervening structures. As an example of how to read the contours, the figures show that within the first contour of 100 feet (shown in dark purple), the calculated construction noise levels may be above 90 dBA L_{eq}. At the next distance of 178 feet (shown in light purple), noise levels would decrease to approximately 85 dBA L_{eq}.

Pile driving may be required for installation of retaining walls. Impact or vibratory piledrivers are the most noise intensive construction equipment that could result in elevated noise levels above typical construction methods. It is unknown at this stage of design if pile driving would be the required construction method which is dependent on soil type. Typically, where possible, piles are drilled which is a quieter method of pile installation such as cast-in-drilled-holes (CIDH). For instance, foundations for the aerial guideway are proposed to be constructed using CIDH instead of impact driven piles. Impact pile driving generates an hourly noise level of approximately 94.3 dBA L_{eq} at 50 feet, vibratory pile driving generates an hourly noise level of 93.8 dBA L_{eq}, at 50 feet and CIDH generates an hourly noise level of approximately 77.4 dBA L_{eq} at 50 feet. Vibratory pile driving is approximately 0.5 dBA quieter than impact pile driving and CIDH is approximately 16.9 dBA quieter. To reduce noise levels where piles may be required, MM NOI-1.2 would require impact pile driving to be avoided where possible and to use drilled or vibratory piles where feasible.

Alternative 1 would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and, where applicable, the standards established by the local noise ordinances. While MM NOI-1.2 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

Regarding health effects of noise, it is unlikely for construction noise to result in noise-induced hearing loss for persons residing or working near construction zones, as this is an occupational hazard related to working over long periods of time (years) in high noise environments. However, construction noise could increase stress at affected sensitive uses. Nighttime construction could adversely affect sleep for residents living near active construction sites. As required by MM NOI-1.2, if required by the jurisdiction a noise variance would be prepared that demonstrates the implementation of control measures to maintain noise levels below the applicable Federal Transit Administration and local standards. Nonetheless, construction noise could potentially still exceed the FTA nighttime criteria.

Table 5-23. Alternative 1: Estimated Construction Noise Levels

Construction Phase	8-hour L_{eq} (dBA) at 50 feet	8-hour L_{eq} (dBA) at Nearest Receptors	Exceeds 80-dBA 8-Hour L_{eq} Daytime Threshold?	Exceeds 70-dBA 8-Hour L_{eq} Nighttime Threshold?
Monorail Transit Segments 1-4 Construction				
Utility Relocations	87	92	Yes	Yes
Demolition/Site Preparation	87	92	Yes	Yes
Substructure Foundations (CIDH)[a]	87-96	92-101	Yes	Yes
Precast Superstructure Assembly	87	92	Yes	Yes
Finishing Work	85	90	Yes	Yes
Aerial Station Construction				
Utility Relocations	87	81	Yes	Yes
Demolition/Site Preparation	87	81	Yes	Yes
Substructure Foundations (CIDH)	87	81	Yes	Yes
Precast Superstructure Assembly	87	81	Yes	Yes
Finishing Work	85	79	No	Yes
Traction Power Substation Construction				
Utility Relocations	87	83	Yes	Yes
Demolition/Site Preparation	85	81	Yes	Yes
Excavation	87	83	Yes	Yes
Concrete Work	83	79	No	Yes
Utility Work	87	83	Yes	Yes
Paving	88	84	Yes	Yes
Maintenance and Storage Facility Construction				
Utility Relocation	87	85	Yes	Yes
Demolition/Site Preparation	87	85	Yes	Yes
Excavation	89	87	Yes	Yes
Concrete Work	86	84	Yes	Yes
Utility Work	87	85	Yes	Yes
Paving	88	86	Yes	Yes
Haynes Street Construction				
Utility Relocation	90	92	Yes	Yes
Missouri Avenue Construction				
Utility Relocation	90	92	Yes	Yes
La Grange Avenue Construction				
Utility Relocation	90	92	Yes	Yes
Mississippi Avenue Construction				
Utility Relocation	90	92	Yes	Yes
I-405 Improvements				
Utility Relocation	87	84	Yes	Yes
Demolition/Site Preparation	91	88	Yes	Yes
Grading/Excavation	94	91	Yes	Yes
Concrete Work	87	84	Yes	Yes
Precast Yard Construction				
Demolition/Site Preparation	87	85	Yes	Yes
Excavation	89	87	Yes	Yes
Concrete Work	89	87	Yes	Yes
Utility Work	87	85	Yes	Yes

Construction Phase	8-hour L_{eq} (dBA) at 50 feet	8-hour L_{eq} (dBA) at Nearest Receptors	Exceeds 80-dBA 8-Hour L_{eq} Daytime Threshold?	Exceeds 70-dBA 8-Hour L_{eq} Nighttime Threshold?
Paving	88	86	Yes	Yes
Guideway Fabrication	86	84	Yes	Yes

Source: HTA, 2024

CIDH = cast-in-drilled-hole
dBA = A-weighted decibel
L_{eq} = equivalent noise level
* Variation in noise levels for this phase are due to variation in number of equipment used for different segments.

Maintenance and Storage Facilities

Construction of the MSF Base Design would involve activities such as utility relocation, demolition, excavation, concrete work, utility installation, and paving. As shown in Table 5-23, MSF construction would result in phased noise levels of approximately 86 to 89 dBA, an 8-hour L_{eq} at 50 feet. Sensitive receptors adjacent to the MSF site would be potentially exposed to noise levels that would exceed the FTA 80-dBA daytime and 70-dBA nighttime 8-hour L_{eq} thresholds for residential land uses. Construction of the MSF would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and, where applicable, the standards established by the local noise ordinances. The 90 dBA L_{eq} contours cover areas within a distance of 50 feet from the nearest construction activity. The 70 dBA L_{eq} contours extend to a maximum distance of 500 feet. While MM NOI-1.2 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

MSF Base Design Noise

Construction of the MSF Design Option 1 would involve activities such as utility relocation, demolition, excavation, concrete work, utility installation, and paving. MSF construction would result in phased noise levels of approximately 86 to 89 dBA, an 8-hour L_{eq} at 50 feet. Sensitive receptors adjacent to the MSF site would be potentially exposed to noise levels that would exceed the FTA 80-dBA daytime and 70-dBA nighttime 8-hour L_{eq} thresholds for residential land uses. Construction of the MSF would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and, where applicable, the standards established by the local noise ordinances. The construction noise contours are depicted graphically in DEIR *Section 3.11, Noise and Vibration*. The 90 dBA L_{eq} contours cover areas within a distance of 50 feet from the nearest construction activity. The 70 dBA L_{eq} contours extends to a maximum distance of 500 feet. While MM NOI-1.2 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

MSF Design Option 1 Noise

Construction of the MSF Design Option 1 would involve activities such as utility relocation, demolition, excavation, concrete work, utility installation, and paving. MSF construction would result in phased noise levels of approximately 86 to 89 dBA, an 8-hour L_{eq} at 50 feet. Sensitive receptors adjacent to the MSF site would be potentially exposed to noise levels that would exceed the FTA 80-dBA daytime and

70-dBA nighttime 8-hour L_{eq} thresholds for residential land uses. Construction of the MSF would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and, where applicable, the standards established by the local noise ordinances. The construction noise contours are depicted graphically in DEIR *Section 3.11, Noise and Vibration*. The 90 dBA L_{eq} contours cover areas within a distance of 50 feet from the nearest construction activity. The 70 dBA L_{eq} contours extends to a maximum distance of 500 feet. While MM NOI-1.2 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

Electric Bus MSF Noise

Construction of the Electric Bus MSF would involve activities such as utility relocation, demolition, excavation, concrete work, utility installation, and paving. MSF construction would result in phased noise levels of approximately 86 to 87 dBA, an 8-hour L_{eq} at 50 feet. Sensitive receptors adjacent to the MSF site would be potentially exposed to noise levels that would exceed the FTA 80-dBA daytime and 70-dBA nighttime 8-hour L_{eq} thresholds for residential land uses. Construction of the MSF would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and, where applicable, the standards established by the local noise ordinances. The construction noise contours are depicted graphically in the *Sepulveda Transit Corridor Project Noise and Vibration Technical Report* (Metro, 2025j). The 90 dBA L_{eq} contours cover areas within a distance of 50 feet from the nearest construction activity. The 70 dBA L_{eq} contours extend to a maximum distance of 500 feet. While MM NOI-1.2 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

5.2.10.2 Impact NOI-2: Would the project cause generation of excessive groundborne vibration or groundborne noise levels?

Construction Vibration Impacts on Sensitive Receptors

The primary concern related to vibration during construction is the potential to damage structures. Construction activities, such as pile driving, use of drill rigs, pavement breaking, and the use of tracked vehicles (e.g., bulldozers) and hoe rams, could result in perceptible levels of GBV at sensitive buildings located in close proximity to construction sites. These activities would typically be limited in duration and their vibration levels are likely to be well below thresholds for minor cosmetic building damage.

Project construction would include a limited number of activities expected to generate vibration that approaches the lowest building damage limit of 0.12 in/sec PPV (refer to Table 2-7 in the *Sepulveda Transit Corridor Project Noise and Vibration Technical Report* [Metro, 2025j]). Table 5-24 shows the distances at which the 0.12 in/sec PPV, 0.2 in/sec PPV, and 0.3 in/sec PPV thresholds would not be exceeded. For example, use of a drilling rig, hoe ram, or large bulldozer would be safe at distances greater than 22 feet from Category IV buildings. A vibratory roller would be safe at distances greater than 22 feet from Category IV buildings and typical impact pile driver operation would be safe at distances of 79 feet or greater. Typical building construction in an urban setting consists of buildings that are Category II engineered concrete and masonry that have a 0.3 in/sec PPV threshold or Category III non-engineered timber and masonry buildings that have a 0.2 in/sec PPV threshold. Typical construction equipment, such as a large bulldozer, would not exceed the 0.2 in/sec PPV building damage criterion at

distances of 18 feet or greater and would not exceed the 0.3 in/sec PPV building damage criterion at distances of 13 feet or greater. A vibratory roller would not exceed the 0.2 in/sec PPV building damage criterion at distances of 32 feet or greater and would not exceed the 0.3 in/sec PPV building damage criterion at distances of 23 feet or greater. An impact pile driver would not exceed the 0.2 in/sec PPV building damage criterion at distances of 67 feet or greater and would not exceed the 0.3 in/sec PPV building damage criterion at distances of 47 feet or greater.

Table 5-24. Alternative 1: Construction Equipment Vibration Damage Potential by Distance

Equipment	Reference Vibration Level PPV (inches/second)	Distance to not Exceed 0.12 PPV Damage (feet)	Distance to not Exceed 0.2 PPV Damage (feet)	Distance to not Exceed 0.3 PPV Damage (feet)
Drill (CIDH)	0.089	22	18	13
Impact Pile Driver	0.644 (typical vibration level)	79	67	47
	1.518 (upper range vibration level)	140	117	84
Large Bulldozer	0.089	22	18	13
Vibratory Pile Driver	0.17 (typical vibration level)	33	28	20
	0.734 (upper range vibration level)	87	73	52
Vibratory Roller	0.210	38	32	23

Source: HTA, 2024

PPV = peak particle velocity
CIDH = cast-in-drilled-hole

Vibration annoyance is another concern during construction. In rare instances, when vibration-intensive construction activities occur close to sensitive structures (within 25 feet), such as residential buildings or special use buildings like laboratories or recording studios, vibration could exceed the FTA vibration annoyance criteria.

Construction occurring in the area south of the Santa Monica Mountains would be in the urban environment and would have higher potential for construction equipment to operate within 25 feet or less of adjacent buildings. In particular, between Exposition Boulevard and Wilshire Boulevard, construction equipment could operate in proximity to buildings that would potentially result in building vibration damage or vibration annoyance. Construction activity would typically occur at distances greater than 50 feet from sensitive buildings between Wilshire Boulevard, through the Santa Monica Mountains, and Green Leaf Street in the Valley, because the alignment would be located in either the I-405 freeway ROW or in areas immediately adjacent to the freeway, where there are limited to no structures. North of Greenleaf Street, the alignment would travel along the east side of I-405 in a constrained area with buildings adjacent to the construction footprint. The FTA building damage criteria and vibration annoyance criteria could potentially be exceeded at buildings in these areas.

While MM VIB-1.1 would be implemented, which would include vibration-reducing measures, there may still be temporary or periodic increases in vibration levels that exceed FTA construction vibration impact criteria. There are no additional feasible mitigation measures to reduce construction vibration levels. Therefore, impacts related to construction vibration would be significant and unavoidable .

Construction Vibration Impacts on Historic Resources

Construction under Alternative 1 would have the potential to damage historic buildings in close proximity to vibration-intensive construction activities. Using the reference levels in the FTA *Transit Noise and Vibration Impact Assessment Manual* (FTA, 2018), vibration levels from project construction activities were estimated at historic buildings or structures eligible for the National Register of Historic Places along the Alternative 1 alignment. Such buildings are generally classified as extremely susceptible to vibration damage (Building Type IV).

Findings of the construction vibration assessment at historic structures are as follows:

- The historic building located at 4511 Sepulveda Boulevard is very close to the Alternative 1 alignment. Most vibration-intensive construction activities at this location would result in levels exceeding the damage criterion of 0.12 in/sec PPV. Special consideration should be made for this building in MM VIB-1.1 (Vibration Control Plan).
- Pile driving at locations along the alignment in the vicinity of the following historic properties would potentially result in GBV levels exceeding the damage criterion of 0.12 in/sec PPV. Therefore, these locations must be addressed in the Vibration Control Plan if pile driving is to occur within 150 feet of the buildings:
  - Photo Electronics Corp. Building, 1944 Cotner Avenue, Los Angeles
  - Dual Ultimate Pharmacy, 2020 Cotner Avenue, Los Angeles
  - Building at 2114 Cotner Avenue, Los Angeles
  - Rodeo Realty, 15300 Ventura Boulevard, Sherman Oaks
  - Historic building located at 14746 Raymer Street, Van Nuys

Implementation of MM VIB-1.1 would reduce the potential for permanent damage to occur at historic resources. Vibration levels would be monitored at historic resources to determine if the vibration damage criterion of 0.12 in/sec PPV would be exceeded. A pre-construction and post construction survey would be prepared, and any damage noted and restored per the requirements of Secretary of the Interior's (SOI's) Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. Therefore, impacts related to construction vibration at historic resources would be less than significant with mitigation.

Maintenance and Storage Facilities

MSF Base Design

Vibration-sensitive structures located closest to the construction of the MSF Base Design are residential buildings located along the east side of Orion Avenue and north of Stagg Street. The nearest residential structure in this area would be approximately 90 feet from excavating/grading activities and 240 feet from structural foundation construction vibration damage risk criteria of 0.2 in/sec PPV. At such distances, the anticipated vibration levels from construction would be 0.031 in/sec PPV from the use of vibratory rollers during paving, 0.013 in/sec PPV from a large bulldozer, and 0.003 in/sec PPV from caisson drilling. All these levels are below the construction vibration damage risk criteria for all building types. Therefore, the MSF Base Design would result in a less than significant impact related to construction vibration.

MSF Design Option 1

The nearest existing building to the construction of the MSF Design Option 1 is a light industrial building located at 7605 Hazeltine Avenue in Van Nuys which would have a vibration damage risk criterion of

0.3 in/sec PPV (Building Type II). The closest façade of this building is adjacent to the southern property line of the proposed MSF site. Estimated vibration levels from caisson drilling would be 0.03 in/sec. The highest vibration levels from construction of the MSF Design Option 1 at the closest off-site building would be 0.83 in/sec PPV from the use of a vibratory roller during paving, and 0.35 in/sec PPV from a large bulldozer during the grading phase which would exceed the applicable vibration damage risk criterion of 0.3 in/sec. The minimum distance from the subject building at which large bulldozers and vibratory rollers must operate is 20 feet from the north façade of the building during the construction of the MSF Design Option 1. While MM VIB-1.1 would be implemented, which would include vibration-reducing measures, there may still be temporary or periodic increases in vibration levels that exceed FTA construction vibration impact criteria. There are no additional feasible mitigation measures to reduce construction vibration levels. Therefore, impacts related to construction vibration would be significant and unavoidable.

Electric Bus MSF

The nearest existing buildings to the construction of the Electric Bus MSF are light industrial buildings located along the east side of Cotner Avenue north of Pico Boulevard. The closest west façades of these buildings are between 60 to 65 feet from the proposed MSF site. The highest vibration levels from construction of the Electric Bus MSF Design the closest off-site buildings would be 0.06 in/sec PPV from the use of a vibratory roller during paving, 0.02 in/sec from the use of a hoe ram during building demolitions, and 0.024 in/sec PPV from a large bulldozer during the grading phase. Estimated vibration levels from caisson drilling for new building foundations would be 0.02 in/sec. All these levels are below the construction vibration damage risk criteria for all building types. Therefore, the Electric Bus MSF would result in a less than significant impact related to construction vibration.

5.2.10.3 Impact NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The Santa Monica Airport and Van Nuys Airport are located within 2 miles of Alternative 1. However, Alternative 1 is a transit project that is not sensitive to noise. Transit riders would not dwell at one location for an extended period of time that would result in exposure to excessive airport noise. Construction workers working on Alternative 1 would utilize ear protection as required while working on the Project. Therefore, no impacts related to airport noise would occur.

5.2.10.4 Mitigation Measures

Construction Impacts

The following mitigation measures would be needed to reduce construction noise and vibration levels to below the applicable limits:

MM NOI-1.2: ***Noise Control Plan:***

- *Prior to the initiation of localized construction activities, the Project contractor shall develop a Noise Control Plan demonstrating how the Federal Transit Administration 8-hour $L_{eq.equip}$ (equivalent noise level of equipment) noise criteria would be achieved during construction. The Noise Control Plan shall be prepared by a board-certified acoustical engineer. The Federal Transit Administration 8-hour $L_{eq.equip}$ construction noise standards are as follows: Residential daytime*

standard of 80 dBA $L_{eq.equip}$ and nighttime standard of 70 dBA $L_{eq.equip}$, Commercial daytime and nighttime standard of 85 dBA $L_{eq.equip}$, and Industrial daytime and nighttime standard of 90 dBA $L_{eq.equip}$. The Noise Control Plan shall be designed to follow Metro requirements, and shall include measurements of existing noise, a list of the major pieces of construction equipment that would be used, predictions of the noise levels at the closest noise-sensitive receptors (residences, hotels, schools, religious facilities, and similar facilities), and noise mitigation measures to be implemented to achieve compliance with the Federal Transit Administration 8-hour $L_{eq.equip}$ construction noise standards to the degree feasible. The Noise Control Plan must be approved by Metro prior to initiating noise-generating construction activities. The Project contractor shall conduct continuous noise monitoring to demonstrate compliance with the Federal Transit Administration 8-hour $L_{eq.equip}$ noise limits. If the FTA 8-hour $L_{eq.equip}$ criteria are exceeded, the Project contractor shall implement measures to reduce construction noise as much as feasible. The Project contractor shall establish a public information and complaint system. The Project contractor shall respond to and provide corrective action for complaints within 24-hours. In addition, The Project shall comply with local noise ordinances when applicable, including by obtaining a variance(s) from the applicable local jurisdiction when nighttime work is required. Noise reducing methods that may be implemented by the Project contractor include:

- *If nighttime construction is planned, a noise variance may be prepared by the Project contractor, if required by the jurisdiction, that demonstrates the implementation of control measures to maintain noise levels below the applicable Federal Transit Administration and local standards.*
- *Where feasible, minimize nighttime construction.*
- *Utilize specialty equipment equipped with enclosed engines and/or high performance mufflers as feasible. The Project contractor shall locate equipment and staging areas as far from noise-sensitive receptors as possible.*
- *Limit unnecessary idling of equipment.*
- *Install temporary noise barriers as needed where feasible.*
- *Reroute construction related truck traffic away from residential streets to the extent permitted by the relevant municipality.*
- *Avoid impact pile driving where possible. Drilled piles or vibratory pile drivers would be required where feasible.*
- *Where Project construction cannot be performed in accordance with the requirements of the applicable noise limits, the Project contractor shall be required to investigate alternative construction methods that would result in lower sound levels.*

MM VIB-1.1: ***Vibration Control Plan:***

- *Prior to construction, the Project contractor shall prepare a Vibration Control Plan demonstrating how the Federal Transit Administration building damage risk criteria and the Federal Transit Administration vibration annoyance criteria*

would be achieved. The Vibration Control Plan must be approved by Metro prior to initiating vibration-generating construction activities. The Vibration Control Plan shall include a list of the major pieces of construction equipment that will be used, and the predictions of the vibration levels at the closest sensitive receivers. The Project contractor shall conduct vibration monitoring to demonstrate compliance with the vibration limits during construction activity. Where the construction cannot be performed to meet the vibration criteria, the Project contractor shall implement alternative means and methods of construction measures to reduce vibration levels as much as feasible. Vibration reducing methods that may be implemented by the Project contractor include:

- *When feasible, less vibration intensive equipment or techniques near vibration sensitive locations.*
- *Use as small an impact device (i.e., hoe ram, pile driver) as possible to accomplish necessary tasks.*
- *Avoid impact pile driving where possible. Drilled piles or vibratory pile drivers will be required where feasible.*
- *When feasible, in construction areas close to sensitive buildings, select non-impact demolition and construction methods such as saw or torch cutting and removal for off-site demolition, and use chemical splitting, or hydraulic jack splitting, instead of high impact methods.*

- *The Project contractor shall monitor construction vibration levels at structures identified as a "historic" resource within the meaning of CEQA Guidelines Section 15064.5(a) to ensure the vibration damage threshold of 0.12 in/sec peak particle velocity shall not be exceeded. The vibration monitoring shall be conducted by a qualified professional for real-time vibration monitoring for construction work at the Project construction site requiring heavy equipment or ground compaction devices. A pre-construction and post-construction survey of these buildings shall be conducted by a qualified structural engineer. Any damage shall be noted. All vibration monitors used for these measurements shall be equipped with an "alarm" feature to provide advanced notification that vibration impact criteria have been approached. Documented damage in the post-construction survey shall be repaired as required by the Secretary of the Interior's (SOI's) Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. The following historic resources shall be included in the Vibration Control Plan.*
  - *Historic building located at 4511 Sepulveda Boulevard, Sherman Oaks*
  - *Photo Electronics Corp. Building, 1944 Cotner Avenue, Los Angeles*
  - *Dual Ultimate Pharmacy, 2020 Cotner Avenue, Los Angeles*
  - *Building at 2114 Cotner Avenue, Los Angeles*
  - *Rodeo Realty, 15300 Ventura Boulevard, Sherman Oaks*
  - *Historic building located at 14746 Raymer Street, Van Nuys*

Impacts After Mitigation

Noise

Project construction would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and where applicable, the standards established by the local noise ordinances. While MM NOI-1.2 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

Vibration

Significant GBV could exceed the FTA vibration damage and vibration annoyance criteria when certain construction activities would occur at close distances to sensitive receptors. While MM VIB-1.1 would be implemented, which would include vibration-reducing measures, there may still be temporary or periodic increases in vibration levels that exceed FTA construction vibration impact criteria. There are no additional feasible mitigation measures to reduce construction vibration levels. Therefore, impacts related to construction vibration would be significant and unavoidable.

5.2.11 Parklands

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-25.

Table 5-25. Alternative 1: Parklands Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Recreation Construction Impacts		
Impact REC-1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? OR Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact REC-2: Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025q

NA = not applicable
LTS = less than significant
NI = no impact
REC = recreation

5.2.11.1 Impact REC-1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Or

Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?

Construction of Alternative 1 would be temporary and would not generate permanent residences that would increase the use of existing parks and recreational facilities resulting in accelerated physical deterioration of the facilities or require the expansion of existing recreational facilities. While construction workers may utilize nearby parks and recreational facilities during lunchtime breaks, such use would be temporary and nominal.

Construction of the aerial viaduct, retaining walls, and I-405 on- and off-ramps would require street detours that would temporarily impact bicycle facilities and affect access to bicycle facilities. In locations where the alignment is adjacent to the I-405 corridor or LOSSAN rail corridor, or where I-405 corridor widening is necessary for Alternative 1, temporary street detours would inhibit the circulation of pedestrians and bicyclists. In locations where the aerial viaduct would cross roadways that serve as I-405 or LOSSAN rail corridor underpasses (Santa Monica Boulevard, Constitution Avenue, Montana Avenue, Church Lane, Getty Center Drive, Sepulveda, and Ventura Boulevard), the installation of the supporting columns and erection of bent caps and guideway beams would affect sidewalk and bicycle access. Pedestrian and bicycle through-access underneath existing underpasses would require detours and thereby inhibit bicyclists. The bike lane along Sepulveda Boulevard in the Sepulveda Pass would be removed and rebuilt. As a result, the sidewalk would be relocated and temporarily decommissioned, and bicycle routes would be temporarily disrupted during construction and would require detours to maintain continuity with other portions of the bike lanes. Although street detours would disrupt bicycle and pedestrian circulation, bicycle movements would be maintained during construction. Reference DEIR *Section 3.15, Transportation* for the discussion related to construction traffic and access. Construction activities would not affect access or use of surrounding recreational hiking trails. Therefore, construction-related impacts to parks and recreational facilities would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

MSF Base Design site construction activities would be temporary and would not create new residential populations that would directly increase the use of existing parks, recreational facilities, and bike facilities in the surrounding communities. Temporary construction activities would be located entirely on-site, would not be located on parklands or recreational facilities, and would not disrupt the essential functions of these facilities. Therefore, impacts to parklands associated with the MSF Base Design site would be less than significant.

MSF Design Option 1

MSF Design Option 1 construction activities would be temporary and would not create new residential populations that would directly increase the use of existing parks, recreational facilities, and bike

facilities in the surrounding communities. Therefore, impacts to parklands associated with the MSF Design Option 1 site would be less than significant.

Electric Bus MSF

Electric Bus MSF construction activities are temporary and would not create new residential populations that directly increase the use of existing parks, recreational facilities, and bike facilities in the surrounding communities. Therefore, impacts to parklands associated with the Electric Bus MSF site would be less than significant.

5.2.11.2 Impact REC-2: Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Construction of Alternative 1 would be temporary and would not include the construction of recreational facilities or require the expansion of existing recreational facilities. Therefore, no impacts would occur.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design site is currently developed as a materials storage site owned by LADWP. MSF site construction activities would not include the construction of recreational facilities or require the expansion of existing recreational facilities. Therefore, no impacts would occur.

MSF Design Option 1

MSF Design Option 1 construction activities would not include the construction of recreational facilities or require the expansion of existing recreational facilities. Therefore, no impacts would occur.

Electric Bus MSF

Electric Bus MSF construction activities would not include the construction of recreational facilities or require the expansion of existing recreational facilities. Therefore, no impacts would occur.

5.2.11.3 Mitigation Measures

Construction Impacts

Alternative 1 would have a less than significant impact; therefore, no mitigation measures would be required.

Impacts After Mitigation

Impacts are less than significant.

5.2.12 Real Estate and Acquisitions

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-26.

Table 5-26. Alternative 1: Real Estate and Acquisitions Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Population and Housing Construction Impacts		
Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025i

LTS = less than significant
NA = not applicable
POP = population, housing, and growth

5.2.12.1 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Temporary acquisitions would be required for parcels that would only be used as TCEs.

Construction activities associated with Alternative 1 would not result in the temporary displacement of any residential dwelling units. Therefore, no impacts related to the displacement of residential units and residents that would necessitate the construction of replacement units would occur.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design would not require the acquisition or displacement of any residential property. Therefore, the MSF Base Design would have no potential to displace existing people or housing nor necessitate the construction of replacement housing elsewhere. The MSF Base Design would have no impact.

MSF Design Option 1

The MSF Design Option 1 would not require the acquisition or displacement of any residential property. Therefore, the MSF Design Option 1 would have no potential to displace existing people or housing nor necessitate the construction of replacement housing elsewhere. The MSF Design Option 1 would have no impact.

Electric Bus MSF

The Electric Bus MSF would not require the acquisition or displacement of any residential property. Therefore, the Electric Bus MSF would have no potential to displace existing people or housing nor necessitate the construction of replacement housing elsewhere. The Electric Bus MSF would have no impact.

5.2.12.2 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant

5.2.13 Safety and Security

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-27.

Table 5-27. Alternative 1: Safety and Security Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Safety and Security Construction Impacts		
Impact PUB-1: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered fire protection and emergency response facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the fire protection and emergency response?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact PUB-2: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the police protection?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact WFR-1: Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4
	Impacts After Mitigation	LTS
Impact WFR-2: Would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM SAF-1, MM SAF-2
	Impacts After Mitigation	LTS
Impact WFR-3: Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM SAF-1, MM SAF-2
	Impacts After Mitigation	LTS
Impact WFR-4: Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025o

LTS = less than significant
MM = mitigation measure
NA = not applicable
PS = potentially significant
PUB = public services
SAF = safety and security
TRA = transportation
WFR = wildfire

5.2.13.1 Impact PUB-1: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered fire protection and emergency response facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the fire protection and emergency response?

Construction of Alternative 1 would potentially temporarily increase demands on fire protection as a result of new workers, construction equipment, and construction materials in the RSA as well as periodic construction-related street closures or detours. Specifically, temporary lane closures on adjacent streets and within the I-405 ROW would occur for construction of the proposed aerial alignment, stations, TPSS sites, and construction staging areas. Although temporary lane closures could interfere with fire service response times, this temporary condition would not necessitate the construction of new or physically altered governmental facilities. Furthermore, as discussed in DEIR *Section 3.15.6, Transportation*, under MM TRA-4, a TMP would be prepared and approved in coordination with local fire and police departments prior to construction, including the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control measures in the plan during construction to coordinate emergency response routing.

Alternative 1 would comply with the provisions set forth under CCR Title 8 (California Department of Industrial Relations, 2024) and the California Occupational Safety and Health Administration (Cal/OSHA) (California Department of Industrial Relations, 2023) regulations. Under the Cal/OSHA regulations, the contractor would be required to create a Fire Prevention Plan that identifies potential fire hazards and their proper handling and storage procedures, potential ignition sources (such as welding, smoking and others) and their control procedures, and the type of fire protection equipment or systems that can control a fire involving them. A training program would inform employees of the fire hazards of the materials and processes to which they are exposed. The contractor would review with each worker upon initial assignment those parts of the Fire Prevention Plan that the employee must know to protect the worker in the event of an emergency. The written plan would be kept in the workplace and made available for employee review.

For these reasons, the demand for fire protection during the construction period is anticipated to remain at acceptable levels and would not require new or physically altered fire protection facilities. Therefore, impacts associated with fire protection and emergency response services would be less than significant during construction activities.

Maintenance and Storage Facilities

MSF Base Design

The construction of the MSF Base Design would increase the exposure of occupational hazards to the contractor and MSF employees and therefore increase demand for fire and life safety services when and if emergency circumstances would occur. Alternative 1 would comply with the provisions set forth under the CCR Title 8 (California Department of Industrial Relations, 2024) and Cal/OSHA (California Department of Industrial Relations, 2023) regulations. However, in any emergency situation, fire department personnel from LAFD Station 90 and Metro Transit Service Bureau officers would provide emergency response services to the MSF Base Design. The Metro Emergency Response Plan would be followed in the event of a fire, and Metro would coordinate with local fire protection service providers

in advance of any construction activities to preserve emergency access. This includes compliance with the California Fire Code that specifies minimum access requirements for fire apparatus. The risk of fire-related injury would be minimized within the MSF locations by adhering to the requirements of the NFPA 101, the CBC, and the Los Angeles City Fire Code. Therefore, impacts associated with fire protection and emergency response services would be less than significant during construction activities.

MSF Design Option 1

The construction of the MSF Design Option 1 and would increase the exposure of occupational hazards to the contractor and MSF employees and therefore increase demand for fire and life safety services when and if emergency circumstances would occur. Alternative 1 would comply with the provisions set forth under the CCR Title 8 (California Department of Industrial Relations, 2024) and Cal/OSHA (California Department of Industrial Relations, 2023) regulations. However, in any emergency situation, fire department personnel from LAFD Station 81 and Metro Transit Service Bureau officers would respond. The Metro Emergency Response Plan would be followed in the event of a fire, and Metro would coordinate with local fire protection service providers in advance of any construction activities to preserve emergency access. MSF Design Option 1 would comply with the California Fire Code that specifies minimum access requirements for fire apparatus. The risk of fire-related injury would be minimized within the MSF Design Option 1 location by adhering to the requirements of NFPA 101, CBC, and the Los Angeles City Fire Code. Therefore, impacts associated with fire protection services would be less than significant during construction activities.

Electric Bus MSF

The construction of the Electric Bus MSF Design would increase the exposure of occupational hazards to the contractor and MSF employees and therefore increase demand for fire and life safety services when and if emergency circumstances would occur. Alternative 1 would comply with the provisions set forth under the CCR Title 8 (California Department of Industrial Relations, 2024) and Cal/OSHA (California Department of Industrial Relations, 2023) regulations. However, in any emergency situation, fire department personnel from LAFD Station 37 and Metro Transit Service Bureau officers would respond. The Metro Emergency Response Plan would be followed in the event of a fire, and Metro would coordinate with local fire protection service providers in advance of any construction activities to preserve emergency access. The Electric Bus MSF would comply with the California Fire Code that specifies minimum access requirements for fire apparatus. The risk of fire-related injury would be minimized within the Electric Bus MSF by adhering to the requirements of NFPA 101, NFPA 855, the CBC, and the Los Angeles City Fire Code. Therefore, impacts associated with fire protection services would be less than significant during construction activities.

5.2.13.2 Impact PUB-2: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the police protection?

Alternative 1 does not include any housing component that would increase population compared to the existing conditions as well as adopted regional planned forecasts. (Refer to the *Sepulveda Transit Corridor Project Growth Inducing Impacts Technical Report* [Metro, 2025e].) However, construction of Alternative 1 would increase daytime and nighttime worker populations, which has the potential to increase the need for police services.

Police service agencies in the area, including the Los Angeles Police Department (LAPD), Los Angeles County Sheriff's Department, UCLA Police Department, and CHP commit sufficient funding from tax revenues to provide adequate staffing levels such that the police response times can be maintained. It is anticipated that the relevant police service agency would evaluate all construction health and safety plans for Alternative 1 for workers and visitors to active construction sites to ensure inclusion of safety measures, including nighttime lighting, clear signage, and pedestrian detour routes. This evaluation may include assessing fees to support police protection services. As discussed in the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), under MM TRA-4, Metro standard practices require that lane and/or roadway closures are scheduled to minimize disruptions and that a TMP is prepared and approved in coordination with local fire and police departments prior to construction. The contractor shall develop a TMP and coordinate with first responders and emergency service providers to minimize impacts on emergency response. Upon compliance with evaluation by the relevant police service agencies of health and safety plans and coordination with first responders and emergency service providers, Alternative 1 would have less than significant construction impacts related to new demands on police services with impacts to service ratios, response times, or other performance objectives.

Maintenance and Storage Facilities

MSF Base Design

During construction, police services would be provided by LAPD under Metro's existing service agreements with the agency. Metro has contracted the LASD and LAPD Transit Services Division to provide policing services on the Metro system within the City of Los Angeles. Potential impacts would occur if the MSF were to result in unacceptable emergency response times that necessitate the construction or expansion of facilities, where such construction could cause significant environmental impact. The MSF Base Design would not require modifications to the adjacent roadways during construction or operations to the degree that would impart delays or affect police protection standards. Therefore, the MSF Base Design would not require the need for new or physically altered police protection services.

During construction of the MSF Base Design, there would be low potential increase in the demand for police protection services from incidents or emergencies, which could result in an increase in overall response calls within the local jurisdictions. Metro MSFs are typically fenced off and access is restricted. In addition, security cameras and nighttime lighting would be provided. For Alternatives 1 and 3, the MSF Base Design would be aerial, so this would add to the security of the site. Metro has an established service agreement with the LAPD. Additionally, during construction, relevant police service agencies would review Health and Safety Plans for the MSF. For these reasons, construction of the MSF would not require the construction or expansion of police facilities to maintain service ratios, response times, or other performance objectives. Therefore, the impact would be less than significant.

MSF Design Option 1

During construction, police services would be provided by LAPD under Metro's existing service agreements with the agency. Metro has contracted the LAPD Transit Services Division to provide policing services on the Metro system within the City of Los Angeles. Potential impacts would occur if the MSF Design Option 1 were to result in unacceptable emergency response times that necessitate the construction or expansion of facilities, where such construction could cause significant environmental impact. The MSF Design Option 1 would not require modifications to the adjacent roadways during construction or operations to the degree that would impart delays or affect police protection standards.

Therefore, the MSF Design Option 1 would not require the need for new or physically altered police protection services.

During construction of the MSF Design Option 1, there would be low potential increase in the demand for police protection services from incidents or emergencies, which could result in an increase in overall response calls within the local jurisdictions. Metro MSFs are typically fenced off and access is restricted. In addition, security cameras and nighttime lighting would be provided. For Alternatives 1 and 3, MSF Design Option 1 would be aerial, so this would add to the security of the site. Metro has an established service agreement with the LAPD. Additionally, during construction, relevant police service agencies would review Health and Safety Plans for the MSF Design Option 1. For these reasons, construction of the MSF Design Option 1 would not require the construction or expansion of police facilities to maintain service ratios, response times, or other performance objectives. Therefore, the impact would be less than significant.

Electric Bus MSF

During construction, police services would be provided by LAPD under Metro's existing service agreements with the agency. Metro has contracted the LASD and LAPD Transit Services Division to provide policing services on the Metro system within the City of Los Angeles. Potential impacts would occur if the Electric Bus MSF were to result in unacceptable emergency response times that necessitate the construction or expansion of facilities, where such construction could cause significant environmental impact. The Electric Bus MSF would not require modifications to the adjacent roadways during construction or operations to the degree that would impart delays or affect police protection standards. Therefore, the Electric Bus MSF would not require the need for new or physically altered police protection services.

During construction of the Electric Bus MSF, there would be low potential increase in the demand for police protection services from incidents or emergencies, which could result in an increase in overall response calls within the local jurisdictions. Metro MSFs are typically fenced off and access is restricted. In addition, security cameras and nighttime lighting would be provided. Metro has an established service agreement with the LAPD. Additionally, during construction, relevant police service agencies would review Health and Safety Plans for the Electric Bus MSF. For these reasons, construction of the Electric Bus MSF would not require the construction or expansion of police facilities to maintain service ratios, response times, or other performance objectives. Therefore, the impact would be less than significant.

5.2.13.3 Impact WFR-1: Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

As required by existing regulations, Alternative 1 would provide adequate access for emergency vehicles and equipment during construction activities. As shown on Figure 6-13 of the *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Metro, 2025o), the County of Los Angeles identifies I-405 and Sepulveda Boulevard as disaster routes. Temporary, short-term construction impacts on I-405 and Sepulveda Boulevard would occur for Alternative 1. Construction activities would necessitate roadway improvements to provide sufficient space for the guideway, stations, traction power substation (TPSS) sites, and construction staging yards. Roadway improvements within I-405 and Sepulveda Boulevard would result in a temporary and intermittent reduction of the number of lanes or temporary closure of roadways. Temporary lane and/or roadway closures, increased truck traffic, and other roadway effects could temporarily interfere physically with an emergency response plan or emergency evacuation plans, and therefore result in a potentially significant impact.

As discussed in DEIR *Section 3.15, Transportation*, under MM TRA-4, Metro standard practices require that lane and/or roadway closures are scheduled to minimize disruptions and that a TMP shall be prepared in coordination with local fire and police departments prior to construction, including the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing. Implementation of MM TRA-4 would reduce the impacts related to the physical interference with an emergency response plan or emergency evacuation plans to less than significant.

Alternative 1 would comply with the provisions set forth under the CCR Title 8 and Cal/OSHA. Under Cal/OSHA (California Department of Industrial Relations, 2023), the contractor would create an Emergency Action Plan that would cover designated actions that employers and employees must take to ensure employee safety from fire and other emergencies. The following elements, at a minimum, would be included in the plan:

- Procedures for emergency evacuation, including type of evacuation and exit route assignments
- Procedures to be followed by employees who remain to operate critical plant operations before they evacuate
- Procedures to account for all employees after emergency evacuation has been completed
- Procedures to be followed by employees performing rescue or medical duties
- The preferred means of reporting fires and other emergencies
- Names or regular job titles of persons or departments who can be contacted for further information or explanation of duties under the plan

Adherence to existing laws, regulations, preparedness plans, and implementation of the TMP under MM TRA-4 would ensure that Alternative 1 would provide adequate access for emergency vehicles and not impede an adopted emergency response plan or emergency evacuation plan (City of Los Angeles, 2023b). Therefore, construction of Alternative 1 would not impair implementation of, or physically interfere with, any adopted emergency response or evacuation plans, and this impact would be less than significant with mitigation.

Maintenance and Storage Facilities

MSF Base Design

As required by existing regulations, the proposed MSF Base Design would be required to provide adequate access for emergency vehicles during construction activities. Temporary short-term construction impacts on street traffic adjacent to the proposed MSF Base Design due to roadway and infrastructure improvements could result in a reduction of the number of lanes or temporary closure of segments of adjacent roadways and therefore result in a potentially significant impact to emergency vehicle access and movement. Any such impacts would be limited to the construction period of the proposed MSF Base Design and would affect only adjacent streets. Furthermore, MM TRA-4 would ensure that emergency response teams for the City of Los Angeles, including the fire departments and police departments, would be notified of any lane closures during construction activities and that a minimum of one lane would remain open at all times to provide adequate emergency access to the site and surrounding neighborhoods. As discussed in the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), under MM TRA-4, MSF Base Design shall implement a TMP to ensure safe and efficient traffic flow in the area during project construction, including the development of

detour routes and notification procedures. The nearest local first responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing.

Adherence to existing regulations and implementation of the TMP (refer to the *Sepulveda Transit Corridor Project Transportation Technical Report* [Metro, 2025a]) would ensure that the proposed MSF Base Design would provide adequate access for emergency vehicles, and the impact would be less than significant during construction activities with mitigation.

MSF Design Option 1

As required by existing regulations, the proposed MSF Design Option 1 would be required to provide adequate access for emergency vehicles during construction activities. Temporary short-term construction impacts on street traffic adjacent to the proposed MSF Design Option 1 because of roadway and infrastructure improvements could result in a reduction of the number of lanes or temporary closure of segments of adjacent roadways, resulting in a potentially significant impact to emergency vehicle access and movement. Any such impacts would be limited to the construction period of the proposed MSF Design Option 1 and would affect only adjacent streets. Furthermore, MM TRA-4 (Section 5.2.14.5) ensures that emergency response teams for the City of Los Angeles, including the fire departments and police departments, would be notified of any lane closures during construction.

As discussed in the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), a TMP and notification procedures would be implemented to ensure safe and efficient traffic flow in the area during project construction (MM TRA-4), including the proposed MSF Design Option 1. The TMP would address short-term traffic circulation and access effects during the proposed MSF Design Option 1 construction. Specifically, the TMP shall include elements to reduce traveler and emergency responder delays and enhance safety during the proposed MSF Design Option 1 construction.

Adherence to existing regulations and implementation of the TMP (refer to the *Sepulveda Transit Corridor Project Transportation Technical Report* [Metro, 2025a]) would ensure that the proposed MSF Design Option 1 would provide adequate access for emergency vehicles and the impact would be less than significant during construction activities with mitigation.

Electric Bus MSF

As required by existing regulations, the proposed Electric Bus MSF would be required to provide adequate access for emergency vehicles during construction activities. Temporary short-term construction impacts on street traffic adjacent to the proposed Electric Bus MSF because of roadway and infrastructure improvements could result in a reduction of the number of lanes or temporary closure of segments of adjacent roadways and result in a potentially significant impact to emergency vehicle access and movement. Any such impacts would be limited to the construction period of the proposed Electric Bus MSF and would affect only adjacent streets.

As discussed in the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), under MM TRA-4, a TMP shall be implemented in coordination with first responders and emergency service providers to minimize impacts on emergency response. Coordination efforts shall include the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The design builder shall notify the nearest local first responders, as appropriate, of traffic control plans during construction to coordinate emergency response routing.

Adherence to existing regulations and implementation of the TMP (refer to the *Sepulveda Transit Corridor Project Transportation Technical Report* [Metro, 2025a]) would ensure that the proposed

Electric Bus MSF would provide adequate access for emergency vehicles and the impact would be less than significant during construction activities with mitigation.

5.2.13.4 Impact WFR-2: Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?

Construction activities associated with the implementation of Alternative 1 would be located within the Wildfire Hazard Zone, which has the potential for wildfires. Construction activities associated with this portion of the guideway would primarily be located within the I-405 median. However, areas between the southbound I-405 Getty off-ramp and Skirball Center Drive and the proposed Getty Center Station would be located in undeveloped areas with existing dry vegetation.

Construction activities and staging areas would be located at the base of the mountain range within the landscaped areas adjacent to I-405, which includes an elevated slope and height above sea level, and steepness of land that can increase the spread of fire by influencing a fire's intensity, direction, and rate of spread. The areas surrounding the proposed alignment and station comprise undeveloped land that has natural habitats (e.g., grasslands, sage scrub) that experience extended droughts. These conditions — combined with the region's characteristic Mediterranean climate — result in large areas of dry vegetation and provide fuel for wildland fires. Additionally, low humidity levels allow the fuels surrounding the construction of the proposed alignment, station, and TPSS sites to become dry and more prone to catching fire and burning more quickly than when humidity levels are high.

Ignition sources during construction of Alternative 1 would include surface-level or aboveground welding activities and hot exhaust from a vehicle or motorized equipment parked on dry grass; additionally, welding during high winds could send sparks traveling through the air to land on and ignite dry grass. Wildfire ignition from construction activity could increase the risk of exposing project occupants to pollutants and result in a potentially significant impact.

To reduce the impacts related to wildfires, Alternative 1 would implement MM SAF-1 and MM SAF-2. MM SAF-1 and MM SAF-2 provide construction-related protocols that would curtail work under red-flag warning days and maintain and monitor potential sources of fuel and ignition in order to reduce impacts related to exacerbating wildfire risks to a less than significant level. Additionally, in the event of a wildfire in the Santa Monica Mountains, the construction contractor would halt construction activities if the wildfires posed a threat to human health. Implementation of MM SAF-1 and MM SAF-2 would ensure that the impacts associated with exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire (due to slope, prevailing winds, and other factors that exacerbate wildfire risks) would be less than significant with mitigation.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires (**Figure 5-10**). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4 miles south of the MSF Base Design. The MSF Base Design would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impacts would occur.

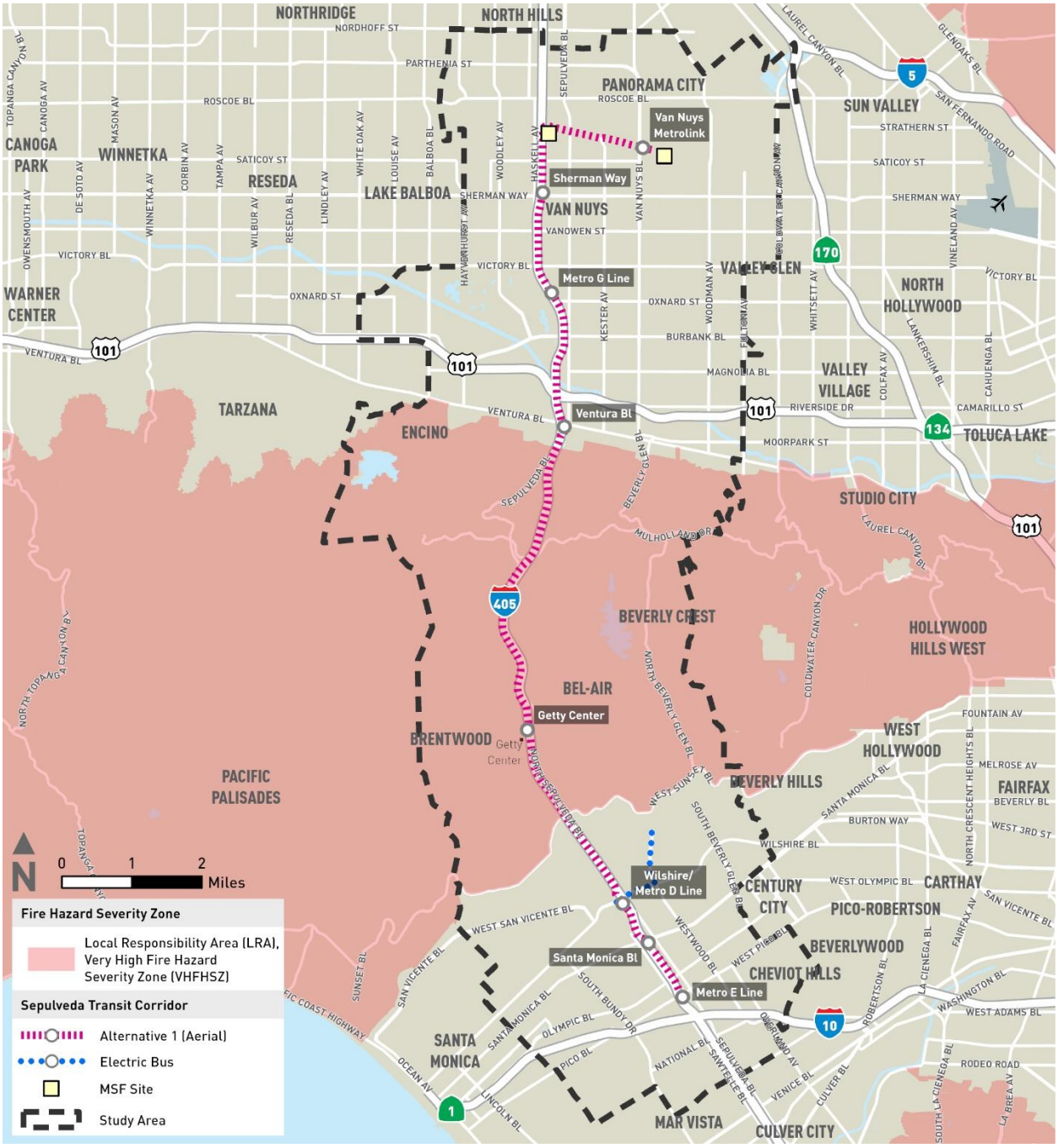
MSF Design Option 1

The proposed MSF Design Option 1 would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires (**Figure 5-10**). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4 miles south of the proposed MSF Design Option 1. The MSF Design Option 1 would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impacts would occur.

Electric Bus MSF

The proposed Electric Bus MSF would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires (**Figure 5-10**). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 3.1 miles north of the proposed Electric Bus MSF. The Electric Bus MSF would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impacts would occur.

Figure 5-10. Alternative 1: Wildfire Hazard Zones



Source: CAL FIRE, 2011; Metro, 2025o

5.2.13.5 Impact WFR-3: Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Construction of Alternative 1 would require the installation of roads, fuel breaks, emergency water sources, and other utilities associated with infrastructure to support project elements, including the proposed alignment, the proposed Getty Center Station, and the proposed TPSS sites. Ignition sources during construction of Alternative 1 would include surface-level or aboveground welding activities and hot exhaust from a vehicle or motorized equipment parked on dry grass; additionally, welding during high winds could send sparks traveling through the air to land on and ignite dry grass. Construction activities occurring within the vegetated areas of Sepulveda Pass could exacerbate the potential risk of wildfire due to the construction activities, equipment, and worker vehicles by adding to ignition sources within the area, if not properly controlled. Ignition from construction activity could exacerbate wildfire risk that may result in temporary and potentially significant impacts to the environment.

To reduce the impacts related to wildfires, Alternative 1 would implement MM SAF-1 and MM SAF-2 (Section 5.2.13.7). MM SAF-1 and MM SAF-2 provide construction-related protocols that would curtail work under red-flag warning days and maintain and monitor potential sources of fuel and ignition in order to reduce impacts related to exacerbating wildfire risks to a less than significant level. The implementation of MM SAF-1 and MM SAF-2 would ensure that the impacts associated with fire risks would be less than significant during construction activities with mitigation.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires (Figure 5-10). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4 miles south of the MSF Base Design. The MSF Base Design would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impacts would occur.

MSF Design Option 1

The proposed MSF Design Option 1 would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires (Figure 5-10). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4 miles south of the proposed MSF Design Option 1. The MSF Design Option 1 would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impacts would occur.

Electric Bus MSF

The proposed Electric Bus MSF would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires (Figure 5-10). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 3.1 miles north of the proposed Electric Bus MSF. The Electric Bus MSF would not expose people or structures to significant risks, including downslope or downstream

flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impacts would occur.

5.2.13.6 Impact WFR-4: Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes

The discussion on risks related to runoff and drainage is described in the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g). The discussion on risk related to flooding and landslides is described in the *Sepulveda Transit Corridor Geotechnical, Subsurface, Seismic*, *and Paleontological Resources Technical Report* (Metro, 2025l). The remainder of this discussion analyzes post-fire slope instability.

During construction, to address potential post-wildfire ground instabilities that may have resulted from the 2019 Getty Fire, Alternative 1 would implement project design features and would implement a *Stormwater Pollution Prevention Plan* (SWPPP). As described in further detail in *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g), regulatory framework set forth by the State Water Resources Control Board (SWRCB) would require Alternative 1 to prepare and submit a construction SWPPP to comply with the National Pollutant Discharge Elimination System (NPDES) Construction General Permit. A construction SWPPP must be submitted to the SWRCB prior to construction and adhered to during construction. The construction SWPPP would identify the best management practices (BMP) that would be in place prior to the start of construction activities and during construction. BMPs categories would include erosion control, sediment control, non-stormwater management, and materials management BMPs. Although specific temporary construction-related BMPs would be selected at the time of SWPPP preparation, potential BMPs to address post-fire wild instability would likely include fiber rolls, bonded-fiber matrix hydroseeding, erosion control mats or blankets, mulching, nature-based soil stabilization, soil stabilization. Such BMPs would manage erosion during significant rainfall events. The construction of Alternative 1 would include the implementation of BMPs and would not create additional runoff, post-fire slope instability, or drainage changes within the Wildfire Hazard Zone. Alternative 1 would not expose people or structures to significant risks, including downslope or downstream flooding or landslides. Therefore, impacts would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires as shown in Figure 5-10. The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4.0 miles south of the MSF Base Design. The MSF Base Design would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impacts would occur.

MSF Design Option 1

The proposed MSF Design Option 1 would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires as shown on Figure 5-10. The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4 miles south of the proposed MSF Design Option 1. The MSF Design Option 1 would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impacts would occur.

Electric Bus MSF

The proposed Electric Bus MSF would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires as shown on Figure 5-10. The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 3.1 miles north of the proposed Electric Bus MSF. The Electric Bus MSF would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impacts would occur.

5.2.13.7 Project and Mitigation Measures

Construction Impacts

Alternative 1 would implement the following project and mitigation measures to ensure that impacts to the emergency response plan or emergency evacuation plan, wildfire and fire risks remain less than significant during construction activities.

PM SAF-1: *The Project shall comply with all regulations of California Health and Safety Code Sections 13000 et seq. and City of Los Angeles Municipal Code pertaining to fire protection systems, such as the adequate provision of smoke alarms, fire extinguishers, building access, emergency response notification systems (master alarm system), fire flows, hydrant pressure and spacing, and relevant building codes relating to fire suppression and defensible space.*

MM SAF-1: *Curtail above ground construction and maintenance activities requiring spark-producing equipment during high-risk wildfire periods in applicable areas. Applicable areas would be areas in the Santa Monica Mountain Range that the California Department of Forestry and Fire Protection designates as a wildfire zone and is populated with dried vegetation or other material that could ignite. Construction and maintenance activities utilizing motorized equipment shall be curtailed during red-flag warning days and other high-risk periods characterized by relative humidity of 15 percent or less combined with windy conditions consisting of frequent gusts at 25 miles per hour or greater for at least 3 hours in a 12 hour period.*

MM SAF-2: *During construction of the Project, all staging areas, welding areas, or areas slated for development that use spark-producing equipment shall be cleared of dried vegetation or other material that could ignite. Any construction equipment that includes a spark arrestor shall be monitored to ensure the spark arrestor is in good working order. All vehicles and crews working on the project site shall have access to functional fire extinguishers at all times.*

Impacts After Mitigation

Compliance with all state laws, plans, policies, and regulations regarding wildfire prevention and suppression, as well as implementation of PM SAF-1, for Alternative 1 would ensure that impacts associated with wildfire and fire risks would be less than significant during operational activities.

Implementation of mitigation measures MM SAF-1 and MM SAF 2 would ensure that the impacts associated with wildfire and fire risks would be less than significant during construction activities. (Refer to the *Sepulveda Transit Corridor Project Safety and Security Technical Report* [Metro, 2025o].)

5.2.14 Transportation

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-28.

Table 5-28. Alternative 1: Transportation Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Transportation Construction Impacts		
Impact TRA-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4, MM TRA-5
	Impacts After Mitigation	LTS
Impact TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact TRA-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact TRA-4: Would the project result in inadequate emergency access?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4, MM TRA-6
	Impacts After Mitigation	LTS

Source: Metro, 2025a

LTS = less than significant
MM = mitigation measure
NA = not applicable
PS = potentially significant
TRA = transportation

5.2.14.1 Impact TRA-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities?

Given the temporary nature of construction, it is not expected that construction of Alternative 1 would preclude or conflict with any programs, plan ordinances, or policies addressing the circulation system. The following sections describe construction impacts on transit facilities, roadways, and active transportation.

Transit

Temporary full or partial closures of some intersections, lanes, or sidewalks may be necessary during construction, which may result in disruptions to bus service. Temporary re-routing and relocation of bus stops may be needed for the following transit lines:

- Metro Routes 4, 155, 162, 169, 233, 234, 240, 602, and 761
- AVTA 786
- BBB 1, 7/7R, 17
- CCB 6/R6

- LADOT 549 and DASH Panorama City/Van Nuys
- Amtrak Thruway

In addition to impacts to on-street bus service, construction at existing fixed guideway stations would temporarily impact rail and BRT service operations. At the existing Metro E Line Expo/Sepulveda Station, the construction of tail tracks and a pedestrian bridge connecting to the project station would result in temporary nighttime and weekend service impacts on the Metro E Line. The construction of a pedestrian bridge connecting the Metro G Line project station with new Metro G Line platforms would result in temporary nighttime and weekend service impacts to the Metro G Line. In addition, construction of the guideway would require temporary nighttime Metro G Line Busway closures. Temporary impacts to Amtrak and Metrolink rail operations and passenger experience at the Van Nuys Metrolink/Amtrak Station would also occur as a result of the construction of a new pedestrian bridge crossing the LOSSAN rail corridor at the station. Construction activities would occur within the vicinity of the ESFV LRT Van Nuys Metrolink Station for the construction of the aerial alignment and Alternative 1 Van Nuys Metrolink Station which may temporarily affect passenger experience; however, disruptions to rail service or MSF operations are not anticipated.

Construction of a new entrance at the east end of the Metro D Line Westwood/VA Hospital Station and a new concourse over the Metro D Line tracks and platform within the station would result in temporary impacts to Metro D Line rail operations and passenger experience. Metro D Line trains would operate between Union Station and the Metro D Line Century City Station during this period of construction as there would be no crossovers on the Metro D Line that would allow for service to operate past that station.

Although temporary, the potential disruptions to the transit network under Alternative 1 is considered a potentially significant impact to transit facilities due to temporary road or lane closures, rail service interruptions during station improvements, and sidewalk closures. Implementation of MM TRA-4, to provide a TMP that specifies measures to limit disruption during construction, and MM TRA-5, to provide temporary bus service at rail stations taken out of passenger service, would reduce impacts to less than significant during construction of Alternative 1.

Roadways

Construction vehicles would primarily use major arterials and freeways to comply with Policy 1.8 from *Mobility Plan 2035* that “truck movement should be limited to the arterial street network as much as possible since these streets have the lanes and wider turning radii to accommodate these heavy large vehicles” (DCP, 2016). Table 5-29 identifies construction staging locations and roadway facilities that would be used for construction haul routes.

Table 5-29. Alternative 1: Construction Staging Locations and Haul Routes

No.	Construction Staging Location Description	Haul Route
1	Public Storage between Pico Boulevard and Exposition Boulevard, east of I-405	Pico Boulevard, Cotner Avenue, I-405
2	South of Dowlen Drive and east of Greater LA Fisher House	Dowlen Drive, Sawtelle Boulevard, Santa Monica Boulevard, I-405
3	At 1400 N Sepulveda Boulevard	Sepulveda Boulevard, I-405
4	At 1760 N Sepulveda Boulevard	Sepulveda Boulevard, I-405
5	East of I-405 and north of Mulholland Drive Bridge	Mulholland Drive, Skirball Center Drive, I-405
6	Inside of I-405 Northbound to US-101 Northbound Loop Connector, south of US-101	I-405 or US-101

7	ElectroRent Building south of Metro G Line Busway, east of I-405	Oxnard Street, Sepulveda Boulevard, Burbank Boulevard, I-405
8	Inside the I-405 Northbound Loop Off-Ramp at Victory Boulevard	Victory Boulevard, I-405
9	Along Cabrito Road east of Van Nuys Boulevard	Cabrito Road, N Van Nuys Boulevard W, Arminta Street, Van Nuys Boulevard, Roscoe Boulevard, I-405

Source: LASRE, 2024; HTA, 2024

Guideway construction along I-405 would require limited duration off-peak median lane closures. Nighttime lane closures may be necessary to accommodate the movement of construction equipment and transportation of guideway components into the median work areas. Additional nighttime freeway ramp closures may be necessary where modifications to existing ramps are proposed. Temporary lane and ramp closures on I-405 would be coordinated and permitted through Caltrans in coordination with LADOT, Los Angeles County, and the California Highway Patrol. Guideway construction and traction power substation (TPSS) transformer installation affecting local streets on the Westside, along Raymer Street and the I-405 northbound on-ramp at Burbank Boulevard in the San Fernando Valley would be coordinated and permitted through Caltrans and LADOT's Citywide Temporary Traffic Control Division. Traffic control measures necessary to complete construction of Alternative 1 would be temporary in nature and are considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction (such as establishing detour routes, informing the traveling public, and coordinating with local business owners to maintain customer and delivery access) — would further reduce temporary impacts due traffic control measures. Therefore, construction of Alternative 1 is considered a less than significant impact related to a conflict with a program, plan, ordinance, for policy on roadway facilities.

Bicycle and Pedestrian Circulation

Construction of the aerial guideway, retaining walls, I-405 ramps, and local street improvements would require temporary roadway and sidewalk detours that would temporarily impact bicycle and pedestrian circulation. A majority of the aerial guideway would be constructed within the I-405 median where bicycle and pedestrian circulation does not exist and would not be impacted. However, in locations where the alignment is adjacent to I-405 or the LOSSAN rail corridor and where the I-405 corridor widening or local street improvements would be necessitated, temporary roadway detours and sidewalk closures would inhibit the circulation of pedestrian and bicycle facilities.

Temporary sidewalk closures would be required during construction in areas where sidewalk improvements or construction access and staging activities occur. Construction activities requiring temporary sidewalk closures would include installation of temporary falsework and replacement of sidewalk sections surrounding Alternative 1 stations. Additionally, temporary sidewalk closures would be required in areas where roadway reconfiguration or local street improvements require replacement of the existing sidewalk. Construction of the aerial guideway would temporarily impact underpasses that serve I-405 and the LOSSAN rail corridor (e.g., Santa Monica Boulevard, Constitution Avenue, Montana Avenue, Church Lane, Getty Center Drive, Bel Air Crest Road, Sepulveda Boulevard, Sherman Way, and Ventura Boulevard), thus temporarily impacting pedestrian and bicycle sidewalk access at each underpass.

In addition, Alternative 1 would require temporary lane or road closures during construction that would affect existing and planned bicycle facilities. Bicycle through-access underneath existing underpasses and within areas of local street improvements or construction staging where existing bike facilities are present would require detours for the affected bike facilities, thereby inhibiting the flow of active

transportation users. Additionally, roadway reconfiguration locations, would require temporary closure of existing bicycle facilities to complete construction. As a result, affected bicycle facilities would be temporarily decommissioned and bicycle movements would require temporary detours.

Although temporary, the potential disruptions to bicycle and pedestrian circulation would result in a potentially significant impact during project construction. In addition to compliance with all local, state, and federal standards on construction, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction (such as establishing detour routes, informing the traveling public, and coordinating with local business owners to maintain customer and delivery access) — would minimize temporary impacts due to traffic control measures. Alternative 1 detour routes would be identified in the TMP, and bicyclists and pedestrians would be informed of such closures and detours through signage and online postings that would be consistent with Policy 1.6 from *Mobility Plan 2035* that states, "Design detour facilities to provide safe passage for all modes of travel during construction" (DCP, 2016). Therefore, implementation of MM TRA-4 would reduce impacts to less than significant during construction of Alternative 1.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design for Alternative 1 would be located on City of Los Angeles Department of Water and Power (LADWP) property east of the Van Nuys Metrolink/Amtrak Station and bounded by the LOSSAN rail corridor to the north, Saticoy Street to the south, and property lines extending north of Tyrone and Hazeltine Avenues to the east and west, respectively. Construction of the MSF Base Design would not conflict with a program, plan, ordinance, or policy addressing the circulation system. Therefore, construction of the MSF Base Design for Alternative 1 would result in no impact.

MSF Design Option 1

The electric bus MSF for Alternative 1 would be located on the northwest corner of Pico Boulevard and Cotner Avenue. Construction of the electric bus MSF would not conflict with a program, plan, ordinance, or policy addressing the circulation system; therefore, no impacts would occur.

Electric Bus MSF

The electric bus MSF for Alternative 1 would be located on the northwest corner of Pico Boulevard and Cotner Avenue. Construction of the electric bus MSF would not conflict with a program, plan, ordinance, or policy addressing the circulation system; therefore, no impacts would occur.

5.2.14.2 Impact TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Construction of Alternative 1 would temporarily generate additional VMT related to construction workers commuting to the construction site, construction work activities, construction labor trips, and the transport of excavated materials, construction equipment, and supplies. This additional VMT would terminate upon completion of construction and would not be in effect during operation of Alternative 1. The temporary nature of construction-related VMT and construction-related traffic circulation changes (e.g., detours) would generally be localized to the work areas and construction staging locations listed in Table 5-29.

In addition, there would be minor impacts to traffic operations associated with construction staging areas and haul routes. Vehicles and trucks related to construction activities entering and exiting these areas would increase traffic and VMT on local streets. All construction trucks would use designated haul

routes, as listed in Table 5-29, to access the regional freeway system. The construction-related traffic volumes would be minimal compared to overall background traffic volumes and generally would occur during the off-peak periods when volumes and congestion are lower. Increased traffic generated by construction-related vehicle operations would be temporary in nature. As a result, construction would not result in a substantial or long-term change in regional travel patterns related to VMT and is considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic. Therefore, construction of Alternative 1 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and is considered a less than significant impact.

Maintenance and Storage Facilities

MSF Base Design

Construction of the MSF Base Design would result in a minor increase in traffic volumes as construction vehicles enter and exit the site. Construction vehicles entering and exiting the construction site would temporarily increase VMT on local streets. The construction-related traffic volumes would be minimal compared to overall background traffic volumes and generally would occur during the off-peak periods when volumes and congestion are lower. Increased traffic generated by construction-related vehicle operations would be temporary in nature. As a result, construction-related traffic would not result in a substantial or long-term change in regional travel patterns related to VMT and is considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic. Therefore, construction of the MSF Base Design for Alternative 1 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and is considered a less than significant impact.

MSF Design Option 1

Construction of the MSF Design Option 1 would result in a minor increase in traffic volumes as construction vehicles enter and exit the site. Construction vehicles entering and exiting the construction site would temporarily increase VMT on local streets. The construction-related traffic volumes would be minimal compared to overall background traffic volumes and generally would occur during the off-peak periods when volumes and congestion are lower. Increased traffic generated by construction-related vehicle operations would be temporary in nature. As a result, construction-related traffic would not result in a substantial or long-term change in regional travel patterns related to VMT and is considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic. Therefore, construction of MSF Design Option 1 for Alternative 1 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and is considered a less than significant impact.

Electric Bus MSF

Construction of the electric bus MSF would result in a minor increase in traffic volumes as construction vehicles enter and exit the site. Construction vehicles entering and exiting the construction site would temporarily increase VMT on local streets. The construction-related traffic volumes would be minimal compared to overall background traffic volumes and generally would occur during the off-peak periods when volumes and congestion are lower. Increased traffic generated by construction-related vehicle operations would be temporary in nature. As a result, construction-related traffic would not result in a

substantial or long-term change in regional travel patterns related to VMT and is considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic. Therefore, construction of electric bus MSF for Alternative 1 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and is considered a less than significant impact.

5.2.14.3 Impact TRA-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?

Temporary modifications of existing transportation facilities under Alternative 1 would include full or partial road closures, lane reductions or modifications, and detour routes. Beyond the I-405 ROW, construction of Alternative 1 would include temporary modifications to segments of Cotner Avenue, Beloit Avenue, and Dowlen Drive in the Westside, Sepulveda Boulevard in the Sepulveda Pass, and Dickens Street and Raymer Street in the San Fernando Valley. Construction worksites would be fenced, and lane closures and associated lane tapers, temporary advance warning signs, and detour signs would be implemented in accordance with OSHA, Cal/OSHA, and CA MUTCD (Caltrans, 2024) standards to ensure that no significant geometric design hazards or incompatible uses are introduced during construction. Safety for pedestrians, bicyclists, and motorists would be maintained during construction using signage, partial lane closures, construction barriers, and supervision by safety and security personnel at access points and throughout construction sites. Traffic control measures necessary to complete construction of Alternative 1 would be temporary in nature and are considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic control measures to ensure hazards are not introduced during construction. Therefore, construction of Alternative 1 would not substantially increase hazards due to a geometric design feature or incompatible use and is considered a less than significant impact.

Maintenance and Storage Facilities

MSF Base Design

Construction of the MSF Base Design may include construction staging, materials stockpiling, hauling of dirt and materials, temporary lane reductions, and use of temporary easements. Construction activities would meet all relevant and applicable safety standards, including OSHA, Cal/OSHA, and CA MUTCD (Caltrans, 2024) standards to ensure that no significant geometric design hazards or incompatible uses are introduced during construction. Thus, construction of the MSF Base Design would not result in an increase in hazards or incompatible uses due to a design feature. Therefore, construction of the MSF Base Design for Alternative 1 would result in no impact.

MSF Design Option 1

Construction of MSF Design Option 1 may include construction staging, materials stockpiling, hauling of dirt and materials, temporary lane reductions, and use of temporary easements. Construction activities would meet all relevant and applicable safety standards, including OSHA, Cal/OSHA, and CA MUTCD (Caltrans, 2024) standards to ensure that no significant geometric design hazards or incompatible uses are introduced during construction. Thus, construction of MSF Design Option 1 would not result in an increase in hazards or incompatible uses due to a design feature. Therefore, construction of MSF Design Option 1 for Alternative 1 would result in no impact.

Electric Bus MSF

Construction of the electric bus MSF may include construction staging, materials stockpiling, hauling of dirt and materials, temporary lane reductions, and use of temporary easements. Construction activities would meet all relevant and applicable safety standards, including OSHA, Cal/OSHA, and CA MUTCD (Caltrans, 2024) standards to ensure that no significant geometric design hazards or incompatible uses are introduced during construction. Thus, construction of the electric bus MSF under Alternative 1 would not result in an increase in hazards or incompatible uses due to a design feature. Therefore, construction of the electric bus MSF for Alternative 1 would result in no impact.

5.2.14.4 Impact TRA-4: Would the project result in inadequate emergency access?

Project construction would include temporary lane reductions, road closures, and detours affecting local roadways and I-405. Construction on Dowlen Drive near the VA Medical Center would result in inadequate access for emergency service vehicles due to increased construction traffic and road closures during construction, resulting in a potentially significant impact. Implementation of MM TRA-6 would require coordination with the VA Medical Center to ensure adequate emergency access is maintained during construction. In addition, MM TRA-4 would be implemented in accordance with Metro standard practice, to require coordination with first responders during final design to further reduce temporary impacts on emergency access during construction. Therefore, implementation of MM TRA-4 and MM TRA-6 would reduce impacts to less than significant during construction of Alternative 1.

Maintenance and Storage Facilities

MSF Base Design

Construction of the MSF Base Design would result in temporary impacts to traffic operations due to a minor increase in traffic volumes as construction vehicles enter and exit the site. Traffic control measures necessary to complete construction of the MSF Base Design would be temporary in nature and are considered a less than significant impact. In accordance with standard Metro practice, implementation of MM TRA-4 would ensure adequate emergency access is maintained within and surrounding the site during construction to further reduce temporary impacts. Therefore, construction of the MSF Base Design for Alternative 1 is considered to have a less than significant impact.

MSF Design Option 1

Construction of MSF Design Option 1 would result in temporary impacts to traffic operations due to a minor increase in traffic volumes as construction vehicles enter and exit the site. Traffic control measures necessary to complete construction of MSF Design Option 1 would be temporary in nature and are considered a less than significant impact. In accordance with standard Metro practice, implementation of MM TRA-4 would ensure adequate emergency access is maintained within and surrounding the site during construction to further reduce temporary impacts. Therefore, construction of MSF Design Option 1 for Alternative 1 is considered to have a less than significant impact.

Electric Bus MSF

Construction of the electric bus MSF would result in temporary impacts to traffic operations due to a minor increase in traffic volumes as construction vehicles enter and exit the site. Traffic control measures necessary to complete construction of the electric bus MSF would be temporary in nature and are considered a less than significant impact. In accordance with standard Metro practice, implementation of MM TRA-4 would ensure adequate emergency access is maintained within and surrounding the site during construction to further reduce temporary impacts. Therefore, construction of the electric bus MSF for Alternative 1 is considered to have a less than significant impact.

5.2.14.5 Mitigation Measures

Construction Impacts

MM TRA-4: *The project contractor shall prepare a Transportation Management Plan to facilitate the flow of traffic and transit service in and around construction zones. The Transportation Management Plan shall include, at a minimum, the following measures:*

- *Where feasible, schedule construction-related travel (i.e., deliveries, hauling, and worker trips) during off-peak hours and maintain two-way traffic circulation along affected roadways during peak hours. Avoid the closure of two major adjacent streets where feasible.*
- *Designated routes for project haul trucks shall primarily utilize the I-405, I-10, and US-101 corridors. Throughout the construction process, these routes shall be coordinated with the City of Los Angeles and U.S. Department of Veterans Affairs to ensure consistency with land use and mobility plans. Additionally, the routes shall be situated to minimize noise, vibration, and other possible impacts.*
- *Develop detour routes to facilitate traffic movement through construction zones without significantly increasing cut-through traffic in adjacent residential areas.*
- *Where construction encroaches on the Los Angeles-San Diego-San Luis Obispo rail corridor right-of-way, coordinate construction activities with Union Pacific, Metrolink, and Amtrak to limit disruptions to service and coordinate on outreach to inform passengers of service impacts. Provide temporary parking and drop-off facilities at the Van Nuys Metrolink/Amtrak Station to minimize passenger impacts.*
- *Develop and implement an outreach program and public awareness campaign in coordination with Caltrans, the City of Los Angeles, the City of Santa Monica, and the County of Los Angeles to inform the general public about the construction process and planned roadway closures, potential impacts, and mitigation measures, including temporary bus stop relocation.*
- *Where feasible, temporarily restripe roadways to maximize the vehicular capacity at locations affected by construction closures.*
- *Provide wayfinding signage, lighting, and access to specify pedestrian safety amenities (such as handrails, fences, and alternative walkways) during construction.*
- *Where construction encroaches on pedestrian facilities, special pedestrian safety measures shall be used, such as detour routes and temporary pedestrian barricades.*
- *Where construction encroaches onto the University of California, Los Angeles campus, the project contractor shall ensure that access to campus buildings is maintained through temporary decking and the construction of temporary stairs and ramps.*

- *During final design, the project contractor shall coordinate with Metro Operations to minimize construction impacts on existing Metro rail operations in and around existing stations. Where construction results in the interruption of Metro rail operations, buses shall provide temporary service between rail stations.*
- *Provide on-street bicycle detour routes and signage to address temporary effects to bicycle circulation and minimize inconvenience (e.g., lengthy detours) as to minimize users potentially choosing less safe routes if substantially rerouted.*
- *During final design, the project contractor shall coordinate with first responders and emergency service providers to minimize impacts on emergency response. Coordination efforts shall include the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing.*
- *Maintain customer and delivery access to all operating businesses near construction work areas. Access shall be maintained to allow for reasonable business operations, including clear signage for alternate routes, temporary driveways, or entry points as necessary. Coordination with businesses shall be conducted to address specific access needs and limit disruptions, ensuring that any restrictions are communicated in advance and alternative arrangements are provided as appropriate.*

MM TRA-5: *Where construction results in the interruption of Metro rail operations, the Project shall provide temporary bus service at rail stations taken out of passenger service. Temporary bus service may consist of either dedicated bus shuttles or extensions of other Metro bus service. Temporary bus service during closures of the Metro D Line Westwood/UCLA Station and/or Metro D Line Westwood/VA Hospital Station shall operate on Bonsall Avenue, Wilshire Boulevard, Santa Monica Boulevard, Century Park East, Avenue of the Stars, Century Park West, and/or Constellation Drive.*

MM TRA-6: *During final design, the project contractor shall coordinate with University of California, Los Angeles (UCLA) and the Veterans Affairs (VA) Medical Center to ensure adequate emergency access to the Ronald Reagan UCLA Medical Center and the VA Medical Center during construction.*

Impacts After Mitigation

Construction of Alternative 1 would result in a potentially significant impact under Impact TRA-1 due to temporary traffic control measures, rail service interruptions during station improvements, and sidewalk closures. Implementation of MM TRA-4 would reduce impacts to less than significant by requiring a TMP to minimize temporary disruptions associated with construction activities. Implementation of MM TRA-5 would reduce this impact to less than significant by providing temporary bus service at rail stations taken out of passenger service during construction.

Construction of Alternative 1 would result in a potentially significant impact under Impact TRA-4 due to temporary traffic control measures that would result in inadequate emergency access during construction. Implementation of MM TRA-4 and MM TRA-6 would reduce this impact to less than

significant by requiring coordination with first responders and the VA Medical Center during final design to maintain adequate emergency access during construction.

5.2.15 Cultural Resources and Tribal Cultural Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-30.

Table 5-30. Alternative 1: Cultural Resources and Tribal Cultural Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Cultural Resources and Tribal Cultural Resources Construction Impacts		
Impact CUL-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM CUL-1 through MM CUL-5
	Impacts After Mitigation	SU
Impact CUL-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM CUL-1 MM CUL-6 MM CUL-7
	Impacts After Mitigation	LTS
Impact CUL-3: Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM CUL-8
	Impacts After Mitigation	LTS
Impact TCR-1: Would the project cause a substantial adverse change in the significance of a TCR, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TCR-1, MM TCR-2
	Impacts After Mitigation	LTS

Source: Metro, 2025n.

CUL = cultural resources
LTS = less than significant
MM = mitigation measure
PS = potentially significant
SU = significant and unavoidable
TCR = tribal cultural resources

5.2.15.1 Impact CUL-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Alternative 1 activities during construction of the alignment would include property acquisitions, demolition of historical resources, and new construction of permanent features. Construction impacts on historical resources could be direct and indirect. Direct impacts include the physical demolition, destruction, relocation, or alteration of historical resources. Indirect impacts during construction could include temporary visual, audible, or atmospheric intrusions affecting the surroundings of historical resources. This assessment also considers the permanent impacts of Alternative 1's new infrastructure, such as its visual and physical presence within the setting of historical resources. These impacts are treated as construction-related impacts, rather than operational impacts, because these project changes are directly tied to the introduction of the infrastructure during the construction phase. For historical

resources where construction activities would not result in physical demolition, destruction, relocation, or alteration, and where the setting would remain unaffected by the new infrastructure, impacts are considered less than significant. Similarly, where visual and physical changes would not materially impair the historical significance of a resource, the impacts are also identified as less than significant. Historical resources described in the following subsections are identified by Map Reference numbers corresponding to the maps included in Appendix A of the *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n).

Alternative 1 Historical Resources –Less than Significant Impacts

Construction of Alternative 1 would result in less than significant impacts to 27 resources (Table 7-31) with further discussion on their analysis in the *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n).

Table 5-31. Alternative 1: Historical Resources – Less Than Significant Impacts

Map Reference #	Resource Name	Location
5	Southern Pacific Railroad Warehouse	7766 Van Nuys Boulevard
6	14704 Raymer Street	14704 Raymer Street
12	Sherman Way Trees	Linear Resource
14	Van Nuys Boulevard Trees	Linear Resource
30	15233 Ventura Boulevard	15233 Ventura Boulevard
31/33	Rodeo Realty	15300 Ventura Boulevard
32	Sherman Oaks Circle Historic District	Between Firmament Avenue and I-405
35	Dai Siani Ristorante (Sherwood Coiffeurs)	4511 Sepulveda Boulevard
40	3754 North Scadlock Lane	3754 North Scadlock Lane
41	3700 North Scadlock Lane	3700 North Scadlock Lane
42	3666 North Scadlock Lane	3666 North Scadlock Lane
43	3601 North Scadlock Lane	3601 North Scadlock Lane
74	11752 Bellagio Road	11752 Bellagio Road
75	11734 Bellagio Road	11734 Bellagio Road
76	11728 Bellagio Road	11728 Bellagio Road
77	650 N Sepulveda Boulevard	650 N Sepulveda Boulevard
78	Acanto Street Historic District	Historical District in the Bel Air neighborhood
79	11371 Ovada Place	11371 Ovada Place
80	11378 Ovada Place	11378 Ovada Place
81	11398 Thurston Circle	11398 Thurston Circle
82	Holiday Inn (Hotel Angeleno)	170 Church Lane
84	11284 Montana Avenue	11284 Montana Avenue
85	522 S Sepulveda Boulevard	522 S Sepulveda Boulevard
86	West Los Angeles Veterans Affairs Historic District	Veterans Affairs
118/119	General Telephone Company Building	1544 Cotner Avenue
120	Louise Green Millinery Co. Building	1616 Cotner Avenue
121	Western Electric Supply Co. Building	1620 Cotner Avenue

Source: Metro, 2025n

Alternative 1 Historical Resources – No Impact

Construction of Alternative 1 would result in no impact to 35 resources. (Table 5-32). These historical resources would not be physically demolished, destroyed, relocated, or altered. The resources are

located along the electric bus route within existing transportation corridors, and no impacts are anticipated.

Table 5-32. Alternative 1: Historical Resources – No Impact

Map Reference #	Resource Name	Location
1	13812 Saticoy Street	13812 Saticoy Street
2	13914 Saticoy Street	13914 Saticoy Street
3	13938 Saticoy Street	13938 Saticoy Street
4	13942 Saticoy Street	13942 Saticoy Street
28	4737 Orion Avenue	4737 Orion Avenue
29	4714 Orion Avenue	4714 Orion Avenue
34	15250 Ventura Boulevard	15250 Ventura Boulevard
72	UCLA Historic District	Encompasses the east-west axis of the campus and is bounded by Westwood Boulevard and Circle Drive
73	UCLA Ackerman Hall	308 Westwood Plaza
83	University Crest Historic District	Bounded by Sunset Boulevard to the north, Veteran Avenue to the east, Montana Avenue to the south, and Sepulveda Boulevard to the west
87	UCLA Veterans Rehabilitation Services	1000 Veteran Avenue
88	Engine Company #37	1090 Veteran Avenue
89	Campbell's Book Store	10918 Le Conte Avenue
90	Holmby Building	921 Westwood Boulevard
91	924 Westwood Boulevard	924 Westwood Boulevard
92	California Pizza Kitchen	1001 Broxton Avenue
93	10940 Weyburn Avenue	10940 Weyburn Avenue
94	Chatam Restaurant	10930 Weyburn Avenue
95	Desmond's	1001 Westwood Boulevard
96	Bullock's Department Store	1000 S Westwood Boulevard
97	Kelly Music Building/Alice's Restaurant	1041 Westwood Boulevard
98	Penney's	1056 Westwood Boulevard
99	Janss Investment Company Building	1081 Westwood Boulevard
100	Glendale Federal Savings and Loan Association	1090 Westwood Boulevard
101	Westwood Village Streetlight	Westwood and Kinross, northwest corner, adjacent to Janss Investment Company Building
102	Bratskeller Egyptian Theater (Ralph's Grocery Store)	1142 Westwood Boulevard
103	Gayley Center	1101 Gayley Avenue
104/105	Linde Medical Building	10921 Wilshire Boulevard
106	Tishman Building	10950 West Wilshire Boulevard
107	1220 Veteran Avenue	1220 Veteran Avenue
108	Westwood Federal Building	1100 Wilshire Boulevard
109	LADWP Westwood Distribution Headquarters	1400 S Sepulveda Boulevard
110	1400 Greenfield Avenue	1400 Greenfield Avenue
126/127	Big Tommy's	11285/11289 West Pico Boulevard
128	2467 Sawtelle Boulevard	2467 Sawtelle Boulevard

Source: HTA, 2024

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design would not physically demolish, destroy, relocate, or alter any historical resources. There would be no construction impacts to historical resources associated with the MSF Base Design because there are no historical resources at the MSF Base Design location. Therefore, the MSF Base Design would not cause a substantial adverse change in the significance of historical resources pursuant to CEQA Guidelines (Section 15064.5).

MSF Design Option 1

The MSF Design Option 1 would not physically demolish, destroy, relocate, or alter any historical resources. There would be no construction impacts to historical resources associated with MSF Design Option 1 because there are no historical resources at the MSF Design Option 1 location. Therefore, the MSF Design Option 1 would not cause a substantial adverse change in the significance of historical resources pursuant to CEQA Guidelines (Section 15064.5).

Electric Bus MSF

The Electric Bus MSF would not physically demolish, destroy, relocate, or alter any historical resources. There would be no construction impacts to historical resources associated with the Electric Bus MSF because there are no historical resources at the Electric Bus MSF location. Therefore, the Electric Bus MSF would not cause a substantial adverse change in the significance of historical resources pursuant to CEQA Guidelines (Section 15064.5).

5.2.15.2 Impact CUL-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

An assessment of archaeological sensitivity for the Archaeological RSA

indicates construction activities associated with the Alternative 1 alignment would have low to moderate potential to encounter previously unidentified archaeological resources below ground surface. No portion of the Archaeological RSA was determined to have high potential to encounter such resources because no intact significant archaeological resources have been identified within or directly adjacent to the Archaeological RSA. No prehistoric archaeological sites and only one historic-age archaeological site has been identified within the Archaeological RSA for this alternative. The one resource documented within the Archaeological RSA (P-19-003803) has been determined to no longer be present within the alignment and does not have potential to be impacted by construction of Alternative 1. However, the sediments present across the alignment consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits.

Locations considered to have low potential to encounter archaeological resources are those in older geologic deposits, such as where Alternative 1 components would be constructed at great depth, and those in areas with high levels of previous subsurface ground disturbance. Locations considered to have moderate potential to encounter archaeological deposits are those in younger soils, such as where Alternative 1 components would be constructed in shallower depths, and with low or unknown levels of previous disturbance. Proximity to previously recorded archaeological resources, important prehistoric resource areas, and water sources also increase sensitivity.

Archival research and field survey determined that one recorded historic-age resource (P 19 003803) was previously recorded in the Archaeological RSA but has likely been removed as a result of prior construction activity in the area. Archaeological resources of prehistoric and historic age have been

documented in the Built Environment RSA and within the Project Study Area, between approximately 0.5 mile and 1.25 miles from of the Alternative 1 Archaeological RSA. They were often encountered in the context of subsurface construction activity, indicating there is potential in the area to encounter additional resources in a similar manner. Construction activities for the alignment would include new excavation and other ground-disturbing activities, which could impact subsurface archaeological resources.

Buried archaeological resources may exist within the Alternative 1 Archaeological RSA, and it is possible these resources could be unearthed during project excavation activities. The proposed alignment for Alternative 1 is largely within the public ROW that has already been disturbed with utility and street construction, but those disturbances were relatively shallow. Locations considered to have low potential to encounter archaeological resources are those in older geologic deposits, such as tunnel locations where project components would be constructed at great depth. Shallow construction work associated with the Alternative 1 alignment would have limited potential to encounter intact archaeological resources.

Other proposed construction activities, such as mass excavation required for new stations, MRT footings, at grade alignment segments, and ancillary facilities with excavation depths greater than 5 feet have the potential to encounter intact archaeological deposits below the shallow previous ground disturbance and are considered to have moderate archaeological sensitivity.

Based on this analysis, construction of Alternative 1 has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to archaeological resources related to construction of the alignment alternative would be significant, and mitigation is required. With implementation of MM CUL-1, MM CUL-6, MM CUL-7, impacts on archaeological resources, including historical resources and unique archaeological resources, would be reduced to less than significant for Alternative 1.

Maintenance and Storage Facilities

MSF Base Design

An assessment of archaeological sensitivity for the Archaeological RSA indicates construction activities associated with the Alternative 1 MSF Base Design would have moderate potential to encounter previously unidentified archaeological resources below ground surface. No prehistoric or historic-age archaeological sites have been identified within or adjacent to the MSF Base Design; however, the sediments present in the area consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits. Construction activities with excavation depths greater than 5 feet have the potential to encounter intact archaeological deposits below the previous ground disturbance and are considered to have moderate archaeological sensitivity.

Construction of the MSF Base Design has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to archaeological resources related to construction of the alignment alternative would be significant, and mitigation is required. With implementation of MM CUL-1, MM CUL-6, MM CUL-7, impacts on archaeological resources, including historical resources and unique archaeological resources, would be reduced to less than significant for the MSF Base Design.

MSF Design Option 1

An assessment of archaeological sensitivity for the Archaeological RSA indicates construction activities associated with the Alternative 1 MSF Design Option 1 would have moderate potential to encounter previously unidentified archaeological resources below ground surface. No prehistoric or historic-age archaeological sites have been identified within the Alternative 1 MSF Design Option 1; however, the sediments present in the area consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits. Construction activities with excavation depths greater than 5 feet have the potential to encounter intact archaeological deposits below the previous ground disturbance and are considered to have moderate archaeological sensitivity.

Construction of the Alternative 1 MSF Design Option 1 has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to archaeological resources related to construction of the alignment alternative would be significant, and mitigation is required. With implementation of MM CUL-1, MM CUL-6, MM CUL-7, impacts on archaeological resources, including historical resources and unique archaeological resources, would be reduced to less than significant for MSF Design Option 1.

Electric Bus MSF

An assessment of archaeological sensitivity for the Archaeological RSA indicates construction activities associated with the Alternative 1 Electric Bus MSF would have moderate potential to encounter previously unidentified archaeological resources below ground surface. No prehistoric or historic-age archaeological sites have been identified within or adjacent to the Alternative 1 Electric Bus MSF; however, the sediments present in the area consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits. Construction activities with excavation depths greater than 5 feet have the potential to encounter intact archaeological deposits below the previous ground disturbance and are considered to have moderate archaeological sensitivity.

Construction of the Alternative 1 Electric Bus MSF has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to archaeological resources related to construction of the alignment alternative would be significant, and mitigation is required. With implementation of MM CUL-1, MM CUL-6, MM CUL-7, impacts on archaeological resources, including historical resources and unique archaeological resources, would be reduced to less than significant for the Electric Bus MSF.

5.2.15.3 Impact CUL-3: Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Potential construction impacts on human remains, including those interred outside of dedicated cemeteries, would be related to ground-disturbing activities. It is possible burials could be unearthed during excavation activities.

One known cemetery, the Los Angeles National Cemetery, is located within the Alternative 1 Built Environment RSA. However, the probability of encountering human remains during construction is low because the Los Angeles National Cemetery is located outside of the proposed Alternative 1 alignment, and no construction activities would occur within the cemetery grounds. While unlikely, because of the age of the cemetery and the documentation of at least one interment in the area prior to the official

founding of the cemetery, there is potential for unmarked and forgotten graves to lie outside of the existing cemetery footprint.

At least two indigenous burials have been encountered within the previously recorded site of P-19-000382, located approximately 0.5 mile west of the Alternative 1 Archaeological RSA. The ethnographic village site is not close to the Alternative 1 RSA, but it provides evidence that there is potential to encounter Native American human remains in the vicinity. While no evidence of human remains has been previously identified within the Alternative 1 alignment, unknown human burials may exist within the Alternative 1 Archaeological RSA, and it is possible these burials could be unearthed during excavation activities. Therefore, construction of Alternative 1 has the potential to cause a substantial adverse change to an unknown burial. Disturbance of unknown burial sites would result in a significant impact, and mitigation is required. With implementation of MM CUL-8, impacts to human remains would be reduced to less than significant for Alternative 1.

Maintenance and Storage Facilities

MSF Base Design

While no evidence of human remains has been previously identified within the Alternative 1 MSF Base Design, burials have been identified in proximity to the Alternative 1 Archaeological RSA. Unknown human burials may exist within the MSF Base Design, and it is possible these burials could be unearthed during excavation activities. Therefore, construction of the Alternative 1 MSF Base Design has the potential to cause a substantial adverse change to an unknown burial. Disturbance of unknown burial sites would result in a significant impact, and mitigation is required. With implementation of MM CUL-8, impacts to human remains would be reduced to less than significant for MSF Base Design.

MSF Design Option 1

While no evidence of human remains has been previously identified within the Alternative 1 MSF Design Option 1, burials have been identified in proximity to the Alternative 1 Archaeological RSA. Unknown human burials may exist within the MSF Design Option 1, and it is possible these burials could be unearthed during excavation activities. Therefore, construction of the Alternative 1 MSF Design Option 1 has the potential to cause a substantial adverse change to an unknown burial. Disturbance of unknown burial sites would result in a significant impact, and mitigation is required. With implementation of MM CUL-8, impacts to human remains would be reduced to less than significant for MSF Design Option 1.

Electric Bus MSF

While no evidence of human remains has been previously identified within the Alternative Electric Bus MSF, burials have been identified in proximity to the Alternative 1 Archaeological RSA. Unknown human burials may exist within the Electric Bus MSF, and it is possible these burials could be unearthed during excavation activities. Therefore, construction of the Alternative 1 Electric Bus MSF has the potential to cause a substantial adverse change to an unknown burial. Disturbance of unknown burial sites would result in a significant impact, and mitigation is required. With implementation of MM CUL-8, impacts to human remains would be reduced to less than significant for the Electric Bus MSF.

5.2.15.4 Impact TCR-1: Would the project cause a substantial adverse change in the significance of a TCR, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe?

Confidential information shared by tribal representatives and review of cultural resource management gray literature suggest a portion of the Alternative 1 Built Environment RSA may encompass a sacred location. Additionally, during AB 52 consultation and literature review, two landscape features, the Sepulveda Pass and the Los Angeles River, were identified as significant places important to tribal cultural heritage. As such, for the purposes of this analysis, the Sepulveda Pass and Los Angeles River are being treated in a manner consistent with a TCR. Further, the presence of previously recorded archaeological sites with Native American components within 0.5 mile of the Tribal Cultural RSA and the presence of indigenous trails and important water resources in the vicinity suggest that buried TCRs may exist within the Alternative 1 Tribal Cultural RSA. One of these archaeological sites, P-19-000382, is an ethnographic village where at least two indigenous burials have been encountered. It is possible that significant unknown TCRs could be unearthed during Alternative 1 excavation activities.

The proposed alignment for Alternative 1 is largely within the public ROW that has already been disturbed during utility and street construction, but these disturbances were relatively shallow. Locations considered to have low potential to encounter TCRs are those in older geologic deposits, such project components would be constructed at great depth. Shallow construction work, such as for the at-grade portions of the alignment, have limited potential to encounter intact TCR archaeological deposits or human remains because of the prior shallow disturbances. However, other proposed construction activities, such as mass excavation required for new stations, MRT footings, at-grade alignment segments and ancillary facilities, have the potential to encounter deeper, intact archaeological deposits. Furthermore, while an archaeologist may place greater importance on the intact nature of archaeological deposits, tribes may be concerned with the potential to identify and protect prehistoric resources, regardless of scientific value. Therefore, construction of the Alternative 1 alignment has the potential to cause a substantial adverse change in the significance of a TCR pursuant to PRC Section 21074. Impacts would be potentially significant.

Section 5.2.1.5 discusses the proposed mitigation measures, which require Native American monitoring during ground disturbance, work stoppage and consultation if Tribal Cultural Resources or human remains are encountered, and the implementation of protective measures to ensure culturally appropriate treatment and compliance with legal requirements. Additionally, MM CUL-1, MM-CUL-6, MM CUL-7, and MM CUL-8, described in Section 3.4.6, would be implemented, which require construction personnel training on identifying and responding to cultural and Tribal Cultural Resources, archaeological monitoring in sensitive areas, work stoppage and treatment protocols for discovered artifacts, and procedures for the respectful handling of human remains in accordance with legal and tribal requirements. With implementation of MM TCR-1 and MM TCR-2, as well as MM CUL-1, MM CUL-6, MM CUL-7, and MM CUL-8, impacts on TCRs would be reduced to less than significant for Alternative 1.

Maintenance and Storage Facilities

MSF Base Design

An assessment of TCR sensitivity for the Tribal Cultural RSA indicates construction activities associated with the Alternative 1 MSF Base Design would have moderate potential to encounter previously

unidentified TCRs below ground surface. No TCRs have been identified within the MSF Base Design; however, the sediments present in the area consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits and TCRs that could be impacted by ground-disturbing activities.

Construction of the MSF Base Design has the potential to cause a substantial adverse change in the significance of a TCR listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to TCRs related to construction of the Alternative 1 MSF Base Design would be significant, and mitigation is required. Section 5.2.15.5 discusses the proposed mitigation measures, which require Native American monitoring during ground disturbance, work stoppage and consultation if Tribal Cultural Resources or human remains are encountered, and the implementation of protective measures to ensure culturally appropriate treatment and compliance with legal requirements. Additionally, MM CUL-1, MM-CUL-6, MM CUL-7, and MM CUL-8 would be implemented, which require construction personnel training on identifying and responding to cultural and Tribal Cultural Resources, archaeological monitoring in sensitive areas, work stoppage and treatment protocols for discovered artifacts, and procedures for the respectful handling of human remains in accordance with legal and tribal requirements. With implementation of MM TCR-1 and MM TCR-2, as well as MM CUL-1, MM CUL-6, MM CUL-7, and MM CUL-8, impacts on TCRs would be reduced to less than significant for the MSF Base Design.

MSF Design Option 1

An assessment of TCR sensitivity for the Tribal Cultural RSA indicates construction activities associated with the Alternative 1 MSF Design Option 1 would have moderate potential to encounter previously unidentified TCRs below ground surface. No TCRs have been identified within the MSF Design Option 1; however, the sediments present in the area consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits and TCRs that could be impacted by ground-disturbing activities.

Construction of the MSF Design Option 1 has the potential to cause a substantial adverse change in the significance of an TCR listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to TCRs related to construction of the Alternative 1 alignment would be significant, and mitigation is required. Section 5.2.15.5 discusses the proposed mitigation measures, which require Native American monitoring during ground disturbance, work stoppage and consultation if Tribal Cultural Resources or human remains are encountered, and the implementation of protective measures to ensure culturally appropriate treatment and compliance with legal requirements. Additionally, MM CUL-1, MM-CUL-6, MM CUL-7, and MM CUL-8, described in Section 3.4.6, would be implemented, which require construction personnel training on identifying and responding to cultural and Tribal Cultural Resources, archaeological monitoring in sensitive areas, work stoppage and treatment protocols for discovered artifacts, and procedures for the respectful handling of human remains in accordance with legal and tribal requirements. With implementation of MM TCR-1 and MM TCR-2, as well as MM CUL-1, MM CUL-6, MM CUL-7, and MM CUL-8, impacts on TCRs would be reduced to less than significant for the MSF Design Option 1.

Electric Bus MSF

An assessment of TCR sensitivity for the Tribal Cultural RSA indicates construction activities associated with the Alternative 1 Electric Bus MSF would have moderate potential to encounter previously unidentified TCRs below ground surface. No TCRs have been identified within the Electric Bus MSF; however, the sediments present in the area consist of younger and older quaternary alluvium, which

have potential to contain archaeological deposits and TCRs that could be impacted by ground-disturbing activities.

Construction of the Electric Bus MSF has the potential to cause a substantial adverse change in the significance of a TCR listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to TCRs related to construction of the Alternative 1 alignment would be significant, and mitigation is required. Section 5.2.15.5 discusses the proposed mitigation measures, which require Native American monitoring during ground disturbance, work stoppage and consultation if Tribal Cultural Resources or human remains are encountered, and the implementation of protective measures to ensure culturally appropriate treatment and compliance with legal requirements. Additionally, MM CUL-1, MM-CUL-6, MM CUL-7, and MM CUL-8, described in Section 3.4.6, would be implemented, which require construction personnel training on identifying and responding to cultural and Tribal Cultural Resources, archaeological monitoring in sensitive areas, work stoppage and treatment protocols for discovered artifacts, and procedures for the respectful handling of human remains in accordance with legal and tribal requirements. With implementation of MM TCR-1 and MM TCR-2, as well as MM CUL-1, MM CUL-6, MM CUL-7, and MM CUL-8, impacts on TCRs would be reduced to less than significant for the Electric Bus MSF.

5.2.15.5 Mitigation Measures

Construction Impacts

Under Alternative 1, there would be potential construction impacts to historical resources, archaeological resources, human remains, and TCRs during construction. Therefore, the following ten mitigation measures were developed. AB 52 consultation is ongoing, and any final mitigation measures for TCRs will be determined through consultation with tribes prior to the public review of the Draft Environmental Impact Report.

MM CUL-1: ***Cultural Resources Monitoring and Mitigation Plan***

- *A project wide Cultural Resources Monitoring and Mitigation Plan shall be developed and implemented by Metro. The purpose of the Cultural Resources Monitoring and Mitigation Plan is to document the actions and procedures to be followed to ensure avoidance or minimization of impacts to cultural resources and to provide a detailed program of mitigation for direct and indirect impacts on cultural resources during Project construction. Preparation of the Cultural Resources Monitoring and Mitigation Plan shall necessitate the completion of a pedestrian survey of the private property parcels within the Resource Study Areas that were not accessible during the preparation of this EIR and the Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report; this shall occur only on parcels slated for acquisition and construction activities. Proposed ground disturbance for the Project shall be reviewed to make any necessary adjustments to archaeological sensitivity assessments as a result of ongoing project design.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include a detailed prehistoric and historic context that clearly demonstrates the themes under which any identified subsurface deposits would be determined significant. Should significant deposits be identified during earth moving activities, the Cultural Resources Monitoring and Mitigation Plan shall address methods for evaluation,*

treatment, artifact analysis for anticipated artifact types, report writing, repatriation of human remains and associated grave goods, and curation.

- *The Cultural Resources Monitoring and Mitigation Plan will be a guide for archaeological and tribal monitoring activities as defined in MM CUL 7 and MM TCR 1. The Cultural Resources Monitoring and Mitigation Plan shall require that a Secretary of the Interior-qualified archaeologist in prehistoric and historical archaeology (36 Code of Federal Regulations Part 61) be retained prior to ground disturbing activities.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include recommended treatment measures. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include that, in the event, as a result of the resource evaluation and tribal consultation process, a resource is considered to be eligible for inclusion in the California Register of Historical Resources and/or a local register of historical resources or is determined to be a Tribal Cultural Resources through eligibility listing or determination of significance by the California Environmental Quality Act lead agency (Metro), an archaeological monitor and Native American monitor shall monitor all remaining ground disturbing activities in the area of the resource. If, during cultural resources monitoring, the Secretary of the Interior-qualified archaeologist determines that the sediments being excavated are previously disturbed or unlikely to contain significant cultural materials, the Secretary of the Interior qualified archaeologist can specify that monitoring be reduced or eliminated.*
- *The Cultural Resources Monitoring and Mitigation Plan shall outline the content and process for implementing pre-construction Cultural Resource training, as discussed in MM CUL 6.*
- *The Cultural Resources Monitoring and Mitigation Plan shall require a pre-construction baseline survey to identify building protection measures for historical resources in relation to tunnel boring machine launch/tunnel boring machine extraction, construction staging, and construction vibration and cut and cover activities adjacent to historical resources. The Project shall conduct a pre-construction survey to establish baseline, pre-construction conditions and to assess the potential for damage related to improvements adjacent to these historical resources.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include building protection measures such as fencing, sensitive construction techniques based on final project design, dust control measures, underpinning, soil grouting, or other forms of ground improvement, as well as lower vibration equipment and/or construction techniques. (Refer to vibration mitigation measures in the Sepulveda Transit Corridor Project Noise and Vibration Technical Report for more information.) In scenarios where a historical resource would be impacted by*

differential settlement caused by tunnel boring machine construction method, the Project shall require the use of an earth pressure balance or slurry shield tunnel boring machine. An architectural historian or historic architect who meets the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61) shall review proposed protection measures.

- *The Cultural Resources Monitoring and Mitigation Plan shall require that a post construction survey be undertaken to ensure that no significant impacts had occurred to historical resources. An architectural historian or historic architect who meets the Secretary of Interior Professional Qualification Standards (36 CFR Part 61) shall prepare an assessment of the implementation of the mitigation measures.*
- *MM CUL-1 applies to following historical resources:*
  - *Sherman Way Street Trees*
  - *Van Nuys Boulevard Street Trees*
  - *15300 Ventura Boulevard*
  - *West Los Angeles Veterans Affairs Historic District*
  - *14746 Raymer Street*
  - *Photo Electronics Corp. Building*
  - *Dual Ultimate Pharmacy*
  - *2114 Cotner Avenue*

MM CUL-2: Design Treatments

- *The Project shall be designed in adherence to the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Rehabilitating Historic Buildings and for the Treatment of Cultural Landscapes at the following historical resources that would be altered by proposed aerial guideway elements, station entrances, towers, and retaining walls:*
  - *West Los Angeles VA Historic District*
- *The project elements shall be designed to conform to the Secretary of the Interior Standards. To ensure the elements meet Secretary of the Interior Standards, the Project shall retain an architectural historian or historic architect who meets the Secretary of the Interior Professional Qualification Standards (36 CFR Part 61) (qualified professional) to consult on and assess project construction plans and/or design sets at 30 percent, 60 percent, and 90 percent design review phases. The qualified professional shall assess each design set for conformance with the Secretary of the Interior Standards and shall prepare memoranda to Metro. Metro shall incorporate any project changes into the subsequent design sets to conform to the Secretary of the Interior Standards. Metro shall approve a memorandum prepared by a qualified professional stating that the final (90 percent) construction plans conform to the Secretary of the Interior Standards prior to the start of construction.*

MM CUL-3: Pre-Construction and Construction Protection Measures

- *The Project shall retain a qualified historic architect or architectural historian to conduct a pre-construction survey of the contributing landscape elements of the West Los Angeles Veterans Affairs Historic District. This survey shall document the location, dimensions, and condition of all contributing landscape elements within the area of potential impact prior to the start of construction. This documentation shall establish a baseline against which potential construction impacts shall be evaluated. The results of this survey shall be provided to Metro and the California Office of Historic Preservation (OHP) for review.*
- *Following completion and review of the pre-construction survey, a construction monitoring plan shall be prepared by a qualified historic architect or qualified architectural historian ("Qualified Architect"). The plan shall specify that all contributing landscape elements identified in the survey shall be avoided during construction. Protective measures, including fencing, ground covers, and temporary supports, shall be installed around contributing landscape elements prior to construction activities occurring within 10 feet of the resource.*
- *Construction activities involving heavy equipment or other vibration-producing activities shall not exceed a recommended vibration threshold at the location of any contributing landscape element, as determined by a qualified vibration consultant. Vibration monitoring equipment shall be used during construction to ensure compliance with this threshold.*
- *The Qualified Architect shall document compliance with the construction monitoring plan weekly during active construction and provide written reports to Metro. Any deviations from the approved plan shall be addressed immediately.*
- *Following construction, a post-construction survey shall be conducted to verify that no significant impacts occurred to contributing landscape elements. The results of this post-construction survey shall be documented in a report submitted to Metro and the OHPMM CUL-3 applies to the following historical resources:*
  - *West Los Angeles VA Historic District*

MM CUL-4: Historical Resource Archival Documentation

- *The Project shall complete historical resource archival documentation of historical resources that will be demolished or substantially altered. The archival documentation shall follow the guidelines of the National Park Service's Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey program to create Historic American Building Survey-like documentation. At a minimum, the documentation shall consist of the following:*
  - *Large-format photographs including negatives and archival prints*
  - *Written narrative following the Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey short format*
  - *Site plan*

- *The Project shall provide copies of the documentation to the City of Los Angeles Office of Historic Resources for archival purposes. Large-format photographs shall be verified prior to any demolition activities that would affect the Da Siani Ristorante (Sherwood Coiffeurs) building located at 4511 Sepulveda Boulevard. The documentation shall be prepared so that the original archival-quality documentation could be donated for inclusion in the Los Angeles Public Library. Copies of documentation shall be offered to the Los Angeles Public Library and local historical societies upon request.*
- *MM CUL-4 applies to following built environment resources:*
  - *Da Siani Ristorante (Sherwood Coiffeurs) 4511 Sepulveda Boulevard*

MM CUL-5: Interpretive Program

- *The Project shall prepare interpretive programs for historical resources that will be demolished or substantially altered. The Project shall provide interpretive materials in the form of an exhibit, pamphlet, website, or similar, that describes and/or illustrates the historic significance of these properties. Interpretive materials shall be provided to the City of Los Angeles Office of Historic Resources for public education purposes. Copies of interpretive materials shall be offered to the Los Angeles Public Library and local historical societies.*
- *MM CUL-5 applies to following historical resources:*
  - *Da Siani Ristorante (Sherwood Coiffeurs) 4511 Sepulveda Boulevard*

MM CUL-6: Cultural Resource Training

- *Prior to any ground disturbing activities, all construction personnel involved in ground disturbing activities shall be provided with appropriate cultural and Tribal Cultural Resources training in accordance with the Cultural Resources Monitoring and Mitigation Plan detailed in MM CUL 1.*
- *The training shall be prepared by a Secretary of the Interior qualified archaeologist to instruct the personnel regarding the legal framework protecting cultural resources and Tribal Cultural Resources, typical kinds of cultural resources and Tribal Cultural Resources that may be found during construction, artifacts that would be considered potentially significant, and proper procedures and notifications if cultural resources and/or Tribal Cultural Resources are discovered. The training shall be presented by, or under the supervision of, an Secretary of the Interior qualified archaeologist, who shall review types of cultural resources and artifacts that would be considered potentially significant to support operator recognition of these materials during construction. Contingent upon the results of Assembly Bill 52 consultation, Native American representatives shall be solicited to attend the Worker Environmental Awareness Program training and contribute to the course material to provide guidance on tribal perspectives on working in areas sensitive for Tribal Cultural Resources.*

MM CUL-7: Archaeological Monitoring

- *Project related ground disturbing activities conducted in locations determined to have moderate to high archaeological sensitivity, or other locations determined appropriate through Assembly Bill 52 consultation, shall be monitored by, or under the supervision of, a Secretary of the Interior qualified archaeologist, in accordance with the Cultural Resources Monitoring and Mitigation Plan detailed in MM CUL 1. If monitoring does not reveal any archaeological artifacts, then there would be no impact to archaeological resources. If archaeological artifacts are discovered, then work shall be halted in the immediate vicinity of the find, and a Secretary of the Interior-qualified archaeologist shall assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation.*

MM CUL-8: Unanticipated Discovery of Human Remains

- *If human remains are discovered, work in the immediate vicinity of the discovery shall be suspended and the Los Angeles County Coroner shall be contacted immediately. If the remains are deemed Native American in origin, the coroner shall contact the State of California Native American Heritage Commission and identify a Most Likely Descendant pursuant to Public Resource Code Section 5097.98 and California Code of Regulations Section 15064.5. The Most Likely Descendants may inspect the site within 48 hours of being notified and may issue recommendations for scientific removal and nondestructive analysis. If the Most Likely Descendant fails to make recommendations, then Metro and/or the landowner may rebury the remains in a location not subject to further disturbance, at their discretion. Work may be resumed at Metro's discretion but shall commence only after consultation and treatment have been concluded. Work may continue on other parts of the Project while consultation and treatment are conducted.*

MM TCR-1: Native American Monitoring.

- *Project-related ground-disturbing activities conducted in locations determined to have moderate to high archaeological sensitivity, or other locations determined appropriate through Assembly Bill 52 consultation, shall be monitored by a Native American representative from a consulting tribe, in accordance with the Cultural Resources Monitoring and Mitigation Plan detailed in MM CUL-1. The tribal monitor shall be qualified by his or her tribe to monitor Tribal Cultural Resources.*
- *In the event that an archaeological resource discovered during project construction is determined to be potentially of Native American origin based on the initial assessment of the find by a Secretary of the Interior-qualified archaeologist pursuant to California Public Resource Code Section 21083.2(i), the Native American tribes that consulted on the Project pursuant to Assembly Bill 52 shall be notified. Those tribes shall also be provided information about the find to allow for early input from the tribal representatives with regard to the potential significance and treatment of the resource. Resources shall be treated with*

culturally appropriate dignity, taking into consideration the tribal cultural values and meaning of the resource.

- *If, as a result of the resource evaluation and tribal consultation process, the resource is considered to be a Tribal Cultural Resource and determined, in accordance with California Public Resource Code Section 21074, to be eligible for inclusion in the California Register of Historical Resources or a local register of historical resources or is determined to be significant by the California Environmental Quality Act lead agency (Metro), the qualified archaeologist and Native American monitor shall monitor all remaining ground-disturbing activities in the area of the resource. The input of all consulting tribes shall be considered in the preparation of any required treatment plan activities prepared by the qualified archaeologist for any Tribal Cultural Resources identified during the project construction as required in the Cultural Resources Monitoring and Mitigation Plan (MM CUL-1).*
- *Work in the area of the discovery may not resume until evaluation and treatment of the resource is completed and/or the resource is recovered and removed from the site. Construction activities may continue on other parts of the construction site while evaluation and treatment of the resource takes place.*

MM TCR-2: Unanticipated Discovery of Human Remains

- *If human remains are discovered, work in the immediate vicinity of the discovery shall be suspended and the Los Angeles County Coroner shall be contacted immediately. If the remains are deemed Native American in origin, the coroner shall contact the State of California Native American Heritage Commission and identify a Most Likely Descendant pursuant to Public Resource Code Section 5097.98 and California Code of Regulations Section 15064.5. The Most Likely Descendants may inspect the site within 48 hours of being notified and may issue recommendations for scientific removal and nondestructive analysis. If the Most Likely Descendant fails to make recommendations, then Metro and/or the landowner may rebury the remains in a location not subject to further disturbance, at their discretion. Work may be resumed at Metro's discretion but shall commence only after consultation and treatment have been concluded. Work may continue on other parts of the Project while consultation and treatment are conducted.*

Impacts After Mitigation

After implementation of mitigation measures, Alternative 1 would result in less than significant impacts with mitigation on the following historical resources:

- West Los Angeles VA Historic District
- Sherman Way Street Trees
- Rodeo Realty

Alternative 1 would result in a significant and unavoidable impact on the following historical resources:

- Da Siani Ristorante (Sherwood Coiffeurs) 4511 Sepulveda Boulevard

Mitigation measures in Section 5.2.15.5 address the potential significant impacts to these historical resources. Mitigation would reduce impacts but cannot reduce impacts related to demolition to a less than significant level.

With implementation of MM CUL-1, MM CUL-6, MM CUL-7, MM CUL-8, MM TCR-1, and MM TCR-2, impacts on unique archaeological resources, human remains, and TCRs would be reduced to less than significant for Alternative 1 (including MRT MSF Base Design, MRT MSF Design Option 1, and Electric MSF). Alternative 1 exhibits low to moderate sensitivity for archaeological resources, and there is limited potential to impact human remains. The Alternative 1 alignment exhibits moderate to high sensitivity for TCRs. Potential impacts from construction of all Alternative 1 include disturbing previously unknown archaeological resources, human remains, or TCRs that may be buried below the surface. Due to the highly developed setting of the Project area, conducting subsurface testing in sensitive areas of the alignment to identify evidence of intact soils or subsurface deposits is not feasible and would be unlikely to provide information that could reduce the sensitivity assessments. Providing training to construction personnel on how to identify cultural resources and appropriate steps in the event cultural resources, TCRs, and human remains are encountered would reduce the likelihood of a significant impact in the event unanticipated discoveries may be encountered during Project activities. Additionally, having archaeological monitors and Native American monitors on-site during ground disturbing construction activities in sensitive areas would ensure the appropriate identification and treatment of inadvertent discoveries, which would further reduce any impacts to archaeological and tribal cultural resources to less than significant.

5.2.16 Visual Quality and Aesthetics

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-33.

Table 5-33. Alternative 1: Visual Quality and Aesthetics Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Aesthetics Construction Impacts		
Impact AES-1: Would the project have a substantial adverse effect on a scenic vista?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-11
	Impacts After Mitigation	LTS
Impact AES-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-11
	Impacts After Mitigation	LTS
Impact AES-3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vintage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM AES-1 MM BIO-11
	Impacts After Mitigation	LTS
Impact AES-4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025c

AES = aesthetics
BIO = biological resources

LTS = less than significant
MM = mitigation measure
NA = not applicable

5.2.16.1 Impact AES-1: Would the project have a substantial adverse effect on a scenic vista?

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in a community. Construction of Alternative 1 would introduce visually disruptive elements in each LU, including:

- Light excavation
- Roadway/bridge demolition and reconstruction
- Structural falsework
- Tree removal
- Soil removal/displacement
- Security fencing
- Stockpiled soil
- Stockpiled building materials
- Safety and directional signage
- Station platforms and plazas
- Ancillary facilities
- Large, heavy equipment (may include cranes, bulldozers, scrapers, and trucks)

These construction activities could be visible to pedestrians and motorists on adjacent streets, as well as to viewers within nearby buildings. However, construction activities — while a visual nuisance — would not substantially obstruct views of the Santa Monica Mountains or San Gabriel Mountains because activities would be temporary and intermittent and limited to the immediate area. The implementation of best management practices discussed in Section 5.1.3 would also occur. Therefore, construction of Alternative 1 would not alter views or sightlines from scenic vistas, and impacts would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

Maintenance of monorail vehicles and equipment would occur at the MSF Base Design. Several buildings would be constructed, including a primary maintenance building, a maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, a parking area for employees, and a traction power substation structure. These structures would be the primary visual elements of the MSF Base Design. The MSF Base Design site would be located within a heavily industrialized area, and operation of this MSF would generally fit within the context of the existing industrial character. While the MSF Base Design site would be highly visible, it would not substantially obstruct views of the San Gabriel Mountains to the north because the built-out urban landscape already prevents clear views of the mountains. As such, views of scenic vistas as a whole would not be substantially affected.

Construction activities could be visible to pedestrians and motorists on adjacent streets, as well as to viewers within nearby buildings. However, construction activities, while a visual nuisance, would not substantially obstruct views of the Santa Monica Mountains or San Gabriel Mountains, because activities would be temporary and intermittent and limited to the immediate area. Therefore, the vertical elements proposed under the MSF Base Design would not substantially alter views or sightlines from

scenic vistas and operation of MSF Base Design would result in a less than significant impact to scenic vistas.

MSF Design Option 1

As part of the MSF Design Option 1, several buildings would be constructed, including a primary maintenance building, a maintenance-of-way building, a train car washing building, a parking area for employees, and a traction power substation structure. These structures would be the primary visual elements of the MSF Design Option 1. The MSF Design Option 1 would be constructed on an industrial property and would present new vertical features in the landscape that would be highly visible; however, views of the San Gabriel Mountains and Santa Monica Mountains from the residential area to the south would not be substantially obscured and would continue to be limited by the surrounding urban development. As such, views of scenic vistas as a whole would not be substantially affected.

Construction activities could be visible to pedestrians and motorists on adjacent streets, as well as to viewers within nearby buildings and the residential area to the south. However, construction activities, while a visual nuisance, would not substantially obstruct views of the Santa Monica Mountains or San Gabriel Mountains, because activities would be temporary and intermittent and limited to the immediate area. Therefore, the vertical elements proposed under the MSF Design Option 1 would not substantially alter views or sightlines from scenic vistas, and operation of the MSF Design Option 1 would result in a less than significant impact to scenic vistas.

Electric Bus MSF

The Electric Bus MSF site would construct approximately 45,000 square feet of buildings, including a maintenance shop and bay, a maintenance office, an operations center, a parts storeroom, and service areas. The Electric Bus MSF would represent a visual change; however, views of the San Gabriel Mountains and Santa Monica Mountains would not be substantially obscured and continue to be limited by the surrounding urban development. As such, views of scenic vistas as a whole would not be substantially affected.

Construction activities could be visible to pedestrians and motorists on adjacent streets, as well as to viewers within nearby buildings. However, construction activities — while a visual nuisance — would not substantially obstruct views of the Santa Monica Mountains or San Gabriel Mountains, because activities would be temporary and intermittent and limited to the immediate area. Therefore, the vertical elements proposed under Electric Bus MSF would not substantially alter views or sightlines from scenic vistas, and operation of Electric Bus MSF would result in a less than significant impact to scenic vistas.

5.2.16.2 Impact AES-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in a community. Construction of Alternative 1 would introduce visually disruptive elements in each LU, including the following:

- Light excavation
- Roadway/bridge demolition and reconstruction
- Building demolition
- Structural falsework

- Security fencing
- Soil removal/stockpile
- Stockpiled building materials
- Safety and directional signage
- Station platforms and plazas
- Ancillary facilities
- Large, heavy equipment may include cranes, bulldozers, scrapers, and trucks

Tree removal would also occur during construction; however, it is anticipated that mitigation measures would be implemented to avoid and minimize impacts related to tree removal.

No California-designated scenic highways or scenic parkways (or proposed state scenic highways or parkways) are located within the Project Study Area. However, the Alternative 1 alignment would be located within both the Inner Corridor and Outer Corridor of the MSPSP. Metro projects are not required to adhere to local zoning ordinances; however, any elements that would be located on properties outside of the public ROW (e.g., station plazas and TPSS) would comply with applicable zoning and design requirements, including undergoing mandated design review where applicable and coordinating with local jurisdictions and/or other public entities during preliminary and final designs. In addition, while Alternative 1 would add new visible structures, it is expected that visual change associated with the aerial guideway would not damage scenic resources given the existing structures associated with I-405 and background conditions.

Nonetheless, construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. For Alternative 1, construction would introduce visually disruptive elements in each LU, including light and heavy excavation, tunneling, roadway and bridge demolition and reconstruction, building demolition, structural falsework, security fencing, stockpiled building materials, safety and directional signage, station platforms and plazas, and ancillary facilities. The use of large-scale construction equipment such as cranes, bulldozers, scrapers, and trucks would further contribute to the visual disruption. Additionally, tree removal during construction would create noticeable changes, exposing previously screened views of infrastructure and construction sites. However, these changes would be temporary and would not be located within a state scenic highway.

No California-designated scenic highways or scenic parkways (or proposed state scenic highways or parkways) are located within the Project Study Area. Construction of Alternative 1 would not substantially damage any scenic resources within SR-1 or SR-27, the nearest state scenic highways, neither of which is within the Project Study Area. Therefore, construction of Alternative 1 would not damage any scenic resources within the viewshed of a state scenic highway, and impacts would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

No California-designated scenic highways or scenic parkways (or proposed state scenic highways or parkways) are located within the MSF Base Design area. Additionally, no state-designated scenic highways or City of Los Angeles-designated scenic highways are located in proximity to the MSF Base Design. Therefore, operation of the MSF Base Design would not substantially damage any scenic resources within a state scenic highway. Additionally, none of the six scenic highways designated by the City of Los Angeles would be impacted by the MSF Base Design.

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in a community. However, Metro projects are not required to adhere to local zoning ordinances. Any elements that would be located on properties outside of the public ROW (e.g., station plazas and TPSS) would comply with applicable zoning and design requirements, including undergoing mandated design review where applicable and coordinating with local jurisdictions and/or other public entities during preliminary and final designs. In addition, while Alternative 1 would add new visible structures, it is expected that visual changes associated with the MSF Base Design would not be readily noticeable given the existing structures associated with I-405 and background conditions. Therefore, the MSF Base Design would not damage any scenic resources within the viewshed of a state scenic highway, and impacts would be less than significant.

MSF Design Option 1

No California-designated scenic highways or scenic parkways (or proposed state scenic highways or parkways) are located within the MSF Design Option 1 area. Additionally, no state-designated scenic highways or City of Los Angeles-designated scenic highways are located in proximity to the MSF Design Option 1. Therefore, operation of the MSF Design Option 1 would not substantially damage any scenic resources within a state scenic highway, and none of the six scenic highways designated by the City of Los Angeles would be impacted by the MSF Design Option 1.

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. However, as discussed, Metro projects are not required to adhere to local zoning ordinances. Any elements that would be located on properties outside of the public ROW (e.g., station plazas and TPSS) would comply with applicable zoning and design requirements, including undergoing mandated design review where applicable and coordinating with local jurisdictions and/or other public entities during preliminary and final designs. In addition, while Alternative 1 would add new visible structures, it is expected that visual change associated with the MSF Design Option 1 would not damage scenic resources given the existing structures associated with I-405 and background conditions. Therefore, the MSF Design Option 1 would not damage any scenic resources within the viewshed of a state scenic highway, and impacts would be less than significant.

Electric Bus MSF

No California-designated scenic highways or scenic parkways (or proposed state scenic highways or parkways) are located within the Electric Bus MSF area. Additionally, no state-designated scenic highways or City of Los Angeles-designated scenic highways are located in proximity to the Electric Bus MSF. Therefore, operation of the Electric Bus MSF would not substantially damage any scenic resources within a state scenic highway, and none of the six scenic highways designated by the City of Los Angeles would be impacted by the Electric Bus MSF.

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in a community. However, Metro projects are not required to adhere to local zoning ordinances. Any elements that would be located on properties outside of the public ROW (e.g., station plazas and TPSS) would comply with applicable zoning and design requirements, including undergoing mandated design review where applicable and coordinating with local jurisdictions and/or other public entities during preliminary and final designs. In addition, while Alternative 1 would add new visible structures, it is expected that visual change associated with the Electric Bus MSF would not damage scenic resources given the existing structures associated with I-405 and background conditions.

Therefore, the Electric Bus MSF would not damage any scenic resources within the viewshed of a state scenic highway, and impacts would be less than significant.

5.2.16.3 Impact AES-3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vintage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The Alternative 1 alignment would consist of a portion of the public ROW, including roadway and sidewalks, as well as City-owned, state-owned, and private properties. During the construction phase, the visual character of the alignment would change temporarily from existing conditions. Construction of the aerial guideway, stations, and freeway modifications would require equipment such as construction barriers and sound walls, cranes, and other appurtenances that would be visible during much of the approximately 78-month construction period.

Construction of Alternative 1 would comply with applicable regulations governing scenic quality, including South Coast Air Quality Management District (SCAQMD) Rule 403, and would occur in an urbanized area. Rule 403 does not permit track-out dust to extend 25 feet or more beyond the active construction area and requires all track-out dirt to be removed at the end of each workday or evening shift. Construction activities would include similar equipment used for other construction projects in the city, such as mid-rise buildings and other aerial transportation infrastructure.

Although temporary and short-term in nature, construction activities would be a visual nuisance. However, certain areas may be fenced off with construction barriers and sound walls, resulting in a temporary change and contrast in visual character from the existing conditions. MM AES-1 would include temporary privacy screens to minimize impacts from construction barriers and sound walls. In addition, the designated construction areas along the alignment would experience additional truck traffic compared to existing conditions, with trucks moving materials on- and off-site, and work crews and construction equipment moving around the alignment and between Alternative 1 components.

A line of mature trees presently between I-405 and Firmament Avenue would be removed to accommodate the placement of the proposed aerial guideway infrastructure. However, MM BIO-11 would be implemented to avoid and minimize impacts related to tree removal and replacement, as discussed in the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k). MM AES-1 would also be implemented during tree removal and construction activities to minimize impacts along Firmament Avenue by using temporary screens.

Neither the Federal Building, nor the Getty Center would be physically demolished, destroyed, relocated, or altered. The aerial structure would generally follow existing transportation corridors and would not limit views of these resources. The new aerial structure would introduce a new visual element but would not change the visual character of either of these buildings. The alteration of the setting with the new visual element of the aerial structure would not materially impair their significance.

Some residents may have private views of Alternative 1 construction from their windows. These residents would be highly sensitive to visual changes and would have a higher degree of personal investment in Alternative 1.

Motorists would primarily experience views of construction activities while driving the roadways along and adjacent to Alternative 1. In addition, drivers would have prolonged views while idling at the various

traffic signals surrounding the proposed Metro E Line Expo/Sepulveda Station area and aerial guideway. The change in the visual character during the construction phase would be noticeable by passing drivers. However, drivers are considered to have a low sensitivity to any visual changes because they would likely be passing through the Project Study Area to reach their destinations and would not necessarily have a personal investment in the visual character or quality of the Project Study Area.

In addition, pedestrians would primarily experience views of construction activities while walking along public sidewalks, within transit stations, and near businesses that are to the proposed station areas and aerial guideway. The change in the visual character of the alignment during the construction phase would be noticeable by these viewers. In addition, pedestrians are considered to have a moderate sensitivity to visual changes because they may be engaged in observing their surroundings.

Tourists would also potentially experience views of construction while visiting the Getty Center or one of the scenic overlooks along Mulholland Drive. Tourists are considered to have high sensitivity to visual changes. In addition, construction of the aerial guideway would represent new visual elements for tourists who seek to enjoy the views of the Getty Center.

Alternative 1 would comply with BMPs described in Section 5.1.3, which would be verified during the City of Los Angeles' permitting process. Nonetheless, Alternative 1 would result in significant impacts related to motorists' views during construction, as the introduction of construction activities, equipment, and barriers would temporarily alter the visual character of the Project Study Area. Additionally, the removal of trees along certain portions of the alignment would exacerbate these impacts, particularly for sensitive viewers such as residents.

To address these impacts, Alternative 1 would be required to implement MM AES-1, which requires the use of temporary privacy screens to minimize visual disruption caused by construction barriers and sound walls. These screens would obscure construction elements from sensitive viewer groups, reducing the visual contrast and temporary changes to the landscape during construction. In addition, Alternative 1 would comply with the BMPs noted in Section 5.1.3, as well as the City of Los Angeles' development standards related to scenic quality during construction, which would be verified during the permitting process. With the implementation of MM AES-1, the significant impacts related to motorists' views would be reduced to less-than-significant levels.

Maintenance and Storage Facilities

MSF Base Design

Maintenance of monorail vehicles and equipment would occur at the MSF Base Design. Several buildings would be constructed, including a primary maintenance building, a maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, a parking area for employees, and a traction power substation structure). These structures would be the primary visual elements of the MSF Base Design. The MSF Base Design site would be located within a heavily industrialized area, and operation of this MSF Base Design would generally fit within the context of the existing industrial character.

Viewer groups — including pedestrians, motorists, and transit commuters — would have a low to moderate sensitivity to the visual change and may have less of a personal investment in the visual appearance of the MSF Base Design because they would be primarily passing through en route to other destinations.

Viewer groups — including residents — would have moderate to high sensitivity to the visual change, because they would have direct views of the MSF Base Design either from the public sidewalk adjacent

to their apartments or potentially from their private unit. The proposed MSF Base Design would represent a new and large element in the visual environment for residents.

The MSF Base Design would result in permanent alterations to commercial parcels. As discussed in Section 5.2.16.3, for a project in an urban area, a significant impact to visual character or quality would occur if Alternative 1 would conflict with applicable zoning and other regulations governing scenic quality.

The MSF Base Design would be located on the LADWP property east of the Van Nuys Metrolink Station. The MSF Base Design would be elevated consistent with the guideway height. The maintenance level for the train cars would be consistent with the guideway track elevation and would contain maintenance areas. The ground level would include multiple rows of columns and support beams for structural support, as well as an administrative building with parking areas.

The MSF Base Design would follow the Metro Art Program Policy, Metro's Rail Design Criteria, Standard/Directive Drawings, Systemwide Station Design Standards, and Adjacent Development Review. In addition, the MSF Base Design would be relatively the same height as the existing commercial structures. These railway structures are typically more visually tolerable in industrial and commercial areas. As such, these facilities would be similar to infrastructure that already exists in the urban landscape and would not be visually disruptive or incompatible with existing public views.

The MSF Base Design would also be consistent with the goals and objectives within the *Citywide Design Guidelines* (DCP, 2019) and the *Mobility Plan 2035* (DCP, 2016). With regard to the *Citywide Design Guidelines*, the MSF Base Design would improve the quality of the public realm through project design that would be appropriate to the scale and character of the existing buildings in the surrounding area.

During the construction phase, the visual character of the alignment would change temporarily from existing conditions. Construction of the MSF Base Design would require equipment — such as construction barriers and sound walls, cranes, and other appurtenances — that would be visible during much of the approximately 78-month construction period.

Construction of the MSF Base Design would comply with applicable regulations governing scenic quality, including SCAQMD Rule 403, and would occur in an urbanized area. Rule 403 does not permit track-out dust to extend 25 feet or more beyond the active construction area and requires all track-out dirt to be removed at the end of each workday or evening shift. Construction activities would include similar equipment used for other construction projects in the city, such as mid-rise buildings and other aerial transportation infrastructure.

Although temporary and short-term in nature, construction activities would be a visual nuisance. However, certain areas may be fenced off with construction barriers and sound walls, resulting in a temporary change and contrast in visual character from the existing conditions. MM AES-1 would include temporary privacy screens to minimize impacts. In addition, the designated construction areas along the alignment would experience additional truck traffic compared to existing conditions, with trucks moving materials on- and off-site, and work crews and construction equipment moving around the alignment and between the project components.

Motorists would primarily experience views of construction activities while driving along the roadways along and adjacent to the MSF Base Design. In addition, drivers would have prolonged views while idling at the various traffic signals surrounding the proposed station areas and aerial guideway. The change in the visual character during the construction phase would be noticeable by passing drivers. However, drivers are considered to have a low sensitivity to any visual changes because they would likely be

passing through the Project Study Area to reach their destinations and would not necessarily have a personal investment in the visual character or quality of the MSF Base Design area.

In addition, pedestrians would primarily experience views of construction activities while walking along public sidewalks, within transit stations, and near businesses that are to the proposed station areas and aerial guideway. The change in the visual character during the construction phase would be noticeable by these viewers. In addition, pedestrians are considered to have a moderate sensitivity to visual changes because they may be engaged in observing their surroundings.

The MSF Base Design would include entitlements and approvals to ensure consistent implementation of development standards. The development standards would recognize the MSF Base Design's unique characteristics, including unique opportunities for public benefits. The design standards included in the MSF Base Design's entitlements and approvals would ensure visual compatibility with adjacent development, as well as the MSF Base Design area's overall community character. The MSF Base Design would not conflict with applicable zoning or other regulations governing scenic quality. As such, the MSF Base Design would be consistent with applicable policies related to scenic quality during construction.

Overall, the MSF Base Design would not conflict with applicable zoning or other regulations governing scenic quality. Construction would represent a temporary change in the visual quality and character. Alternative 1 components would potentially stand out as memorable or remarkable features in the landscape due to their scale, which would have a temporary impact on visual character and quality of the MSF Base Design area and its surroundings compared to existing conditions. Construction activities would include similar equipment used for other construction projects in the city, such as mid-rise buildings in urbanized areas. Impacts from construction activities would be temporary and post-construction views of Alternative 1-related construction activities, equipment, stockpiles, and fencing would be removed once construction is completed. In addition, the MSF Base Design would comply with the best management practices previously noted in Section 5.1.3, as well as the City of Los Angeles' development standards related to scenic quality during construction, which would be verified during the City of Los Angeles' permitting process. Therefore, the MSF Base Design would not conflict with applicable regulations governing scenic quality, or substantially degrade the existing visual character or quality of public views of the site and its surroundings, and the impact would be less than significant.

MSF Design Option 1

As part of the MSF Design Option 1, several buildings would be constructed, including a primary maintenance building, a maintenance-of-way building, a train car washing building, parking area for employees and traction power substation structure. These structures would be the primary visual elements of the MSF Design Option 1. Overall, the MSF Design Option 1 would follow the Metro Art Program Policy, Metro's Rail Design Criteria, Standard/Directive Drawings, Systemwide Station Design Standards, and Adjacent Development Review. In addition, the MSF Design Option 1 would be relatively the same height as the existing transportation infrastructure (i.e., I-405) and commercial structures. An existing residential area to the south may have somewhat distant views of the MSF Design Option 1, but these proposed facilities would be located in an industrial area. These railway facilities are typically more visually tolerable in industrial and commercial areas. As such, these facilities would be similar to infrastructure that already exists in the urban landscape and would not be visually disruptive or incompatible with existing public views.

The MSF Design Option 1 would also be consistent with the goals and objectives within the *Citywide Design Guidelines* (DCP, 2019) and the *Mobility Plan 2035* (DCP, 2016). With regard to the *Citywide Design Guidelines*, the MSF Design Option 1 would improve the quality of the public realm through

project design that would be appropriate to the scale and character of the existing buildings in the surrounding area.

Overall, the MSF Design Option 1 would not conflict with applicable zoning or other regulations governing scenic quality. Construction would represent a temporary change in the visual quality and character. Alternative 1 components would potentially stand out as memorable or remarkable features in the landscape due to their scale, which would have a temporary impact on visual character and quality of the Project Study Area and its surroundings compared to existing conditions. Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings in urbanized areas. Impacts from construction activities would be temporary and post-construction views of Alternative 1-related construction activities, equipment, stockpiles, and fencing would be removed once construction is completed. In addition, the MSF Design Option 1 would comply with best management practices, as well as the city's development standards related to scenic quality during construction, which would be verified during the permitting process. Therefore, the MSF Design Option 1 would not conflict with applicable regulations governing scenic quality, or substantially degrade the existing visual character or quality of public views of the site and its surroundings, and the impact would be less than significant.

Electric Bus MSF

The Electric Bus MSF site would construct approximately 45,000 square feet of buildings, including a maintenance shop and bay, a maintenance office, an operations center, a parts storeroom, and service areas. The Electric Bus MSF would be located within a heavily commercial area, and operation of this MSF would generally fit within the context of the existing commercial character.

Viewer groups — including pedestrians, motorists, and transit commuters — would have a low to moderate sensitivity to the visual change and may have less of a personal investment in the visual appearance of the Electric Bus MSF because they would be primarily passing through en route to other destinations.

Viewer groups — including residents — would have moderate to high sensitivity to the visual change because they would have direct views of the Electric Bus MSF either from the public sidewalk adjacent to their apartments or potentially from their private unit. The proposed Electric Bus MSF would represent a new and large element in the visual environment for residents. However, visual impacts are assessed based on changes to public views.

The Electric Bus MSF would result in permanent alterations to commercial parcels. As discussed in Section 5.2.16.3, for a project in an urban area, a significant impact to visual character or quality would occur if a project would conflict with applicable zoning and other regulations governing scenic quality.

The Electric Bus MSF would be located on the northwest corner of Pico Boulevard and Cotner Avenue and would include approximately 45,000 square feet of buildings with a maintenance shop and bay, a maintenance office, an operations center, a parts storeroom, as well as fleet stabling, gantry charging and charging equipment, service areas, a bus wash, and a surface parking lot.

The Electric Bus MSF would follow the Metro Art Program Policy, Metro's Rail Design Criteria, Standard/Directive Drawings, Systemwide Station Design Standards, and Adjacent Development Review. In addition, the Electric Bus MSF would be relatively the same height as the existing commercial structures. These railway structures are typically more visually tolerable in industrial and commercial areas. As such, these facilities would be similar to infrastructure that already exists in the urban landscape and would not be visually disruptive or incompatible with existing public views.

The Electric Bus MSF would also be consistent with the goals and objectives within the *Citywide Design Guidelines* (DCP, 2019) and the *Mobility Plan 2035* (DCP, 2016). With regard to the *Citywide Design Guidelines*, the Electric Bus MSF would improve the quality of the public realm through project design that is appropriate to the scale and character of the existing buildings in the surrounding area.

During the construction phase, the visual character of the alignment would change temporarily from existing conditions. Construction of the Electric Bus MSF would require equipment such as construction barriers and sound walls, cranes, and other appurtenances that would be visible during the construction period.

Construction of Electric Bus MSF would comply with applicable regulations governing scenic quality, including SCAQMD Rule 403, and would occur in an urbanized area. Rule 403 does not permit track-out dust to extend 25 feet or more beyond the active construction area and requires all track-out dirt to be removed at the end of each workday or evening shift. Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings and other aerial transportation infrastructure.

Although temporary and short-term in nature, construction activities would be a visual nuisance. However, certain areas may be fenced off with construction barriers and sound walls, resulting in a temporary change and contrast in visual character from the existing conditions. MM AES-1 would include temporary privacy screens to minimize impacts. In addition, the designated construction areas along the alignment would experience additional truck traffic compared to existing conditions, with trucks moving materials on- and off-site, and work crews and construction equipment moving around the alignment and between the project components.

Some residents may have private views of the construction from their windows. Motorists would primarily experience views of construction activities while driving on the roadways along and adjacent to the Electric Bus MSF. In addition, drivers would have prolonged views while idling at the various traffic signals surrounding the proposed station areas and aerial guideway. The change in the visual character during the construction phase would be noticeable by passing drivers. However, drivers are considered to have a low sensitivity to any visual changes because they would likely be passing through the Project Study Area to reach their destinations and would not necessarily have a personal investment in the visual character or quality of the Electric Bus MSF area.

In addition, pedestrians would primarily experience views of construction activities while walking along public sidewalks, within transit stations, and near businesses that are to the Electric Bus MSF. The change in the visual character of the alignment during the construction phase would be noticeable by these viewers. In addition, pedestrians are considered to have a moderate sensitivity to visual changes as they may be engaged in observing their surroundings.

The Electric Bus MSF would include entitlements and approvals to ensure consistent implementation of development standards. The development standards would recognize the Electric Bus MSF's distinctive characteristics, including unique opportunities for public benefits. The design standards included in the Electric Bus MSF's entitlements and approvals would ensure visual compatibility with adjacent development, as well as the Electric Bus MSF area's overall community character. The Electric Bus MSF would not conflict with applicable zoning or other regulations governing scenic quality. As such, the Electric Bus MSF would be consistent with applicable policies related to scenic quality during construction.

Overall, the Electric Bus MSF would not conflict with applicable zoning or other regulations governing scenic quality. Construction would represent a temporary change in the visual quality and character. The Electric Bus MSF components would potentially stand out as memorable or remarkable features in the landscape due to their scale, which would have a temporary impact on visual character and quality of the Electric Bus MSF area and its surroundings compared to existing conditions. Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings in urbanized areas. Impacts from construction activities would be temporary and post-construction views of Alternative 1-related construction activities, equipment, stockpiles, and fencing would be removed once construction is completed. In addition, the Electric Bus MSF would comply with the best management practices previously noted in Section 5.1.3, as well as the City of Los Angeles' development standards related to scenic quality during construction, which would be verified during the City of Los Angeles' permitting process. Therefore, the Electric Bus MSF would not conflict with applicable regulations governing scenic quality, or substantially degrade the existing visual character or quality of public views of the alignment and its surroundings, and the impact would be less than significant.

5.2.16.4 Impact AES-4: Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Construction of Alternative 1 would primarily occur during daytime hours, with nighttime construction a possibility for I-405. Nighttime and weekend construction, if any, would comply with local ordinance restrictions. Such activities may include, but are not limited to, tunneling, columns and trackwork, and stockpiling materials. Construction lighting would be directed toward the construction areas and/or shielded with temporary screening to minimize light spillover and glare onto adjacent areas. In addition, construction-related illumination would be temporary and limited to safety and security purposes. Construction of the aerial guideway, freeway modifications, and aerial stations as part of Alternative 1 would not be a substantial source of light and glare as several nighttime lighting sources already exist around the construction areas (e.g., streetlights, building illumination). Therefore, construction of Alternative 1 would have less than significant impacts related to light and glare.

Maintenance and Storage Facilities

MSF Base Design

Maintenance of monorail vehicles and equipment would occur at the MSF Base Design. Several buildings would be constructed, including a primary maintenance building, a maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, parking area for employees, and traction power substation structures. New nighttime light would primarily emanate from the MSF Base Design, which would be a visible source of light, but would not represent a substantial increase in the amount of lighting in the immediate area because similar light sources and levels (e.g., buildings, streetlights, and parking lots) currently exist. The MSF Base Design would follow Metro's Rail Design Criteria and the Systemwide Station Design Standards Policy. Compliance with these requirements would ensure that permanent operations-related light sources at the MSF Base Design would be directed downwards or feature directional shielding to minimize spillover onto adjacent properties, including residential uses and other light-sensitive uses.

Sources of light related to Alternative 1 and glare from the MSF Base Design would primarily emanate from buildings and parking areas. Per Metro's Rail Design Criteria or equivalent, all light sources at the proposed surface parking lots and stations would be directed downwards to minimize potential spillover onto surrounding properties, including light-sensitive uses.

The MSF Base Design would include several elements (e.g., glass or metal surfaces) that would create new sources of glare during the day. However, per Metro's Rail Design Criteria and the Systemwide Station Design Standards Policy, surfaces and architectural finishes would be used that reduce glare and reflection to reduce impacts. Overall, the MSF Base Design would create a negligible addition to light and glare and would not constitute a substantial change in existing light and glare in the immediate area.

In addition, construction of the MSF Base Design would primarily occur during daytime hours. Nighttime and weekend construction, if any, would comply with local ordinance restrictions. Construction lighting would be directed toward the construction areas and/or shielded with temporary screening to minimize light spillover and glare onto adjacent areas. In addition, construction-related illumination would be temporary and limited to safety and security purposes. Construction of the MSF Base Design would not be a substantial source of light and glare as several nighttime lighting sources already exist around the construction areas (e.g., streetlights, building illumination). Therefore, the MSF Base Design would have less than significant impacts related to light and glare.

MSF Design Option 1

Maintenance of monorail vehicles and equipment would occur at the MSF Design Option 1. As part of the MSF Design Option 1, several buildings would be constructed, including a primary maintenance building, a maintenance-of-way building, a train car washing building, parking area for employees and traction power substation structures. Overall, the MSF Design Option 1 would create a negligible addition to light and glare and would not constitute a substantial change in existing light and glare in the immediate area. In addition, construction of the MSF Design Option 1 would not be a substantial source of light and glare as several nighttime lighting sources already exist around the construction areas (e.g., streetlights, building illumination). Therefore, the MSF Design Option 1 would have less than significant impacts related to light and glare.

Electric Bus MSF

The Electric Bus MSF site would construct approximately 45,000 square feet of buildings, including a maintenance shop and bay, a maintenance office, an operations center, a parts storeroom, and service areas. New nighttime light would primarily emanate from the Electric Bus MSF, which would not substantially increase the amount of lighting in the immediate area because similar light sources and levels (e.g., buildings, streetlights, and parking lots) currently exist. The Electric Bus MSF would follow Metro's Rail Design Criteria and the Systemwide Station Design Standards Policy. Compliance with these requirements would ensure that permanent operations-related light sources at the Electric Bus MSF would be directed downwards or feature directional shielding to minimize spillover onto adjacent properties, including residential uses and other light-sensitive uses.

Alternative 1 sources of light and glare from the Electric Bus MSF would primarily emanate from buildings and parking areas. Per Metro's Rail Design Criteria or equivalent, all light sources at the proposed surface parking lots and stations would be directed downwards to minimize potential spillover onto surrounding properties, including light-sensitive uses.

The Electric Bus MSF would include several elements (e.g., glass or metal surfaces) that would create new sources of glare during the day. However, per Metro's Rail Design Criteria and the Systemwide Station Design Standards Policy, surfaces and architectural finishes would be used that reduce glare and reflection to reduce impacts. Overall, the Electric Bus MSF would create a negligible addition to light and glare and would not constitute a substantial change in existing light and glare in the immediate area.

In addition, construction of the Electric Bus MSF would primarily occur during daytime hours. Nighttime and weekend construction, if any, would comply with local ordinance restrictions. Construction lighting would be directed toward the construction areas and/or shielded with temporary screening to minimize light spillover and glare onto adjacent areas. In addition, construction-related illumination would be temporary and limited to safety and security purposes. Construction of the Electric Bus MSF would not be a substantial source of light and glare because several nighttime lighting sources already exist around the construction areas (e.g., streetlights, building illumination). Therefore, the Electric Bus MSF would have less than significant impacts related to light and glare.

5.2.16.5 Mitigation Measures

Construction Impacts

Construction activities would be a temporary and short-term visual nuisance. Temporary changes and contrast from the visual character from the existing conditions are impacted by construction activities such as site operations, tree removals, and construction traffic. Construction related structures such as barrier, sound walls, and fencing also impact visual resources.

As a result, the following mitigation measures would be implemented:

MM AES-1: *Privacy screens, as applicable and appropriate, shall be placed in high visibility areas that have construction related structures or activities. Privacy screens shall be used in areas requiring tree removal activities adjacent visually sensitive areas, including but not limited to residential areas.*

MM BIO-11: ***Avoid and Minimize Construction-Related Impacts to Protected Trees and Shrubs (Applicable to Alternatives 1 and 3).*** *Impacts to protected trees and shrubs shall be avoided, minimized, and/or mitigated by incorporation of the following:*

- *A Tree Expert, as defined under the City of Los Angeles Protected Tree and Shrub Ordinance, shall complete a detailed tree survey report prior to construction and once access is obtained to properties within the alignment. The report shall build upon the Initial Protected Tree and Shrub Inventory Memorandum (Attachment 2 of the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report) and include detailed field methods and data for each protected tree or shrub, such as species, height, diameter, canopy spread, physical condition, and precise location. The City of Los Angeles Protected Tree and Shrub Ordinance has jurisdiction in the Project; therefore, a Tree Expert shall be required to conduct the detailed survey and procure permit for protected tree/shrub removal from the Los Angeles Board of Public Works. The Tree Expert's follow-up report shall expand upon the initial assessment to provide a comprehensive dataset with verification of tree/shrub species, height, canopy width, and tree/shrub health for the Ground Disturbance Area. This follow-up report shall be used to procure the required permit prior to commencement of tree impacts within the City of Los Angeles.*
- *Impacts to protected trees and shrubs shall be minimized to the maximum extent feasible. For the purposes of this measure, "feasible" is defined as the ability to avoid or minimize impacts while meeting project design, safety, and operational requirements, as determined by the Tree Expert and project engineers. When*

trimming and/or encroachment into the tree/shrub protection zone (defined as the dripline or canopy) is needed, the following measures shall be implemented.

- *Trimming of protected trees/shrubs must comply with the pruning standards set forth by the Western Chapter of the International Society of Arboriculture and conducted in a manner that does not cause permanent damage or adversely affect the health of the trees or shrubs. Since the Metro Tree Policy Trimming shall require coordination and permitting with the appropriate entities as follows:*
  - *Species protected under the Los Angeles Protected Tree and Shrub Ordinance shall coordinate with the City of Los Angeles Board of Public Works, Urban Forestry Division.*
  - *Trees protected under the City of Los Angeles Street Tree Policy shall require coordination with the City of Los Angeles Department of Public Works, Urban Forestry Division.*
  - *Trees covered by the Metro Tree Policy and designated for retention shall require the Project to prepare a Tree Protection Plan. The Tree Protection Plan shall identify Tree Protection Zones for all trees designated for retention and shall protect larger trees from immediate damage during construction and delayed damage from construction activities, such as loss of root area or soil compaction. The Project shall prepare a mitigation plan for damaged and removed trees with a minimum replacement ratio of 2:1 per removed street tree.*
  - *Trees protected by the Los Angeles County Oak Tree Ordinance shall require coordination with the Los Angeles County Director of Public Works prior to tree work.*
  - *Trees within the Santa Monica Mountains National Recreation Area shall require coordination for tree trimming or removal with the appropriate entities (e.g., National Park Service, Santa Monica Mountains Conservancy, Mountains Recreation and Conservation Authority).*
- *For impacts to protected trees and shrubs beyond trimming, the required tree removal permits shall be obtained, and replacement shall occur at the below rates. Mitigation locations of replacement trees shall be determined through the permitting process.*
  - ***Los Angeles County Oak Tree Ordinance:** All trees within the oak genus (Quercus) shall be replaced at a ratio of 2:1 per individual oak tree.*
  - ***City of Los Angeles Protected Tree and Shrub Ordinance:** Protected trees and shrubs included trees of the oak genus (indigenous to California), western sycamore, southern California black walnut and California bay, and two shrub species (Mexican elderberry and toyon). Individual trees and shrubs shall be replaced at a 4:1 ratio by plants that are the same species of protected plant.*
  - ***Policy-Protected Trees:** All policy-protected trees, which fall under the purview of the Los Angeles Street Tree Policy or the Metro Tree Policy, shall*

be replaced at a ratio of 2:1 per individual. The Los Angeles Street Tree Policy allows for an in-lieu fee to be made with approval of the Board of Public Works following verification that replacement trees cannot be feasibly planted onsite. Trees under the Metro Tree Policy that are designated as heritage trees in a local ordinance shall be replaced at a 4:1 ratio with trees of the same variety.

- ***Santa Monica Mountains National Recreation Area:*** *Any tree within the Santa Monica Mountains National Recreation Area shall be replaced by trees of a species and ratio at the discretion of National Park Service, Santa Monica Mountains Conservancy, Mountains Recreation and Conservation Authority.*

- *All trees occurring on private property or Caltrans right-of-way shall not require permitting but shall require coordination and negotiation with property owners. Mitigation implementation shall follow Metro Tree Policy's replacement ratio of 2:1 per individual.*
- *For protected trees and shrubs that are not anticipated to be impacted, a Tree Protection Zone shall be established around each tree/shrub or cluster of trees/shrubs prior to the commencement of work. The Tree Protection Zone shall be erected using temporary fencing in an environmentally sensitive manner and remain in place until all site work has been completed. Specific installation timeframe may vary but the Tree Protection Zone must be inspected and approved by a Qualified Arborist prior to construction work occurring, including staging of equipment. Work can commence directly following arborist inspection and approval. No construction-related materials shall be stored or staged within the Tree Protection Zone (fenced areas).*
- *The LA Street Tree Policy would require coordination with the City of Los Angeles Department of Public Works for removal or maintenance of protected trees; this policy does not apply to trees within private property, UCLA, or within the Caltrans right-of-way. Metro Tree Policy would not require permitting but would require coordination with the landowners (i.e., private landowners, UCLA, Caltrans) when a tree must be removed. Additionally, Metro Tree Policy states a mitigation plan would be required to be developed in consultation with a Certified Arborist if construction impacts resulted in a damage to or removed a protected tree; decisions would be made in accordance with local ordinances identifying protected trees.*

Impacts After Mitigation

During construction MM AES-1 would reduce the temporary visual nuisance of construction activities. Privacy screens would also minimize the visual impacts from tree removals at Firmament Avenue in LU-6. MM BIO-11 from the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k) would reduce impacts related to tree removal during construction to a less than significant level. To the greatest extent practicable protected trees and shrubs would not be removed. When removal is unavoidable, such as along Firmament Avenue, mitigation would be implemented, including installing temporary privacy screens to limit direct residential views of tree

removals directly adjacent east of I-405. The implementation of these mitigation measures would result in less than significant impacts related to construction.

5.2.17 Water Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 5-34.

Table 5-34. Alternative 1: Water Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 1
Hydrology and Water Quality Operational Impacts		
Impact HWQ-1: Would the project violate any water quality standards or Waste Discharge Requirements or otherwise substantially degrade surface or groundwater quality?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would: i. result in substantial erosion or siltation on- or off-site; ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv. impede or redirect flood flows??	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-4: Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025g

HWQ = hydrology and water quality
LTS = less than significant
NA = not applicable

5.2.17.1 Impact HWQ-1: Would the project violate any water quality standards or Waste Discharge Requirements or otherwise substantially degrade surface or groundwater quality?

Construction of the Alternative 1 components would include site clearing and excavation, utility relocation, foundation construction, installation of support columns and beams, erection of stations, towers, and junctions, as well as construction of MSFs, TPSSs, roadway modification, replacement or restoration of paving, sidewalks, parking, and landscaping, and the installation of rails and vehicles. The construction activities for the modification of the freeway would include the demolition of existing

pavement and structures, excavation and grading of the site, construction of the base layer, installation of retaining walls, and paving of roadways along I-405. In addition, temporary staging areas would provide necessary space for construction activities including material storage and construction equipment.

Construction activities such as demolition, excavation, and grading would temporarily expose bare soil, increasing the risk of erosion. Uncontrolled erosion and discharge of sediments and other potential pollutants, including the discharge of fill material, would affect water quality in Alternative 1 receiving waters (e.g., the Pacoima Wash, Tujunga Wash, and Los Angeles River) if not appropriately managed by proper implementation of the construction SWPPP.

In addition to sediments, other pollutants including trash, concrete waste, and petroleum products, such as fuels, solvents, and lubricants, would degrade water quality and contribute to water pollution if not appropriately managed. The use of construction equipment and vehicles during the Alternative 1 construction would result in spills of vehicle-related fluids that would contribute to water pollution. Improper handling, storage, or disposal of these materials or improper cleaning and maintenance of equipment would result in accidental spills and discharges that would contribute to water pollution.

Construction activities associated with guideway column foundations would involve general earthwork and concrete work. Excavations for foundations would be performed up to 6 and 8 feet below ground surface (bgs), and piles would be installed at approximately 80 feet bgs. Groundwater levels in the Project Study Area generally range from depths of approximately 16 to 115 feet bgs (Metro, 2024b), with deeper groundwater at the base of the Santa Monica Mountains and shallower groundwater south of Victory Boulevard.

Shallower groundwater occurs in the vicinity of the Santa Monica Boulevard Station, Wilshire/Metro D Line Station, Ventura Boulevard Station, and the Metro G Line Station. Therefore, because the proposed piles at these stations would be drilled to approximately 80 feet bgs, removal of nuisance groundwater that seeps into boreholes during construction may be required for pile installations. If dewatering is required, dewatering activities would be conducted in compliance with the Los Angeles Regional Water Quality Control Board's NPDES dewatering permits, *Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* (Order R4-2018-0125) and *Waste Discharge Requirements for Specified Discharges to Groundwater in the Santa Clara River and Los Angeles River Basins* (Order No. 93-010), as applicable. In such cases, temporary pumps and filtration systems would be used in compliance with the applicable NPDES permits. The temporary system would be required to comply with all relevant NPDES requirements related to construction and discharges from dewatering operations. Water removed from the boreholes would be containerized and analyzed to determine the proper disposal method or possible treatment and re-use on-site. The treatment and disposal of the dewatered water would occur in accordance with the requirements of NPDES Order R4-2018-0125 and Order No. 93-010, as applicable. The WDRs require that waste be analyzed prior to being discharged in order to determine if it contains pollutants in excess of the applicable Basin Plan water quality objectives. Or if possible, the dewatered water would potentially be treated and reused on-site (e.g., for dust control or cleaning equipment) rather than being disposed.

Volatile organic compounds such as TCE, PCE, petroleum compounds, chloroform, nitrate, sulfate, and heavy metals have been detected in groundwater of the San Fernando Valley groundwater basin. Although the groundwater quality in the remainder of the Project Study Area is not specifically known, it may contain elevated levels of constituents such as petroleum hydrocarbons and solvents resulting from

commercial and industrial discharges, in addition to potentially elevated TDS and metals related to natural conditions. Uncontrolled discharge of groundwater carrying these potential pollutants would result in degradation of groundwater and surface water if it is not properly managed during construction activities. If groundwater containing contaminants such as VOCs, heavy metals, or petroleum hydrocarbons is encountered during dewatering activities, additional treatment or special disposal methods would be required to comply with applicable regulatory requirements and prevent contamination of receiving waters.

Alternative 1 would be required to comply with all applicable water quality protection laws and regulations at the federal, state, regional, and local levels, as well as commonly used industry standards. These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Policies, NPDES CGP, the MS4 Permit, the Caltrans NPDES Statewide Stormwater Permit, the Caltrans Construction Site BMP Manual (Caltrans, 2017), and the City of Los Angeles and County of Los Angeles LID Ordinance.

Alternative 1 would be required to comply with the CGP in effect at the time of construction. In accordance with the CGP, Alternative 1 would be required to prepare and submit a construction SWPPP, which must be submitted to the SWRCB prior to construction, and adhered to during construction. Proper implementation of the construction SWPPP would avoid potential impacts to water quality. The construction SWPPP would identify the BMPs that would be in place prior to the start of construction activities and during construction. BMP categories would include erosion control, sediment control, tracking control, wind erosion, stormwater and non-stormwater management, and materials management with regular monitoring. Although specific temporary construction-related BMPs would be selected at the time of SWPPP preparation, potential BMPs would likely include fiber rolls, bonded-fiber matrix hydroseeding, soil furrowing, water bars, and check dams for erosion control, inlet protection (sand/gravel bags and geotextiles), silt fencing, sediment traps/basins for sediment controls, soil berming around disturbed areas, and phasing of soil disturbance during the wet season (i.e., limiting widespread grading) for effectively managing erosion and pollutant discharge during significant rainfall events. In addition, as described in the DEIR *Section 3.3.3, Biological Resources*, the SWPPP would include measures listed in PM BIO-1.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or WDRs or substantial degradation of surface or groundwater quality during construction of Alternative 1 would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

Maintenance of monorail vehicles and equipment would occur at the MSF Base Design. Multiple buildings would be constructed, including a multi-level maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, and TPSS structure). The MSF would be constructed on parcels containing existing impervious surfaces. Additionally, the MSF Base Design compound would be in an aerial configuration, limiting the ground-level area that would be impervious to column footings and vertical circulation elements such as elevators and stairs. Therefore, the MSF Base Design would not substantially increase the existing impervious surface area at the MSF Base Design site.

Improper handling, storage, or disposal of fuels, chemical, soaps and vehicle-related fluids or improper cleaning and maintenance of equipment within the maintenance shop and train car wash building of the

MSF Base Design would result in accidental spills and discharges that would contribute to water pollution.

Construction activities such as demolition, excavation, and grading would temporarily expose bare soil, increasing the risk of erosion. Sediments (and their associated pollutants) from erosion if not properly managed would accumulate and block storm drain inlets in the vicinity of the MSF Base Design or indirectly be carried into the closest receiving water body (e.g., Pacoima Wash).

In addition to sediments, trash, concrete waste, and petroleum products, such as fuels, solvents, and lubricants, would degrade water quality and contribute to water pollution. The use of construction equipment and vehicles during the proposed Project would result in spills of vehicle-related fluids that would contribute to water pollution. Improper handling, storage, or disposal of these materials or improper cleaning and maintenance of equipment would result in accidental spills and discharges that would contribute to water pollution.

Construction activities associated with foundations would involve general earthwork and concrete work to prepare the foundations. Excavations for foundations would be between 6 and 8 feet below ground surface, and piles would be installed up to approximately 80 feet below ground surface. The groundwater depth increases progressively northward along the Project Study Area up to approximately 90 feet below grade (Metro, 2024b), where the alignment shifts from being adjacent to I-405 to being adjacent to the SCRRA Metrolink ROW where the MSF Base Design would be located. As a result, the seepage of groundwater into boreholes would be expected to be minimal. However, in the unlikely event of seepage, water removed from the boreholes would be containerized and analyzed to determine the proper disposal method.

The MSF Base Design would be required to comply with the CGP in effect at the time of construction. In accordance with the CGP, the MSF Base Design would be required to prepare and submit a construction SWPPP, which must be submitted to the SWRCB prior to construction, and adhered to during construction of the MSF Base Design. Proper implementation of the construction SWPPP would avoid potential impacts to water quality. The construction SWPPP would identify the BMPs that would be in place prior to the start of construction activities and during construction of the MSF Base Design. BMP categories would include erosion control, sediment control, tracking control, wind erosion, stormwater and non-stormwater management, and materials management. Although specific temporary construction-related BMPs would be selected at the time of SWPPP preparation, potential BMPs would likely include fiber rolls, bonded-fiber matrix hydroseeding, soil furrowing, water bars, and check dams for erosion control, inlet protection (sand/gravel bags and geotextiles), silt fencing, sediment traps/basins for sediment controls, soil berming around disturbed areas, and phasing of soil disturbance during the wet season (i.e., limiting widespread grading) for effectively managing erosion and pollutant discharge during significant rainfall events.

The construction of the MSF Base Design would be required to comply with all applicable water quality protection laws and regulations at the federal, state, regional, and local levels, as well as commonly used industry standards. These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Policies, NPDES CGP, the MS4 Permit, and the City of Los Angeles and County of Los Angeles LID Ordinance.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or WDRs or substantial degradation of surface or groundwater quality during construction of the MSF Base Design would be less than significant.

MSF Design Option 1

Potential impacts associated with the MSF Design Option 1 for Alternatives 1 and 3 would be the same as that previously described for the MSF Base Design for Alternatives 1 and 3. With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or WDRs, or substantial degradation of surface or groundwater quality, during construction of the MSF Design Option 1 would be less than significant.

Electric Bus MSF

Light maintenance of electronic buses and equipment for Alternative 1 would be performed at an Electric Bus MSF. Multiple buildings would be acquired, modified, or reconstructed. The site would include approximately 45,000 square feet of buildings and include a maintenance shop and bay, a maintenance office, an operations center, a parts storeroom, and service areas. The Electric Bus MSF would not result in a significant increase in impervious surfaces or result in activities that could significantly impact water quality because the Electric Bus MSF would operate on existing impervious surfaces and roadways. Improper handling, storage, or disposal of fuels, chemical, soaps and vehicle-related fluids or improper cleaning and maintenance of equipment within the maintenance shop and bus car wash building would result in accidental spills and discharges that would contribute to water pollution. The Electric Bus MSF for Alternative 1 would comply with the same regulatory requirements previously described for the MSF Base Design for Alternatives 1 and 3, and the applicable regulatory requirements are presented in that discussion.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or WDRs or substantial degradation of surface or groundwater quality during construction of the Electric Bus MSF would be less than significant.

5.2.17.2 Impact HWQ-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Construction of the proposed project components would include site clearing and excavation, utility relocation, foundation construction, installation of support columns and beams, erection of stations, towers, and junctions, as well as construction of MSFs, TPSSs, roadway modification, replacement or restoration of paving, sidewalks, parking, and landscaping, and the installation of rails and vehicles.

The construction activities for the modification of the freeway would include the demolition of existing pavement and structures, excavation and grading of the site, construction of the base layer, installation of retaining walls, and paving of roadways along I-405.

Construction activities associated with guideway column foundations would include excavation and concrete work. Excavations for foundations would occur between 6 and 8 feet below ground surface, and piles would be installed up to approximately 80 feet below ground surface. Groundwater levels in the Project Study Area generally range from depths of approximately 16 to 115 feet below ground surface (Metro, 2024b), with deeper groundwater depths occurring at the base of the Santa Monica Mountains. The proposed Project alignment may require the removal of groundwater that seeps into boreholes during construction. Groundwater encountered during construction would be removed from the boreholes, containerized, and analyzed consistent with existing applicable regulations to determine the proper disposal method. Dewatering would be limited to the construction phase only. Extracting

large volumes of groundwater that would decrease groundwater supplies would not be expected during construction. The volume of groundwater removed during construction would be monitored and documented.

The proposed Project would be required to comply with all applicable water quality protection laws and regulations at the federal, state, regional, and local levels, as well as commonly used industry standards. These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Policies, NPDES CGP, the MS4 Permit, the Caltrans NPDES Statewide Stormwater Permit and the Construction Site BMP Manual, and the City of Los Angeles LID Ordinance.

Due to the limited amount of groundwater seepage anticipated to be encountered, and with adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts to groundwater supply and recharge during construction would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

The proposed Project would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, water quality control and/or sustainable groundwater management plans, including the *Basin Plan* and *City of Los Angeles General Plan*, as well as commonly used industry standards. Dewatering would be limited to the construction phase only. Extracting large volumes of groundwater that would decrease groundwater supplies would not be expected during construction.

Due to the limited amount of groundwater seepage anticipated to be encountered, and with adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts to groundwater supply and recharge during construction of the MSF Base Design would be less than significant.

MSF Design Option 1

The MSF Design Option 1 would be required to comply with applicable federal, state, regional, and local agency water quality protection laws and regulations, and water quality control and/or sustainable groundwater management plans, including the Basin Plan, as well as commonly used industry standards. The MSF Design Option 1 would include design elements that would serve to capture, treat, and re-use stormwater in accordance with current LID requirements, promoting infiltration and groundwater recharge. Extracting large volumes of groundwater that would decrease groundwater supplies would not be expected during construction.

Due to the limited amount of groundwater seepage anticipated to be encountered, and with adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts to groundwater supply and recharge during construction of the MSF Design Option 1 would be less than significant.

Electric Bus MSF

The Electric Bus MSF would be required to comply with applicable federal, state, regional, and local agency water quality protection laws and regulations, and water quality control and/or sustainable groundwater management plans, including the Basin Plan, as well as commonly used industry standards. Dewatering would be limited to the construction phase only. Extracting large volumes of groundwater that would decrease groundwater supplies would not be expected during construction.

As no groundwater seepage is anticipated to be encountered, and with adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts to groundwater supply and recharge during construction of the Electric Bus MSF would be less than significant.

5.2.17.3 Impact HWQ-3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on- or off-site

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv) impede or redirect flood flows?

The majority of the Metro E Line Station, Ventura Boulevard Station, Metro G Line Station, and the Van Nuys Metrolink Station would be constructed on parcels that currently contain existing asphalt and concrete pavement on and/or adjacent to the road ROW, which is surrounded by existing development and structures. Construction activities such as demolition of existing site structures and excavation for foundations would temporarily expose bare soil, which would be at increased risk for erosion. Exposed or stockpiled soils would also be at increased risk for erosion. Construction activities would temporarily increase the potential for stormwater to contact other construction-related contaminants. Sediment from erosion and other pollutants would be carried by stormwater runoff into storm drain inlets and would affect water quality in Alternative 1 receiving waters (e.g., Pacoima Wash, Encino Creek, and the Los Angeles River) if not appropriately managed.

The proposed roadway modifications would involve grading, paving, retaining walls, and drainage system improvements, and would increase impervious surface area. Any increase in impervious surface area would increase stormwater runoff along the Alternative 1 alignment, which, if not properly managed, would result in localized increases in siltation, other pollutants, and changes in sediment loads in surface receiving waters. Additionally, placement of construction equipment and materials may temporarily affect existing drainage patterns. To accommodate the proposed roadway widenings, existing drainage systems may need to be modified or removed. However, adherence to existing regulations and review from Caltrans, LA County, and LADWP on design and specifications for the drainage modifications would ensure that the drainage meets all applicable standards and requirements for stormwater management. Existing Caltrans and LACFCD drainage mainlines, as well as current drainage patterns, would be maintained as much as possible.

The Santa Monica Boulevard Station and the Ventura Boulevard Station would be partially constructed on existing landscaped berms. To the extent possible, existing landscaping would be preserved, as the facilities would be primarily constructed on aerial platforms. The Wilshire Boulevard/Metro D Line Station, Santa Monica Boulevard Station, Getty Center Station, and the Sherman Way Station would be constructed on sites that currently consist of partial pervious surfaces. The existing pervious surfaces would help to control drainage, promote infiltration, and reduce runoff; however, placement of construction equipment and materials may temporarily affect existing drainage patterns.

As previously discussed, Alternative 1 would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, as well as commonly used industry standards. These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Polices, NPDES CGP regulations, Caltrans NPDES Statewide Stormwater Permit, Basin Plan, City of Los Angeles Municipal Code, the City of Los Angeles and County of Los Angeles LID Ordinance, and all other applicable regulations for all construction activities.

In accordance with the CGP, Alternative 1 would be required to prepare and submit a construction SWPPP, which must be submitted to the SWRCB prior to construction and adhered to during construction. Proper implementation of the construction SWPPP would avoid potential impacts to water quality. The construction SWPPP would identify the BMPs that would be in place to protect water quality prior to the start of construction activities and during construction. BMP categories would include erosion control, sediment control, non-stormwater management, and materials management BMPs. Although specific temporary construction-related BMPs would be selected at the time of SWPPP preparation, potential BMPs would likely include fiber rolls, bonded-fiber matrix hydroseeding, soil furrowing, water bars, and check dams for erosion control, inlet protection (sand/gravel bags and geotextiles), silt fencing, sediment traps/basins for sediment controls, soil berming around disturbed areas, and phasing of soil disturbance during the wet season (i.e., limiting widespread grading) for effectively managing erosion and pollutant discharge during significant rainfall events.

Construction activities would temporarily impact localized drainage patterns; however, these impacts would not substantially increase the rate or volume of stormwater flows. Construction activities would comply with all applicable federal and local floodplain regulations, including the *Los Angeles County Comprehensive Floodplain Management Plan*. Furthermore, implementation of runoff control measures and pollution prevention practices would control stormwater runoff from Alternative 1 construction areas and would minimize construction-related flooding impacts, erosion, and pollutant discharge.

With adherence to existing laws and regulations and proper implementation of stormwater compliance requirements, potential impacts related to substantial erosion or siltation, a substantial increase in the rate or amount of surface runoff that would cause flooding, creation of runoff that would exceed drainage system capacity or provide additional sources of polluted runoff or impede or redirect flood flows during construction of Alternative 1 would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

Construction activities would comply with all applicable federal and local floodplain regulations. Any impacts to existing drainage patterns would be temporary. Implementation of runoff control measures and pollution prevention practices in compliance with the construction SWPPP would control stormwater runoff from the MSF Base Design construction areas to minimize construction-related flooding impacts, erosion, and the discharge of potential pollutants, including sedimentation/siltation.

With adherence to existing laws and regulations and proper implementation of stormwater compliance requirements, potential impacts related to substantial erosion or siltation, a substantial increase in the rate or amount of surface runoff that would cause flooding, creation of runoff that would exceed drainage system capacity or provide additional sources of polluted runoff or impede or redirect flood flows during construction of the MSF Base Design would be less than significant.

MSF Design Option 1

The previous impact evaluation provided for the MSF Base Design for Alternatives 1 and 3 is applicable to the MSF Design Option 1. The MSF Design Option 1 would be required to comply with applicable federal, state, regional, and local agency water quality protection laws and regulations, and water quality control and/or sustainable groundwater management plans, including the Basin Plan, as well as commonly used industry standards. The MSF Design Option 1 would include design elements that serve to capture and re-use stormwater in accordance with current LID requirements — thereby minimizing the potential for increased runoff rates/amounts, flooding, erosion and siltation, and pollutant runoff. In addition, existing drainage patterns would be maintained as much as possible and operation of the MSF Design Option 1 would not alter the course of any streams or rivers or impede or redirect flows.

Construction activities would comply with all applicable federal and local floodplain regulations and any impacts to existing drainage patterns would be temporary. Implementation of BMPs in compliance with the construction SWPPP would control stormwater runoff from the MSF Design Option 1 construction areas to minimize construction-related flooding impacts, erosion, and the discharge of potential pollutants, including sedimentation/siltation.

With adherence to existing laws and regulations and proper implementation of stormwater compliance requirements, potential impacts related to substantial erosion or siltation, a substantial increase in the rate or amount of surface runoff that would cause flooding, creation of runoff that would exceed drainage system capacity or provide additional sources of polluted runoff, or impede or redirect flood flows during construction of the MSF Design Option 1 would be less than significant.

Electric Bus MSF

Construction activities would comply with all applicable federal and local floodplain regulations. Any impacts to existing drainage patterns would be temporary. Implementation of runoff control measures and pollution prevention practices in compliance with the construction SWPPP would control stormwater runoff from the Electric Bus MSF construction areas to minimize construction-related flooding impacts, erosion, and the discharge of potential pollutants, including sedimentation/siltation.

With adherence to existing laws and regulations and proper implementation of stormwater compliance requirements, potential impacts related to substantial erosion or siltation, a substantial increase in the rate or amount of surface runoff that would cause flooding, creation of runoff that would exceed drainage system capacity or provide additional sources of polluted runoff or impede or redirect flood flows during construction of the Electric Bus MSF would be less than significant.

5.2.17.4 Impact HWQ-4: Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Impacts related to release of pollutants due to project inundation by flood, tsunami, or seiche during construction activities would be similar to operational impacts. Similar to operational impacts, the majority of the proposed Project alignment would be constructed outside of the Federal Emergency Management Agency (FEMA)-designated 100-year floodplain and would be in an inland area that is not in close proximity to the ocean; therefore, the risk of inundation by a tsunami is considered low.

Given the Project's distance from Encino and Stone Canyon reservoirs, any oscillation and subsequent release of water in the reservoir as part of a seiche would not inundate the Project. Therefore, there would be low potential for risk of release of pollutants due to inundation by seiche.

The Los Angeles River and Ballona Creek are the major flood control systems for draining stormwater from the Project Study Area and directing it safely to the San Pedro Bay and Santa Monica Bay, respectively. The risk related to flooding would be considered low as the project extends along well-developed areas that maintain storm drainage and water run-off control.

Construction of Alternative 1 would not result in impacts to the hydrology, hydraulics, and connectivity of natural watercourses, including floodways.

Alternative 1 would have no impacts related to risk of release of pollutants due to project inundation by flood, tsunami, or seiche, and potential impacts during construction would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

Impacts related to release of pollutants due to project inundation by flood, tsunami, or seiche during construction activities of the MSF Base Design would be similar to operational and construction activities of the rest of the project components. The majority of the proposed Project alignment would be constructed outside of the FEMA-designated 100-year floodplain and would be in an inland area that is not in close proximity to the ocean; therefore, the risk of inundation by a tsunami is considered low.

Given the MSF Base Design's distance from Encino and Stone Canyon reservoirs, any oscillation and subsequent release of water in the reservoir as part of a seiche would not inundate the Project. Therefore, there would be low potential for risk of release of pollutants due to inundation by seiche.

The Los Angeles River and Ballona Creek are the major flood control measures for draining stormwater from the Project Study Area and directing it safely to the San Pedro Bay and Santa Monica Bay, respectively. The risk related to flooding would be considered low as the project extends along well-developed areas that maintain storm drainage and water run-off control.

The MSF Base Design would not result in impacts to the hydrology, hydraulics, and connectivity of natural watercourses, including floodways.

The MSF Base Design would have no impacts related to risk of release of pollutants due to project inundation by flood, tsunami, or seiche, and potential impacts during construction of the MSF Base Design would be less than significant.

MSF Design Option 1

The MSF Design Option 1 would be constructed outside of the FEMA-designated 100-year floodplain and would be in an inland area that is not in proximity to the ocean; therefore, the risk of inundation by a tsunami is considered low.

Given the distance of the MSF Design Option 1 from the Encino Reservoir and Stone Canyon Reservoir, any oscillation and subsequent release of water in the reservoirs as part of a seiche would not inundate the MSF Design Option 1. Therefore, there would be low potential for risk of release of pollutants due to inundation by seiche.

The Los Angeles River and Ballona Creek are the major flood control measures for draining stormwater from the Project Study Area and directing it safely to the San Pedro Bay and Santa Monica Bay, respectively. The risk related to flooding would be considered low as the MSF Design Option 1 is within a well-developed area that maintains storm drainage and water runoff control.

Construction of the MSF Design Option 1 would not result in impacts to the hydrology, hydraulics, and connectivity of natural watercourses, including floodways.

The MSF Design Option 1 would have no impacts related to risk of release of pollutants due to inundation by flood, tsunami, or seiche, and potential impacts during construction of the MSF Design Option 1 would be less than significant.

Electric Bus MSF

Impacts related to release of pollutants due to project inundation by flood, tsunami, or seiche during construction activities of the electric bus MSF would be similar to operational and construction activities of the rest of the project components. Similar to operational impacts, the majority of the proposed Project alignment would be constructed outside of the FEMA-designated 100-year floodplain and would be in an inland area that is not in close proximity to the ocean; therefore, the risk of inundation by a tsunami is considered low.

Given the distance of the Electric Bus MSF from the Encino Reservoir and Stone Canyon Reservoir, any oscillation and subsequent release of water in the reservoirs as part of a seiche would not inundate the Electric Bus MSF. Therefore, there would be low potential for risk of release of pollutants due to inundation by seiche.

The Los Angeles River and Ballona Creek are the major flood control measures for draining stormwater from the Project Study Area and directing it safely to the San Pedro Bay and Santa Monica Bay, respectively. The risk related to flooding would be considered low as the Electric Bus MSF is within a well-developed area that maintains storm drainage and water runoff control.

Construction of the Electric Bus MSF would not result in impacts to the hydrology, hydraulics, and connectivity of natural watercourses, including floodways.

The Electric Bus MSF would have no impacts related to risk of release of pollutants due to inundation by flood, tsunami, or seiche, and potential impacts during construction of the Electric Bus MSF would be less than significant.

5.2.17.5 Impact HWQ-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Construction of the Alternative 1 components would be conducted in several phases, including site preparation and installation of foundations and columns; erection of stations; and construction of ancillary components, including replacement or restoration of paving, sidewalk, and landscaping.

Construction of Alternative 1 has the potential to impact water quality of downstream receiving waters if applicable and appropriate BMPs are not implemented. Construction activities such as demolition of existing site structures and excavation for foundations would temporarily expose bare soil, and temporarily increase the potential for erosion. Exposed or stockpiled soils would also be at increased risk for erosion. Uncontrolled erosion and discharge of sediments and other potential pollutants would affect water quality in Alternative 1 receiving waters (e.g., the Pacoima Wash, Tujunga Wash, and Los Angeles River) if not appropriately managed by proper implementation of the construction SWPPP.

In addition to sediments, other pollutants including trash, concrete waste, and petroleum products (e.g., heavy equipment fuels, solvents, and lubricants) would contribute to stormwater pollution if not appropriately managed. The use of construction equipment and other vehicles during Alternative 1 construction would result in spills of oil, brake fluid, grease, antifreeze, or other vehicle-related fluids, which would contribute to water quality impacts. Improper handling, storage, or disposal of fuels and vehicle-related fluids or improper cleaning and maintenance of equipment would result in accidental spills and discharges that would contribute to water pollution.

Nuisance groundwater may be encountered during installation of piles for each of the components, which may result in degradation of groundwater quality if not addressed properly. Additionally, potentially impacted groundwater may result in degradation of surface water if it is not properly managed during construction activities. Although construction activities are not anticipated to interfere substantially with groundwater recharge, groundwater resource supplies, or groundwater quality, any accidental interference would be handled in accordance with applicable federal, state, regional, and local laws and regulations, groundwater management plans, and WDRs for groundwater discharge.

As discussed previously, Alternative 1 would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, and water quality control and/or sustainable groundwater management plans, including the Basin Plan, as well as commonly used industry standards. Alternative 1 would comply with the Caltrans NPDES Statewide Stormwater Permit; the NPDES CGP; the MS4 Permit; the City of Los Angeles and County of Los Angeles LID Ordinance; the City of Los Angeles Municipal Code, and all other applicable regulations for all construction activities.

In accordance with the CGP, Alternative 1 would have a construction SWPPP, which must be submitted to the SWRCB prior to construction and adhered to during construction. Proper implementation of the construction SWPPP would avoid potential impacts to water quality. The construction SWPPP would identify the BMPs that would be in place to protect water quality prior to the start of construction activities and during construction. The BMP categories would include erosion control, sediment control, non-stormwater management, and materials management BMPs. Although specific temporary construction-related BMPs would be selected at the time of SWPPP preparation, potential BMPs would likely include fiber rolls, bonded-fiber matrix hydroseeding, soil furrowing, water bars, and check dams for erosion control, inlet protection (sand/gravel bags and geotextiles), silt fencing, sediment traps/basins for sediment controls, soil berming around disturbed areas, and phasing of soil disturbance during the wet season (i.e., limiting widespread grading) for effectively managing erosion and pollutant discharge during significant rainfall events.

With adherence to existing laws and regulations and with proper implementation of stormwater compliance requirements, potential impacts related to conflict with implementation of a water quality control plan or sustainable groundwater management plan during construction of Alternative 1 would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, and water quality control and/or sustainable groundwater management plans. The MSF Base Design would not be expected to result in a decrease in groundwater supplies or interfere substantially with groundwater recharge to the extent that the MSF Base Design may impede sustainable groundwater management of the basin. Dewatering would be limited to the construction phase only. Extracting large volumes of groundwater that would decrease groundwater supplies would not be expected during construction.

With adherence to existing laws and regulations and with proper implementation of stormwater compliance requirements, potential impacts related to conflict with implementation of a water quality control plan or sustainable groundwater management plan during construction of the MSF Base Design would be less than significant.

MSF Design Option 1

The MSF Design Option 1 would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, and water quality control and/or sustainable groundwater management plans. Construction of the MSF Design Option 1 would not be expected to result in a decrease in groundwater supplies or interfere substantially with groundwater recharge to the extent that the MSF Design Option 1 may impede sustainable groundwater management of the basin. Dewatering would be limited to the construction phase only. Extracting large volumes of groundwater that would decrease groundwater supplies would not be expected during construction.

With adherence to existing laws and regulations and with proper implementation of stormwater compliance requirements, potential impacts related to conflict with implementation of a water quality control plan or sustainable groundwater management plan during construction of the MSF Design Option 1 would be less than significant.

Electric Bus MSF

The Electric Bus MSF would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, and water quality control and/or sustainable groundwater management plans. The Electric Bus MSF would not be expected to result in a decrease in groundwater supplies or interfere substantially with groundwater recharge to the extent that the Electric Bus MSF may impede sustainable groundwater management of the basin. Dewatering would be limited to the construction phase only. Extracting large volumes of groundwater that would decrease groundwater supplies would not be expected during construction.

With adherence to existing laws and regulations and with proper implementation of stormwater compliance requirements, potential impacts related to conflict with implementation of a water quality control plan or sustainable groundwater management plan during construction of the Electric Bus MSF would be less than significant.

5.2.17.6 Mitigation Measures

Construction Impacts

No mitigation measures are required with adherence to all existing local, regional, and federal regulations, guidelines, and standards. As such, all water-related impacts are less than significant.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant

6 ALTERNATIVE 3

6.1 Alternative Description

Alternative 3 is an aerial monorail alignment that would run along the Interstate 405 (I-405) corridor and would include seven aerial monorail transit (MRT) stations and an underground tunnel alignment between the Getty Center and Wilshire Boulevard with two underground stations. This alternative would provide transfers to five high-frequency fixed guideway transit and commuter rail lines, including the Los Angeles County Metropolitan Transportation Authority's (Metro) E, Metro D, and Metro G Lines, the East San Fernando Valley Light Rail Transit Line, and the Metrolink Ventura County Line. The length of the alignment between the terminus stations would be approximately 16.1 miles, with 12.5 miles of aerial guideway and 3.6 miles of underground configuration.

The seven aerial and two underground MRT stations would be as follows:

1. Metro E Line Expo/Sepulveda Station (aerial)
2. Santa Monica Boulevard Station (aerial)
3. Wilshire Boulevard/Metro D Line Station (underground)
4. UCLA Gateway Plaza Station (underground)
5. Getty Center Station (aerial)
6. Ventura Boulevard/Sepulveda Boulevard Station (aerial)
7. Metro G Line Sepulveda Station (aerial)
8. Sherman Way Station (aerial)
9. Van Nuys Metrolink Station (aerial)

6.1.1 Operating Characteristics

6.1.1.1 Alignment

As shown on Figure 6-1, from its southern terminus at the Metro E Line Expo/Sepulveda Station, the alignment of Alternative 3 would generally follow I-405 to the Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor, except for an underground segment between Wilshire Boulevard and the Getty Center.

The proposed southern terminus station would be located west of the existing Metro E Line Expo/Sepulveda Station, east of I-405 between Pico Boulevard and Exposition Boulevard. Tail tracks would extend just south of the station adjacent to the eastbound Interstate 10 to northbound I-405 connector over Exposition Boulevard. North of the Metro E Line Expo/Sepulveda Station, a storage track would be located off of the main alignment north of Pico Boulevard between I-405 and Cotner Avenue. The alignment would continue north along the east side of I-405 until just south of Santa Monica Boulevard, where a proposed station would be located between the I-405 northbound travel lanes and Cotner Avenue. The alignment would cross over the northbound and southbound freeway lanes north of Santa Monica Boulevard and travel along the west side of I-405. Once adjacent to the U.S. Department of Veterans Affairs (VA) Hospital site, the alignment would cross back over the I-405 lanes and Sepulveda Boulevard, before entering an underground tunnel south of the Federal Building parking lot.

Figure 6-1. Alternative 3: Alignment

Source: LASRE, 2024; HTA, 2024

The alignment would proceed east underground and turn north under Veteran Avenue toward the proposed Wilshire Boulevard/Metro D Line Station located under the University of California, Los Angeles (UCLA) Lot 36 on the east side of Veteran Avenue north of Wilshire Boulevard. North of this station, the underground alignment would curve northeast parallel to Weyburn Avenue before curving north and traveling underneath Westwood Plaza at Le Conte Avenue. The alignment would follow Westwood Plaza until the underground UCLA Gateway Plaza Station in front of the Luskin Conference

Center. The alignment would then continue north under the UCLA campus until Sunset Boulevard, where the tunnel would curve northwest for approximately 2 miles to rejoin I-405.

The Alternative 3 alignment would transition from an underground configuration to an aerial guideway structure after exiting the tunnel portal located at the northern end of the Leo Baeck Temple parking lot. The alignment would cross over Sepulveda Boulevard and the I-405 lanes to the proposed Getty Center Station on the west side of I-405, just north of the Getty Center tram station. The alignment would return to the median for a short distance before curving back to the west side of I-405 south of the Sepulveda Boulevard undercrossing north of the Getty Center Drive interchange. After crossing over Bel Air Crest Road and Skirball Center Drive, the alignment would again return to the median and run under the Mulholland Drive Bridge, then continue north within the I-405 median to descend into the San Fernando Valley (Valley).

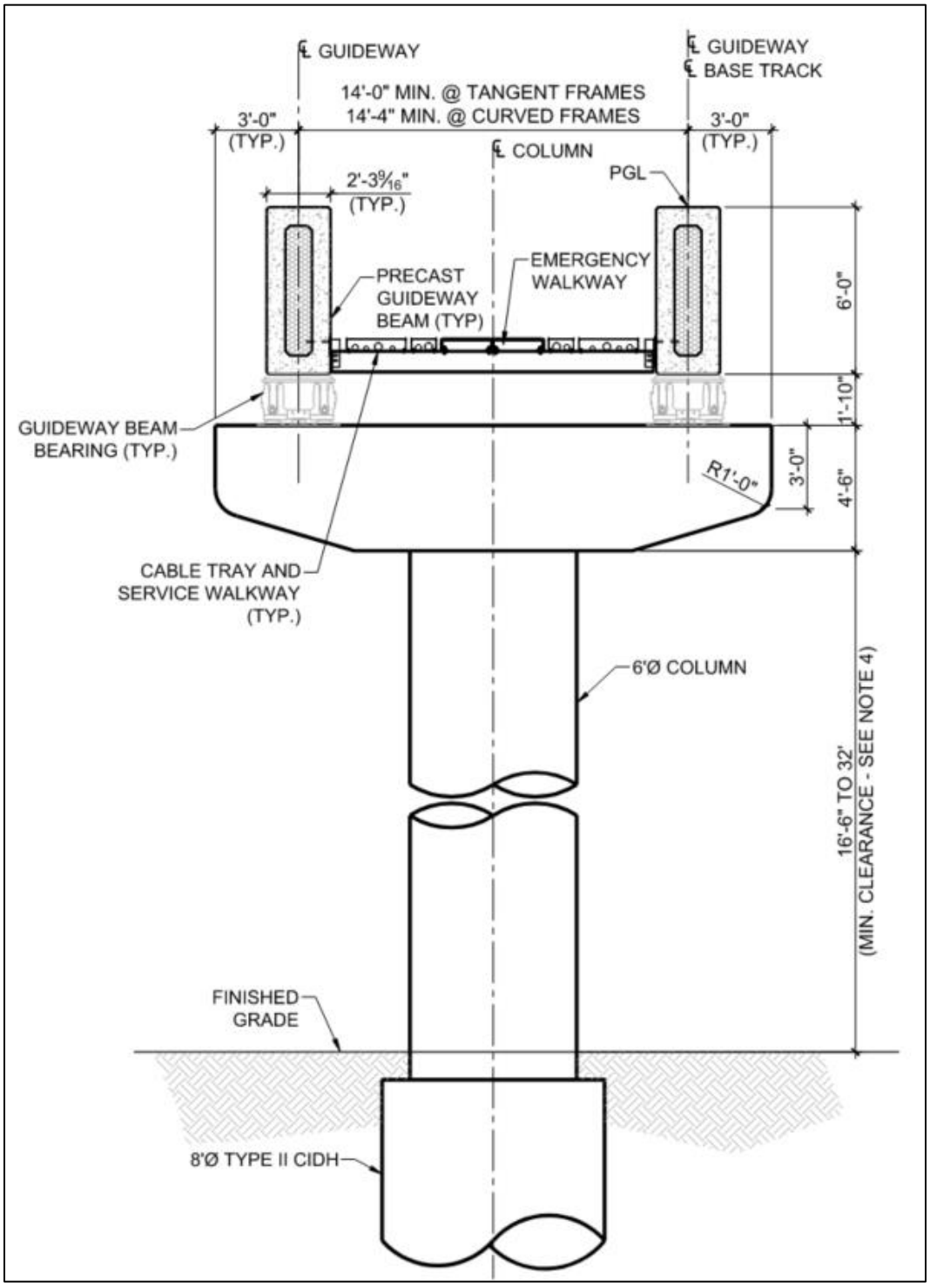
Near Greenleaf Street, the alignment would cross over the northbound freeway lanes and on-ramps toward the proposed Ventura Boulevard Station on the east side of I-405. This station would be located above a transit plaza and replace an existing segment of Dickens Street adjacent to I-405, just south of Ventura Boulevard. Immediately north of the Ventura Boulevard Station, the alignment would cross over the northbound I-405 to the southbound U.S. Highway 101 (US-101) connector and continue north between the connector and the I-405 northbound travel lanes. The alignment would continue north along the east side of I-405 — crossing over US-101 and the Los Angeles River — to a proposed station on the east side of I-405 near the Metro G Line Busway. A new at-grade station on the Metro G Line would be constructed for Alternative 3 adjacent to the proposed station. These proposed stations are shown on the Metro G Line inset area on Figure 6-1.

The alignment would then continue north along the east side of I-405 to the proposed Sherman Way Station. The station would be located inside the I-405 northbound loop off-ramp to Sherman Way. North of the station, the alignment would continue along the eastern edge of I-405, then curve to the southeast parallel to the LOSSAN rail corridor. The alignment would run elevated along Raymer Street east of Sepulveda Boulevard and cross over Van Nuys Boulevard to the proposed terminus station adjacent to the Van Nuys Metrolink/Amtrak Station. Overhead utilities along Raymer Street would be undergrounded where they would conflict with the guideway or its supporting columns. Tail tracks would be located southeast of this terminus station.

6.1.1.2 Guideway Characteristics

Alternative 3 would utilize straddle-beam monorail technology, which allows the monorail vehicle to straddle a guide beam that both supports and guides the vehicle. Alternative 3 would operate on aerial and underground guideways with dual-beam configurations. Northbound and southbound trains would travel on parallel beams either in the same tunnel or supported by a single-column or straddle-bent aerial structure. Figure 6-2 shows a typical cross-section of the aerial monorail guideway.

Figure 6-2. Typical Aerial Monorail Guideway Cross-Section



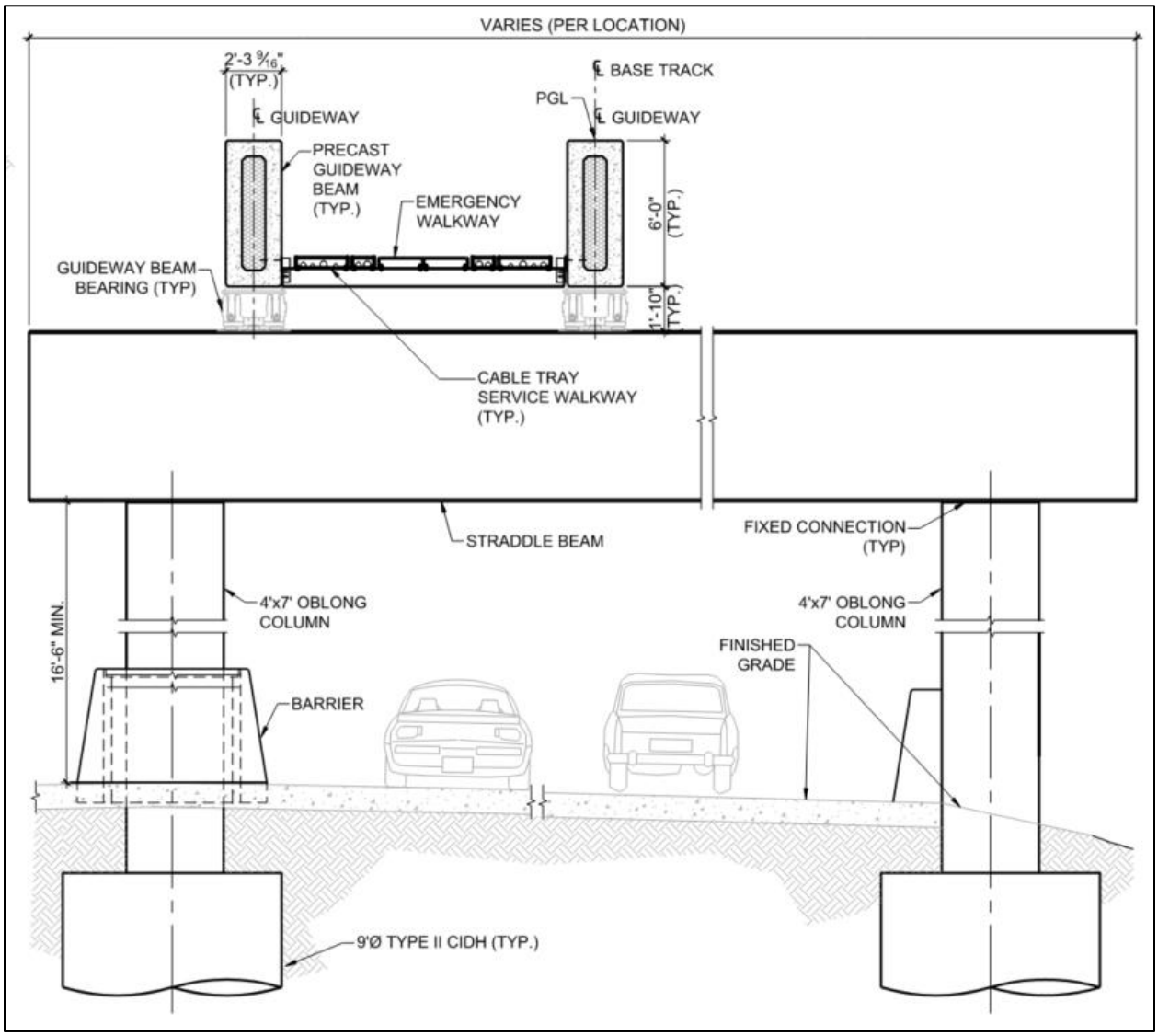
Source: LASRE, 2024

On a typical guideway section (i.e., not at a station), guide beams would rest on 20-foot-wide column caps (i.e., the structure connecting the columns and the guide beams), with typical spans (i.e., the

distance between columns) ranging from 70 to 150 feet. The bottom of the column caps would typically be between 16.5 feet and 32 feet above ground level.

Over certain segments of roadway and freeway facilities, a straddle-bent configuration, as shown on Figure 6-3, consisting of two concrete columns constructed outside of the underlying roadway would be used to support the guide beams and column cap. Typical spans for these structures would range between 65 and 70 feet. A minimum 16.5-foot clearance would be maintained between the underlying roadway and the bottom of the column caps.

Figure 6-3. Typical Monorail Straddle-Bent Cross-Section



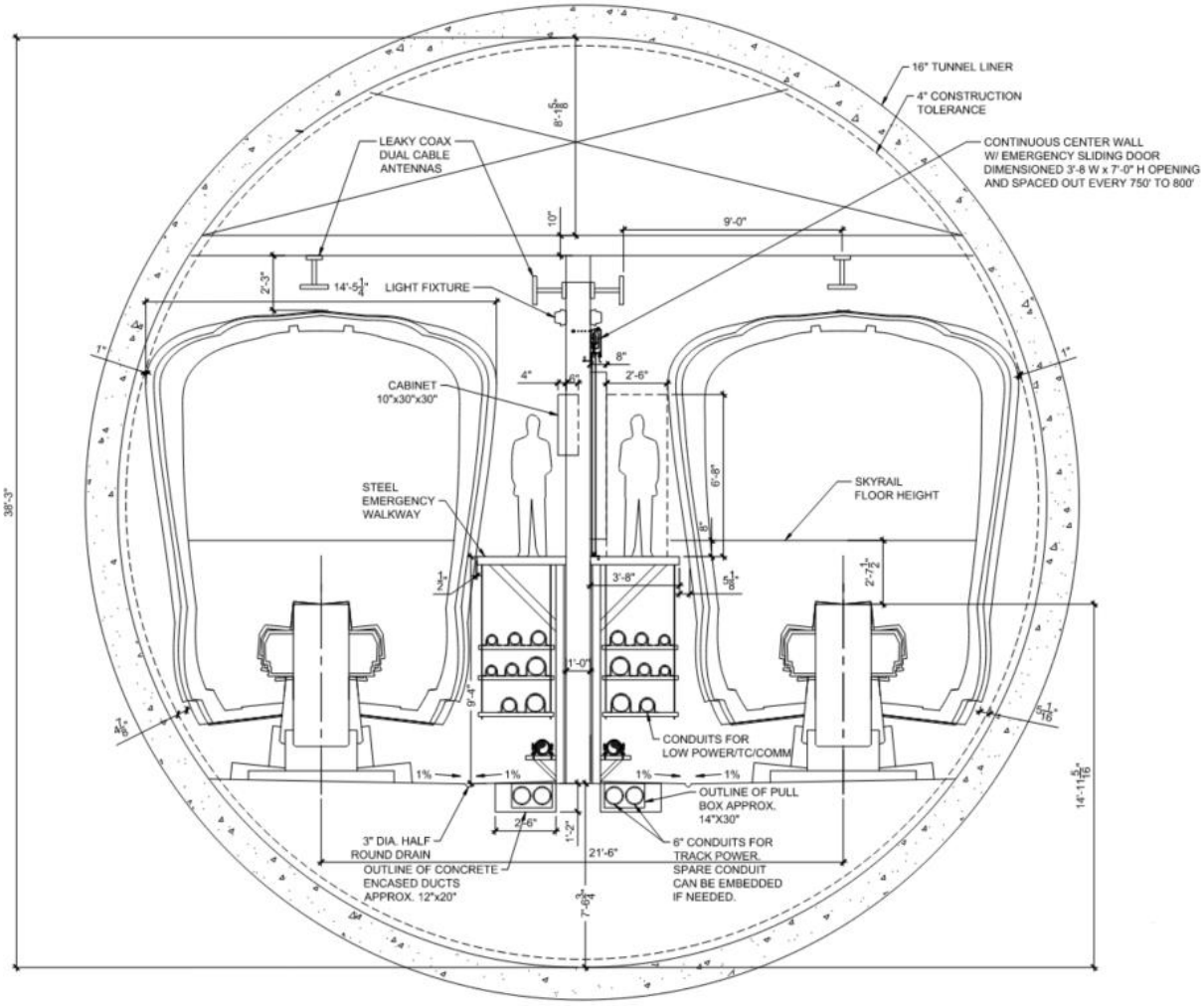
Source: LASRE, 2024

Structural support columns would vary in size and arrangement by alignment location. Columns would be 6 feet in diameter along main alignment segments adjacent to I-405 and be 4 feet wide by 6 feet long in the I-405 median. Straddle-bent columns would be 4 feet wide by 7 feet long. At stations, six rows of dual 5-foot by-8-foot columns would support the aerial guideway. Beam switch locations and long-span

structures would also utilize different sized columns, with dual 5-foot columns supporting switch locations and either 9-foot or 10-foot-diameter columns supporting long-span structures. Crash protection barriers would be used to protect the columns. All columns would have a cast-in-drilled-hole (CIDH) pile foundation extending 1 foot in diameter beyond the column width with varying depths for appropriate geotechnical considerations and structural support.

For underground sections, a single 40-foot-diameter tunnel would be needed to accommodate dual-beam configuration. The tunnel would be divided by a 1-foot-thick center wall dividing two compartments with a 14.5-foot-wide space for trains and a 4-foot-wide emergency evacuation walkway. The center wall would include emergency sliding doors placed every 750 to 800 feet. A plenum within the crown of the tunnel, measuring 8 feet tall from the top of the tunnel, would allow for air circulation and ventilation. Figure 6-4 illustrates these components at a typical cross-section of the underground monorail guideway.

Figure 6-4. Typical Underground Monorail Guideway Cross-Section



Source: LASRE, 2024

6.1.1.3 Vehicle Technology

Alternative 3 would utilize straddle-beam monorail technology, which allows the monorail vehicle to straddle a guide beam that both supports and guides the vehicle. Rubber tires would sit both atop and on each side of the guide beam to provide traction and guide the train. Trains would be automated and powered by power rails mounted to the guide beam, with planned peak-period headways of 166 seconds and off-peak-period headways of 5 minutes. Monorail trains could consist of up to eight cars. Alternative 3 would have a maximum operating speed of 56 miles per hour; actual operating speeds would depend on the design of the guideway and distance between stations.

Monorail train cars would be 10.5 feet wide, with two double doors on each side. End cars would be 46.1 feet long with a design capacity of 97 passengers, and intermediate cars would be 35.8 feet long and have a design capacity of 90 passengers.

6.1.1.4 Stations

Alternative 3 would include seven aerial and two underground MRT stations with platforms approximately 320 feet long. Aerial stations would be elevated 45 feet to 55 feet above the ground level, and underground stations would be 80 feet to 110 feet underneath the existing ground level. The Metro E Line Expo/Sepulveda, Santa Monica Boulevard, Ventura Boulevard/Sepulveda Boulevard, Sherman Way, and Van Nuys Metrolink Stations would be center-platform stations where passengers would travel up to a shared platform that would serve both directions of travel. The Wilshire Boulevard/Metro D Line, UCLA Gateway Plaza, Getty Center, and Metro G Line Sepulveda Stations would be side-platform stations where passengers would select and travel up or down to station platforms depending on their direction of travel. Each station, regardless of whether it has side or center platforms, would include a concourse level prior to reaching the train platforms. Each station would have a minimum of two elevators, two escalators, and one stairway from ground level to the concourse, except for the Metro G Line Sepulveda Station, which would have two elevators, one escalator, and one stairway.

Aerial station platforms would be approximately 320 feet long and would be supported by six rows of dual 5-foot by- 8-foot columns. The platforms would be covered, but not enclosed. Side-platform stations would be 61.5 feet wide to accommodate two 13-foot-wide station platforms with a 35.5-foot-wide intermediate gap for side-by-side trains. Center-platform stations would be 49 feet wide, with a 25-foot-wide center platform.

Underground side platforms would be 320 feet long and 26 feet wide, separated by a distance of 31.5 feet for side-by-side trains.

Monorail stations would include automatic, bi-parting fixed doors on all station platforms. These doors would be integrated into the automatic train control system and would not open unless a train is stopped at the platform.

The following information describes each station, with relevant entrance, walkway, and transfer information. Bicycle parking would be provided at each station.

Metro E Line Expo/Sepulveda Station

- This aerial station would be located near the existing Metro E Line Expo/Sepulveda Station, just east of I-405 between Pico Boulevard and Exposition Boulevard.
- A transit plaza and station entrance would be located on the east side of the station.

- An off-street passenger pick-up/drop-off loop would be located south of Pico Boulevard west of Cotner Avenue.
- An elevated pedestrian walkway would connect the concourse level of the proposed station to the Metro E Line Expo/Sepulveda Station within the fare paid zone.
- Passengers would be able to park at the existing Metro E Line Expo/Sepulveda Station parking facility, which provides 260 parking spaces. No additional vehicle parking would be provided at the proposed station.

Santa Monica Boulevard Station

- This aerial station would be located just south of Santa Monica Boulevard, between the I-405 northbound travel lanes and Cotner Avenue.
- Station entrances would be located on the southeast and southwest corners of Santa Monica Boulevard and Cotner Avenue. The entrance on the southeast corner of the intersection would be connected to the station concourse level via an elevated pedestrian walkway spanning Cotner Avenue.
- No dedicated station parking would be provided at this station.

Wilshire Boulevard/Metro D Line Station

- This underground station would be located under UCLA Lot 36 on the east side of Veteran Avenue north of Wilshire Boulevard.
- A station entrance would be located on the northeast corner of the intersection of Veteran Avenue and Wilshire Boulevard.
- An underground pedestrian walkway would connect the concourse level of the proposed station to the Metro D Line Westwood/UCLA Station using a knock-out panel provided in the Metro D Line Station box. This connection would occur within the fare paid zone.
- No dedicated station parking would be provided at this station.

UCLA Gateway Plaza Station

- This underground station would be located beneath Gateway Plaza.
- Station entrances would be located on the northern end and southeastern end of the plaza.
- No dedicated station parking would be provided at this station.

Getty Center Station

- This aerial station would be located on the west side of I-405 near the Getty Center, approximately 1,000 feet north of the Getty Center tram station.
- An elevated pedestrian walkway would connect the proposed station's concourse level with the Getty Center tram station. The proposed connection would occur outside of the fare paid zone.
- An entrance to the walkway above the Getty Center's parking lot would be the proposed station's only entrance.
- No dedicated station parking would be provided at this station.

Ventura Boulevard/Sepulveda Boulevard Station

- This aerial station would be located east of I-405, just south of Ventura Boulevard.
- A transit plaza, including two station entrances, would be located on the east side of the station. The plaza would require the closure of a 0.1-mile segment of Dickens Street between Sepulveda Boulevard and Ventura Boulevard, with a vehicle turnaround provided south of the station, off Sepulveda Boulevard.
- No dedicated station parking would be provided at this station.

Metro G Line Sepulveda Station

- This aerial station would be located near the Metro G Line Sepulveda Station, between I-405 and the Metro G Line Busway.
- Entrances to the MRT station would be located on both sides of the new proposed Metro G Line bus rapid transit (BRT) station.
- An elevated pedestrian walkway would connect the concourse level of the proposed station to the proposed new Metro G Line BRT station outside of the fare paid zone.
- Passengers would be able to park at the existing Metro G Line Sepulveda Station parking facility, which has a capacity of 1,205 parking spaces. Currently, only 260 parking spaces are used for transit parking. No additional vehicle parking would be provided at the proposed station.

Sherman Way Station

- This aerial station would be located inside the I-405 northbound loop off-ramp to Sherman Way.
- A station entrance would be located on the north side of Sherman Way, directly across the street from the I-405 northbound off-ramp to Sherman Way East.
- An on-street passenger pick-up/drop-off area would be provided on the north side of Sherman Way west of Firmament Avenue.
- No dedicated station parking would be provided at this station.

Van Nuys Metrolink Station

- This aerial station would be located on the east side of Van Nuys Boulevard, just south of the LOSSAN rail corridor, incorporating the site of the current Amtrak ticket office.
- A station entrance would be located on the east side of Van Nuys Boulevard just south of the LOSSAN rail corridor. A second entrance would be located to the north of the LOSSAN rail corridor with an elevated pedestrian walkway connecting to both the concourse level of the proposed station and the platform of the Van Nuys Metrolink/Amtrak Station.
- Existing Metrolink Station parking would be reconfigured. Metrolink parking would not be available to Metro transit riders.

6.1.1.5 Station-to-Station Travel Times

Table 6-1 presents the station-to-station distance and travel times for Alternative 3. The travel times include both running time and dwelling time. The travel times differ between northbound and southbound trips because of grade differentials and operational considerations at end-of-line stations.

Table 6-1. Alternative 3: Station-to-Station Travel Times and Station Dwell Times

From Station	To Station	Distance (miles)	Northbound Station-to-Station Travel Time (seconds)	Southbound Station-to-Station Travel Time (seconds)	Dwell Time (seconds)
Metro E Line Station					*30*
Metro E Line	Santa Monica Boulevard	0.9	123	97	—
Santa Monica Boulevard Station					*30*
Santa Monica Boulevard	Wilshire/Metro D Line	1.1	192	194	—
Wilshire/Metro D Line Station					*30*
Wilshire/Metro D Line	UCLA Gateway Plaza	0.9	138	133	—
UCLA Gateway Plaza Station					*30*
UCLA Gateway Plaza	Getty Center	2.6	295	284	—
Getty Center Station					*30*
Getty Center	Ventura Boulevard	4.7	414	424	—
Ventura Boulevard Station					*30*
Ventura Boulevard	Metro G Line	2.0	179	187	—
Metro G Line Station					*30*
Metro G Line	Sherman Way	1.5	134	133	—
Sherman Way Station					*30*
Sherman Way	Van Nuys Metrolink	2.4	284	279	—
Van Nuys Metrolink Station					*30*

Source: LASRE, 2024

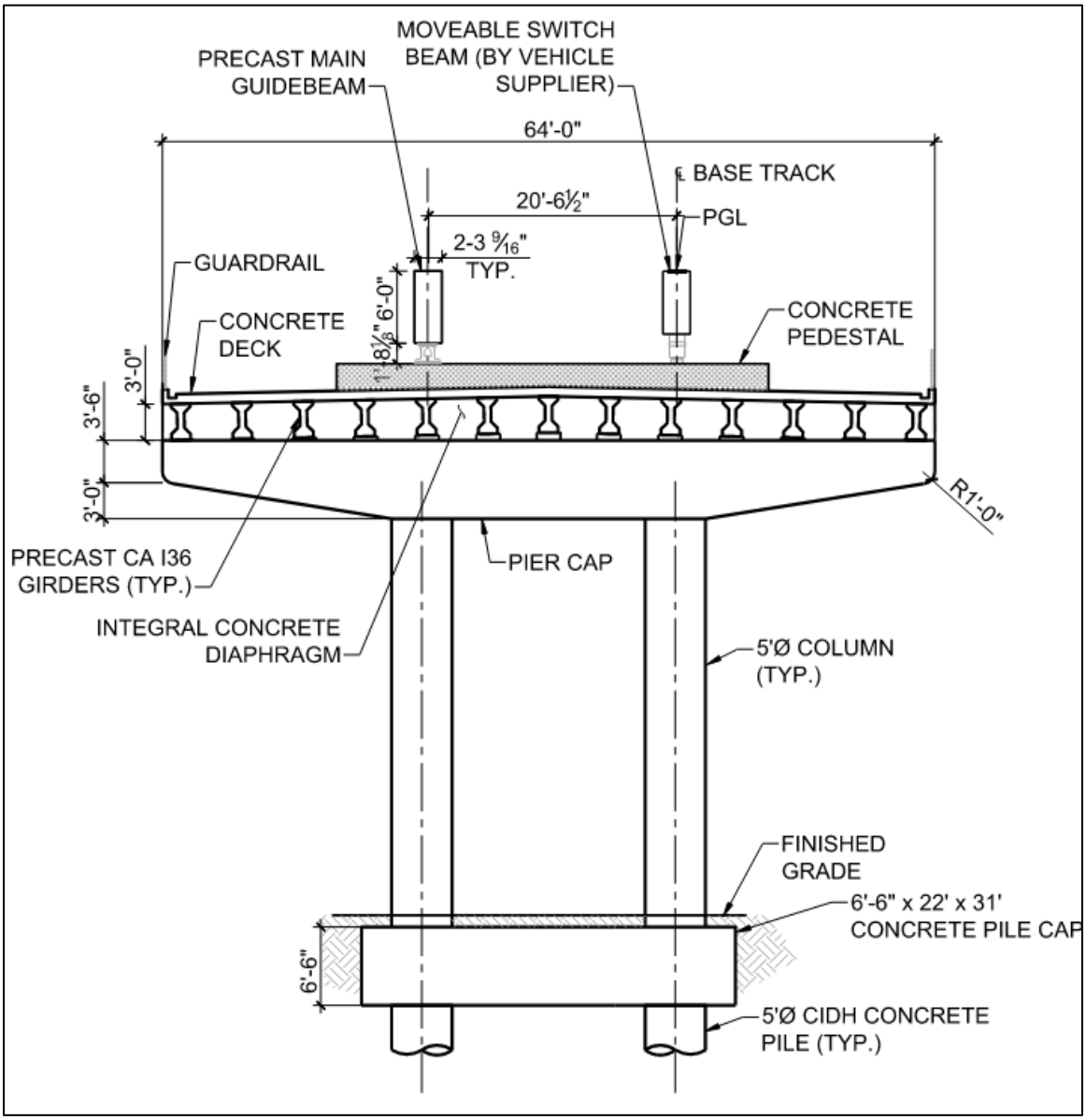
— = no data

6.1.1.6 Special Trackwork

Alternative 3 would include five pairs of beam switches to enable trains to cross over and reverse direction on the opposite beam. All beam switches would be located on aerial portions of the alignment of Alternative 3. From south to north, the first pair of beam switches would be located just north of the Metro E Line Expo/Sepulveda Station. A second pair of beam switches would be located on the west side of I-405, directly adjacent to the VA Hospital site, south of the Wilshire Boulevard/Metro D Line Station. A third pair of beam switches would be located in the Sepulveda Pass just south of Mountaingate Drive and Sepulveda Boulevard. A fourth pair of beam switches would be located south of the Metro G Line Station between the I-405 northbound lanes and the Metro G Line Busway. The final pair would be located near the Van Nuys Metrolink Station.

At beam switch locations, the typical cross-section of the guideway would increase in column and column cap width. The column cap width at these locations would be 64 feet, with dual 5-foot-diameter columns. Underground pile caps for additional structural support would also be required at these locations. Figure 6-5 shows a typical cross-section of the monorail beam switch.

Figure 6-5. Typical Monorail Beam Switch Cross-Section



Source: LASRE, 2024

6.1.1.7 Maintenance and Storage Facility

MSF Base Design

In the maintenance and storage facility (MSF) Base Design for Alternative 3, the MSF would be located on Los Angeles Department of Water and Power (LADWP) property east of the Van Nuys Metrolink Station. The MSF Base Design site would be approximately 18 acres and would be designed to accommodate a fleet of 208 monorail vehicles. The site would be bounded by the LOSSAN rail corridor to the north, Saticoy Street to the south, and property lines extending north of Tyrone and Hazeltine Avenues to the east and west, respectively.

Monorail trains would access the site from the main alignment's northern tail tracks at the northwest corner of the site. Trains would travel parallel to the LOSSAN rail corridor before curving southeast to maintenance facilities and storage tracks. The guideway would remain in an aerial configuration within the MSF Base Design, including within maintenance facilities.

The site would include the following facilities:

- Primary entrance with guard shack
- Primary maintenance building that would include administrative offices, an operations control center and maintenance shop and office
- Train car wash building
- Emergency generator
- Traction power substation (TPSS)
- Maintenance-of-way (MOW) building
- Parking area for employees

MSF Design Option 1

In the MSF Design Option 1, the MSF would be located on industrial property, abutting Orion Avenue, south of the LOSSAN rail corridor. The MSF Design Option 1 site would be approximately 26 acres and would be designed to accommodate a fleet of 224 monorail vehicles. The site would be bounded by I-405 to the west, Stagg Street to the south, the LOSSAN rail corridor to the north, and Orion Avenue and Raymer Street to the east. The monorail guideway would travel along the northern edge of the site.

Monorail trains would access the site from the monorail guideway east of Sepulveda Boulevard, requiring additional property east of Sepulveda Boulevard and north of Raymer Street. From the northeast corner of the site, trains would travel parallel to the LOSSAN rail corridor before turning south to maintenance facilities and storage tracks parallel to I-405. The guideway would remain in an aerial configuration within the MSF Design Option 1, including within maintenance facilities.

The site would include the following facilities:

- Primary entrance with guard shack
- Primary maintenance building that would include administrative offices, an operations control center, and a maintenance shop and office
- Train car wash building
- Emergency generator
- TPSS
- MOW building
- Parking area for employees

Figure 6-6 shows the locations of the MSF Base Design and MSF Design Option 1 for Alternative 3.

Figure 6-6. Alternative 3: Maintenance and Storage Facility Options

Source: LASRE, 2024; HTA, 2024

6.1.1.8 Traction Power Substations

TPSSs transform and convert high voltage alternating current supplied from power utility feeders into direct current suitable for transit operation. A TPSS on a site of approximately 8,000 square feet would be located approximately every 1 mile along the alignment. Table 6-2 lists the TPSS locations proposed for Alternative 3. Figure 6-7 shows the TPSS locations along the Alternative 3 alignment.

Table 6-2. Alternative 3: Traction Power Substation Locations

TPSS No.	TPSS Location Description	Configuration
1	TPSS 1 would be located east of I-405, just south of Exposition Boulevard and the monorail guideway tail tracks.	At-grade
2	TPSS 2 would be located east of I-405 and Sepulveda Boulevard, just north of the Getty Center Station.	At-grade
3	TPSS 3 would be located west of I-405, just east of the intersection between Promontory Road and Sepulveda Boulevard.	At-grade
4	TPSS 4 would be located between I-405 and Sepulveda Boulevard, just north of the Skirball Center Drive Overpass.	At-grade
5	TPSS 5 would be located east of I-405, just south of Ventura Boulevard Station, between Sepulveda Boulevard and Dickens Street.	At-grade
6	TPSS 6 would be located east of I-405, just south of the Metro G Line Sepulveda Station.	At-grade
7	TPSS 7 would be located east of I-405, just east of the Sherman Way Station, inside the I-405 Northbound Loop Off-Ramp to Sherman Way westbound.	At-grade
8	TPSS 8 would be located east of I-405, at the southeast quadrant of the I-405 overcrossing with the LOSSAN rail corridor.	At-grade
9	TPSS 9 would be located east of I-405, at the southeast quadrant of the I-405 overcrossing with the LOSSAN rail corridor.	At-grade (within MSF Design Option)
10	TPSS 10 would be located between Van Nuys Boulevard and Raymer Street, south of the LOSSAN rail corridor.	At-grade
11	TPSS 11 would be located south of the LOSSAN rail corridor, between Tyrone Avenue and Hazeltine Avenue.	At-grade (within MSF Base Design)
12	TPSS 12 would be located southwest of Veteran Avenue at Wellworth Avenue.	Underground
13	TPSS 13 would be located within the Wilshire Boulevard/Metro D Line Station.	Underground (adjacent to station)
14	TPSS 14 would be located underneath UCLA Gateway Plaza.	Underground (adjacent to station)

Source: LASRE, 2024; HTA, 2024

Figure 6-7. Alternative 3: Traction Power Substation Locations

Source: LASRE, 2024; HTA, 2024

6.1.1.9 Roadway Configuration Changes

Table 6-3 lists the roadway changes necessary to accommodate the guideway of Alternative 3. Figure 6-8 shows the location of these roadway changes in the Sepulveda Transit Corridor Project (Project) Study Area, except for the I-405 configuration changes, which occur throughout the corridor.

Table 6-3. Alternative 3: Roadway Changes

Location	From	To	Description of Change
Cotner Avenue	Nebraska Avenue	Santa Monica Boulevard	Roadway realignment to accommodate aerial guideway columns
Beloit Avenue	Massachusetts Avenue	Ohio Avenue	Roadway narrowing to accommodate aerial guideway columns
Sepulveda Boulevard	Getty Center Drive	Not Applicable	Southbound right turn lane to Getty Center Drive shortened to accommodate aerial guideway columns
I-405 Northbound On-Ramp and Off-Ramp at Sepulveda Boulevard near I-405 Exit 59	Sepulveda Boulevard near I-405 Northbound Exit 59	Sepulveda Boulevard/I-405 Undercrossing (near Getty Center)	Ramp realignment to accommodate aerial guideway columns and I-405 widening
Sepulveda Boulevard	I-405 Southbound Skirball Center Drive Ramps (north of Mountaingate Drive)	Skirball Center Drive	Roadway realignment into existing hillside to accommodate aerial guideway columns and I-405 widening
I-405 Northbound On-Ramp at Mulholland Drive	Mulholland Drive	Not Applicable	Roadway realignment into the existing hillside between the Mulholland Drive Bridge pier and abutment to accommodate aerial guideway columns and I-405 widening
Dickens Street	Sepulveda Boulevard	Ventura Boulevard	Permanent removal of street for Ventura Boulevard Station construction Pick-up/drop-off area would be provided along Sepulveda Boulevard at the truncated Dickens Street
Sherman Way	Haskell Avenue	Firmament Avenue	Median improvements, passenger drop-off and pick-up areas, and bus pads within existing travel lanes
Raymer Street	Sepulveda Boulevard	Van Nuys Boulevard	Curb extensions and narrowing of roadway width to accommodate aerial guideway columns
I-405	Santa Monica Boulevard	Sepulveda Boulevard (at the Getty Center Drive interchange)	I-405 widening to accommodate aerial guideway columns in the median
I-405	Skirball Center Drive	U.S. Highway 101	I-405 widening to accommodate aerial guideway columns in the median

Source: LASRE, 2024; HTA, 2024

Figure 6-8. Alternative 3: Roadway Changes

Source: LASRE, 2024; HTA, 2024

In addition to the changes made to accommodate the guideway, as listed in Table 6-3, roadways and sidewalks near stations would be reconstructed, which would result in modifications to curb ramps and driveways.

6.1.1.10 Ventilation Facilities

For ventilation of the monorail's underground portion, a plenum within the crown of the tunnel would provide a separate compartment for air circulation and allow multiple trains to operate between

stations. Vents would be located at the southern portal near the Federal Building parking lot, Wilshire/Metro D Line Station, UCLA Gateway Plaza Station, and at the northern portal near the Leo Baeck Temple parking lot.

6.1.1.11 Fire/Life Safety – Emergency Egress

Emergency evacuation walkways would be provided continuously along the guideway. Walkways along the alignment's aerial portions would typically consist of structural steel frames anchored to the guideway beams to support non-slip walkway panels. The walkways would be located between the two guideway beams for most of the aerial alignment; however, where the beams split apart, such as entering center-platform stations, short portions of the walkway would be located on the outside of the beams. For the underground portion of Alternative 3, 3.5-foot-wide emergency evacuation walkways would be located on both sides of the beams.

6.1.2 Construction Activities

Construction activities for Alternative 3 would include constructing the aerial guideway and stations, underground tunnel and stations, and ancillary facilities, and widening I-405. Construction of the transit facilities through substantial completion is expected to have a duration of 8½ years. Early works, such as site preparation, demolition, and utility relocation, start in advance of construction of the transit facilities.

Aerial guideway construction would begin at the southern and northern ends of the alignment and connect in the middle. Constructing the guideway would require a combination of freeway and local street lane closures throughout the working limits to provide sufficient work area. The first stage of I-405 widening would include a narrowing of adjacent freeway lanes to a minimum width of 11 feet, which would eliminate shoulders, and placing K-rail on the outside edge of the travel lanes to create outside work areas. Within these outside work zones, retaining walls, drainage, and outer pavement widenings would be constructed to allow for I-405 widening. The reconstruction of on- and off-ramps would be the final stage of I-405 widening.

A median work zone along I-405 for the length of the alignment would be required for erection of the guideway structure. In the median work zone, demolition of existing median and drainage infrastructure would be followed by the installation of new K-rails and installation of guideway structural components, which would include full directional freeway closures when guideway beams must be transported into the median work areas during late-night hours. Additional night and weekend directional closures would be required for installation of long-span structures over I-405 travel lanes where the guideway would transition from the median.

Aerial station construction is anticipated to last the duration of construction activities for Alternative 3 and would include the following general sequence of construction:

- Site clearing
- Utility relocation
- Construction fencing and rough grading
- CIDH pile drilling and installation
- Elevator pit excavation
- Soil and material removal
- Pile cap and pier column construction
- Concourse level and platform level falsework and cast-in-place structural concrete

- Guideway beam installation
- Elevator and escalator installation
- Completion of remaining concrete elements such as pedestrian bridges
- Architectural finishes and mechanical, electrical, and plumbing installation

Underground stations, including the Wilshire Boulevard/Metro D Line Station and the UCLA Gateway Plaza Station, would use a "cut-and-cover" construction method, whereby the station structure would be constructed within a trench excavated from the surface that is covered by a temporary deck and backfilled during the later stages of station construction. Traffic and pedestrian detours would be necessary during underground station excavation until decking is in place and the appropriate safety measures are taken to resume cross traffic.

A tunnel boring machine (TBM) would be used to construct the underground segment of the guideway. The TBM would be launched from a staging area on Veteran Avenue south of Wilshire Boulevard, and head north toward an exit portal location north of Leo Baeck Temple. The southern portion of the tunnel between Wilshire Boulevard and the Bel Air Country Club would be at a depth between 80 to 110 feet from the surface to the top of the tunnel. The UCLA Gateway Plaza Station would be constructed using cut-and-cover methods. Through the Santa Monica Mountains, the tunnel would range between 30 to 300 feet deep.

Constructing Alternative 3 would include a concrete casting facility for columns and beams associated with the elevated guideway. A specific site has not been identified; however, the general location has been determined to be either in the Antelope Valley or Riverside County, which are outside the Project Study Area. It is assumed that when a site for the casting facility has been identified, a site-specific California Environmental Quality Act (CEQA) environmental review wouldbe conducted in whichever jurisdiction the facility is determined to be located. It is assumed that, as part of this separate CEQA review, the contractor would obtain all permits and approvals necessary from that jurisdiction as well as the appropriate air quality management entity.

TPSS construction would require additional lane closures. Large equipment, including transformers, rectifiers, and switchgears, would be delivered and installed through prefabricated modules where possible in at-grade TPSSs. The installation of transformers would require temporary lane closures on Exposition Boulevard, Beloit Avenue, and the I-405 northbound on-ramp at Burbank Boulevard.

Table 6-4 and Figure 6-9 show the potential construction staging areas for Alternative 3. Staging areas would provide the necessary space for the following activities:

- Contractors' equipment
- Receiving deliveries
- Storing materials
- Site offices
- Work zone for excavation
- Other construction activities (including parking and change facilities for workers, location of construction office trailers, storage, staging and delivery of construction materials and permanent plant equipment, and maintenance of construction equipment)

Table 6-4. Alternative 3: Construction Staging Locations

No.	Location Description
1	Public Storage between Pico Boulevard and Exposition Boulevard, east of I-405
2	South of Dowlen Drive and east of Greater LA Fisher House
3	Federal Building Parking Lot
4	Kinross Recreation Center and UCLA Lot 36
5	North end of the Leo Baeck Temple Parking Lot (tunnel boring machine retrieval)
6	At 1400 N Sepulveda Boulevard
7	At 1760 N Sepulveda Boulevard
8	East of I-405 and north of Mulholland Drive Bridge
9	Inside of I-405 Northbound to US-101 Northbound Loop Connector, south of US-101
10	ElectroRent Building south of G Line Busway, east of I-405
11	Inside the I-405 Northbound Loop Off-Ramp at Victory Boulevard
12	Along Cabrito Road east of Van Nuys Boulevard

Source: LASRE, 2024; HTA, 2024

Figure 6-9. Alternative 3: Construction Staging Locations

Source: LASRE, 2024; HTA, 2024

6.2 Impacts Evaluation

6.2.1 Air Quality

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-5.

Table 6-5. Alternative 3: Air Quality Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Air Quality Construction Impacts		
Impact AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact AQ-2: Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under and applicable federal or state ambient air quality standard?	Impacts Before Mitigation	SU
	Applicable Mitigation	MM AQ-1 through MM AQ-3
	Impacts After Mitigation	SU
Impact AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations?	Impacts Before Mitigation	SU
	Applicable Mitigation	MM AQ-1 through MM AQ-3
	Impacts After Mitigation	SU
Impact AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025f

AQ = air quality
LTS = less than significant
MM = mitigation measure
NA = not applicable
SU = significant and unavoidable

6.2.1.1 Impact AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

The impacts related to Alternative 3 are the same as Alternative 1. See Section 5.2.1.1.

6.2.1.2 Impact AQ-2: Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under and applicable federal or state ambient air quality standard?

Alternative 3 construction activities would generate criteria pollutant emissions from off-road equipment, mobile sources including workers, vendor trucks, and haul trucks traveling to and from construction sites, demolition, soil handling activities, paving, application of architectural coatings, and operation of temporary concrete batch plants. These emissions sources would be related to constructing the monorail aerial alignment, underground tunneling, stations, TPSSs, and MSF.

Construction emissions would vary substantially from day to day, depending on the level of activity and the specific type of construction activity. The peak daily construction emissions for Alternative 3 were estimated for each construction year. Based on the construction schedule for Alternative 3, construction phases for components could potentially overlap; therefore, the estimates of peak daily emissions included these potential overlaps by combining the relevant construction phase daily emissions. The peak daily emissions are predicted values for the worst-case day and do not represent the emissions that would occur for every day of construction. Table 6-6 summarizes the peak daily regional emissions for each construction year.

Table 6-6. Alternative 3: Unmitigated Peak Daily Regional Construction Criteria Pollutant Emissions

Construction Year	Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM_{10}[a]	$PM_{2.5}$[a]
2029	13	95	346	<1	17	5
2030	14	117	375	<1	34	11
2031	16	129	474	<1	42	15
2032	33	243	795	2	60	16
2033	23	203	624	2	64	19
2034	21	155	428	1	41	11
2035	10	103	295	<1	26	7
2036	5	33	138	<1	5	2
2037	3	17	73	<1	2	<1
Peak Daily Emissions	**33**	**243**	**795**	**2**	**64**	**19**
SCAQMD Regional Significance Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	**Yes**	**Yes**	No	No	No

Source: HTA, 2024

[a]PM_{10} and $PM_{2.5}$ emissions include exhaust and fugitive dust emissions.

CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
PM_{10} = respirable particulate matter of 10 microns or less
$PM_{2.5}$ = fine particulate matter of 2.5 microns or less
SCAQMD = South Coast Air Quality Management District
SO_2 = sulfur dioxide
VOC = volatile organic compounds

As shown in Table 6-6, Alternative 3 construction emissions would exceed the SCAQMD regional significance thresholds for NO_X and CO emissions. SCAQMD's cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. Because Alternative 3 construction emissions would exceed the applicable SCAQMD's regional construction significance thresholds for NO_X and CO, Alternative 3 construction emissions would be cumulatively considerable. Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the NAAQS and CAAQS, which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, Alternative 3's contribution of pollutant emissions during short-term construction activities may result in appreciable human health impacts on a regional scale.

NO_x emissions can have various regional health and environmental impacts. Exposure to NO_x may cause eye and respiratory tract irritation and contribute to broader environmental issues such as acid rain and nitrate contamination in stormwater. Additionally, NO_x is a precursor to O_3 formation, which poses significant health and ecological risks. High concentrations of O_3 can irritate the lungs, and prolonged exposure may lead to damaged lung tissue, increased cancer risk, and harm to plant materials. Long-term O_3 exposure can damage vegetation, reduce crop productivity, and disrupt ecosystems.

CO emissions primarily affect human health by reducing the blood's ability to carry oxygen, leading to symptoms such as headaches, dizziness, confusion and, in severe cases, loss of consciousness or death.

These health effects are more pronounced in individuals with pre-existing cardiovascular conditions, because CO exposure can exacerbate symptoms like chest pain or arrhythmias.

As discussed in the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f), the emissions analysis incorporated Tier 4 Final engines for off-road equipment greater than or equal to 50 horsepower, trucks with model years 2007 or newer, and included dust control measures to be implemented during each phase of construction, as required by SCAQMD Rule 403. The construction analysis for Alternative 3 conservatively assumed all equipment would be diesel powered. The Metro *Green Construction Policy* contains measures that aim to reduce construction emissions through utilization of hybrid drive off-road equipment and using electric power instead of diesel power.

Mitigation measures (MM) AQ-1, MM AQ-2, and MM AQ-3 would reduce criteria pollutant emissions during construction, but mitigation measures would not reduce Alternative 3 NO_X and CO emissions below SCAQMD significance thresholds; therefore, Alternative 3 construction emissions would result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard and impacts would be significant and unavoidable.

6.2.1.3 Impact AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations?

Using the conservative methodology to assess the potential localized air quality impacts resulting from Alternative 3 on nearby receptors during construction, the daily on-site construction emissions from the Alternative 3 components (alignment, stations, TPSSs, MSFs) were compared to SCAQMD's applicable construction LSTs. As described in Chapter 2, Project Description, the monorail MSF Base Design and MSF Design Option 1 would have the same facilities; therefore, construction emissions for MSF Design Option 1 would be equivalent to the criteria pollutant emissions modeled for the MSF Base Design. Regardless of which MSF is selected in future final design decisions, the analysis adequately accounted for emissions from either of these MSFs. Alternative 3 localized emissions included exhaust emissions from off-road equipment and trucks, and fugitive dust from demolition, earth movement activities, and truck travel. As shown in Table 6-7, Alternative 3 localized construction emissions would exceed the PM_{10} LST for construction activity in the Valley and Westside; therefore, Alternative 3 localized construction emissions would have adverse health risk implications and would be considered to be significant

Short-term exposure to elevated PM_{10} levels during construction can lead to significant health effects, particularly for sensitive populations such as children, the elderly, and individuals with pre-existing respiratory or cardiovascular conditions. These health impacts include respiratory irritation, which can manifest as coughing, wheezing, shortness of breath, and worsened asthma symptoms. Additionally, PM_{10} exposure can exacerbate cardiovascular conditions, increasing heart rate variability, inflammation, and the risk of cardiac events. Acute respiratory infections, such as bronchitis, may also occur, particularly affecting vulnerable groups like children and older adults.

DPM, a component of PM_{10} from diesel engines, poses additional risks. It is associated with respiratory irritation, acute inflammation, and oxidative stress. Prolonged or high-level exposure can elevate the risk of lung cancer and cardiovascular issues. These impacts are particularly pronounced near construction sites, where emissions are concentrated, and receptors in close proximity are exposed.

Table 6-7. Alternative 3: Unmitigated Localized Construction Criteria Pollutant Emissions

Construction Area	Daily Emissions (lbs/day)[a]			
	NO_X	CO	PM_{10}[b]	$PM_{2.5}$[b]
Valley Construction Components[c]				
MRT Segment 1 – Van Nuys Metrolink to Getty Center	43.1	190.6	2.9	1.3
Van Nuys MRT Station	5.0	23.4	0.2	0.1
Sherman Way MRT Station	5.0	23.4	0.2	0.1
Metro G Line MRT Station	5.0	23.4	0.5	0.2
Sherman Oaks/Ventura Boulevard MRT Station	5.0	23.4	0.5	0.2
TPSS 6 – Skirball	4.1	13.3	2.4	1.0
TPSS 11 – Raymer-Van Nuys	4.1	13.3	2.7	1.1
MSF	4.1	13.3	3.7	1.3
Components In Proximity to Each Other				
MRT Segment 1 + Van Nuys Station + TPSS 11 + MSF	56.2	240.6	9.6	3.8
Peak Daily Localized Emissions	**56.2**	**240.6**	**9.6**	**3.8**
SCAQMD Localized Significance Threshold[d]	114	786	7	4
Exceeds Threshold[e]?	No	No	**Yes**	No
Westside Construction Components[c]				
MRT Segment 6 – Getty Center to Federal Building	30.4	116.3	6.6	0.9
MRT Segment 7 – Federal Building to South of 405-Wilshire Interchange	14.5	57.6	0.5	0.2
MRT Segment 4 – South of I-405-Wilshire Interchange to Metro E Line	18.4	73.6	1.7	0.6
Getty Center MRT Station	5.0	23.4	0.3	0.2
UCLA Gateway MRT Station	5.7	24.0	2.3	0.4
Wilshire Boulevard/Metro D Station	6.2	24.4	3.7	0.5
Santa Monica Boulevard MRT Station	5.0	23.4	0.3	0.2
Exposition Boulevard MRT Station	5.0	23.4	0.3	0.2
TPSS 4 – I-405-Near Getty Center on East side of I-405	4.1	13.3	2.4	1.0
Components In Proximity to Each Other				
MRT Segment 7 + Wilshire Boulevard/Metro D MRT Station	20.7	82.0	4.2	0.8
Peak Daily Localized Emissions	**30.4**	**116.3**	**6.6**	**1.0**
SCAQMD Localized Significance Threshold[e]	147	827	6	4
Exceeds Threshold?	No	No	**Yes**	No

Source: HTA, 2024

[a]Daily emissions for each construction component represent the contribution to the maximum daily localized emissions in the Valley or Westside.

[b]PM_{10} and $PM_{2.5}$ emissions include exhaust and fugitive dust emissions.

[c]TPSSs listed in table would be located at standalone locations and not within the construction area of a station, MSF, track alignment, or tunnel. Each of these standalone TPSSs had their own construction phasing in the construction emissions analysis. For TPSSs located within the construction area of a station, MSF, track alignment, or tunnel, their construction activity was accounted for in the overall construction activity for the component.

[d]LST values are based on a 2-acre site with a 25-meter receptor distance in SRA 7 East San Fernando Valley.

[e]LST values are based on a 2-acre site with a 25-meter receptor distance in SRA 2 Northwest Coastal LA County.

lbs/day = pounds per day

SCAQMD = South Coast Air Quality Management District

As discussed in the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f), the emissions analysis incorporated Tier 4 Final engines for off-road equipment greater than or equal to 50 horsepower, trucks with model years 2007 or newer, and included dust control measures to be implemented during each phase of construction, as required by SCAQMD Rule 403. The construction analysis for Alternative 3 conservatively assumed all equipment would be diesel powered. The Metro Green Construction Policy contains measures that aim to reduce construction emissions through utilization of hybrid drive off-road equipment and using electric power instead of diesel power.

Although MM AQ-1, MM AQ-2, and MM AQ-3 prescribed below would reduce criteria pollutant emissions during construction, including localized PM_{10} emissions, mitigation measures would not reduce Alternative 3 PM_{10} emissions below SCAQMD localized significance thresholds; therefore, Alternative 3 construction emissions would potentially expose sensitive receptors to substantial concentrations, and impacts would be significant and unavoidable.

The SCAQMD's LSTs for each SRA represent the maximum emissions a project can emit without causing or contributing to a violation of any short-term NAAQS or CAAQS. As noted previously, the NAAQS and CAAQS are health-protective standards that define the maximum amount of ambient pollution that can be present without harming public health. Consequently, projects with emissions below the applicable LSTs would not be in violation of the NAAQS or CAAQS and, thus, EPA and CARB health-protective standards. Because Alternative 3 construction emissions would exceed the PM_{10} LST, Alternative 3 would cause or contribute to a violation of one or more health-protective CAAQS and NAAQS. Given that DPM emissions constitute a portion of localized PM_{10} emissions, impacts related to localized DPM emissions during construction are also considered to be significant and unavoidable due to the following: (1) the elevated background carcinogenic risk, (2) the duration of construction activity, and (3) the proximity of sensitive receptors to DPM emissions source.

6.2.1.4 Impact AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Alternative 3 would have the same potential odor producing construction activities as those described for Alternative 1. Like Alternative 1, odors produced by Alternative 3 construction would be temporary and intermittent in nature. As with Alternative 1, architectural coatings associated with Alternative 3 would be compliant with SCAQMD Rule 1113. Overall, odors associated with Alternative 3 construction would be temporary and intermittent in nature and would not create a significant level of objectionable odors affecting a substantial number of people.

6.2.1.5 Mitigation Measures

Construction Impacts

As previously discussed, Alternative 3 would exceed SCAQMD regional thresholds for NO_X and CO, as well as SCAQMD localized thresholds for $PM_{10,}$ and would result in significant and unavoidable impacts. Therefore, the following mitigation measures shall be implemented for Alternative 3 construction.

MM AQ-1: *The Project shall require zero emissions or near zero emissions on-road haul trucks such as heavy-duty trucks with natural gas engines that meet or exceed the California Air Resources Board's adopted optional nitrogen oxides emissions standard at 0.02 grams per brake horsepower hour (g/bhp-hr), if and when feasible. Operators shall maintain records of all trucks associated with project construction to document that*

each truck used meets these emission standards. These records shall be submitted monthly to Metro for review and shall be made available to regulatory agencies upon request. To ensure compliance, Metro or its designated representative shall conduct regular inspections of construction operations, including on-site verification of truck compliance. Inspections shall occur at least twice per month during active construction. Any contractor found to be using non-compliant trucks without prior approval from Metro shall be subject to penalties, including suspension of operations until compliance is achieved.

MM AQ-2: *Construction contracts shall include language that compels contractors to implement all policies and emissions control measures as presented in Metro's Green Construction Policy.*

MM AQ-3: *Construction contracts shall include language that compels contractors to implement all fugitive dust control measures as detailed in South Coast Air Quality Management District.*

Impacts After Mitigation

Although construction of the Project alternatives would require implementation of MM AQ-1, it is not technically feasible at the time of document preparation to verify the commercial availability of zero emissions (ZE) and near zero emissions (NZE) trucks to the extent needed to reduce construction-period NO_X, CO, PM_{10}, and $PM_{2.5}$ emissions below SCAQMD's regional and localized emissions thresholds. MM AQ-2 and MM AQ-3 simply enforce Metro and SCAQMD policies that are already required, independent of any additional prescribed mitigation. Given the current uncertainty around the availability of sufficient ZE and NZE trucks to reduce construction period impacts, impacts regarding construction period emissions would remain significant and unavoidable. Due to this uncertainty, all of the project alternatives would result in NO_X and PM_{10} construction emissions that cannot be reduced below SCAQMD's regional and localized emissions thresholds. In addition to significant and unavoidable construction-period NO_X and PM_{10} emissions, Alternatives 1 and 3 would also result in significant and unavoidable construction emissions of CO, and Alternatives 4 and 5 would result in significant and unavoidable construction emissions of CO and $PM_{2.5}$.

6.2.2 Communities and Neighborhoods

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-8.

Table 6-8. Alternative 3: Communities and Neighborhoods Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Communities and Neighborhoods Construction Impacts		
Impact POP-1: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternative 3
Impact PUB-3: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-3: Would the project result in a determination by the wastewater treatment provider who serves, or may serve, the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-4: Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025b

LTS = less than significant
NA = not applicable
POP = population, housing, and growth
PUB = public services
US = utilities and service systems

6.2.2.1 Impact POP-1: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Alternative 3 would result in temporary economic growth through the influx of construction workers to the Alternative 3 RSA. However, these workers would likely be sourced from the local labor pool, and thus the temporary employment opportunities under Alternative 3 are unlikely to directly foster the construction of permanent housing for workers in the Alternative 3 RSA. Thus, construction of Alternative 3 would result in less than significant impacts related to unplanned economic or population growth.

Maintenance and Storage Facilities

MSF Base Design

Construction of the MSF Base Design would not construct any new housing units, and therefore the MSF Base Design would not directly generate new or unplanned population and housing growth. Potential employment resulting from construction of the MSF Base Design would not exceed SCAG forecasted

projections for the Alternative 3 RSA. Thus, construction of the MSF Base Design would result in less than significant impacts related to unplanned economic or population growth.

MSF Design Option 1

Construction of the MSF Design Option 1 would not construct any new housing units, and therefore would not generate new or unplanned population and housing growth. Potential employment resulting from construction of the MSF Design Option 1 would not exceed SCAG forecasted projections for the Alternative 3 RSA. Thus, construction of the MSF Design Option 1 would result in less than significant impacts related to unplanned economic or population growth.

6.2.2.2 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Construction of Alternative 3 would involve site preparation and demolition of structures; utility relocation; tunneling and cut-and-cover activities; construction of the aerial and underground MRT alignment, stations, MSF, TPSS, auxiliary facilities, and parking facilities; street widening; and street and sidewalk reconstruction. Some parcels that would be permanently acquired for the operations of Alternative 3 would also be used for construction purposes, such as for construction access, staging, and laydown. Temporary acquisitions would be required for parcels that would only be used as temporary construction easements. Temporary construction easements (TCE) would be required for two multi-family residential parcels that would be used for construction activities and not needed for long-term project operations, These TCEs would only occupy portions of the affected residential properties as required to support construction vehicle access and would not substantially interfere with the habitability of the impacted residential properties.

Construction activities associated with Alternative 3 would not result in the displacement of any residential dwelling units. Therefore, no impacts related to the displacement of residential units and residents that would necessitate the construction of replacement units would occur as a result of construction.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design site is currently developed as a materials storage site supporting LADWP operations. No residential uses are located on the MSF Base Design site; therefore, while property acquisitions would be required to develop the MSF Base Design, no residential displacements would occur that would necessitate the construction of replacement unit. The MSF Base Design would result in no impact.

MSF Design Option 1

The proposed MSF Design Option 1 site is currently developed with industrial uses. No residential uses are located on the MSF Design Option 1 site; therefore, while property acquisitions would be required to develop the MSF Base Design, no residential displacements would occur that would necessitate the construction of replacement unit. The MSF Design Option 1 would result in no impact.

6.2.2.3 Impact PUB-3: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools or other public facilities?

Construction of Alternative 3 would be temporary and does not require the expansion of existing school facilities. Construction of the aerial viaduct, retaining walls, and I-405 on- and off-ramps would require street detours that would temporarily affect access to school facilities. Other than UCLA, no educational facilities are located immediately adjacent to the proposed alignment or transit stations though multiple educational facilities are located within 500 feet of the I-405 and associated affected roadways. Table 7-5 of the *Sepulveda Transit Corridor Project Communities and Neighborhoods Technical Report* (Metro, 2025b) lists the school facilities located within the RSA most of which would be subject to construction-related disruptions. Construction of the UCLA Gateway Plaza Station would result in construction-period disruptions to access and circulation, particularly in the area surrounding UCLA Gateway. No educational facilities or buildings on the UCLA campus would be affected by construction activities and all buildings on the UCLA campus would remain open and accessible throughout the construction period. Roadways that intersect I-405 would require temporary closure or lane reductions to accommodate construction activities associated with constructing the proposed aerial guideway and associated I-405 improvements. Closures and lane reductions along local roadways could impede the vehicle circulation network in the RSA.

During construction of the UCLA Gateway Plaza Station, pedestrian movements and access through UCLA Gateway would be inhibited by the presence of construction equipment and activities affecting Westwood Plaza and adjacent pedestrian areas. All educational facilities on the UCLA campus would remain accessible and functional throughout construction and no new or physically altered education facilities would be required on the UCLA campus. Despite these temporary disruptions, it is anticipated that access to all schools in the Alternative 3 RSA would be maintained throughout construction.

The Alternative 3 aerial alignment tail tracks and TPSS facility would be constructed adjacent to the Rancho Park Station post office including acquisition of a TCE along the northwest corner of the post office property. Construction activities would result in temporary access disruptions to the Rancho Park Station including potential short-term closure of the commercial driveway to the post office parking lot. No disruption to regular post office operations is anticipated as there is a separate driveway for postal vehicles and deliveries along the east side of the property. Other than the USPS Rancho Park Station, no other community facilities are located immediately adjacent to the proposed alignment or transit stations. Table 7-6 of the *Sepulveda Transit Corridor Project Communities and Neighborhoods Technical Report* (Metro, 2025b) lists the libraries and post office facilities located within the RSA most of which would be subject to construction-related disruptions. Despite these temporary disruptions, it is anticipated that access to all public facilities in the Alternative 3 RSA would be maintained throughout construction. Since construction-related disruptions to the roadway network would be temporary and access to all schools and other public facilities would be maintained throughout construction, no new or temporary schools or other public facilities would be needed. Impacts to schools and other public facilities would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design would not create new residential populations that directly increase the use or enrollment of existing schools or other public facilities in the surrounding community. The proposed MSF Base Design site is currently developed as a materials storage site supporting LADWP operations. No school facilities are located on or adjacent to the site. The nearest school is Panorama High School located approximately 0.5 miles northwest of the proposed MSF Base Design site. The nearest community facility is the Panorama City Post Office located approximately 1 mile north of the proposed MSF Base Design site. The MSF Base Design would not affect on-site or street parking or otherwise affect access to Panorama High School or the Panorama City Post Office. Therefore, impacts to schools and other public facilities associated with the MSF Base Design would be less than significant. Implementation of MM TRA-4 would require a Transportation Management Plan (TMP) (refer to Section 6.2.14.5), that specifies measures to lessen disruption during construction and to maintain access to schools and associated circulation patterns.

MSF Design Option 1

The proposed MSF Design Option 1 site would not create new residential populations that directly increase the use or enrollment of existing schools or other public facilities in the surrounding community. The proposed MSF Design Option 1 site is currently developed with industrial uses where there are no school facilities located on or adjacent to the site. The nearest school is North Hills Prep located approximately 0.25 miles south of the proposed MSF Design Option 1 site. The nearest community facility is the USPS Post Office located on Sherman Way approximately 0.90 miles southwest of the proposed MSF Option 1 site. MSF Design Option 1 would not affect on-site or street parking or otherwise affect access to North Hills Prep or the post office. Therefore, impacts to schools or other public facilities associated with MSF Design Option 1 would be less than significant. Implementation of MM TRA-4 would require a TMP (refer to Section 6.2.14.5), that specifies measures to lessen disruption during construction and to maintain access to schools and associated circulation patterns.

6.2.2.4 Impact US-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Utility conflicts would primarily occur within the proposed station areas, columns and support for the aerial structure, construction at the MSF site, and roadway relocations to accommodate Alternative 3's footprint. Since not all utility depth data is available and the condition of each utility is unknown, additional subsurface utility investigation is recommended to verify the assumptions and impacts. Potentially impacted utilities are shown in Table 6-9. Approximately 106 components of utility infrastructure would be potentially impacted including 40 electrical, 1 water, 49 storm drainage, 7 telecommunications, 6 sewer, 1 oil, and 2 natural gas.

These components would likely be relocated near existing facilities, typically within a few feet of existing locations. The utility relocation efforts could potentially result in environmental effects related to construction and the temporary disruption of services, including generating construction emissions, disrupting roadway circulation, and temporarily decreased capacity of the electrical, natural gas, water supply, water treatment system, and telecommunications systems. These potential impacts are included in the assessments of construction-related impact in the relevant resource sections of the Draft Environmental Impact Report. Pursuant to project feature (PF)-US-1, Utility Identification and

Coordination, if relocations are required, the construction contractor would verify the locations of existing utilities potentially affected by construction activities and determine specific relocation and setback and, pursuant to PF-US-2, Service Interruption Notification, the construction contractor would develop a construction plan that minimizes interruptions to utilities services to the greatest extent feasible and notify the public if/when interruptions would occur. Therefore, construction of Alternative 3 would result in a less than significant impact related to utilities and service systems.

Table 6-9. Alternative 3: Potentially Impacted Utilities

Utility Type	Number of Potentially Impacted Utilities
Electrical	40
Gas	2
Oil	1
Sewer	6
Storm drainage	49
Telecommunications	7
Water	1
Total	**106**

Source: LASRE, 2023

Water Facilities

Construction of Alternative 3 would not require substantial consumption of potable water. Water use would occur primarily through water trucks required for dust control and operation of the TBM. Although water use for construction would occur over a multi-year construction period, the water supply in the RSA has been determined to be adequate to meet demand, including construction water use, in normal, single-dry year, and multiple dry years. Construction of Alternative 3 would therefore not require the expansion or construction of new water facilities. Therefore, construction of Alternative 3 would result in a less than significant impact related to water facilities.

Wastewater Treatment

Construction activities would generate negligible wastewater through the use of temporary worker restrooms, which would have no potential to necessitate the construction of new or expanded wastewater facilities. Wastewater treatment facilities would not be required to be relocated during construction of Alternative 3. Therefore, construction of Alternative 3 would result in a less than significant impact related to wastewater facilities.

Stormwater Drainage

Stormwater runoff would be increased in the study as a result of construction. As described in the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g), any drainage pattern impacts from construction would be minor and temporary, minimizing the potential for exceeding stormwater drainage systems (Metro, 2025g). In accordance with the Construction General Permit and Municipal Separate Storm Sewer Systems Permits, Alternative 3 would be required to prepare and submit a construction Stormwater Pollution Prevention Plan (SWPPP) which must be submitted to the State Water Resources Control Board prior to construction and adhered to during construction. The construction SWPPP would identify the BMPs that would be in place prior to the start of construction activities and during construction. These measures would help reduce stormwater runoff velocity, thereby limiting its capacity to cause stormwater drainage systems exceedance. If necessary, new stormwater drainage facilities constructed at stations or along the alignment would comply with design requirements established by state and local regulations. For additional information regarding

state and local regulations governing stormwater pollution prevention, refer to the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g). Compliance with these state and local regulations would reduce construction related impacts to stormwater drainage facilities. Therefore, a less than significant impact would occur related to stormwater drainage facilities.

Electric Power

Construction of Alternative 3 has no potential to require new or expanded electric power facilities. Minimal electricity would be used to power field offices for the construction contractor. Temporary lighting or some electrically powered pieces of construction equipment may temporarily consume electricity. Some new temporary utilities would be needed for Alternative 3; particularly, the 13.4 KV power line at the Federal Building TBM site would be needed to power the TBM. Electric power would also be required for powering the TBM, but would be a temporary use only required for tunnel portions of the alignment. The anticipated electricity usage of the TBM per day would be approximately 327 megawatt-hours (MWh). The TBM would utilize electricity from the LADWP system but would be a temporary use that would cease upon completion of tunneling activities. Therefore, construction of Alternative 3 would result in a less than significant impact related to electric power facilities. Refer to DEIR *Section 3.5, Energy*, for additional details related to electricity consumption for Alternative 3. Therefore, construction of Alternative 3 would result in a less than significant impact related to electric power facilities.

Natural Gas

Construction of Alternative 3 has no potential to require new or expanded natural gas or oil facilities. Minimal natural gas would be required. Therefore, construction of Alternative 3 would result in a less than significant impact related to natural gas and oil infrastructure.

Telecommunication Facilities

Construction activities would have no potential to necessitate the construction of new or expanded telecommunication facilities. It is anticipated that existing telecommunication facilities would still be able to adequately serve construction crews and the RSA. Therefore, a less than significant impact would occur related to telecommunication facilities.

Maintenance and Storage Facilities

MSF Base Design

Construction of the proposed MSF Base Design would require relocation of existing utilities. A significant portion of the proposed MSF Base Design is occupied by industrial uses. These utilities would likely be relocated near existing facilities, typically within a few feet of existing locations. The utility relocation efforts could potentially result in environmental effects related to construction and the temporary disruption of services, including generating construction emissions, disrupting roadway circulation, and temporarily decreased capacity of the electrical, natural gas, water supply, water treatment system, and telecommunications systems. These potential impacts are included in the assessments of construction-related impact in the relevant resource sections of the Draft Environmental Impact Report. Pursuant to PF-US-1, Utility Identification and Coordination, if relocations are required, the construction contractor would verify the locations of existing utilities potentially affected by construction activities and determine specific relocation and setback and, pursuant to PF-US-2, Service Interruption Notification, the construction contractor would develop a construction plan that minimizes interruptions to utilities services to the greatest extent feasible and notify the public if/when interruptions would occur. Therefore, construction of the proposed MSF Base Design would result in a less than significant impact related to utilities and service systems.

MSF Design Option 1

Construction impacts related to MSF Design Option 1 would be similar to those described for the proposed MSF Base Design. There is potential for the construction of MSF Design Option 1 to require relocating existing utilities components and the utility relocation efforts could result in detrimental environmental effects. Pursuant to PF-US-1, Utility Identification and Coordination, if relocations are required, the construction contractor would verify the locations of existing utilities potentially affected by construction activities and determine specific relocation and setback and, pursuant to PF-US-2, Service Interruption Notification, the construction contractor would develop a construction plan that minimizes interruptions to utilities services to the greatest extent feasible and notify the public if/when interruptions would occur. Therefore, construction of MSF Design Option 1 would result in a less than significant impact related to utilities and service systems.

6.2.2.5 Impact US-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Construction of Alternative 3 would not require substantial consumption of potable water. Water use would occur primarily related to water trucks required for dust control. However, a TBM would be used during construction of Alternative 3. Slurry would be used to apply fluid (hydraulic) pressure to the tunnel face and to transport soil cuttings from the tunneling machine's pressure chamber to the surface. The slurry would require water use since water is added to the bentonite to create the fluid mixture used in the TBM. Water from the discharge slurry would be recycled for further use in preparing slurry. Water would also be required for cooling the TBM motors. Typically, cooling water is recycled and cooled using cooling towers near the access shafts. Thus, cooling water will have little impact on water use or discharge into the sanitary or storm drain system. The short-term use of water would require minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities. Therefore, construction of Alternative 3 would result in a less than significant impact related to water supplies.

Maintenance and Storage Facilities

MSF Base Design

Similar to construction of the transit line, the proposed MSF Base Design would not require substantial consumption of potable water. Water use would occur primarily related to water trucks required for dust control. The short-term use of water would require minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities. Therefore, construction of proposed MSF Base Design would result in a less than significant impact related to water supplies.

MSF Design Option 1

Construction impacts related to MSF Design Option 1 would be similar to those described for the proposed MSF Base Design. Water use would occur primarily related to water trucks required for dust control. The short-term use of water would require minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities. Therefore, construction of MSF Design Option 1 would result in a less than significant impact related to water supplies.

6.2.2.6 Impact US-3: Would the project result in a determination by the wastewater treatment provider who serves, or may serve, the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Alternative 3 would generate wastewater during construction through the use of temporary worker restrooms and limited construction uses. Any wastewater generated during construction would be transported to wastewater facilities via vacuum service trucks. The RSA is serviced by the Joint Water Pollution Control Plant, Hyperion Water Reclamation Plant, Donald C. Tillman Water Reclamation Plant, and the Los Angeles-Glendale Water Reclamation Plant, which have a combined capacity of 950 million gallons of wastewater per day. The City of Santa Monica has an additional 1 million gallons per day of wastewater treatment capacity from its sustainable Water Infrastructure Project wastewater treatment facility. Wastewater generated by temporary worker restrooms for construction of Alternative 3 would represent a negligible proportion of the daily wastewater processed by the regional water reclamation plant and the facilities are anticipated to have adequate capacity to serve Alternative 3. Therefore, construction of Alternative 3 would result in a less than significant impact related to wastewater treatment capacity.

Maintenance and Storage Facilities

MSF Base Design

Similar to construction of the transit line, the proposed MSF Base Design would generate wastewater during construction through the use of temporary worker restrooms and limited construction uses. Any wastewater generated during construction would be transported to wastewater facilities via vacuum service trucks. Wastewater generated by temporary worker restrooms for construction of the proposed MSF Base Design would represent a negligible proportion of the daily wastewater processed by the regional water reclamation plants and the facilities are anticipated to have adequate capacity. Therefore, construction of the proposed MSF Base Design would result in a less than significant impact related to wastewater treatment capacity.

MSF Design Option 1

Construction impacts related to MSF Design Option 1 would be similar to those described for the proposed MSF Base Design. Wastewater generation would occur primarily related temporary worker restrooms. Wastewater generated by temporary worker restrooms for construction of the proposed MSF Design Option 1 would represent a negligible proportion of the daily wastewater processed by the regional water reclamation plants and the facilities are anticipated to have adequate capacity. Therefore, construction of the proposed MSF Design Option 1 would result in a less than significant impact related to wastewater treatment capacity.

6.2.2.7 Impact US-4: Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Construction of Alternative 3 would generate solid waste related to discarded construction material. Solid waste would be hauled to regional landfills that have a remaining approximate capacity of 256,156,907 cubic yards (CY). Contaminated soils and hazardous building materials will be disposed of at permitted landfills. Landfills that accept contaminated soils include the Clean Harbors Button Willow Landfill located in Button Willow, California, the South Yuma County Landfill located in Yuma, Arizona, and the US Ecology Landfill located in Beatty, Nevada. The Clean Harbors Button Willow Landfill has a maximum permitted capacity of 10,500 tons per day and a maximum remaining capacity of 13,250,000 CY.

Based on the processing capacity of the Button Willow, California Landfill and the other two sites as a representative sample of contaminated soil processing capacity, landfills would be able to adequately process the small amount of contaminated soil anticipated to be generated by Alternative 3. Contaminated soil processing would not be limited to the identified landfills and could potentially occur at other permitted landfills. The TBM would also generate muck during the tunneling process that would be required to be disposed of at regional landfills. Alternative 3 would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Additionally, construction of Alternative 3 would be required to comply with all applicable federal, state, and local statutes and regulations pertaining to solid waste disposal. The construction contractor would comply with Assembly Bill 939, which requires a Solid Waste Diversion Program and diversion of at least 50 percent of the solid waste generated during construction activities from landfills to recycling facilities. Regional facilities have capacity for construction-related solid waste. Therefore, construction of Alternative 3 would result in a less than significant impact related to compliance with solid waste standards and capacity.

Maintenance and Storage Facilities

MSF Base Design

Construction of the proposed MSF Base Design would generate solid waste related to discarded construction material. Solid waste would be hauled to regional landfills that have a remaining approximate capacity of 256,156,907 CY. Due to the industrial nature of the existing uses, contaminated soils would also be encountered during construction. Contaminated soils would be transported to the Clean Harbors Button Willow Landfill, the South Yuma County Landfill, the US Ecology Landfill, or other permitted hazardous materials landfills. The proposed MSF Base Design would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Additionally, construction of the MSF would be required to comply with all applicable federal, state, and local statutes and regulations pertaining to solid waste disposal, including AB939. Therefore, construction of the MSF would result in a less than significant impact related to compliance with solid waste standards and capacity.

MSF Design Option 1

Operational impacts related to MSF Design Option 1 would be similar to those described for the proposed MSF Base Design. The operation of MSF Design Option 1 would generate limited amounts of solid waste and would not exceed the existing regional landfill capacity. Therefore, operation of MSF Design Option 1 would result in a less than significant impact related to solid waste.

Construction impacts related to MSF Design Option 1 would be similar to those described for the proposed MSF Base Design and construction of MSF Design Option 1 would generate solid waste related to discarded construction material. MSF Design Option 1 would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Therefore, construction of MSF Design Option 1 would result in a less than significant impact related to solid waste.

6.2.2.8 Impact US-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Alternative 3 would generate typical construction waste such as wood, concrete, and asphalt. Additionally, because Alternative 3 would be constructed within an urban built out environment, Alternative 3 is anticipated to encounter contaminated soil. As described previously, regional permitted facilities are anticipated to have the capacity to process all contaminated and non-contaminated construction related solid waste. Alternative 3 would fully comply with all federal, state, and local statutes and regulations regarding proper disposal, including AB 939 and AB 1327. Additionally, California Green Building Standards requires construction projects to recycle and/or salvage for reuse a minimum 65 percent of the nonhazardous construction and demolition waste or meet a local construction and demolition waste management ordinance, whichever is more stringent. There is no element of construction activities that would be outside of compliance. Therefore, no impact would occur related to compliance with solid waste regulations.

Maintenance and Storage Facilities

MSF Base Design

Solid waste generated during construction activities associated with the proposed MSF Base Design would comply with AB 939, AB 1327 and all federal, state, and local statutes and regulations regarding proper disposal. Therefore, no impact would occur related to compliance with solid waste regulations.

MSF Design Option 1

Solid waste generated during construction activities associated with MSF Design Option 1 would comply with AB 939, AB 1327 and all federal, state, and local statutes and regulations regarding proper disposal. Therefore, no impact would occur related to compliance with solid waste regulations.

6.2.2.9 Mitigation Measures

Construction Impacts

Construction of Alternative 3 would have a less than significant impact. Construction of Alternative 3 would require implementation of MM TRA-4 (refer to Section 6.2.14.5) to reduce disruption caused by construction work zones.

Impacts After Mitigation

After implementation of mitigation measures, Alternative 3 would result in less than significant impacts with mitigation.

6.2.3 Climate Change and Greenhouse Gas Emissions

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-10.

Table 6-10. Alternative 3: Climate Change and Greenhouse Gas Emissions Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Climate Change and Greenhouse Gas Emissions Construction Impacts		
Impact GHG-1: Would the project result in greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025d

GHG = greenhouse gas emissions
LTS = less than significant
NA = not applicable

6.2.3.1 Impact GHG-1: Would the project result in greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction of Alternative 3 would result in GHG emissions from off-road equipment, mobile sources (including worker vehicles, vendor trucks, and haul trucks), as well as electricity consumption from TBM usage and on-site portable offices. These emissions sources would be related to constructing the monorail transit (MRT) system alignment, TPSSs, stations, and the MSF (either option). For Alternative 3, its precast concrete facility would be offsite in Antelope Valley or Riverside County. GHG emissions related to hauling precast components from the precast facility to the construction worksites were included in the emissions analysis.

As discussed in Section 3.1 of the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025d), construction GHG emissions are measured exclusively as cumulative impacts; therefore, the Alternative 3 construction emissions are considered part of its total GHG emissions in conjunction with operational emissions. In accordance with SCAQMD guidance (SCAQMD, 2008), the Alternative 3 construction emissions were amortized over its design lifetime of 30 years, then combined with the Alternative 3 annual operational GHG emissions. Table 6-11 summarizes the Alternative 3 GHG emissions throughout the construction period. Alternative 3 construction would generate a total of 218,741 $MTCO_2e$ and would result in 7,291 $MTCO_2e$ annually when amortized over the project lifetime of 30 years.

Table 6-11. Alternative 3: Construction Greenhouse Gas Emissions

Construction Year	GHG Emissions ($MTCO_2e$)[a,b]
2029	5,392
2030	7,241
2031	10,100
2032	18,685
2033	18,232
2034	11,598
2035	6,942
2036	1,880
2037	569
TBM Electricity Consumption	138,024

Construction Year	GHG Emissions ($MTCO_2e$)[a,b]
Portable Office Electricity Consumption	77
Total	**218,741**
Amortized Construction Emissions (30 Years)	7,291

Source: HTA, 2024

[a]Totals may vary due to rounding.

[b]GHG emissions related to electricity consumption represent the total GHG emissions over the entire construction period.

$MTCO_2e$ = metric tons of carbon dioxide equivalents

Because construction emission sources would cease once construction is complete, they are considered short term. It should be noted that total and annual construction GHG emissions represent a conservative assessment because GHG emissions would decrease in future years as the construction industry shifts toward implementation of cleaner fuels (i.e., electrified equipment) and more efficient technologies. Additionally, Metro's Green Construction Policy requires contractors to use renewable diesel which would reduce upstream GHG emissions related to producing the fuel, as well as reduce GHG emissions from fuel combustion in off-road equipment and trucks as compared to petroleum diesel. GHG emissions for electric powered equipment such as the TBM and portable offices would also decrease in future years as LADWP continues to increase the amount of renewable energy sources in its power mix to meet state RPS goals. Thus, the annual construction GHG emissions associated with Alternative 3 would decrease with time and are likely to be lower than estimated herein. Alternative 3 construction emissions were amortized over Alternative 3's design lifetime of 30 years, then combined with Alternative 3 annual operational GHG emissions. Annual operations of Alternative 3 compared to 2045 without Project conditions would result in a net reduction of GHG emissions; therefore, impacts from Alternative 3 construction emissions would be considered less than significant.

6.2.3.2 Impact GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Construction of Alternative 3 would generate short-term GHG emissions related to off-road equipment, mobile sources, and electricity consumption. Alternative 3 construction would comply with Metro's Green Construction Policy, which requires idling restrictions for off-road equipment and trucks, using trucks with model years 2007 or newer, requiring contractors to use renewable diesel for all diesel engines, and implementing best management practices, such as using electric powered equipment in lieu of diesel equipment where available. Upon completion of Alternative 3 construction, these emissions would cease. As GHG emissions are exclusively cumulative impacts, the Alternative 3 amortized construction emissions were included with the long-term operational emissions for Alternative 3. Based on the discussion below, annual operational emissions, which included amortized construction emissions, were found to not conflict with plans or policies to reduce GHG emissions; therefore, impacts for construction-related GHG emissions would be less than significant.

6.2.3.3 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

6.2.4 Ecosystems and Biological Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-12.

Table 6-12. Alternative 3: Biological Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Biological Resources Construction Impacts		
Impact BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-4 through MM BIO-10, MM BIO-16 through MM BIO-20, MM BIO-22 through MM BIO-27, MM BIO-29
	Impacts After Mitigation	LTS
Impact BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-10, MM BIO-16 through MM BIO-18, MM BIO-23 through MM BIO-25
	Impacts After Mitigation	LTS
Impact BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-15, MM BIO-18, MM BIO-21
	Impacts After Mitigation	LTS
Impact BIO-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-4, MM BIO-5, MM BIO-7, MM BIO-14
	Impacts After Mitigation	LTS
Impact BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-5 through MM BIO-11, MM BIO-14, MM BIO-15, MM BIO-23
	Impacts After Mitigation	LTS
Impact BIO-6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025k

BIO = biological resources
LTS = less than significant
MM = mitigation measure
NA = not applicable
NI = no impact
PS = potentially significant

6.2.4.1 Impact BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Impacts to vegetation within the Ground Disturbance Area have the potential to affect sensitive vegetation communities, as well as special-status wildlife or plant species, both directly and through modifications to their habitat.

Clearing and grading of vegetation would be required for construction of components of Alternative 3, including the structural support beams for the guideway track, staging yards, "cut-and-cover" construction of TPSSs, and aerial MRT stations. While most of the vegetation that would be impacted consists of non-native and ornamental landscaping, some native vegetation is also present within the Ground Disturbance Area. Construction activities for Alternative 3 would result in significant impacts to special-status wildlife, including nesting birds and special-status plant species, if mitigation measures are not implemented. These potentially significant impacts include habitat loss due to permanent vegetation removal, noise pollution from prolonged heavy equipment operation, and extended human disturbances within species habitats during construction.

Other anticipated construction impacts related to the construction along Sepulveda Pass for Alternative 3 include the possibility of increased noise, dust, and vibration during drilling of the aerial track footings. Excessive noise generated from drilling and heavy equipment operation could significantly disturb avian species. Vibration-related disturbance could also disrupt their normal behavioral patterns. Construction-related dust would significantly impact habitat quality by depositing on vegetation, which may reduce photosynthesis and increase leaf temperature, making vegetation more susceptible to drought (Farmer, 1993). Evaluation of the Project's impact on wildfire risk and occurrence is discussed in the *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Wildfire chapter) (Metro, 2025o).

Vegetation Communities/Land Cover Types and Sensitive Vegetation Communities

Direct impacts to vegetation communities would occur within the Ground Disturbance Area; acreages of temporary and permanent impacts to vegetation communities within Alternative 3 are detailed in Table 6-13. Due to the sparse vegetation, lack of species diversity, and continued anthropogenic disturbance, special-status species are less likely to be found in land cover types developed, cleared land, and ruderal vegetation. Excluding these areas, construction of Alternative 3 is anticipated to result in 40.4 acres of temporary impacts and 9.1 acres of permanent impacts. Approximately 95 percent (358.6 acres) of the acreage in Alternative 3 planned for ground disturbing activities consists of developed, undifferentiated artificial cuts/embankments, cleared land, or ruderal areas. Within the vegetated areas subject to impacts, less than 1 percent (2.5 acres) is undifferentiated exotic vegetation. The remaining vegetation communities are native vegetation across 11 communities. These represent approximately 4 percent (15.1 acres) of the impacts, of which 4.2 acres are anticipated to be permanently impacted and 10.9 acres are anticipated to be temporarily impacted from construction of Alternative 3. Indirect impacts to vegetation communities may also occur during construction activities. For example, fugitive dust deposition on foliage may reduce photosynthesis and increase plant vulnerability to drought. Additionally, vegetation removals may increase edge effects, including incursion of nonnative, weedy plants that compete with natives for space and resources.

Approximately 0.7 acre of identified sensitive vegetation communities California walnut woodland and sugar bush scrubland would be permanently and temporarily impacted by clearing and grading for I-405 highway improvements along Briarwood Drive, as well as construction of the Getty Center MRT Station

and adjacent drainage improvements. An additional seven vegetation communities have potential to be considered sensitive (** in Table 6-13) depending upon the associated codominant species present (Section 3.2.2 and Section 7.2.5.4 in the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report [Metro, 2025k]*). Up to an additional 5.4 acres of potentially sensitive vegetation communities are also within the Alternative 3 RSA along I-405. For this analysis, Metro is conservatively considering impacts to these communities to be significant pending further analysis and refinement of vegetation mapping.

The removal and degradation of native and sensitive vegetation communities would constitute potentially significant impacts.

Table 6-13. Alternative 3: Impacts on Land Cover Types and Vegetation Communities

Vegetation Community/Land Cover Type [a]	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Project Impacts (acres) [b]	Percent of Total Project Impacts
Developed	117.7	206.5	324.3	86.2
Ruderal	1.2	1.0	2.3	0.6
Cleared Land	0	0.1	0.1	<0.1
Developed, Ruderal, Cleared Land Total	**119.0**	**207.6**	**326.6**	**86.8**
Post Fire Shrub Regeneration and Undifferentiated Categories including Artificial Cuts/Embankments, Exotic Vegetation, and Firebreaks	4.9	29.5	34.4	9.1
Ceanothus Chaparral	2.4	5.7	8.1	2.2
Laurel Sumac Shrubland**	0.6	2.8	3.4	0.9
Mexican Elderberry Shrubland	0.6	0.3	0.9	0.2
California Buckwheat Shrubland**	0.2	0.5	0.7	0.2
California Sycamore Woodland**	0.1	0.6	0.7	0.2
Sugar Bush Shrubland*	0.2	0.2	0.4	0.1
California Walnut Woodland*	0	0.3	0.3	0.1
Toyon Shrubland**	0	0.3	0.3	0.1
Black Sage Shrubland**	0.1	0.1	0.2	<0.1
California Sagebrush Shrubland**	0	0.1	0.1	<0.1
Scrub Oak Woodland**	0	<0.1	<0.1	<0.1
Vegetation Total	**9.1**	**40.5**	**49.6**	**13.2**
GRAND TOTAL	**128.1**	**248.1**	**376.2**	**100**

Source: HTA, 2024

[a]Vegetation communities based on the classifications provided in *A Manual of California Vegetation*, 2nd Edition (Sawyer et al., 2009).

[b]Inconsistencies in calculations due to rounding.

*Sensitive vegetation community
**Potential sensitive vegetation community based on codominant species on-site.

Special-Status Invertebrates

One special-status invertebrate, Crotch's bumblebee, is present within the Alternative 3 RSA. Despite having a relatively narrow range, this species is known to occupy a wide variety of natural and disturbed habitat for nesting and foraging and would be present throughout the RSA in undeveloped areas where

pavement is not present and the earth is not regularly maintained through grading, tilling or planting. Based on their broad range of suitable habitat and generalist foraging behavior, Crotch's bumble bee are likely to forage throughout the RSA where preferred flowering plants are present (e.g., native sage species [*Salvia* spp.], milkweeds [*Asclepias* spp.], and plants within the pea family [*Fabaceae*]), and may nest where abandoned rodent burrows are present.

Individuals in occupied burrow nests or overwintering queens in surface soils would be crushed or trapped during construction if present within the Ground Disturbance Area. Additionally, foraging Individuals also would be injured or killed if they are foraging during vegetation clearing activities. This species would also be impacted through removal of nectar sources and nests in the Ground Disturbance Area resulting from construction of Alternative 3 features including structural support beams for the guideway track, stations, I-405 widening, retaining wall reconstructions, and at-grade TPSS sites. Ground-disturbing impacts from grading and vegetation clearing throughout the RSA would impact individuals and would likely result in loss of suitable habitat that would be used for nesting, breeding, shelter, and/or foraging for Crotch's bumble bee; this is considered a potentially significant impact.

The loss of individual Crotch's bumble bees and suitable habitat for this species would be considered a significant impact.

Special-Status Reptiles

Three special-status reptiles are present and two have a moderate potential to occur within the Alternative 3 RSA; individuals of these species may be present during construction activities. Reptiles present during construction activities would be directly injured or killed due to collisions with vehicles and equipment or during vegetation clearing activities. Species that shelter in burrows or under debris would be entrapped and suffocate or be crushed during grading activities; buried nests would be similar crushed or destroyed. Additionally, if individuals become entrapped in open trenches or excavations during construction activities, they would be subject to injury or mortality due to dehydration, opportunistic predation, inability to properly thermoregulate, starvation, or other causes associated with constrained movement. Indirect impacts would include disruption of normal feeding, basking, sheltering, and breeding behaviors due to avoidance of excessive noise and vibration, fugitive dust, and increased human presence. Normal movement patterns throughout a home range also may be disrupted temporarily by avoidance of areas adjacent to construction activities, or permanently by habitat structure modifications. During construction, special-status reptiles also may be subject to higher predation rates by opportunistic predators such as common ravens (*Corvus corax*), coyote, or skunk, that would be attracted to work areas if food debris is present.

Two of the species, southwestern pond turtle and two-striped garter snake, are most likely to occur near aquatic resources such as the ponds in the Sepulveda Basin and UCLA Mathias Botanical Garden. Based on habitat requirements, the remaining three are most likely to be found in the Sepulveda Pass and Santa Monica Mountains. Individuals would be found in or proximate to work areas along I-405 in the Santa Monica Mountains. Roadway realignment along I-405 between Sunset Boulevard and Mulholland Drive would involve clearing and grading of native vegetation adjacent to the freeway. The clearing of vegetation in the Sepulveda Pass would likely result in injury or mortality of individuals, disruptions of natural behaviors, and loss of suitable habitat that would be used for nesting, breeding, sheltering, and/or foraging for the following five special-status reptiles:

- Southwestern pond turtle (*Actinemys pallida,* federal candidate for listing)
- Southern California legless lizard (*Anniella stebbinsi*, SSC)
- Coastal whiptail (*Aspidoscelis tigris stejnegeri*, SSC)

- Coast horned lizard (*Phrynosoma blainvillii*, SSC)
- Two-striped garter snake (*Thamnophis hammondii*, SSC)

The loss of individuals and suitable habiting for these special-status species would constitute a significant impact.

Special-Status Birds

Four special-status bird species were identified as present and five have high potential to occur within the Alternative 3 RSA. Based on habitat requirements for these nine species, they are likely to be found throughout the RSA in transit, resting and/or foraging from the Los Angeles National Cemetery in the south to the Sepulveda Basin in the north. Birds in transit are unlikely to be affected by construction activities; adults are highly mobile and can be expected to relocate away from construction activities of their own volition. However, migratory individuals may experience temporary or permanent loss of transitory habitat. If overwintering burrowing owls are present, individuals would be entrapped and suffocate or be crushed if burrows are present in the work areas during grading and vegetation removal. Additionally, grading would result in loss of suitable wintering burrows for migratory burrowing owls. If native birds breeding within or adjacent to work areas, nests, eggs, and nestlings would be vulnerable to destruction, injury, or mortality if they are present during vegetation clearing and other construction activities. Ground nests may be vulnerable to crushing, trampling, or destruction by pedestrians and vehicles. Nests in adjacent areas also may be exposed to noise, fugitive dust, human presence, and vibration that would disrupt natural breeding behaviors including incubation of eggs and care and feeding of young; these disruptions would result in failure of a nest to successfully produce young. Excessive disruption, or substantial changes in habitat during the nesting period, would also result in abandonment of nest sites, eggs, or young. Further, impacts associated with clearing and grading of vegetation adjacent to I-405 would likely result in loss of suitable habitat that would be used for nesting, breeding, sheltering, and/or foraging for the following nine special-status species and nesting birds protected under the MBTA:

- Tricolored blackbird (*Agelaius tricolor*, state threatened and SSC)
- Burrowing owl (*Athene cunicularia*, state candidate and SSC)
- Swainson's hawk (*Buteo swainsoni*, state threatened)
- Northern harrier (*Circus hudsonius*, SSC)
- Olive-sided flycatcher (*Contopus cooperi*, SSC)
- Bald eagle (*Haliaeetus leucocephalus*, state endangered and fully protected)
- Loggerhead shrike (*Lanius ludovicianus*, SSC)
- Vermilion flycatcher (*Pyrocephalus obscurus*, SSC)
- Least Bell's vireo (*Vireo bellii pusillus*, FE and SE)

The loss of nests, eggs, or nestlings, impacts to natural breeding behaviors, eviction from wintering burrows, and loss of suitable habiting for these special-status species would constitute a significant impact.

Special-Status Mammals

Three special-status mammals were identified as present and one has high potential to occur within the Alternative 3 RSA, including mountain lion, silver-haired bat, and hoary bat. Mountain lions are known to occur within the Santa Monica Mountains, while the silver-haired and hoary bat have broader habitat requirements and have potential to forage in both natural and developed habitats. Within the Sepulveda Pass and Santa Monica Mountains, special-status mammals would occur in or proximate to

work areas along I-405. Impacts from roadway realignment along I-405 into existing hillsides between Sunset Boulevard and Mulholland Drive would include clearing and grading of native vegetation adjacent to the freeway.

Within the developed northern and southern ends of the projects, special-status bats would be present in ornamental street trees or on existing infrastructure, such as bridges and buildings. Individuals may be subject to injury or mortality if they are present as roosting adults during vegetation clearing activities. Roosting adults also may be disturbed by construction-related noise and vibration, causing them to flee roosts during daylight hours. Maternal roosts would also be vulnerable to injury or mortality if present, as pups are unable to take flight and would be likely to be killed if present. Suitable foraging, sheltering, and roosting habitats have potential to be removed during vegetation clearing and grading, or temporarily impacts by construction noise, fugitive dust, and increased human presence. Nighttime construction lighting also may impact foraging habitat by attracting prey species, which may attract some bat species and repel others.

Individual larger mammals, including mountain lions, are unlikely to be directly impacted by construction activities as they are highly mobile and can be anticipated to relocate away from work areas of their own volition. Individuals are not likely to be vulnerable to collisions with slower moving construction equipment and vehicles. However, natural foraging, sheltering, and breeding behaviors may be disrupted by construction activities, both temporarily through avoidance of areas with construction-related noise, human presence, vibration, and fugitive dust, and permanently through changes in habitat due to vegetation clearing and grading.

The clearing of vegetation in the Sepulveda Pass and along city streets and demolition of structures with suitable roosts would also likely result in loss of suitable habitat that would be used for roosting, breeding, shelter, and/or foraging for the following three special-status mammals:

- Mountain lion (*Puma concolor*, state candidate for listing)
- Silver-haired bat (*Lasionycteris noctivagans*, WBWG Medium priority)
- Hoary bat (*Lasiurus cinereus*, WBWG Medium priority)

Specifically for mountain lion, Alternative 3 is unlikely to result in significant impacts to suitable habitat due to the small size and linear nature of the clearing and grading activities in comparison to the species large home range size. However, the construction of Alternative 3, specifically widening I-405 between the Getty and Mulholland Drive, has the potential to result in a significant impact to mountain lion movement and usage of wildlife corridors.

The loss of suitable habitat for silver-haired bats and hoary bats would constitute a significant impact.

Special-Status Plants

Five special-status plant species were identified with medium or high potential to occur within the Alternative 3 RSA; none were present. Based on habitat requirements for these five species, these species are most likely to occur in chaparral and/or coastal sage scrub, which occurs on the Project in the Sepulveda Pass and would be in or proximate to work areas along I-405 in the Santa Monica Mountains. Impacts from roadway realignment along I-405 into existing hillsides between Sunset Boulevard and Mulholland Drive would include clearing and grading of native vegetation adjacent to the freeway. Clearing and grading of vegetation would also be required for construction of the structural support beams for the guideway track, staging yards, TPSS, and aerial MRT stations; although vegetation to be impacted is largely non-native and/or ornamental landscaping, native vegetation is also present. If individuals are present during clearing and grading activities, special status plants would be subject to

trampling, crushing, and removal. Individuals present in adjacent areas may be exposed to fugitive dust, which can settle on vegetation and interrupt natural photosynthesis. Following vegetation clearing, adjacent areas also may be subject to edge effects including higher exposure to sun, dust, and wind, and incursion by nonnative, weedy species, which can increase competition for space and resources and decrease habitat value for special-status plants.

The clearing of vegetation in the Sepulveda Pass could result in loss of suitable habitat for the following special-status plant species:

- Braunton's milk-vetch (*Astragalus brauntonii*, federally endangered; CRPR 1B.1)
- Slender mariposa lily (*Calochortus clavatus* var. *gracilis*; CRPR 1B.2)
- Davidson's bushmallow (*Malacothamnus davidsonii*; CRPR 1B.2)
- Chaparral nolina (*Nolina cismontana*; CRPR 1B.2)
- Nuttall's scrub oak (*Quercus dumosa*; CRPR 1B.1)

Further detail on each species' potential to occur in the Alternative 3 RSA is provided in the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k).

The loss of individuals or suitable habitat for these special-status plants would constitute a significant impact.

Mitigation Measures

Mitigation measures would be implemented to reduce construction-related impacts to special-status plant and wildlife species and their habitats to less than significant through establishment of survey and monitoring requirements (MM BIO-4 through MM BIO-9, MM BIO-17, MM BIO-29); monitoring of bird nests and determination if no-disturbance buffers require adjustments (such as due to noise from construction activities) (MM BIO-4); education and training of personnel about Project 's biological concerns and requirements (MM BIO-18); establishment and demarcation of Environmentally Sensitive Areas (MM BIO-16); and creation of a habitat restoration plan (MM BIO-9). General construction measures to protect special-status species include protection from wildfire (MM BIO-19), domestic pets (MM BIO-20), night lighting (MM BIO-22), invasive plants (MM BIO-23), dust (MM BIO-24), vehicular collisions (MM BIO-25), entrapment (MM BIO-26), and construction-related trash (MM BIO-27).

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design for Alternative 3 would be on developed property currently occupied by the LADWP facility, located east of the Van Nuys Metrolink Station and directly south of the LOSSAN rail corridor; no habitat modifications or removal would be required for the construction of the MSF. No impacts to special-status plant species would result from the construction of the MSF since suitable habitat is not present. Roosting bats and MBTA-protected nesting birds do have potential to be impacted during construction of the MSF Base Design if ornamental trees and/or shrubs located within the Ground Disturbance Area of the MSF Base Design are trimmed or removed; this would be a potential significant impact. Impacts may include disruption of natural breeding and sheltering behaviors; injury or morality to bat pups; destruction, injury, or mortality of nests, eggs, nestlings, and individuals; loss of roosting and breeding habitat; and temporary impacts to roosting sites and nesting sites in adjacent areas due to noise, vibration, and human presence. MM BIO-4 and MM BIO-5, included in Section 6.2.4.7, are specified to reduce construction-related impacts related to vegetation removal to nesting birds and special-status bats to less than significant by requiring pre-activity surveys for nesting

birds and roosting bats during the relevant seasons, and implementing no-disturbance buffers as relevant.

MSF Design Option 1

The MSF Design Option 1 for Alternative 3 would be located on developed property abutting Orion Avenue, south of the LOSSAN rail corridor; no habitat modification or removal would be required for the construction of the MSF Design Option 1. No impacts to special-status plant species would result from the construction of the MSF Design Option 1 since suitable habitat is not present. Roosting bats and MBTA-protected nesting birds have potential to be impacted during construction of the MSF if ornamental trees and/or shrubs located within the Ground Disturbance Area of the MSF are trimmed or removed. This would be a potential significant impact. Impacts may include disruption of natural breeding and sheltering behaviors; injury or morality to bat pups; destruction, injury, or mortality of nests, eggs, nestlings, and individuals; loss of roosting and breeding habitat; and temporary impacts to roosting sites and nesting sites in adjacent areas due to noise, vibration, and human presence. MM BIO-4 and MM BIO-5, included in Section 6.2.4.7, are specified to reduce construction-related impacts to nesting birds and special-status bats from vegetation trimming or removal to less than significant.

6.2.4.2 Impact BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

No riparian habitat occurs within the Ground Disturbance Area; 1.1 acres of undifferentiated riparian habitat are located in the RSA along Haskell Creek in the northeastern corner of Sepulveda Basin in the 500-foot buffer. No impacts from construction are anticipated since construction activities would be on the east side of I-405, over 300 feet away from the riparian habitat on the west side of I-405.

Sensitive natural vegetation communities (California walnut woodland and laurel sumac scrub) are known to occur within the Ground Disturbance Area along the Sepulveda Pass in the Santa Monica Mountains; 0.7 acre of sensitive communities are present within the Alternative 3 Ground Disturbance Area. Construction activities adjacent to these locations are associated with aerial guideway construction in the Santa Monica Mountains, specifically the I-405 widening, and construction of the Getty Center MRT Station and drainage improvements next to the station. Installation of the structural support columns would occur along the aerial alignment next to the sensitive vegetation communities. Within freeway-widening work zones, retaining walls, drainage, and outer pavement widenings would be constructed, which would require clearing and grading of native habitat. Potentially sensitive vegetation communities occur along I-405 through the Santa Monica Mountains, with 5.4 acres present within the Alternative 3 Ground Disturbance Area. Clearing of vegetation in this area for project features such as the I-405 widening, aerial guideway structural support columns, construction of stations, construction of TPSS stations, and access roads would result in loss of sensitive natural communities within the Ground Disturbance Area of the Alternative 3 RSA. Vehicle tires on equipment used for construction of Alternative 3 have potential to transport invasive plant seeds into native habitat during clearing and grading. An additional risk to sensitive natural community would exist from elevated levels of dust deposition on vegetation from active construction that can disrupt photosynthesis and other processes critical for plant survival.

The Project would result in significant impacts to sensitive natural communities as a result of construction activities, including permanent vegetation removal activities, associated with the

construction for Alternative 3. MM BIO-10, MM-BIO 16 through MM BIO-18, and MM BIO-23 through MM BIO-25, described in Section 6.2.4.7, are included to reduce construction-related impacts to sensitive natural communities to less than significant through establishment of Environmentally Sensitive Areas, biological monitoring of work within these communities, environmental training to Project workers, protection from invasive weeds, and protection from dust from speeding or other sources.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design for Alternative 3 would be located on land currently occupied by the LADWP facility located east of the Van Nuys Metrolink Station and directly south of the LOSSAN rail corridor. There are no riparian habitat or sensitive natural communities present within the Ground Disturbance Area or the 500-foot buffer of the MSF Base Design. No impacts to riparian habitat or sensitive natural communities are expected from the operation or construction of the MSF Base Design.

MSF Design Option 1

The MSF Design Option 1 for Alternative 3 would be located on industrial property abutting Orion Avenue, south of the LOSSAN rail corridor. No riparian habitats or sensitive natural communities are present within the Ground Disturbance Area or the 500-foot buffer of the MSF Design Option 1. No impacts to riparian habitat or sensitive natural communities are expected from the operation or construction of the MSF Design Option 1.

6.2.4.3 Impact BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The Los Angeles River is concrete-lined and devoid of riparian or herbaceous wetland vegetation where Alternative 3 traverses the river; no wetlands are associated with the river at this location. There are no state or federally protected wetlands that occur within the Ground Disturbance Area for Alternative 3; consequently, no impacts to protected wetlands are anticipated from construction of Alternative 3.

The Los Angeles River is considered WOTUS under the jurisdiction of the USACE, RWQCB and CDFW within the Alternative 3 Ground Disturbance Area. A total of 0.11 acres of non-wetland waters is associated with the Los Angeles River within the Alternative 3 Ground Disturbance Area. Construction activities would occur outside of jurisdictional areas associated with the Los Angeles River; therefore, no direct significant impacts to the Los Angeles River are anticipated during construction.

Additionally, there are 164 linear feet of non-wetland ephemeral channels under the jurisdiction of the RWQCB and CDFW present within the Alternative 3 Ground Disturbance Area. This extent includes temporary impacts to 0.02 acre of waters of the State under the jurisdiction of RWQCB and 0.03 acre of CDFW-jurisdictional streambed. Construction-related impacts to these features would include temporary filling of, or sedimentation or erosion into the waterways, or disturbance of the bank or bed during construction activities. This would be a potentially significant impact to aquatic resources.

Impacts to aquatic resources would be avoided, minimized, and mitigated for through implementation of MM BIO-15, MM BIO-18, and MM BIO-21, which require aquatics monitoring during work near jurisdictional waters, work area delineation, BMP implementation to protect against sedimentation,

worker education on sensitive aquatic resources, and avoidance of work near jurisdictional waters during and following rain events.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design for Alternative 3 would be on developed property currently occupied by the LADWP facility located east of the Van Nuys Metrolink Station and directly south of the LOSSAN rail corridor. Since there are no wetlands or non-wetland waters present within the Ground Disturbance Area of the MSF Base Design, no impacts to protected wetlands or jurisdictional waters are expected from the construction of the MSF Base Design.

MSF Design Option 1

The MSF Design Option 1 for Alternative 3 would be developed property abutting Orion Avenue located south of the LOSSAN rail corridor. Since no wetlands or non-wetland waters are present within the Ground Disturbance Area of the MSF Design Option 1, no impacts to protected wetlands or jurisdictional waters are expected from the construction of the MSF Design Option 1.

6.2.4.4 Impact BIO-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Native Resident or Migratory Fish

There are no native resident or migratory fish with established native resident corridors or migration routes present within the Alternative 3 RSA. Thus, no construction-related impacts to the movement of resident or migratory fish is anticipated for Alternative 3.

Native Resident or Migratory Wildlife

Mountain lion movement is already dramatically impacted within the Alternative 3 RSA due to I-405. Construction activities associated with construction of Alternative 3 could temporarily further hinder movement within the Santa Monica Mountains.

The Ground Disturbance Area of Alternative 3 along the Sepulveda Pass would include aerial guideway construction in the Santa Monica Mountains and the widening of I-405 at discrete locations through the Santa Monica Mountains. Within these freeway work zones, retaining wall construction, drainage improvements, and pavement expansion would be conducted for the I-405 widening. Construction of Alternative 3 would impact movement of mountain lions and other vertebrates across I-405 as a result of construction activities, including equipment and lighting and prolonged human presence, thereby decreasing the probability of successful crossings and increasing barriers to movement. This would be a significant impact to wildlife movement and habitat connectivity. MM BIO-14, described in Section 6.2.4.7, is included to reduce construction-related impacts to the movement of native wildlife species, specifically mountain lions and other vertebrates, to less than significant through preconstruction surveys, protection of natal dens if located, limiting vegetation removal, vegetation restoration, and creation of a 5-year monitoring plan.

Local movement through wildlife corridors may be temporarily impacted due to the increase in noise, lights, anthropogenic presence, and air pollution associated with Alternative 3 construction. Although resident species are assumed to be exposed to, and therefore acclimated to, at least some level of

existing disturbance associated with I-405 and other nearby development, an increase in disturbance related to Project construction would further disrupt behavior patterns in an already urbanized environment. Urban-adapted wildlife may alter their pathways through the region based on construction. Impacts to migratory birds and bats from construction of Alternative 3 may occur due to equipment and lighting associated with nightwork. Bat species have differing reactions to light, with some being attracted and some repelled, but the insects they prey on are influenced by artificial lighting. If artificial lighting for nightwork is adjacent to roosting habitat, it can negatively affect the quality of the habitat. One special-status migratory bat species, the hoary bat, has moderate potential to occur within the Alternative 3 RSA during migratory flyover events. The Santa Monica Mountains provide habitat for the hoary bat for roosting and foraging resources during their migration from south to north, and vice-versa. Migratory special-status birds also have the potential to occur in the Alternative 3 RSA during construction of Alternative 3. Ground disturbance activities (such as removal of vegetation/habitat, drilling, excavating, pile driving, topsoil removal, grading) associated with the construction of Alternative 3 would result in a potentially significant impact to migratory bat and migratory avian species.

MM BIO-4, MM BIO-5, MM BIO-7, and MM BIO-14, described in Section 6.2.4.7, are included to reduce construction-related impacts to migratory species to less than significant through protections for nesting birds and special-status bats, protections for least Bell's vireo, protection of natal dens if located, vegetation restoration, development of a monitoring plan to document changes in wildlife movement over time.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design for Alternative 3 would be on developed property currently occupied by the LADWP facility located east of the Van Nuys Metrolink Station and directly south of the LOSSAN rail corridor. Since there is no open habitat, waterways, or native vegetation present no impacts to the movement of native resident or migratory fish or wildlife would be expected from the operation or construction of the MSF Base Design.

MSF Design Option 1

The MSF Design Option 1 for Alternative 3 would be located on developed property abutting Orion Avenue, south of the LOSSAN rail corridor. Since there is no open habitat, waterways, or native vegetation present in the MSF Design Option 1, no impacts to the movement of native resident or migratory fish or wildlife would be expected from the operation or construction of MSF Design Option 1.

6.2.4.5 Impact BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

For the purpose of this assessment, protected trees and shrubs included in the inventory (i.e., of the appropriate size and species whose Tree Protection Zone (TPZ) (dripline or canopy of the tree/shrub) falls at least partially within the Tree Survey Area) are presumed to require removal during construction.

Table 6-14 provides a summary of the protected trees and shrubs potentially affected by Alternative 3. A total of 2,926 protected trees and shrubs are mapped within the Alternative 3 Tree Survey Area. Of those, 154 are protected under the purview of the City of LA Ordinance, irrespective of land ownership, and require permits for alterations made to protected trees and shrubs during construction, including trimming and encroaching into the tree/shrub protection zone in any manner that would cause a

protected tree or shrub to die, such as damaging the root system with compaction or injury and changing the grade around the trunk.

Table 6-14. Alternative 3: Ordinance-Protected Trees and Shrubs within Ground Disturbance Area

Jurisdiction	Scientific Name	Common Name	Quantity	Mitigation Amount (# replacement trees)
City of LA Protected Tree and Shrub Ordinance	*Heteromeles arbutifolia*	Toyon	29	116
	Juglans californica	Southern California black walnut	20	80
	Platanus racemosa	Western sycamore	24	96
	Quercus agrifolia	Coast live oak	53	212
	Quercus chrysolepis	Canyon live oak	3	12
	Quercus lobata	Valley oak	2	8
	Sambucus mexicana	Mexican elderberry	23	92
LA County Oak Tree Ordinance[a]	*Quercus agrifolia*	Coast live oak	3	6
	Quercus ilexa	Holly oak	1	2
TOTAL			**158**	**624**
Santa Monica Mountains National Recreation Area	Numerous native and non-native tree species[c]		98	196 to 392[d]
City of Santa Monica Tree Code	Numerous native and non-native tree species[b]		NA	NA
Metro/City of Los Angeles Street Tree Policy	Numerous native and non-native tree species[b]		2,670	5,340 plus additional for heritage trees
GRAND TOTAL			**2,926**	**5,964 plus TBD and heritage trees**

Source: HTA, 2024

[a]Los Angeles County Oak Tree Ordinance states “any tree of the oak genus”; therefore, non-native oak species are included in this inventory and mitigation calculations.

[b]Full list of SMMNRA and Policy-protected trees listed in the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report (Metro, 2025k), Appendix B – Attachment 1, Tree Inventory Tables.

[c]SMMNRA and City of Santa Monica Tree Code mitigation amounts presumed to be within range of ordinances and policies within the area; final mitigation would be decided through coordination with appropriate entities.

[d]Mitigation amounts would be at discretion of City of Santa Monica.

*Mitigation amount describes the number of replacement trees as per applicable tree ordinance or policy.
SMMNRA = Santa Monica Mountains National Recreation Area
TBD = to be determined

Four individual oak trees are protected under the County Oak Tree Ordinance since they occur on unincorporated County land within 200 feet of the Ground Disturbance Area; any modification to them requires a permit beforehand from the Director of Public Works. No impacts are anticipated to these four oak trees due to their distance from the Ground Disturbance Area (i.e., outside the 10-foot buffer but within the 200-foot buffer required by the County Oak Tree Ordinance).

The remaining 2,670 trees are protected under the Metro Tree Policy and City of LA Policy. Within the SMMNRA, 98 trees of 11 tree species and 1 unknown are within the Tree Survey Area. Heritage or

protected trees as determined by local ordinances or policy, may be present within the Alternative 3 Tree Survey Area; impacts to these trees are anticipated to be less than significant for Alternative 3.

Unless mitigated, the anticipated removal and alteration of protected trees and shrubs during construction of Alternative 3 would conflict with the City and County tree ordinances and with Metro Tree Policy and City of LA Policy. This is considered a significant impact. Refer to the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k), Appendix B – Attachment 1, Tree Inventory Tables for the full list of these recorded trees.

To address this impact, Alternative 3 would implement MM BIO-11, described in Section 6.2.4.7, which would require installation and maintenance of replacement trees or shrubs when impacts are unavoidable. With implementation of MM BIO-11, impacts associated with the removal of protected trees and shrubs during construction of Alternative 3 would be reduced to less than significant.

Maintenance and Storage Facilities

Trees present within any of the MSF locations are summarized below; they are policy-protected by either the City of LA Policy or Metro Tree Policy. Permitting would be required for trees on the public ROW and covered by the LA Street Tree Policy. Tree impacts under the Metro Tree Policy would not require permits; instead, coordination and negotiation with landowners would be required to reconcile for street tree removals.

MSF Base Design

The MSF Base Design is not within unincorporated County land, so the Los Angeles County General Plan and Sustainability Plan "OurCounty" are not applicable.

The MSF Base Design for Alternative 3 would be on developed property currently occupied by the LADWP facility located east of the Van Nuys Metrolink/Amtrak Station and directly south of the LOSSAN rail corridor. Within the MSF Base Design, there are 32 ornamental trees, including Chinese elm (*Ulmus parvifolia*), jacaranda *(Jacaranda mimosifolia*), Canary Island pine (*Pinus canariensis*), and shamel ash (*Fraxinus uhdei*), among others. Since the MSF would be within Los Angeles Metro property lines, Metro is responsible for trees within the MSF; these trees are covered by the Metro Tree Policy.

Trees within the MSFs are anticipated to be removed during construction.

Tree removal at the MSF Base Design during construction would conflict with the Los Angeles Street Tree and Metro Tree Policies, which would constitute a significant impact. To address this impact, the MSF Base Design would implement MM BIO-11, described in Section 6.2.4.7, which would require the installation and maintenance of replacement trees or shrubs following requirements of the pertinent tree preservation policy or ordinance. With implementation of MM BIO-11, impacts associated with removal of protected trees and shrubs during construction of the MSF Base Design would be reduced to less than significant.

MSF Design Option 1

The MSF Design Option 1 is not within unincorporated County land, so the Los Angeles County General Plan and Sustainability Plan "OurCounty" are not applicable.

The MSF Design Option 1 for Alternative 3 would be located on developed property abutting Orion Avenue, south of the LOSSAN rail corridor. Within the MSF Design Option 1, there are 206 ornamental trees including carob (*Ceratonia siliqua*), eucalyptus (*Eucalyptus* spp.), sweetgum (*Liquidambar styraciflua*), cajeput (Melaleuca *spp*.), jacaranda, and assorted palm species among others. Since the MSF would be within Los Angeles Metro property lines, Metro is responsible for trees within the MSF.

Tree removal at the MSF Design Option 1 during construction would conflict with the Los Angeles Street Tree and Metro Tree Policies, which would constitute a significant impact. To address the impact, the MSF Design Option 1 would implement MM BIO-11, described in Section 6.2.4.7, which would require the installation and maintenance of replacement trees or shrubs following requirements of the pertinent tree preservation policy or ordinance. With implementation of MM BIO-11, impacts associated with removal of protected trees and shrubs during construction of the MSF Design Option 1 would be reduced to less than significant.

6.2.4.6 Impact BIO-6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

There are no adopted HCPs, NCCPs, or other approved regional or state HCPs that occur within the Alternative 3 RSA. Therefore, no impacts to an adopted HCP, NCCP, or other state HCP would occur.

Maintenance and Storage Facilities

MSF Base Design

There are no adopted HCPs, NCCPs, or other approved regional or state HCPs that occur within the Alternative 3 RSA. Therefore, no impacts to an adopted HCP, NCCP, or other state HCP would occur.

MSF Design Option 1

There are no adopted HCPs, NCCPs, or other approved regional or state HCPs that occur within the Alternative 3 RSA. Therefore, no impacts would occur.

6.2.4.7 Mitigation Measures

Construction Impacts

MM BIO-4: ***Avoid and Minimize Construction-Related Impacts to Nesting Birds.*** *Vegetation clearance for construction of the Project related to construction activities shall occur outside of the nesting bird season (generally February 15 through September 15) to the extent feasible. If vegetation removal outside this time period is not feasible, the following additional measures shall be employed to avoid and minimize impacts to special-status bird species and nesting birds protected under the Migratory Bird Treaty Act and California Fish and Game Code:*

- *A preconstruction nesting bird survey of the work area (as defined by the Ground Disturbance Area, including staging and laydown yards) plus a 300-foot buffer shall be conducted by a Qualified Biologist within three days prior to the start of ground disturbing activities (including vegetation removal activities) to determine whether active nests (defined as nests with eggs or young) are present within or adjacent to (i.e., within 100 feet for non-special status songbirds, 300 feet for raptors and special-status species) the work zone. Any active nests found shall be recorded and a nest avoidance zone shall be established where no work shall occur. If project activities are delayed beyond 72 hours, a new nesting bird survey should be completed within 72 hours prior to the resumption of ground disturbing activities.*
- *Active bird nests for species protected by the Migratory Bird Treaty Act shall have a clearly demarcated (via flagging, fencing and/or signage) no-disturbance buffer*

established as follows: 300-foot radius buffer for raptors and special-status birds (see MM BIO-7 for additional least Bell's vireo measures) and 100-foot-radius buffer for non-raptor and non-special status avian nests. The Qualified Biologist can adjust buffer distances to increase or decrease the radius contingent on topography, existing noise levels, planned operational activities, species specific tolerances to disturbances such as noise and vibration from construction activities, and observations specific nesting pair tolerance to disturbances. Nest monitoring by the Qualified Biologist shall be required following buffer modifications to ensure new buffer is appropriate; adjustments can be made only following monitoring of nesting pair to determine if the buffer is adequate to protect the nest from construction impacts including from noise and vibrations. Installation of temporary noise barriers between the work area and nest can also be evaluated, if installation can occur in a manner to not disturb the nesting pair based on the Qualified Biologist's recommendation. If a Qualified Biologist determines work activities may result in nest failure, project work shall cease within the recommended no-disturbance buffer until a Qualified Biologist determines nest status. Additional follow-up surveys shall be conducted as necessary to determine nest status. Once the nest is determined to be fledged or no longer active, the buffer shall be removed.

- *A Qualified Biologist shall inform maintenance personnel of any active nests, facilitate avoidance measures, and verify operational activities do not cause disturbance. Maintenance personnel shall be updated on nest status and when avoidance buffers are no longer necessary.*
- *A Qualified Biologist shall monitor each nest on a biweekly basis and project activities shall not occur within the buffer until a Qualified Biologist determines the nest is no longer active (either by fledging or failing naturally). If a nest is adjacent to an access road where no project activities are being conducted, vehicles can drive past the nest without stopping or parking. Signage stating no stopping of idling vehicles will be posted (facing outwards from the buffer) at the start and end of the nest buffer where it crosses the road.*
- *A Qualified Biologist can determine a nest is inactive (defined as eggs and young no longer present or reliant on the nest site, including fledged young that still depend upon the nest), following no observations of activity at the nest location for 1 hour for non-raptor avian nests and 4 hours for raptors.*
- *A summary of nesting bird surveys, monitoring efforts, and any no-disturbance buffers that were installed shall be documented by the biologist at the conclusion of each nesting season and submitted to Metro. In the event that an active bird nest is as belonging to a special-status species afforded protection under the California Endangered Species Act or the federal Endangered Species Act, then the appropriate agency will be immediately informed, and additional coordination will occur, as needed.*

MM BIO-5: ***Avoid and Minimize Construction-Related Impacts to Roosting Special-Status Bat Species.*** *To reduce impacts on roosting bats resulting from construction activities, the following shall be implemented:*

- *A bat habitat assessment will be conducted during the bat maternity season (generally April 15 through August 31 for southern California, yearly timing dependent on weather conditions) at least one year prior to construction. A Qualified Bat Biologist will conduct surveys to determine the presence of bat roosting or maternity habitat within suitable areas where vegetation trimming, tree removal, bridge repair activities, structure demolition, or other construction-related activities may occur and bats may be present. A visual inspection and/or one-night emergence survey of potential bat habitat that may be impacted by activities shall be completed utilizing acoustic recognition technology to determine if any maternity roosts are present. Results from this survey will be used to create a Bat Habitat Mitigation and Monitoring Plan (BHMMP), produced by a Qualified Bat Biologist, and which will include site-specific minimization and avoidance measures for operations and construction of the Project. These measures will include but not be limited to establishment of no-disturbance buffers, monitoring of roosting bats to ensure tolerance to disturbances such as noise and vibration from Project activities, mitigation for habitat impacts, and humane eviction or exclusion. If monitoring indicates established no-disturbance buffer is not adequate to prevent disturbances to roosting bats, a Qualified Bat Biologist can adjust the buffer as needed.*
- *Flight pathways, i.e., line of flight into and out of the roost, shall be maintained during construction. Modifications to ingress and egress routes are not allowed including but not limited to obstacles presented from construction equipment use and staging, location and type of lighting or reconfiguration of staged materials (e.g., vehicles, equipment, etc.) at night relative to roosting locations.*
- *If swallow nests need to be removed during construction, removal should occur in the fall (September 1 to October 31 or based on local expert bat biologist input as long as it is outside of bat maternity or hibernation season), preferably at night. Nests should be inspected for occupancy by a Qualified Bat Biologist and if empty, removed. If a bat is present, if feasible a small portion of the nest can be carefully removed to make the nest a less suitable for roosting. The following night, if the nest is empty, it can be removed entirely. If not, another small portion can be removed if feasible. If removal is not feasible or bats are still present, consultation with CDFW may be appropriate.*
- *Trees or structures to be removed as part of the Project shall be evaluated for their potential to support bat roosts. An experienced bat biologist shall conduct a one-night emergence survey during acceptable weather conditions, before the start of removal. The following measures shall apply to trees or structures to be removed that provide potential bat roost habitat; these shall be implemented by a Qualified Bat Biologist.*
  - *If roosting bats are determined present in a tree or on a structure during the maternity season (April 15 through August 31), the tree/structure shall be avoided until after the maternity season when young are self-sufficient. If other trees/structures in the immediate vicinity are slated for removal, or other work will occur in the immediate vicinity that might disturb roosting bat, a no-work buffer may be needed.*

  - *If roosting bats are determined to be present during the winter months when bats are in torpor (i.e., a state in which the bats have significantly lowered their physiological state that occurs generally October 31 through February 15), and if conditions permit, a Qualified Bat Biologist shall physically examine the roost for the presence or absence of bats before the start of project activities; equipment such as an electric lift may be utilized to conduct the inspection. If the roost is determined to be occupied during this time, the tree or structure shall be avoided until after the winter season when bats are once again active.*

- *Trees or structures with potential to serve as colonial bat habitat can be removed outside of the maternity season and winter season (generally February 16 through April 14 and September 1 through October 30, or as determined by a Qualified Bat Biologist) using a two-step process that occurs over two consecutive days.*
  - *Day 1, Step 1: Under the supervision of a Qualified Bat Biologist, tree branches and limbs with no cavities shall be removed by hand (e.g., using handsaws) or smaller components of the structure should begin to be removed by hand (e.g., hammer, screwdriver). The associated vibrational and noise disturbance and physical alteration of the tree/structure will likely cause bats roosting to either abandon the roost immediately or avoid returning to the roost after emergence.*
  - *Day 2, Step 2: Removal of the remainder of the tree or structure can occur the following day under the supervision of a Qualified Bat Biologist.*
- *Trees that are only to be trimmed and not removed shall also require a two-step process with these deviations from the removal process explained above: if a branch with a potential roost must be removed, all surrounding branches shall be trimmed on Day 1 under supervision of a Qualified Bat Biologist and then the limb with the potential roost shall be removed on Day 2.*
- *The results of bat surveys, evaluations, and monitoring efforts that are undertaken shall be documented in a report by the biologist and provided to CDFW in electronic format at the conclusion of all bat-related mitigation activities.*

MM BIO-6: ***Avoid and Minimize Construction-Related Impacts to Crotch's Bumble Bee.***
To reduce impacts on Crotch's bumble bee from construction activities, the following shall be implemented:

- *A pre-construction habitat assessment for Crotch's bumble bee shall be conducted by a Qualified Biologist within the Ground Disturbance Area and a surrounding 100-foot buffer to demarcate potentially suitable nesting and foraging habitat.*
- *Nesting surveys and foraging surveys shall be conducted during the most active flight period and peak blooming period of nectar and pollen sources (generally April 1 through July 31). The survey shall be conducted between at least 1 hour after sunrise and at least 2 hours before sunset, with ambient air temperature*

between 60- and 90-degrees Fahrenheit. Surveys shall not be conducted during windy periods with speeds of over 10 mph, during fog or low visibility, or precipitation heavier than drizzling rain.

- *Foraging surveys shall focus on areas of high abundance of nectar and pollen sources with meandering transects within these areas at a rate of no more than 2.5 acres per hour.*
- *Nesting surveys shall focus on areas with existing, abandoned, rodent burrows; the biologist shall focus on detecting potential Crotch's bumble bee nest within suitable habitat.*
- *If a nest is documented, a 50-foot "no-disturbance" buffer shall be established and clearly identified in the field for avoidance. Construction activities shall avoid the nest location and surrounding buffer until the nest has senesced.*
- *Results of all survey efforts will be summarized in writing and submitted to Metro for documentation. In the event species presence is confirmed and/or a nest is located, California Department of Fish and Wildlife will be informed, and additional coordination will occur as needed.*

MM BIO-7: ***Avoid and Minimize Project-Related Impacts to Least Bell's Vireo.***
To reduce impacts on least Bell's vireo from construction activities, the following shall be implemented:

- *Prior to initiation of construction activities, the Project shall perform one full season of protocol surveys for least Bell's vireo in suitable habitat within 500 feet of construction activities following the accepted U.S. Fish and Wildlife Service protocol. Focused surveys shall be completed prior to construction initiation and results shall be used to inform a consultation process with the U.S. Fish and Wildlife Service for project permitting. Eight surveys shall be conducted between April 10 and July 31, with each survey spaced at least 10 days apart. Reduction in the prescribed number of individual surveys may be evaluated in accordance with the U.S. Fish and Wildlife Service protocol. Surveys shall be conducted between dawn and 11:00am and outside of periods of inclement weather (excessive heat or cold, high winds, rain, etc.). Surveys shall not be conducted concurrently with other surveys. Per the U.S. Fish and Wildlife Service protocol, surveyors shall not survey more than 3 linear kilometers or more than 50 hectares in one day.*
- *Following completion of protocol surveys, pre-construction presence/absence clearance surveys shall be required if construction is planned to begin within the nesting season. Clearance surveys shall be required within 500 feet of suitable habitat and must occur 3 or fewer days prior to start of activities. Presence/absence surveys shall be conducted by a Qualified Biologist who is familiar with species visually and aurally, and who is able to differentiate similar species. The Qualified Biologist shall not be required to have an Endangered Species Act Section 10(a) recovery permit covering this species since recorded vocalizations shall not be used to illicit responses and nest monitoring (i.e., locate and monitor the nest, including removal of brown-headed cowbird*

(Molothrus ater) eggs and chicks from parasitized nests) and handling of individual are not proposed.

- *If protocol and pre-construction survey results are negative, construction activities can commence, and a Qualified Biologist shall conduct presence/absence surveys weekly during the breeding season while construction is occurring within 500 feet of suitable habitat. If least Bell's vireo are detected during a survey, a Qualified Biologist shall be required to monitor construction activities within 500 feet of suitable habitat until the end of the breeding season. If construction within 500 feet of suitable habitat is paused for more than 3 days, a new survey must be conducted to verify if least Bell's vireo are present.*
- *If an active nest is documented, a no-disturbance 300-foot radius buffer shall be established and clearly identified in the field. Construction activities shall avoid the nest location and buffer until a Qualified Biologist declares the nest inactive. A Qualified Biologist shall be required to monitor construction activities within 500 feet of suitable habitat every day work is occurring while the nest is active. Noise monitoring shall be required weekly on varying days to account for changes in construction-related noise levels from before the nest is active to after. Monitoring shall be to ensure noise levels remain at or below 60 A-weighted decibels (dBA) or to the ambient noise level if it already exceeds 60 dBA before construction at specified monitoring locations within 100 feet of the nest. The Qualified Biologist shall either conduct the noise monitoring or escort the noise monitor if they are not a Qualified Biologist.*
- *The results of the surveys shall be used to design project features and temporary work areas to avoid direct impacts to occupied habitat for listed riparian bird species. Results of all survey efforts shall be summarized in writing and submitted to Metro for documentation. In the event species presence is confirmed, the U.S. Fish and Wildlife Service shall be informed, and additional coordination will occur as needed and in compliance with Section 7 of the Endangered Species Act.*

MM BIO-8: ***Avoid and Minimize Construction-Related Impacts to Special-Status Reptiles.*** *To reduce impacts on special-status reptiles from construction activities, the following shall be implemented:*

- *Prior to the start of vegetation removal, the Ground Disturbance Area shall be clearly fenced (usually with silt fencing) to delineate the extent of the construction area.*
- *Once fencing is in place, a Qualified Biologist shall conduct a pre-vegetation clearance sweep to look for and remove any special-status reptile species (e.g., coast horned lizard, two-striped garter snake, southwestern pond turtle, coastal whiptail, and southern California legless lizard) that may occur within the Ground Disturbance Area. If any special-status reptile species are detected within the Ground Disturbance Area, personnel shall allow the species to escape unimpeded if possible. Alternatively, the Qualified Biologist shall move the species outside of the fencing to the closest suitable habitat pending authorization from U.S. Fish and Wildlife Service or California Department of Fish and Wildlife, if required.*

- *Trash and food items will be contained in closed containers and removed daily to reduce the attraction of opportunistic predators such as common ravens, coyotes, and feral cats and dogs that may prey on sensitive species.*
- *Any observations of special-status reptiles will be summarized in writing and submitted to Metro. In the event that an observed special-status species is afforded protection under CESA or ESA, then the appropriate agency will be immediately informed and additional coordination will occur, as needed.*

MM BIO-9: ***Avoid and Minimize Construction-Related Impacts to Special-Status Plants.*** *Impacts to special-status plants shall be avoided, minimized and/or mitigated through incorporation of the following:*

- *Prior to any Project activities that may modify vegetation, focused rare plant surveys shall be conducted following California Department of Fish and Wildlife protocols. Focused surveys shall occur during optimal blooming periods for special-status species likely to occur, which typically results in multiple visits within one growing season (e.g., early, mid- and late-season surveys). In the event a federally listed species is confirmed, the U.S. Fish and Wildlife Service shall be informed, and additional coordination will occur as needed and in compliance with Section 7 of the Endangered Species Act.*
- *If focused rare plant data is more than 1 year old at commencement of construction, pre-construction surveys during the optimal blooming periods shall occur to demarcate special-status plant populations for avoidance (where feasible). The results of the focused surveys shall be used to design Project features and temporary work areas to avoid direct impacts to federally and state-listed plant species.*
- *Any observations of special-status plants will be summarized in writing and submitted to Metro. In the event that an observed special-status species is afforded protection under the California Endangered Species Act or federal Endangered Species Act, then the appropriate agency will be immediately informed and additional coordination will occur, as needed. When impacts to special-status plants are unavoidable, mitigation would be required and would be implemented by the Project consistent with a Mitigation Monitoring and Reporting Program, as required under California Environmental Quality Act. Furthermore, the Project shall prepare a Habitat Restoration Plan to meet the conditions stated in the Project's Mitigation Monitoring and Reporting Program. Mitigation may include restoring impacted areas through seeding, plantings, and weed abatement if project activities result in non-native species within the Ground Disturbance Area that were not present before activities began, as described below:*
  - *If feasible, special-status plant species observed during focused surveys within or adjacent to the Ground Disturbance Area that can be transplanted, such as the slender mariposa lily (Calochortus clavatus var. gracilis), may be dug up from the Ground Disturbance Area before work begins, stored in an appropriate manner depending on species, and replanted within the Ground Disturbance Area close to its original location at project conclusion.*

- *When the location of special-status plant population is at risk from human access not related to the Project, fencing or staking may be installed to reduce or eliminate public access once construction is completed.*
- *If proposed repair and restoration efforts are not feasible or adequate to mitigate for impacted plants, additional options shall be explored, including off-site compensation, such as mitigation banking or permanent protection of an existing off-site native or introduced population. This option would require determination of appropriateness and approval from appropriate agencies to be enacted.*

MM BIO-10: ***Avoid and Minimize Construction-Related Impacts to Sensitive Vegetation Communities.***

Impacts to sensitive vegetation communities shall be avoided, minimized, and/or mitigated as follows:

- *The Project shall minimize impacts to sensitive vegetation communities including California walnut woodland and sugar bush shrubland (and any other communities determined to be state ranked S1 to S3 by California Department of Fish and Wildlife following mapping refinement) by planning for impacts to occur in previously disturbed areas when feasible.*
- *Impacts to any natural vegetation communities designated sensitive, such as California walnut woodland and sugar bush shrubland, shall be reduced by attempting to trim vegetation instead of removing entire trees and shrubs where feasible. Where warranted, removal will be implemented; for example, removal may be required when the extent of trimming necessary to provide clearance for the Project to be constructed and operate safely would result in permanent damage or would adversely affect the plant's health and result in death.*
- *When feasible, temporary impact areas shall have vegetation trimmed and rootballs left intact to enable regrowth once construction is complete.*
- *In conjunction with appropriate entities with jurisdiction (i.e., Caltrans for their ROW, Santa Monica Mountains Conservancy for Santa Monica Mountains National Recreation Area), Metro shall design and develop a 5-year restoration plan which shall include monitoring, irrigation, and native plantings/seedings to native vegetation communities that are disturbed by construction activities. If feasible, native species that can be transplanted, such as succulents, bulb species, and cactus, may be moved from the Ground Disturbance Area before work begins, stored in an appropriate manner depending on species, and replanted within the Ground Disturbance Area close to its original location at project conclusion as part of the restoration efforts. Preconstruction assessment of sensitive vegetation communities will be conducted to collect a comprehensive plant species list, community structure data, cover assessments for native, nonnative annual, and nonnative perennial plants, and preconstruction photos for permanent photo points. Success standards to indicate restoration is complete will include native cover restored to or exceeding preconstruction conditions by the end of the five-year period, along with nonnative annual cover of 10 percent or less. Nonnative perennials shall not be present within the*

restoration site. If the cover success standards are not met by Year Five, additional measures such as replanting, remedial seeding, and/or supplemental watering shall be considered. The monitoring period shall extend until success criteria are met.

MM BIO-11: ***Avoid and Minimize Construction-Related Impacts to Protected Trees and Shrubs (Applicable to Alternatives 1 and 3).*** *Impacts to protected trees and shrubs shall be avoided, minimized, and/or mitigated by incorporation of the following:*

- *A Tree Expert, as defined in the City of Los Angeles Protected Tree and Shrub Ordinance, shall utilize the Initial Protected Tree and Shrub Inventory Memorandum (Appendix B of the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report) to complete a separate, more in-depth tree survey report prior to the start of construction and when access is procured for properties within the alignment. The Tree Expert Report shall include field survey methods and details of each protected tree or shrub, including height, diameter, canopy spread, physical condition, and location. The City of Los Angeles Protected Tree and Shrub Ordinance has jurisdiction in the Project; therefore, a Tree Expert shall be required to conduct the detailed survey and procure permit for protected tree/shrub removal from the Los Angeles Board of Public Works. The Tree Expert's follow-up report shall expand upon the initial assessment to provide a comprehensive dataset with verification of tree/shrub species, height, canopy width, and tree/shrub health for the Ground Disturbance Area. This follow-up report shall be used to procure the required permit prior to commencement of tree impacts within the City of Los Angeles.*
- *Impacts to protected trees and shrubs shall be minimized to the maximum extent feasible. When trimming and/or encroachment into the tree/shrub protection zone (defined as the dripline or canopy) is needed, the following measures shall be implemented.*
- *Trimming of protected trees/shrubs must comply with the pruning standards set forth by the Western Chapter of the International Society of Arboriculture and conducted in a manner that does not cause permanent damage or adversely affect the health of the trees or shrubs. Trimming shall require coordination and permitting with the appropriate entities as follows:*
  - *Species protected under the Los Angeles Protected Tree and Shrub Ordinance shall coordinate with the City of Los Angeles Board of Public Works, Urban Forestry Division.*
  - *Trees protected under the City of Los Angeles Street Tree Policy shall require coordination with the City of Los Angeles Department of Public Works, Urban Forestry Division.*
  - *Trees covered by the Metro Tree Policy and designated for retention shall require the Project to prepare a Tree Protection Plan. The Tree Protection Plan will identify Tree Protection Zones for all trees designated for retention and will protect larger trees from immediate damage during construction and delayed damage from construction activities, such as loss of root area or*

soil compaction. The Project will prepare a mitigation plan for damaged and removed trees with a minimum replacement ratio of 2:1 per removed street tree.

- *Trees protected by the Los Angeles County Oak Tree Ordinance shall require coordination with the Los Angeles County Director of Public Works prior to tree work.*
- *Trees within the Santa Monica Mountains National Recreation Area shall require coordination for tree trimming or removal with the appropriate entities (e.g., National Park Service, Santa Monica Mountains Conservancy, Mountains Recreation and Conservation Authority).*

- *For impacts to protected trees and shrubs beyond trimming, the required tree removal permits shall be obtained, and replacement shall occur at the below rates. Mitigation locations of replacement trees shall be determined through the permitting process.*
  - ***Los Angeles County Oak Tree Ordinance:*** *All trees within the oak genus (Quercus) shall be replaced at a ratio of 2:1 per individual oak tree.*
  - ***City of Los Angeles Protected Tree and Shrub Ordinance:*** *Protected trees and shrubs included trees of the oak genus (indigenous to California), western sycamore, southern California black walnut and California bay, and two shrub species (Mexican elderberry and toyon). Individual trees and shrubs shall be replaced at a 4:1 ratio by plants that are the same species of protected plant.*
  - ***Policy-Protected Trees:*** *All policy-protected trees, which fall under the purview of the Los Angeles Street Tree Policy or the Metro Tree Policy, shall be replaced at a ratio of 2:1 per individual. The Los Angeles Street Tree Policy allows for an in-lieu fee to be made with approval of the Board of Public Works following verification that replacement trees cannot be feasibly planted onsite. Trees under the Metro Tree Policy that are designated as heritage trees in a local ordinance shall be replaced at a 4:1 ratio with trees of the same variety.*
  - ***Santa Monica Mountains National Recreation Area:*** *Any tree within the Santa Monica Mountains National Recreation Area shall be replaced by trees of a species and ratio at the discretion of National Park Service, Santa Monica Mountains Conservancy, Mountains Recreation and Conservation Authority.*

- *All trees occurring on private property or Caltrans right-of-way shall not require permitting but shall require coordination and negotiation with property owners. Mitigation implementation shall follow Metro Tree Policy's replacement ratio of 2:1 per individual.*

- *For protected trees and shrubs that are not anticipated to be impacted, a Tree Protection Zone shall be established around each tree/shrub or cluster of trees/shrubs prior to the commencement of work. The Tree Protection Zone shall be erected using temporary fencing in an environmentally sensitive manner and remain in place until all site work has been completed. Specific installation timeframe may vary but the Tree Protection Zone must be inspected and approved by a Qualified Arborist prior to construction work occurring, including staging of equipment. Work can commence directly following arborist inspection and approval. No construction-related materials shall be stored or staged within the Tree Protection Zone (fenced areas).*
- *The LA Street Tree Policy would require coordination with the City of Los Angeles Department of Public Works for removal or maintenance of protected trees; this policy does not apply to trees within private property, UCLA, or within the Caltrans right-of-way. The Metro Tree Policy would not require permitting but would require coordination with the landowners (i.e., private landowners, UCLA, Caltrans) when a tree must be removed. Additionally, Metro Tree Policy states a mitigation plan would be required to be developed in consultation with a Certified Arborist if construction impacts resulted in a damaged to or removed a protected tree; decisions would be made in accordance with local ordinances identifying protected trees.*

MM BIO-14: ***Avoid and Minimize Construction-Related Impacts to Mountain Lion and Vertebrate Movement Corridors.*** *Impacts to mountain lion and other vertebrate movement corridors shall be avoided, minimized, and/or mitigated as follows:*

- *After a preferred alternative is selected and prior to any ground-disturbing activity, a Qualified Biologist shall conduct a detailed analysis of wildlife movement and corridors within the Santa Monica Mountains as they relate to ground disturbance activities for the Project. Analysis shall include desktop review of publicly available documentation — including research publications, project reports, environmental analyses, and high-quality aerial imagery — to anticipate wildlife movement patterns within the project vicinity. Field surveys shall also be conducted to identify and document wildlife crossings.*
- *Prior to construction, Metro shall coordinate with the California Department of Fish and Wildlife, Caltrans, the Santa Monica Mountains Conservancy/Santa Monica Mountains National Recreation Area, and species experts (as appropriate) to identify and implement appropriate minimization and avoidance measures to facilitate mountain lion and other vertebrate movement and connectivity across the Santa Monica Mountains. Performance standards for wildlife connectivity and movement shall ensure that post-construction conditions are maintained or improved. This includes achieving a 0 percent increase in road mortality for mountain lions and other sensitive species in the Project Study Area, as measured through tracking and monitoring for at least five years after construction.*

- *Prior to any ground-disturbing activities, field surveys will be conducted by a Qualified Biologist to survey for (1) mountain lion presence/absence (2) known or potential mountain lion natal dens within suitable habitat within the 600 feet of ground disturbance activities during the breeding season (April through September) and (3) to identify and document wildlife crossing locations. Presence/absence and den surveys will be conducted at dawn and dusk to increase probability of detection.*
- *If a mountain lion natal den is identified during the survey, the Qualified Biologist will establish a clearly demarcated (via flagging, fencing and/or signage) no-disturbance buffer where work will cease until the den is no longer occupied or the cubs have successfully reared. The size of the buffer will be determined based on characteristics of the den (i.e., distance, direction facing, observed behavior) and through consultation with species experts and California Department of Fish and Wildlife to ensure the buffer is of appropriate size to not adversely affect rearing of cubs.*
- *Vegetation removal shall be limited wherever possible, particularly within the Santa Monica Mountains.*
- *Within the Habitat Restoration Plan (MM BIO-9), vegetation restoration of temporarily disturbed areas adjacent to wildlife crossings will be done in a manner to facilitate usage of installed vegetation to act as "stepping stones" on the approach to the freeway, i.e., to provide cover for wildlife to approach crossings.*
- *A summary of survey results from presence/absence and den surveys will include maps of the survey area and possible denning locations and will be submitted to Metro and California Department of Fish and Wildlife. If a natal den or presence is confirmed, California Department of Fish and Wildlife will be immediately informed, and additional coordination will occur, as needed.*
- *Metro shall also develop a five-year monitoring plan, in coordination with California Department of Fish and Wildlife and species experts, to track wildlife movement across corridors during and after construction. Monitoring shall use camera traps, radio collars, or other wildlife tracking technologies. If the data indicate that mountain lion or other vertebrate movement is negatively impacted, additional mitigation measures, such as enhanced crossing infrastructure or more extensive wildlife funneling fencing, shall be implemented within six months. During the five-year monitoring phase, annual reports summarizing the effectiveness of the mitigation measures, any observed impacts on wildlife movement, and the results of the monitoring program will be submitted to California Department of Fish and Wildlife, Caltrans, and the Santa Monica Mountains Conservancy. These reports shall also include recommendations for adjustments to ensure compliance with wildlife connectivity standards.*

MM BIO-15: ***Avoid and Minimize Construction-Related Impacts to Jurisdictional Aquatic Resources.*** *Potential impacts to drainages shall be avoided and/or minimized when working in or adjacent to aquatic resources as defined in the Aquatic Resources Delineation Report (Appendix A from the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report) through incorporation of the following:*

- *A Qualified Biologist/Aquatic Specialist shall monitor construction activities adjacent to jurisdictional aquatic resources during vegetation clearing and/or initial ground-disturbance activities. Additionally, they shall support impact avoidance and minimization measures detailed in permits and approvals obtained for the Project.*
- *Limits of the Ground Disturbance Areas shall be designated with lathe staking or a similar method. All equipment and workers shall remain within approved work limits.*
- *Wherever possible, construction personnel shall utilize existing access roads or previously disturbed areas to reach the project area or stage their vehicles and equipment.*
- *Maintenance personnel will also not leave any waste or debris behind which could impact natural habitats.*
- *To protect water quality:*
  - *Appropriate BMPs shall be installed to prevent erosion and guide runoff during rain events.*
  - *Equipment and materials shall be staged within the alignment and away from water drainages. Parked equipment shall have secondary containment to prevent any fluid leaks from coming into contact with the ground surface.*
  - *Water containing mud, silt, or other pollutants from construction activities shall not be allowed to enter into an aquatic resource.*
  - *Disposal or temporary placement of excess fill, brush, or other debris shall not be allowed in Waters of the United States, Waters of the State, and California Department of Fish and Wildlife streambeds or their banks.*

General Construction Measures

The following general construction measures are proposed for implementation during construction activities:

MM BIO-16: *Prior to vegetation clearing, grading, and/or construction activities that may impact habitats of special-status species, a Qualified Biologist(s) shall oversee installation of appropriate temporary Environmentally Sensitive Area fencing and/or flagging to delineate the limits of construction and the approved construction staging areas for protection of identified sensitive resources outside the approved construction/staging zones. All construction access and circulation shall be limited to designated construction/staging zones. Fencing shall be of a type that will not entangle or otherwise detrimentally effect wildlife or the environment. Fencing should be checked*

weekly to ensure it is intact and functioning as intended, to look for signs of degradation that might cause harm to wildlife or the environment, and to ensure fenced construction limits are not exceeded. This fencing shall be removed upon completion of construction activities.

MM BIO-17: *A Qualified Biologist(s) shall monitor project activities during vegetation clearing, grading, and/or construction within or adjacent to areas identified as sensitive habitat and/or jurisdictional aquatic resources. If special-status species and/or sensitive habitats adjacent to the project sites are inadvertently impacted by activities, then the Qualified Biologist(s) shall immediately inform the on-site construction supervisor who shall temporarily halt or redirect work away from the area of impact. If unanticipated impacts occur to occupied habitat for special-status species, the Project shall consult with the appropriate regulatory agencies.*

MM BIO-18: *A Worker Environmental Awareness Plan (WEAP) shall be developed and implemented prior to the start of construction. Environmental training shall be led by the Qualified Biologist(s) and shall cover the sensitive resources found on-site, flagging/fencing of exclusion areas, permit requirements, and other environmental issues. New workers added to construction after the initial training at work start shall be required to receive WEAP training before they may begin work on the Project. Documentation of personnel who have attended WEAP training will be maintained and submitted to Metro. All information included in WEAP training should be kept on Project sites to be readily accessible to any personnel in a form deemed appropriate for the Project (e.g., wallet cards, printed flyers, etc.).*

MM BIO-19: *Wildfires shall be prevented by exercising care when driving to prevent sparks and by not parking construction vehicles where catalytic converters could ignite dry vegetation. All construction vehicles shall carry water and shovels or fire extinguishers in the field. The use of shields, protective mats, or other fire prevention equipment shall be used during grinding and welding to prevent or minimize the potential for fire. Smoking shall take place within designated areas and away from vegetated areas.*

MM BIO-20: *Construction workers shall be prohibited from bringing pets and firearms to the site.*

MM BIO-21: *To prevent unnecessary erosion, runoff, and sedimentation, all construction activities within 100 feet of drainages or wetlands shall cease during Stormwater Pollution Prevention Plan-defined rain events and shall not resume until conditions are suitable for the movement of equipment and materials. Vehicle access along unpaved access routes shall not occur during saturated soil condition to avoid rutting or other soil disturbance.*

MM BIO-22: *If night work should occur, all lighting used during night construction shall be temporary and shall be implemented to reduce lighting effects onto adjacent open space areas (i.e., downcast, away from habitat) and/or shall also be directed away from nests/roosting sites on man-made structures. Light shields shall be used to minimize light pollution adjacent to the Project.*

MM BIO-23: *Prior to entering the construction areas, equipment and personnel shall be free of mud, debris, or vegetation to prevent the introduction and spread of weeds or invasive species to the Project. If required, vehicle washing shall occur within designated areas within project construction areas where appropriate containment has been established, or at a suitable off-site facility.*

MM BIO-24: *Dust suppression measures shall be implemented during construction to minimize the creation of dust clouds and possible degradation of sensitive vegetation communities and special-status species suitable habitat. These measures shall include applying water at least once per day or as determined necessary by the Qualified Biologist(s) to prevent visible dust emissions from exceeding 100 feet in length in any direction. In addition, watering frequency shall be increased to four times per day if winds exceed 25 miles per hour. Nontoxic soil stabilizers may be used on access roads to control fugitive dust, as needed.*

MM BIO-25: *Vehicle speeds shall be restricted to posted speed limits on existing paved roads and to 15 miles per hour on dirt or gravel access roads during all phases of the Project. Speed limit signs shall be posted on dirt or gravel access roads throughout the site to remind workers of travel speed restrictions.*

MM BIO-26: *Trenches and excavations located within open areas shall be backfilled with earth at the end of each workday or have one edge sloped into an escape ramp with a less than 1:1 (45 degree) slope to prevent wildlife entrapment. A non-slip material may be used (e.g., wooden ramp with traction) when an earthen escape ramp cannot be created. For instances when these methods are not feasible (e.g., deep, long-term excavations for underground segments), temporary exclusion fencing can be installed around the perimeter of the work area to prevent animal entrapment. The Qualified Biologist shall ensure the temporary exclusion fencing is sufficiently supported to maintain integrity under all conditions and shall be checked daily to ensure integrity is maintained and inspect it daily while work is occurring. Fencing will be repaired each day, as needed to ensure integrity is maintained. A Qualified Biologist shall inspect all trenches and excavations for trapped animals at the beginning and end of each day, as well as before excavations are backfilled. Should wildlife become trapped in any trenches or excavations, a Qualified Biologist(s) shall remove and relocate them outside the construction zone. When entrapped wildlife is a listed species with handling restrictions, relocation must be conducted by a biologist permitted to handle the species. Where trenches or excavations cannot be immediately backfilled or sloped, open excavations shall be covered and the end of each day with boards or plates. The edges of the boards shall be sealed with native spoils to prevent wildlife from entering the excavation in gaps at the board edges.*

MM BIO-27 *Spoils, trash, and any construction-generated debris will be removed to an approved off-site disposal facility. Trash and food items will be contained in closed containers and removed daily to reduce the attraction of opportunistic predators such as common ravens, coyotes, and feral cats and dogs that may prey on sensitive species.*

Impacts After Mitigation

Implementation of the mitigation measures listed in this subsection shall mitigate biological resources impacts related to project operations and construction to a level that is considered less than significant.

6.2.5 Energy

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-15.

Table 6-15. Alternative 3: Energy Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Energy Construction Impacts		
Impact ENG-1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact ENG-2: Would the project conflict or obstruct a state or local plan for renewable energy or energy efficiency?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025p

ENG = energy
LTS = less than significant
NA = not applicable

6.2.5.1 Impact ENG-1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Alternative 3 would require petroleum-based transportation fuels and electricity to construct the transit system. Construction activities would comply with Metro's GCP and construction equipment would be maintained in accordance with manufacturers' specifications. Construction would result in a one-time expenditure of approximately 7,563,002 gallons of diesel fuel, 533,406 gallons of gasoline, and 536,969 megawatt-hours (MWh) of electricity. Construction activities may include lighting for security and safety in construction zones. Nighttime construction would be limited; lighting would be sparse and would not require additional capacity provided at the local or regional level. Table 6-16 provides a summary of the energy consumption estimated for construction of Alternative 3.

Table 6-16. Alternative 3: Construction Fuel and Electricity Consumption

Source Type	Fuel Consumption (gal)	Electricity Consumption (MWh)
Mobile Source Fuel Consumption		
Off-Road Equipment (Diesel)	5,331,054	NA
Worker Vehicles (Gasoline)	533,406	NA
Vendor Trucks (Diesel)	203,735	NA
Haul Trucks (Diesel)	2,028,213	NA
Electricity Consumption		
TBM	NA	536,668
Onsite Portable Offices	NA	301
Summary		
Total Gasoline (gal):	**533,406**	**NA**
Total Diesel (gal):	**7,563,002**	**NA**
Total Electricity (MWh):	**NA**	**536,969**

Source: HTA, 2024

gal = gallons
MWh = megawatt-hour
NA = not applicable
TBM = tunnel boring machine

All equipment and vehicles used in construction activities would comply with applicable California Air Resources Board regulations, Low Carbon Fuel Standards, and the Corporate Average Fuel Economy (CAFE) Standards. Construction would not place an undue burden on available energy resources. The one-time expenditure of energy associated with diesel fuel consumption would be offset by operations within approximately 7.5 years through transportation mode shift, and the one-time expenditure of energy associated with gasoline consumption would be offset by operations within 1 year. The temporary additional transportation fuels consumption does not require additional capacity provided at the local or regional level. CEC transportation energy demand forecasts indicate that gasoline and diesel fuel production is anticipated to increase between 2021 and 2035, while demand for both gasoline and diesel transportation fuels is projected to decrease over the same time period (CEC, 2021). Construction vehicles and equipment activities would not place an undue burden on available petroleum fuel resources during construction of Alternative 3.

The GCP requires and commits project contractors to using newer engines for off-road diesel-powered construction equipment that are more fuel efficient than older models. All equipment and vehicles would be maintained in accordance with manufacturer specifications and would be subject to idling limits. As required by the California Green Building Standards (CALGreen) Code Tier 2, at least 80 percent of the nonhazardous construction debris generated by demolition activities will be diverted from landfills. Also, CALGreen includes the mandatory requirement to reuse or recycle all clean soil that would be displaced during construction of Alternative 3, which would result in reduced energy consumption from hauling trucks. Furthermore, the Metro 2020 Moving Beyond Sustainability Strategic Plan and the Metro Design Criteria and Standards require and commit contractors to using high-efficiency lighting as opposed to less energy-efficient lighting sources in alignment with Leadership in Energy and Environmental Design (LEED) sustainability energy standards.

Based on the substantiation previously described, construction would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, Alternative 3 results in a less-than-significant impact related to construction activities.

Maintenance and Storage Facilities

MSF Base Design

Construction of the MSF Base Design would require petroleum-based transportation fuels and electricity. Construction activities would comply with Metro's GCP and adhere to Metro's policy for aligning with LEED Silver sustainable certification. The required energy demand to construct and operate the MSF Base Design would be more than offset by the energy savings in the forms of petroleum fuels and natural gas, and the consumption would support a mass transit system that would contribute to regional efforts to enhance energy efficiency and reduce reliance on nonrenewable resources. Construction of the MSF Base Design would not result in wasteful, inefficient, or unnecessary consumption of energy resources and the MSF Base Design would result in a less than significant impact.

MSF Design Option 1

The MSF Design Option 1 would locate the MSF at a different address than the MSF Base Design. Energy use would be similar as presented for the MSF Base Design. Like the MSF Base Design, the required energy demand to construct the MSF Design Option 1 would be more than offset by the energy savings

in the forms of petroleum fuels and natural gas, and the consumption would support a mass transit system that would contribute to regional efforts to enhance energy efficiency and reduce reliance on nonrenewable resources. Furthermore, MSF Design Option 1 would adhere to Metro's policy for aligning with LEED Silver sustainable certification. Therefore, construction would not result in wasteful, inefficient, or unnecessary consumption of energy resources and MSF Design Option 1 would result in a less than significant impact.

6.2.5.2 Impact ENG-2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Alternative 3 would require petroleum-based transportation fuels and electricity to construct the transit system. Construction would result in a one-time expenditure of approximately 7,563,002 gallons of diesel fuel, 533,406 gallons of gasoline, and 536,969 MWh of electricity. Alternative 3 would be consistent with state and local energy plans and policies to reduce energy consumption as activities would comply with Metro's GCP, CALGreen Code, Title 24, and LEED Version 4 Building and Design Construction (LEED v4 BD+C) Level Silver certification. The GCP requires and commits project contractors to using newer engines for off-road diesel-powered construction equipment that are more fuel efficient than older models. Compliance with GCP would limit excess petroleum fuels consumption. The CALGreen Code requires reduction, disposal, and recycling of at least 80 percent of nonhazardous construction materials and requires demolition debris to be recycled and/or salvaged, which would ultimately result in reductions of indirect energy use associated with waste disposal and storage. Alternative 3 would comply with state and local plans for energy efficiency in construction activities. Therefore, Alternative 3 would result in a less-than-significant impact related to construction activities.

Maintenance and Storage Facilities

MSF Base Design

Construction of the MSF Base Design would not conflict with any adopted plan or regulation to enhance energy efficiency or reduce transportation fuels consumption and would support the initiatives of the Metro Climate Action and Adaptation Plan. In addition, construction of the MSF Base Design would not interfere with renewable portfolio targets and would not result in a wasteful or inefficient expenditure of energy resources. The MSF Base Design would positively contribute to statewide, regional, and local efforts to create a more efficient and sustainable transportation infrastructure network. Therefore, construction of the MSF Base Design would result in a less than significant impact.

MSF Design Option 1

MSF Design Option 1 would locate the MSF at a different address than the MSF Base Design. Energy use would be similar as presented for the MSF Base Design. Construction of the MSF Design Option 1 would positively contribute to statewide, regional, and local efforts to create a more efficient and sustainable transportation infrastructure network. Therefore, construction of the MSF Design Option 1 would result in a less than significant impact.

6.2.5.3 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

6.2.6 Geotechnical, Subsurface, Seismic, and Paleontological Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-17.

Table 6-17. Alternative 3: Geology, Soils, Seismicity, and Paleontological Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Geology, Soils, Seismicity, and Paleontological Resources Construction Impacts		
Impact GEO-1: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-2: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking and/or seismic-related ground failure, including liquefaction?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-3: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-2
	Impacts After Mitigation	LTS
Impact GEO-4: Would the project result in substantial soil erosion or the loss of topsoil?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-5: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-1 through MM GEO-5
	Impacts After Mitigation	LTS
Impact GEO-6: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-5
	Impacts After Mitigation	LTS
Impact GEO-7: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI
Impact GEO-8: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-6 through MM GEO-9
	Impacts After Mitigation	SU

Source: Metro, 2025l

GEO = geotechnical
LTS = less than significant
MM = mitigation measure
NA = not applicable
PS = potentially significant

SU = significant and unavoidable

6.2.6.1 Impact GEO-1: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Construction of Alternative 3 would occur within the Santa Monica Fault zone, north of Santa Monica Boulevard and along I-405. Aerial guideway and station construction would involve installing CIDH piles, precast beams, and precast bent caps within the I-405 ROW. These components would be constructed in compliance with applicable seismic and geotechnical regulatory requirements and using established engineering practices to minimize ground disturbance and ensure structural stability in areas near active faults. A TBM would be used to construct the underground segment of the guideway. Tunneling depth would range between 20 feet to 300 feet. Underground stations, including the Wilshire Boulevard/Metro D Line Station and the UCLA Gateway Plaza Station, would use a "cut-and-cover" construction method whereby the station structure would be constructed within a trench excavated from the surface that is covered by a temporary deck and backfilled during the later stages of station construction. Construction of Alternative 3 would not directly or indirectly exacerbate rupture of a known earthquake fault causing substantial adverse effects, including the risk of loss, injury, or death because these elements, including the CIDH piles, TBM-excavated tunnels, and cut-and-cover stations, do not reach a depth or be of an intensity that would affect geological processes such as faults. Therefore, construction impacts related to the rupture of a fault are less than significant.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design is not within an Alquist-Priolo Earthquake Fault Zone. The closest Alquist-Priolo Earthquake Fault Zone is the Hollywood Fault located approximately 8.5 miles southeast from the proposed MSF Base Design. Therefore, during construction, the proposed MSF would cause no impacts related to loss, injury, or death involving the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map.

MSF Design Option 1

Construction of the proposed MSF Design Option 1 is not within an Alquist-Priolo Earthquake Fault Zone. The closest Alquist-Priolo Earthquake Fault Zone is the Hollywood Fault located approximately 9.5 miles southeast from the proposed MSF Design Option 1. Therefore, during construction, no impacts related to loss, injury, or death involving the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map.

6.2.6.2 Impact GEO-2: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking and/or seismic-related ground failure, including liquefaction?

Alternative 3 traverses several Liquefaction Zones both within the San Fernando Valley and the Los Angeles Basin. Aerial guideway and station construction would involve installing CIDH piles, precast beams, and precast bent caps within the I-405 ROW. A TBM would be used to construct the underground segment of the guideway. Tunneling depth would range between 20 feet to 300 feet.

Underground stations, including the Wilshire Boulevard/Metro D Line Station and the UCLA Gateway Plaza Station, would use a "cut-and-cover" construction method whereby the station structure would be constructed within a trench excavated from the surface that is covered by a temporary deck and backfilled during the later stages of station construction.

While construction activities for the underground alignment would involve subsurface work at depths where liquefaction could potentially occur, these activities would not directly or indirectly cause seismic ground shaking or induce liquefaction because the construction processes would not be of sufficient intensity to cause geological processes such as faults or liquefaction. Moreover, the construction of Alternative 3 would adhere to seismic and geotechnical regulations, which would require appropriate engineering measures to ensure that liquefaction risks do not exceed unacceptable levels. As such, impacts related to seismic ground shaking including liquefaction would be less than significant during construction activities.

Special construction considerations to protect workers and future users of the alternative against liquefaction hazards can be found within the *Sepulveda Transit Corridor Project, Detailed Geotechnical Exploration Plan* (Metro, 2024b).

Maintenance and Storage Facilities

MSF Base Design

Construction of the proposed MSF Base Design does not involve extensive excavation and does not reach a depth or be of an intensity that would affect geological processes such as faults. As such, impacts related to seismic ground shaking including liquefaction would be less than significant during construction.

MSF Design Option 1

Construction of the proposed MSF Design Option 1 does not involve extensive excavation and do not reach a depth or be of an intensity that would affect geological processes such as faults. As such, impacts related to seismic ground shaking including liquefaction would be less than significant during construction.

6.2.6.3 Impact GEO-3: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

The Santa Monica Mountains are within a designated a potential LHZ. However, Alternative 3 would consist of an aerial monorail alignment along the I-405 corridor with seven aerial MRT stations and an underground tunnel alignment between the Getty Center and Wilshire Boulevard with two underground stations. In addition, construction activities for Alternative 3 would include freeway widening, and the demolition and re-building of the retaining walls that hold back the mountains above the freeway. These activities would be located within a designated potential LHZ and potential landslides during construction could cause injury or death to construction workers. With adherence to the provisions listed in the CBC, the potential impacts related to landslides would remain less than significant.

The tunnel portal for the proposed Alternative 3 underground alignment would be located within a LHZ making it vulnerable to landslide activity, which could impact the stability of the tunnel and surrounding infrastructure. Alternative 3 would require a site-specific slope-stability design, and design to address landslide potentials as required by the standards contained in the CBC and County of Los Angeles and City of Los Angeles guidelines, as well as by Cal/OSHA requirements for stabilization. Alternative 3 would include manufactured slopes (using grading techniques) in the retention basins which would mostly occur at the perimeter of the sites where they would also serve as a buffer to protect the tunnel and

surrounding infrastructure from landslide-related hazards. Retention basins would be designed with due consideration for slope stability ensuring that they do not create additional landslide risk.

The combination of site-specific slope-stability design, compliance with applicable regulatory requirements, and the use of manufactured slopes and retention basins is anticipated to effectively manage constructed-slope instability such that impacts associated with constructed-slope instability, including landslides, are reduced, but may still be potentially significant. This is particularly true for temporary slopes, as excavation activities for Alternative 3 within Landslide Zones could encounter unstable soils. Temporary slopes generally pose a higher risk of slope failure due to their steeper gradients compared to permanent, manufactured slopes. Similar to permanent slope construction, temporary slopes would be required to comply with Cal/OSHA requirements for shoring and stabilization.

To address these significant impacts, MM GEO-2 would be implemented so that any excavations for the construction of the underground segment of Alternative 3 would shore excavation walls or flatten or "lay back" the excavation walls to a shallower gradient as required by applicable local, state, or federal laws or regulations to ensure stability of temporary slopes. With the implementation of MM GEO-2, the impacts associated with landslides and/or slope instability during construction activities would be reduced to less than significant.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design would be located west of Hazeltine Avenue and south of the LOSSAN rail corridor ROW. The proposed MSF Base Design would not be located on land designated as a LHZ Area. The closest landslide zone would be located 4.16 miles south from the proposed MSF Base Design site. Therefore, the proposed MSF Base Design would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides, and no impact would occur.

MSF Design Option 1

The proposed MSF Design Option 1 would abut Orion Avenue west of Sepulveda Boulevard and south of the LOSSAN rail corridor ROW. The proposed MSF Design Option 1 would not be located on land designated as an LHZ. The closest landslide zone would be located 4.14 miles south from the proposed MSF Design Option 1. Therefore, the proposed MSF Design Option 1 would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides, and no impact would occur.

6.2.6.4 Impact GEO-4: Would the project result in substantial soil erosion or the loss of topsoil?

Ground-disturbing activities occurring during construction would temporarily expose surficial soils to wind and water erosion and have the potential to temporarily increase erosion and loss of topsoil. Construction work that would involve ground-disturbing activities include installation of cast-in-drilling (CIDH) piles for the MRT aerial guideway, I-405 widening, street and reconstruction, installation of TPSS sites, utility relocations, and grading relating to these activities. The Sepulveda Pass has areas of pervious surfaces within the adjacent Santa Monica Mountain region. Retaining-wall installation would be required to accommodate the reconfiguration of Sepulveda Boulevard and Getty on- and off-ramps. Such construction would involve considerable earth-moving activities, including the partial excavation of the Santa Monica Mountains to increase the setback of the retaining walls.

Alternative 3 includes an underground alignment just before the proposed Wilshire Boulevard/Metro D Line Station continuing north through the Santa Monica Mountains. Alternative 3 alignment would transition from an underground configuration to an aerial guideway structure after exiting the tunnel portal located at the northern end of the Leo Baeck Temple parking lot. The alignment would cross over Sepulveda Boulevard and the I-405 lanes to the proposed Getty Center Station. The southern portion of the tunnel would be at a depth between 20 to 50 feet to connect with the UCLA Gateway Plaza Station, which would be constructed using cut-and-cover methods. As the tunnel extends beneath the University of California, Los Angeles (UCLA) campus and the Bel Air Country Club, it would reach depths between 40 to 60 feet. Through the Santa Monica Mountains, the tunnel would range between 50 to 300 feet deep. The only places where excavation would occur for the construction of the underground alignment would be at the portals to retrieve or drop the TBMs. These activities would not result in substantial soil erosion or the loss of topsoil.

construction activities would be required to comply with existing regulatory requirements, including implementation of BMPs, preparation of SUSMP, and other erosion and sedimentation control measures that would ensure that grading, excavation, and other earth-moving activities would avoid a significant impact.

Metro would be required to prepare a site-specific SUSMP, which is part of the NPDES Municipal General Permit. Preparation of the site-specific SUSMP would describe the minimum required BMPs to be incorporated into the Alternative 3 design and ongoing operation of the facilities. Prior to the initiation of grading activities associated with the implementation of Alternative 3, Metro would submit a site-specific SUSMP to reduce the discharge of pollutants to the maximum extent practical using BMPs, control techniques and systems, design and engineering methods, and other provisions that are appropriate during construction activities. All development activities associated with Alternative 3 would comply with the site-specific SUSMP.

Preparation of a site-specific SUSMP and adherence to existing regulations would ensure the maximum practicable protection available for soils excavated during the construction of buildings and associated infrastructure. Compliance with existing regulations would minimize effects from erosion and ensure consistency with the Regional Water Quality Control Board Water Quality Control Plan. In view of these requirements, Alternative 3 would have a less than significant impact associated with soil erosion or loss of topsoil during construction activities.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design would comply with post-construction measures in applicable NPDES permits and LID standards required by Los Angeles County and the City of Los Angeles that aim to minimize erosion impacts from development projects. Therefore, the proposed MSF Base Design would result in a less than significant impact related to substantial soil erosion or the loss of topsoil during construction.

MSF Design Option 1

The proposed MSF Design Option 1 would comply with post-construction measures in applicable NPDES permits and LID standards required by Los Angeles County and the City of Los Angeles that aim to minimize erosion impacts from development projects. Therefore, the proposed MSF Design Option 1 would result in a less than significant impact related to substantial soil erosion or the loss of topsoil during construction.

6.2.6.5 Impact GEO-5 Would the project be located on a geographic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Section 6.2.6.2 addresses impacts related to liquefaction, and Section 6.2.6.3 addresses impacts related to landslides. The analysis in this section addresses impacts related to unstable soils as a result of subsidence, differential settlement, lateral spreading, or collapse.

The underground and aerial segments of Alternative 3 would not be located on a geographic unit or soil that is unstable, or that would become unstable, potentially resulting in lateral spreading, subsidence, or collapse. Collapsible soils and the potential for lateral spreading to affect the Project is low because most of the areas with liquefaction potential are along relatively flat terrain and liquefiable layers are below the groundwater table as identified in the *Sepulveda Transit Corridor Project, Detailed Geotechnical Exploration Plan* (Metro, 2024b). However, a lateral spreading hazard may exist along I-405 and the Santa Monica Mountains due to liquefiable soils and steep slope topography for the aerial alignment, stations, and TPSS sites. Additionally, ground shaking leading to liquefaction of saturated soil could result in lateral spreading where the soil undergoes a temporary loss of strength, and if the liquefied soil is not contained laterally, it may result in deformation of the slope. Liquefaction is considered most likely to occur within the first 50 feet below ground surface. The underground portions of the alignment would be significantly deeper than 50 feet below ground surface; therefore, the potential liquefaction impacts on the tunnel are low.

Excavation for construction of underground structures, such as station boxes, cut-and-cover tunnels, and tunnel portals, would be reinforced by shoring systems to protect abutting buildings, utilities, and other infrastructure. Tunneling using a TBM would result in ground volume loss and potential ground movements. Dewatering, when performed to create a dry work condition for construction of the underground structures, would result in compaction or consolidation of the subsurface soils and thus result in surface settlements. These surface settlements could potentially affect the stability of nearby buildings, roads, and utilities, leading to structural damage, uneven ground surfaces, and the need for additional maintenance or repair work in the affected areas. This would be a potentially significant impact.

Alternative 3 would be in compliance with the regulatory requirements as defined in PM GEO-2. Under PM GEO-2, a site-specific evaluation of soil conditions shall be conducted and shall contain recommendations for ground preparation, earthwork, and compaction specifications based on the geological conditions specific to the site. However, even with implementation of these project measures, impacts may still be significant. In addition, Alternative 3 would implement MM GEO-1 through MM GEO-5. MM GEO-3 would also ensure compliance with the recommendations of the final soils and geotechnical report for the Project. Additionally, prior to construction, MM GEO-5 specifies that the developer shall prepare a CMP that explains how to address geologic constraints and minimize or avoid impacts to geologic hazards during construction.

Adherence to existing regulations and policies and implementation of MM GEO-1 through MM GEO-5 would ensure the maximum practicable protection available for users of buildings and infrastructure and associated trenches, slopes, and foundations. Therefore, with the implementation of mitigation measures, Alternative 3 would have a less than significant impact associated with the exposure of people or structures to hazards associated with unstable geologic units or soils.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design would be located on stable soils where no liquefaction or landslide zones are present as addressed in Section 6.2.6.2 and Section 6.2.6.3, respectively. Construction would not occur on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed MSF Base Design, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. The proposed MSF Base Design would be designed in compliance with applicable local, state, or federal laws or regulations, including recommendations on engineering and design considerations and with implementation of MM GEO-1 through MM GEO-5. Thus, construction of the proposed MSF Base Design would have less than significant impacts related to soil stability that could potentially result in landslides, lateral spreading, subsidence, liquefaction, or collapse.

MSF Design Option 1

The proposed MSF Design Option 1 would be located on stable soils where no liquefaction or landslide zones are present as addressed in 6.2.6.2 and Section 6.2.6.3, respectively. Construction would not occur on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed MSF Design Option 1, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. The proposed MSF Design Option 1 would be designed in compliance with applicable local, state, or federal laws or regulations, including recommendations on engineering and design considerations and with implementation of MM GEO-1 through MM GEO-5. Thus, construction of the proposed MSF Design Option 1 would have less than significant impacts related to soil stability that could potentially result in landslides, lateral spreading, subsidence, liquefaction, or collapse.

6.2.6.6 Impact GEO-6: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

While construction activities for Alternative 3 would primarily take place within the median of I-405, and local streets, the underground alignment of Alternative 3 would travel underground between the Wilshire Boulevard/Metro D Line Station, UCLA Gateway Station, and just before the Getty Center Station. Underground stations, including the Wilshire Boulevard/Metro D Line Station and the UCLA Gateway Plaza Station, would use a “cut-and-cover” construction method whereby the station structure would be constructed within a trench excavated from the surface that is covered by a temporary deck and backfilled during the later stages of station construction. A TBM would be used to construct the underground segment of the guideway.

As previously mentioned, expansive soils can be found almost anywhere including the Los Angeles Basin and San Fernando Valley. Expansive soils could have an impact on project elements, including the proposed stations, guideway, and TPSS sites. Construction of Alternative 3 includes excavation and surface ground disturbances, if expansive soils do exist, construction activities have the potential to create substantial direct or indirect risks to life or property. As such, impacts related to construction activities could be potentially significant.

To reduce these risks, Alternative 3 would be designed in accordance with the equivalent seismic design criteria such as the MRDC or equivalent criteria, Los Angeles County and other applicable local building codes, and the CBC. This includes compliance with equivalent MRDC Section 5 (or equivalent seismic

design criteria), which requires preparation of a geotechnical investigation during final design. This design-level geotechnical investigation must include a detailed evaluation of geologic hazards, including the depths and areal extents of liquefaction, soil expansiveness, lateral spread, and seismically induced settlement. This investigation would include collecting soil samples and performing tests to assess the potential for corrosion, consolidation, expansion, and collapse. Based on the investigation and test results, specific design recommendations, including potential remediation of expansive soils, would be developed to address any identified issues. Expansive soil remediation could include soil removal and replacement, chemical treatment, or structural enhancements.

Alternative 3 would be in compliance with the regulatory requirements as defined in PM GEO-2 which calls for a California-registered geologist and geotechnical engineer to submit to and conduct a site-specific evaluation of unstable soil conditions to confirm the existence of expansive soils. The evaluation would also provide recommendations for ground preparation and earthwork activities specific to the site and take into consideration both aerial and underground construction.

Moreover, Alternative 3 would be required to comply with applicable provisions of the CBC and the MRDC or equivalent criteria with regard to soil hazard-related design. The County of Los Angeles Building Code and City of Los Angeles Building Code require a site-specific foundation investigation and report for each construction site that identifies potentially unsuitable soil conditions and contains appropriate recommendations for foundation type and design criteria that conform to the analysis and implementation criteria described in the County of Los Angeles Building Code and the City of Los Angeles Building Code. Regulations exist to address weak soil issues, including expansion. PM GEO-3 would be required, as required by applicable local, state, or federal laws or regulations. Finally, prior to construction, the Project shall implement MM GEO-5, which requires preparation of a CMP which addresses geologic hazards such as soils with shrink-swell potential (expansive soils) and outlines strategies to minimize or avoid impacts.

With compliance with the regulatory requirements as defined in PM GEO-2, PM GEO-3, and implementation of MM GEO-5, Alternative 3 would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils during construction.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design would be required to comply with applicable provisions of the MRDC or equivalent criteria, Los Angeles County and other applicable local building codes, and CBC with regard to soil hazard-related design. The County of Los Angeles Building Code and City of Los Angeles Building Code require a site-specific foundation investigation and report for each construction site that identifies potentially unsuitable soil conditions and contains appropriate recommendations for foundation type and design criteria that conform to the analysis and implementation criteria described in the County of Los Angeles Building Code and the City of Los Angeles Building Code. Regulations exist to address weak soil issues, including expansion. With compliance with the regulatory requirements as defined in PM GEO-3 and adherence to existing regulations, the proposed MSF Base Design would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils.

MSF Design Option 1

Construction of the proposed MSF Design Option 1 may involve grading, excavation, or other ground disturbances. If expansive soils exist at these sites, construction activities have the potential to create substantial direct or indirect risks to life or property. As such, impacts related to construction activities could be potentially significant. The proposed MSF Design Option 1 would be in compliance with the

regulatory requirements as defined in PM GEO-2 which calls for a California-registered geologist and geotechnical engineer to submit to and conduct a site-specific evaluation of unstable soil conditions to confirm the existence of expansive soils. The evaluation would also provide recommendations for ground preparation and earthwork activities specific to the site. Moreover, the proposed MSF Design Option 1 would be required to comply with applicable provisions of the CBC and the MRDC or equivalent criteria with regard to soil hazard-related design, as described by PM GEO-3. Finally, prior to construction, the proposed MSF Design Option 1 shall implement MM GEO-5, which requires the preparation of a CMP which addresses geologic hazards such as soils with shrink-swell potential (expansive soils) and outlines strategies to minimize or avoid impacts.

With compliance with the regulatory requirements as defined in PM GEO-2, PM GEO-3, and implementation of MM GEO-5, the proposed MSF Design Option 1 would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils during construction.

6.2.6.7 Impact GEO-7: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No septic systems or alternative wastewater disposal systems are proposed for Alternative 3. Alternative 3 would have no impacts associated with soils incapable of adequately supporting such systems during construction activities.

Maintenance and Storage Facilities

MSF Base Design

No septic systems or alternative wastewater disposal systems are proposed for the proposed MSF Base Design. Therefore, the proposed MSF Base Design would have no impact associated with soils incapable of adequately supporting such systems during construction.

MSF Design Option 1

No septic systems or alternative wastewater disposal systems are proposed for the proposed MSF Design Option 1. Therefore, the proposed MSF Design Option 1 would have no impact associated with soils incapable of adequately supporting such systems during construction.

6.2.6.8 Impact GEO-8: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The footprint for Alternative 3 is the same as Alternative 1 north of the proposed Getty Center Station and south of the proposed Wilshire/Metro D Line Station. The ground disturbance specific to Alternative 3 also include the staging areas and activity that would also occur at the two proposed underground portal locations (General Services Administration property and the east side of I-405 across from Getty Center), the proposed UCLA Gateway Plaza Station, the Metro D Line Station, and within the underground easement proposed for the MRT system.

The portion of Alternative 3 that lies between these two proposed stations would have a 3.7-mile underground alignment located to the east of I-405. The underground alignment would go north of Wilshire Boulevard and travel underneath Westwood Village and UCLA, before returning to the I-405 corridor just south of the proposed Getty Center Station. The tunnel would consist of a 43-foot-wide single-bore structure flanked by two 8-foot-wide walkways or drive aisles, with a maximum depth of approximately 440 feet below the surface before ascending back to grade. Additionally, Alternative 3

would have two proposed underground MRT stations: the Wilshire/Metro D Line Station and the UCLA Gateway Plaza Station. Construction of the underground MRT stations would involve building MRT platforms and all vertical circulation elements required to facilitate pedestrian entrances and connections to the local roadways and the Metro D Line subway station.

The geologic units affected by the tunnel and underground stations include young alluvium, unit 2 (Qya2), Modelo Formation sandstone (Tms), and Modelo Formation Topanga Group undivided (Tt). However, these units may not fully represent the subsurface conditions, as the stratigraphy beneath the area is variable and less understood. For instance, beneath old alluvial fan deposits (Qof2) and Qya2, additional geologic units may be present.

Construction impacts of Alternative 3 would also extend to the ground surface, where access, staging, and laydown areas are needed to construct the foundations and columns required for the monorail. These activities would require an 8-foot-wide work area along each guideway beam, and an 8-foot-wide work area around each column/foundation. Additionally, construction activities would affect areas along the I-405 corridor to provide construction access and staging/laydown areas within and adjacent to the Caltrans ROW.

In addition, construction activities for Alternative 3 would occur at the two proposed underground portal locations (the General Service Administration property and the east side of I-405 across from Getty Center). Additional construction would occur at the proposed UCLA Gateway Plaza Station, Metro D Line Station, and within the underground easement designated for the MRT system. These stations would be constructed using a cut-and-cover method which would allow for monitoring and extraction of unknown paleontological resources.

Many of the impacts from Alternative 3 would result from the construction of the foundation columns for the MRT alignment and the foundations needed for the aerial MRT stations, switch locations, and long-span structures. The columns involved in Alternative 3 would range from 6 feet in diameter in the main alignment with a 7-foot-diameter foundation; 4-foot to 7-foot columns with an 8-foot-wide foundation at the I-405 median; 5-foot to 8-foot columns with a 9-foot foundation at the aerial MRT stations; 5-foot-diameter column with a 6-foot foundation at the switch locations; and lastly 10-foot diameter columns with a foundation 11 feet in diameter for the long-span structures.

The CIDH method would be used during the construction of the foundations for the columns. This method involves drilling deep into the ground, which could disturb paleontologically sensitive formations, particularly in areas mapped as having high paleontological sensitivity [Refer to Figure 5 in the *Paleontological Resources Technical Memorandum*, Attachment A of the *Sepulveda Transit Corridor Project Geotechnical, Subsurface, Seismic, and Paleontological Resources Technical Report (*Metro, 2025l] These activities could cause potentially significant impacts to paleontological resources if sensitive sediments are encountered.

However, the depth and disturbances of these sediments are difficult to discern, and it would be possible to destroy unique paleontological resource without proper monitoring. This would constitute a significant impact. To address this significant impact, MM GEO-6 through MM GEO-9 would be implemented. These measures include the use of onsite paleontological monitors who can quickly identify and protect resources until any discovered localities can be safely removed. These mitigation measures are designed to minimize impacts to paleontological resources by ensuring that any discoveries are properly documented, evaluated, and protected during construction activities. With the implementation of MM GEO-6 through MM GEO-9, impacts to paleontological resources would be reduced to less than significant for non-TBM activities.

However, for the underground tunnels of Alternative 3, which would require use of a TBM, it may not be possible to mitigate impacts paleontological resources to less than significant levels. TBMs are designed to excavate sediments to the precise dimensions of the finished tunnel, removing the excavated material through an internal conveyor belt while simultaneously erecting the tunnel's concrete walls. However, the operation of the TBM does not allow for real-time monitoring of the excavated sediments or the tunnel walls prior to the installation of the concrete lining. As a result, it is not possible to identify, document, and recover of paleontological resources that may be present within the paleontologically sensitive geologic units encountered during tunneling. Therefore, excavations for tunnel construction would result in a significant and unavoidable impact to paleontological resources when a TBM is used [Refer to Figure 5 in the *Paleontological Resources Technical Memorandum*, Attachment A of the *Sepulveda Transit Corridor Project Geotechnical, Subsurface, Seismic, and Paleontological Resources Technical Report (*Metro, 2025l].

Maintenance and Storage Facilities

MSF Base Design

The impacts involved with the MSF include the construction of the administrative buildings, maintenance buildings, wash facilities, drive aisles, storage tracks, and the columns for the aerial MSF. The surface rocks in the underground portions of the proposed MSF are mapped as Qya2 but may be more paleontologically sensitive (older) than indicated, at depth. With the implementation of MM GEO-6 through MM GEO-9, including construction monitoring, impacts associated with the MSF Base Design would be less than significant

MSF Base Design Option 1

The impacts involved with the MSF include the construction of the administrative buildings, maintenance buildings, wash facilities, drive aisles, storage tracks, and the columns for the aerial MSF. The surface rocks in the underground portions of the proposed MSF are mapped as Qya2 but may be more paleontologically sensitive (older) than indicated, at depth. Since the depth and extent of sensitive sediments are unknown, there is a potential to impact sensitive paleontological resources during ground disturbance activities. This would constitute a significant impact.

To address these impacts, Monorail MSF Design Option 1 would be required to implement MM GEO-6 through MM GEO-9, which include requirements for construction monitoring and resource management. With the implementation of these measures, the impact on paleontological resources from construction of the Monorail MSF Design Option 1 would be reduced to less than significant

6.2.6.9 Impact GEO-9: Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or an important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Construction of Alternative 3 would require excavation for columns and would use a TBM for tunnel construction. However, Alternative 3 would not be located in an area with known mineral deposits. Alternative 3 is located in areas designated as MRZ-1 and MRZ-3. The California Department of Conservation, Division of Mines and Geology has classified areas of regional significance as MRZ-2 (CGS, 2021). Alternative 3 would not be located within an area designated as MRZ-2. Alternative 3 would be located within areas designated as MRZ-1 in the northern portion of Alternative 3 in the San Fernando Valley as well as the southern portion of Alternative 3 near West Los Angeles. MRZ-1-designated areas indicate that no significant mineral deposits are present or little likelihood exists for their presence. No

mining operations are present within the Alternative 3 RSA, so construction of Alternative 3 would not disrupt mining operations. Therefore, Alternative 3 would have no construction impacts related to the loss of availability of a known mineral resource or a locally important mineral resource recovery site.

Maintenance and Storage Facilities

MSF Base Design

Construction of the MSF Base Design would require excavation for columns, but the MSF Base Design would not be located in an area with known mineral deposits. No mining operations are present within or in the vicinity of MSF Base Design, so construction of the MSF Base Design would not disrupt mining operations. Therefore, the MSF Base Design would have no construction impacts related to the loss of availability of a known mineral resource or a locally important mineral resource recovery site.

MSF Design Option 1

No known mineral resources that are of value to region or state are located within the proposed MSF Design Option 1. Currently, the proposed MSF Design Option 1 would be entirely developed and occupied by existing land uses. No mining operations are present on-site, and it is unlikely that any future production would occur because the surrounding areas are largely developed and urbanized with no mineral resources of value to the region and the state. Therefore, construction of MSF Design Option 1 would not result in the loss of availability of a known mineral resource, and MSF Design Option 1 would have no impact on known mineral resources or a locally important mineral resource recovery site.

6.2.6.10 Project and Mitigation Measures

Alternative 3 would implement the following project and mitigation measures to ensure that impacts to the geology, soils, and seismicity remain less than significant during construction activities:

PM GEO-1: *The Project shall demonstrate to the County of Los Angeles and the City of Los Angeles that the design of the Project complies with all applicable provisions of the California Building Code with respect to seismic design. Compliance shall include the following:*

- *California Building Code Seismic Zone 4 Standards as the minimum seismic-resistant design for all proposed facilities*
- *Seismic-resistant earthwork and construction design criteria (i.e., for the construction of the tunnel below ground surface, liquefaction, landslide, etc.), based on the site-specific recommendations of a California Registered Geologist in cooperation with the Project Engineers.*
- *An engineering analysis to characterize site specific performance of alluvium or fill where either forms part or all of the support.*

PM GEO-2: *A California-registered geologist and geotechnical engineer shall submit to and have approval by the Project a site specific evaluation of unstable soil conditions, including recommendations for ground preparation and earthwork activities specific to the site and in conformance with City of Los Angeles Building Code, County of Los Angeles Building Code, the California Building Code, Metro Rail Design Criteria (as applicable), and Caltrans Structure Seismic Design Criteria.*

PM GEO-3: *The Project shall demonstrate that the design of the Project complies with all applicable provisions of the County of Los Angeles Building Code and City of Los Angeles Building Code.*

MM GEO-1: *The Project's design shall include integration and installation of early warning system to detect and respond to strong ground motion associated with ground rupture. Known active fault(s) (i.e., Santa Monica Fault) shall be monitored. Linear monitoring systems such as time domain reflectometers or equivalent or more effective technology shall be installed along fixed guideway in the zone of potential ground rupture.*

MM GEO-2: *Where excavations are made for the construction of the below surface tunnel, the Project shall either shore excavation walls with shoring designed to withstand additional loads or reduce the slope of the excavation walls to a shallower gradient. Excavation spoils shall not be placed immediately adjacent to excavation walls unless the excavation wall is shored to support the added load. Spoils should be stored at a safe distance from the excavation site to prevent undue pressure on the walls.*

MM GEO-3: *The Project shall comply with the recommendations of the final soils and geotechnical report. These recommendations shall be implemented in the design of the Project, including but not limited to measures associated with site preparation, fill placement, temporary shoring and permanent dewatering, groundwater seismic design features, excavation stability, foundations, soil stabilization, establishment of deep foundations, concrete slabs and pavements, surface drainage, cement type and corrosion measures, erosion control, shoring and internal bracing, and plan review.*

MM GEO-4: *In locations where soils have a potential to be corrosive to steel and concrete, the soils shall be removed, and buried structures shall be designed for corrosive conditions, and corrosion-protected materials shall be used in infrastructure.*

MM GEO-5: *Prior to construction, the Project shall prepare a Construction Management Plan (CMP) that addresses geologic constraints and outlines strategies to minimize or avoid impacts to geologic hazards during construction. The plan shall address the following geological and geotechnical constraints/resources and incorporate standard mitigation measures (shown in parentheses):*

- *Groundwater withdrawal (using dewatering pumps and proper disposal of contaminated groundwater according to legal requirements)*
- *Risk of ground failure from unstable soils (retaining walls and inserting soil stabilizers)*
- *Subsidence (retaining walls and shoring)*
- *Erosion control methods (netting on slopes, bioswales, sediment basins, re-vegetation)*
- *Soils with shrink-swell potential (inserting soil stabilizers)*
- *Soils with corrosive potential (protective coatings and protection for metal, steel or concrete structures, soil treatment, removal of corrosive soils and proper disposal of any corrosive soils)*

- *Impact to topsoils (netting, and dust control)*
- *The recommendations of the CMP would be incorporated into the project plans and specifications.*

MM GEO-6: *The potential to avoid impacts to previously unrecorded paleontological resources shall be avoided by having a qualified Paleontologist or Archaeologist cross-trained in paleontology, meeting the Society of Vertebrate Paleontology Standards retained as the project paleontologist, with a minimum of a bachelor's degree (B.S./B.A.) in geology, or related discipline with an emphasis in paleontology and demonstrated experience and competence in paleontological research, fieldwork, reporting, and curation. A paleontological monitor, under the guidance of the project paleontologist, shall be present as required by the type of earth-moving activities in the Project, specifically in areas south of Ventura Boulevard that have been deemed areas of high sensitivity for paleontological resources. The monitor shall be a trained paleontological monitor with experience and knowledge of sediments, geologic formations, and the identification and treatment of fossil resources.*

MM GEO-7: *A Paleontological Resources Impact Mitigation Program (PRIMP) shall be prepared by a qualified paleontologist. The PRIMP shall include guidelines for developing and implementing mitigation efforts, including minimum requirements, general fieldwork, and laboratory methods, threshold for assessing paleontological resources, threshold for excavation and documentation of significant or unique paleontological resources, reporting requirements, considerations for the curation of recovered paleontological resources into a relevant institution, and process of documents to Metro and peer review entities.*

MM GEO-8: *The project paleontologist or paleontological monitor shall perform a Workers Environmental Awareness Program training session for each worker on the project site to familiarize the worker with the procedures in the event a paleontological resource is discovered. Workers hired after the initial Workers Environmental Awareness Program training conducted at the pre-grade meeting shall be required to take additional Workers Environmental Awareness Program training as part of their site orientation.*

MM GEO-9: *To prevent damage to unanticipated paleontological resources, a paleontological monitor shall observe ground-disturbing activities including but not limited to grading, trenching, drilling, etc. Paleontological monitoring shall start at full time for geological units deemed to have "High" paleontological sensitivity. Geological units deemed to have "Low" paleontological sensitivity shall be monitored by spot checks. No monitoring is required for geologic units identified as having "No" paleontological sensitivity. "Unknown" paleontological sensitivity is assigned to the less metamorphosed portions of the Santa Monica Slate, as detailed below.*

- *The monitor shall be empowered to temporarily halt or redirect construction efforts if paleontological resources are discovered. The paleontological monitor shall flag an area 50 feet around the discovery and notify the construction crew immediately. No further disturbance in the flagged area shall occur until the qualified paleontologist has cleared the area. In consultation with the qualified paleontologist, the monitor shall quickly assess the nature and significance of the*

find. If the specimen is not significant, it shall be quickly removed, and the area cleared. In the event paleontological resources are discovered and deemed by the project paleontologist to be scientifically important, the paleontological resources shall be recovered by excavation (i.e., salvage and bulk sediment sample) or immediate removal if the resource is small enough and can be removed safely in this fashion without damage to the paleontological resource. If the discovery is significant, the qualified paleontologist shall notify Metro immediately. In consultation with Metro, the qualified paleontologist shall develop a plan of mitigation, which will likely include salvage excavation and removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation of the find in a local qualified repository, and preparation of a report summarizing the find.

- *Generally, geologic units that have endured metamorphic processes (i.e., extreme heat and pressure over long periods of time) do not contain paleontological resources. The Santa Monica Slate, originally a fossiliferous shale, has been subjected to various levels of metamorphism and thus, in areas of "low-grade metamorphism," paleontological resources may be discovered. Due to the rarity of paleontological resources dating to the Mesozoic (between approximately 65.5 to 252 million years ago) of Southern California, any such materials have high importance to the paleontology of the region. When encountered, the project paleontologist shall assess the levels of metamorphism that portion of the Santa Monica Slate has experienced. The Santa Monica Slate shall be monitored part time where the project paleontologist has determined lower levels of metamorphism have taken place and the preservation of paleontological resources is possible. If exposures of the Santa Monica Slate have been subjected to high levels of metamorphism (i.e., phyllite components of Jsmp), paleontological monitoring in that portion of the formation is not necessary.*
- *Recovered paleontological resources shall be prepared, identified to the lowest taxonomic level possible, and curated into a recognized repository (i.e., Natural History Museum of Los Angeles County). Bulk sediment samples, if collected, shall be "screen-washed" to recover the contained paleontological resources, which will then be identified to the lowest taxonomic level possible, and curated (as above). The report and all relevant field notes shall be accessioned along with the paleontological resources.*

Impacts After Mitigation

Adherence to existing regulations and the implementation of PM GEO-1 and, MM GEO-1 would ensure that Alternative 3 would remain with a less than significant impact associated with exposing people or structures to seismic ground shaking, including effects related to seismic-related ground failure during construction activities.

Adherence to existing regulations and implementation of PM GEO-1 would ensure that Alternative 3 would remain with a less than significant impact with the exposure of people or structures to liquefaction during construction activities.

With adherence to existing regulations, Alternative 3 would have a less than significant impact associated with landslides and/or slope instability during construction activities.

Adherence to existing regulations and policies and the implementation of PM GEO-2 and MM GEO-3 through MM GEO-5 would ensure the maximum practicable protection available for users of buildings and infrastructure and associated trenches, slopes, and foundations. Therefore, Alternative 3 would have a less than significant impact associated with the exposure of people or structures to hazards associated with unstable geologic units or soils.

With implementation of PM GEO-3 and adherence to existing regulations, Alternative 3 would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils.

When grading and trenching activities are employed, observation of the MM GEO-6 through MM GEO-9 would reduce the impact to paleontological resources to less than significant. However, use of the CIDH method and TBM would grind the soil and not allow careful inspection for paleontological resources. Where the CIDH method and TBM are used, impacts would remain significant and unavoidable

6.2.7 Growth Inducing Impacts

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-18.

Table 6-18. Alternative 3: Growth Inducing Impacts Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Growth Inducing Impacts		
Impact GI-1: Would the Project foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GI-2: Would the project remove obstructions to population growth … [or] encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025e

GI = growth inducing
LTS = less than significant
NA = not applicable

6.2.7.1 Impact GI-1: Would the project foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment?

Construction of Alternative 3 would result in temporary environmental impacts within the RSA due to the necessary addition of construction workers. However, these workers would likely be sourced from the local labor pool, and thus the temporary employment opportunities for Alternative 3 would not directly foster the construction of permanent housing for workers in the Alternative 3 RSA. Thus, construction of Alternative 3 would result in less than significant impacts related to unplanned population, housing, and employment growth.

Maintenance and Storage Facilities

MSF Base Design

Construction of the MSF Base Design would not construct any new housing units; therefore, the MSF Base Design would not generate new or unplanned population and housing growth. Thus, construction of the MSF Base Design would result in less than significant impacts related to unplanned population, housing, and employment growth.

MSF Design Option 1

Construction of the MSF Design Option 1 would not construct any new housing units and therefore would not generate new or unplanned population and housing growth. Thus, construction of the MSF Design Option 1 would result in less than significant impacts related to unplanned population, housing, and employment growth.

6.2.7.2 Impact GI-2: Would the project remove obstructions to population growth…[or] encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively?

Construction of Alternative 3 would result in temporary influxes of construction workers, equipment, and vehicular trips to the Alternative 3 RSA. However, because the Alternative 3 RSA would be within a densely developed region, and because construction workers would likely reside in the wider metropolitan area, construction activities would not induce growth or extend environmental impacts into previously undeveloped areas. Construction activities for Alternative 3 would not remove obstructions to population growth, nor encourage or facilitate other projects that have not already been identified in the SCAG 2024-2050 RTP/SCS, Metro's 2020 LRTP, the 2023 FTIP, or Measure M. Thus, construction of Alternative 3 would result in less than significant impacts related to the removal of obstructions to population growth or encouragement and facilitation of other activities that could significantly affect the environment, either individually or cumulatively.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design would be within an urbanized region and would be constructed on a previously developed area. The MSF Base Design would not construct any housing units and thus would not generate unplanned population or housing growth. The construction of the MSF Base Design would not remove obstruction to population growth, nor encourage or facilitate other unplanned projects. Thus, construction of the MSF Base Design would result in less than significant impacts related to the removal of obstructions to population growth or encouragement and facilitation of other activities that could significantly affect the environment, either individually or cumulatively.

MSF Design Option 1

The MSF Design Option 1would be within an urbanized region and would be constructed on a previously developed area. The MSF Design Option 1 would not construct any housing units and thus would not generate unplanned population or housing growth. Thus, construction of the MSF Design Option 1would result in less than significant impacts related to the removal of obstructions to population growth or encouragement and facilitation of other activities that could significantly affect the environment, either individually or cumulatively.

6.2.7.3 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

6.2.8 Hazards and Hazardous Materials

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-19.

Table 6-19. Alternative 3: Hazards and Hazardous Materials Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Hazards and Hazardous Materials Construction Impacts		
Impact HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM HAZ-1 through MM HAZ-5
	Impacts After Mitigation	LTS
Impact HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025m

HAZ = hazards and hazardous materials
LTS = less than significant
MM = mitigation measure
NA = not applicable

6.2.8.1 Impact HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction of Alternative 3 could expose the public or the environment to hazardous materials due to improper handling or use of hazardous materials or hazardous wastes particularly by untrained personnel; transportation accident; environmentally unsound disposal methods; or fire, explosion, or other emergencies. Much of the construction activities associated with Alternative 3 would be similar to

Alternative 1 construction activities where the project alternatives share alignment and station components. The risks of public exposure to hazardous materials would be generally the same as those described for Alternative 1. The severity of potential effects would vary with the activity conducted, the concentration of and type of hazardous material or wastes present, and the proximity of sensitive receptors.

Regulatory requirements described for Alternative 1 would be applicable to Alternative 3. As mandated by PM HAZ-2, transportation of hazardous materials would comply with state regulations governing hazardous materials transport included in the California Vehicle Code (Title 13 of the CCR), the State Fire Marshal Regulations (Title 19 of the CCR), and Title 22 of the CCR.

The types and amounts of hazardous materials would vary according to the nature of the construction activity. Construction of Alternative 3 would require use of typical construction equipment (e.g., gasoline- or diesel-powered machinery) and vehicles containing fuel, oil, and grease, as well as use and transport of these materials. Alternative 3 requires the use of the tunnel boring machine (TBM) during underground tunnel construction activities. Alternative 3 is anticipated to result in some contaminated soil associated with mass excavation efforts. Limited quantities of certain hazardous materials such as paints, solvents, and glues would be used during construction. Construction staging and laydown would occur at multiple locations along the alignment and station sites and could include storage of excavated materials, construction offices, equipment storage, mechanical shops, and plants (grout, water treatment, foam, etc.) (Metro, 2025m). There is low likelihood that substantial quantities of hazardous materials would be stored during construction. Moreover, these hazardous materials would not include acutely hazardous materials or substances listed in 40 CFR 355 *Appendix A: Extremely Hazardous Substances and Their Threshold Planning Quantities* that could harm construction workers or the general public.

Whether a person exposed to a hazardous substance suffers adverse health effects as a result of that exposure depends upon a complex interaction of factors, including the following: the exposure pathway (the route by which a hazardous material enters the body); the amount of material to which the person is exposed; the physical form of the hazardous material (e.g., liquid, vapor) and its characteristics (e.g., toxicity); the frequency and duration of exposure; and the individual's unique biological characteristics, such as age, gender, weight, and general health. Adverse health effects from exposure to hazardous materials may be short term (acute) or long term (chronic). Acute effects can include damage to organs or systems in the body and possibly death. Chronic adverse effects, which may result from acute short-term or long-term exposure to a hazardous material, can also include organ or systemic damage, but chronic effects of particular concern include birth defects, genetic damage, and cancer.

Transportation of hazardous materials, such as contaminated soils; hazardous building materials, including asbestos, lead, and PCBs; and other hazardous wastes (i.e., TWW, roadway demolition debris, hazardous building materials) would occur along designated truck routes within the Alternative 3 corridor and/or along major streets connecting to construction staging areas and the nearest freeways (e.g., I-405, I-10, US-101). Contaminated soils and hazardous building materials and wastes would be disposed of in accordance with federal, state, and local requirements. Table 6-20 provides a representative list of the hazardous waste disposal landfills and potential haul routes.

As mandated by project measure PM HAZ-2, transportation of hazardous materials would comply with state regulations governing hazardous materials transport as stated in the California Vehicle Code (Title 13 of the CCR), the State Fire Marshal Regulations (Title 19 of the CCR), and Title 22 of the CCR. In

addition, PM HAZ-2 would incorporate restrictions on haul routes into the construction specifications according to local permitting requirements.

Adherence to federal and state regulations stipulated by PM HAZ-2 reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With compliance with existing regulations, impacts related to the creation of significant hazards to the public or the environment through the routine transport, storage, use, and disposal of hazardous materials during construction of Alternative 3 would be less than significant.

Table 6-20. Alternative 3: Hazardous Waste Disposal Landfills and Potential Haul Routes

Landfill Site Name	Hazardous Waste Accepted	General Potential Haul Route
South Yuma County Landfill 19536 South Avenue 1E Yuma, AZ	Contaminated soil, PCBs, asbestos	I-405 South to SR-91 East to I-15 South to I-8 East to Yuma, Arizona
Clean Harbors Buttonwillow 2500 West Lokern Road Buttonwillow, CA	Acutely hazardous materials[a], contaminated soil, PCBs, asbestos, RCRA waste with heavy metals	I -405 North to I-5 North to SR-58 West to Lokern Road
U.S. Ecology Highway 95 South Beatty, NV	Contaminated soil, PCBs, asbestos	I-405 North to I-10 East to I-15 North to I-95 North to Beatty, Nevada

Source: HTA, 2024

[a]Acutely hazardous materials are defined as waste containing dangerous chemicals that could pose a threat to human health and the environment even when properly managed.

PCB = polychlorinated biphenyls
RCRA = Resource Conservation and Recovery Act

Maintenance and Storage Facilities

MSF Base Design

The types and amounts of hazardous materials would vary according to the nature of the activity. Construction of the MSF Base Design would require use of typical construction equipment (e.g., gasoline- or diesel-powered machinery) and vehicles containing fuel, oil, and grease, as well as use and transport of these materials. Limited quantities of certain hazardous materials such as paints, solvents, and glues would be used during construction.

Maintenance of monorail vehicles and equipment would occur at an MSF. Multiple buildings would be constructed, including a multi-level maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, and traction power substation structure. Operation of the MSF would involve the use of small amounts of hazardous substances such as oil, grease, solvents, paints, common household-type cleaning materials, and pesticides/herbicides. Cleaning and maintenance products are required to be labeled with appropriate cautions and instructions for handling, storage and disposal, and do not represent a significant threat to human health and the environment. Staff would be required to use, store, and dispose of these materials properly in accordance with label directions. The types and amounts of hazardous materials used at the MSF Base Design would not pose any greater risk than the existing uses at other similar development elsewhere in the vicinity of the MSF Base Design. Operation of the MSF Base Design would not require the use, handling, or storage of quantities of hazardous materials in excess of regulatory thresholds. If the quantity of hazardous materials used, handled, or

stored on-site would exceed the regulatory thresholds, there is an established comprehensive regulatory framework independent of the CEQA process that would be followed, including preparation and submittal of a Hazardous Materials Business Plan (HMBP), as mandated by PM HAZ-1.

As previously discussed, adherence to federal and state regulations stipulated by PM HAZ-2 reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With compliance to existing regulations, impacts related to the creation of significant hazards to the public or the environmental through the routine transport, storage, use, and disposal of hazardous materials during construction of the MSF Base Design would be less than significant.

MSF Design Option 1

The types and amounts of hazardous materials would vary according to the nature of the activity. Construction of the MSF Design Option 1 would require use of typical construction equipment (e.g., gasoline- or diesel-powered machinery) and vehicles containing fuel, oil, and grease, as well as use and transport of these materials. Limited quantities of certain hazardous materials such as paints, solvents, and glues would be used during construction.

As previously discussed, adherence to federal and state regulations stipulated by PM HAZ-2 reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With compliance with existing regulations, impacts related to the creation of significant hazards to the public or the environment through the routine transport, storage, use, and disposal of hazardous materials during construction of the MSF Design Option 1 would be less than significant.

6.2.8.2 Impact HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction activities for the proposed Project, such as grading and mass excavation, including use of a TBM, could result in the exposure of construction personnel and the public to previously unidentified hazardous substances in the soil. Exposure to unanticipated hazardous substances could occur from previously unidentified soil contamination caused by the contaminants originating at nearby listed sites (e.g., roadways and industrial uses). Or from construction-related soil contamination caused by spillage and/or mixing of construction trash and debris into the soil. EDR searched various regulatory databases and identified several sites in the surrounding area as being contaminated or having the potential to become contaminated from the release of hazardous substances. A summary and details of these sites are presented in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m).

Exposure to hazardous materials during construction activities could occur as a result of any of the following:

- Direct dermal contact with hazardous materials

- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking)
- Inhalation of airborne dust released from dried hazardous materials

If any unidentified sources of contamination are encountered during demolition, grading, or excavation, the removal activities required could pose health and safety risks capable of resulting in various short-term or long-term adverse health effects in exposed persons. The risks are particularly heightened during tunneling activities, which would involve deeper excavation and may encounter legacy contamination or naturally occurring hazardous materials that are less likely to be present near the surface.

If tunneling is advanced through contaminated soil or groundwater, the excavated soil/slurry mix could be considered hazardous, depending on the levels of contamination encountered. Potentially affected parcels within one-quarter mile of Alternative 3 may have subsurface contamination from undocumented releases associated with current and/or historical use of the property(ies) (e.g., gas stations, dry cleaners, or industrial properties) (ICF, 2022b). During construction, there is the potential to encounter, dewater, and dispose of contaminated groundwater during ground-disturbing activities, shallow excavation, tunnel boring, excavation for the underground guideway, or relocation of utilities. During construction activities involving ground-disturbing activities, there is potential to encounter contaminated groundwater. This risk is heightened when performing shallow excavations, utilities relocation, or construction that requires dewatering. If contaminated groundwater is encountered, it would be managed and disposed of in compliance with local, state, and federal regulations. This could include treating the contaminated groundwater on-site or offsite or transporting it to a wastewater treatment facility capable of handling hazardous materials.

The Area 4 Pollock OU could potentially extend near the northern portions of Alternative 3 north of Saticoy Street (ICF, 2022a). A historical manufacturing work in the Valley groundwater basin, dating back to World War II, contaminated the groundwater in the region with volatile organic compounds (VOCs), including trichloroethylene (TCE) and tetrachloroethylene (PCE). Use of contaminated groundwater poses the greatest risk at this site. The Valley Area 4 groundwater contamination is being addressed through the coordination of federal, state and municipal agencies including EPA, DTS, SRWQCB, and Los Angeles Regional Water Quality Control Board (LARWQCB). EPA conducted rounds of indoor sampling in the Atwater Village area (outside of the RSA) and determined that the VOCs migrating from the groundwater did not impact the area. Based on these results, it can be inferred that VOCs would not affect proposed stations under Alternative 3.

The tunnel alignment for Alternative 3 would traverse the methane and methane buffer zones in the southern portion of the alignment. The Santa Monica Boulevard Station and the Wilshire/Metro D Line Station would be within the methane hazard zone. Methane gas and hydrogen sulfides are highly flammable and can pose challenges during construction, particularly when tunneling activities disturb formations where methane gas and/or hydrogen sulfide may accumulate. The use of a TBM in such areas increase the potential for encountering pockets of methane gas and/or hydrogen sulfide, which could lead to fire or explosion hazards if proper precautions are not taken. Pursuant to Section 91.7104.1 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619) and as outlined in PM HAZ-3, all construction activities within the methane hazard zone would implement the City's methane mitigation measures. These measures include subsurface testing of geological formations, compliance with Methane Mitigation Standards established by the Superintendent of Building, and installation of methane gas and/or hydrogen sulfide mitigation systems for all

underground structures, such as stations and tunnels. During tunneling, monitoring for methane gas and/or hydrogen sulfide concentrations, maintaining ventilation systems to minimize accumulation of gas.

Several high-pressure pipelines containing crude oil traverse the RSA. A review of the PHMSA Pipeline Map Viewer (PHMSA, 2023) indicated there have been no recorded pipeline releases within the RSA. However, Project-related excavation and earthmoving activities could encounter buried pipelines resulting in accidental rupture or leaks, which could cause a human health and environmental hazard. For security reasons, the PHMSA Pipeline Map Viewer (PHMSA, 2023) cannot be used for field verification of exact high-pressure pipeline locations, and the potential presence of other pipelines is unknown. In addition, it is possible buried underground utility lines may be within the RSA (such as stormwater, sewer, electrical, or communication cables). In addition, utility relocation could result in TWW that requires disposal.

Construction would require demolition of existing structures. Demolition of structures could potentially expose construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials such as ACM, LBP, or PCBs. Both the federal OSHA and Cal/OSHA regulate worker exposure during construction activities that disturb LBP. Any ACMs, if present, would need appropriate abatement of identified asbestos prior to demolition pursuant to the SCAQMD Rule 1403 and PM HAZ-4.

Additional effects from construction activities, such as excavation, tunneling, demolition, and grading, could include the potential exposure of construction workers and/or the public to chemical compounds in soils, and soil gases. These activities may also result in the localized spread of contamination if disturbed soils or materials are improperly handled, leading to the migration of contaminants to previously uncontaminated areas. In addition, airborne chemical compounds released from construction or demolition areas, such as dust containing hazardous substances, could pose inhalation risks to workers, nearby residents, and the environment. Transportation of contaminated slurry or soils off-site for disposal could also result in accidental releases, such as spills or leaks, if proper containment measures are not implemented. Therefore, construction impacts related to creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials would be potentially significant.

Alternative 3 would be required to implement MM HAZ-1 through MM HAZ-5, which would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling, transporting, and disposing of hazardous materials. Implementation of MM HAZ-1 through MM HAZ-5would minimize the risk of exposing construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials such as ACM, LBP, or PCBs during demolition activities. Regulations stipulated by PM HAZ-3 would ensure that the city's methane and/or hydrogen sulfide mitigation measures to reduce the potential exposure of construction workers and the public to methane gas would be implemented. Therefore, with implementation of MM HAZ-1 through MM HAZ-5, and adherence to PM HAZ-3, applicable local, state, and federal regulations would reduce impacts related to the upset and accidental release of hazardous materials to a less than significant level.

Maintenance and Storage Facilities

MSF Base Design

A search of various regulatory databases identified several sites in the surrounding area as being contaminated or having the potential to become contaminated from the release of hazardous substances. A summary of these sites identified by EDR is presented in Attachment 1C of the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m). Searches of the EPA Envirofacts website, the SWRCB's GeoTracker website, and DTSC's EnviroStor website indicate there are closed LUST cases within 0.5 miles of the MSF Base Design. Sites that are listed as "Closed" signify that they have been remediated to the satisfaction of the agency with oversight. No Brownfields sites were identified within or in the vicinity of the MSF Base Design.

Construction activities for the proposed Project, such as grading and excavation, could result in the exposure of construction personnel and the public to previously unidentified hazardous substances in the soil. Exposure to unanticipated hazardous substances could occur from previously unidentified soil contamination caused by the contaminants originating at nearby listed sites (e.g., roadways and industrial uses). Or from construction-related soil contamination caused by spillage and/or mixing of construction trash and debris into the soil. EDR searched various regulatory databases and identified several sites in the surrounding area as being contaminated or having the potential to become contaminated from the release of hazardous substances. A summary and details of these sites are presented in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m). Exposure to hazardous materials during construction activities could occur as a result of any of the following:

- Direct dermal contact with hazardous materials
- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking)
- Inhalation of airborne dust released from dried hazardous materials

If any unidentified sources of contamination are encountered during demolition, grading, or excavation, the removal activities required could pose health and safety risks capable of resulting in various short-term or long-term adverse health effects in exposed persons.

Construction would require demolition of existing structures. Demolition of structures could potentially expose construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials (such as ACM, LBP, or PCBs). Both the federal OSHA and Cal/OSHA regulate worker exposure during construction activities that disturb LBP. Any ACMs, if present, would need appropriate abatement of identified asbestos before demolition begins, pursuant to the SCAQMD Rule 1403 and PM HAZ-4.

Additional effects could include the potential exposure of construction workers and/or the public to chemical compounds in soils, and soil gases; potential localized spread of contamination; potential exposure of workers, the public, and the environment to airborne chemical compounds migrating from the construction or demolition areas; and potential accidents during transportation of contaminated slurry or soils. Therefore, construction impacts related to creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials would be potentially significant.

The MSF Design Option would be required to implement MM HAZ-1 through MM HAZ-4, which would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling hazardous materials and would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials. Therefore, with implementation of MM HAZ-1 through MM HAZ-4, and adherence to applicable local, state, and federal regulations would reduce impacts related to the upset and accidental release of hazardous materials to a less than significant level.

MSF Design Option 1

Construction activities for the proposed Project, such as grading and excavation, could result in the exposure of construction personnel and the public to previously unidentified hazardous substances in the soil. Exposure to unanticipated hazardous substances could occur from previously unidentified soil contamination caused by the contaminants originating at nearby listed sites (e.g., roadways and industrial uses). Or from construction-related soil contamination caused by spillage and/or mixing of construction trash and debris into the soil. EDR searched various regulatory databases and identified several sites in the surrounding area as being contaminated or having the potential to become contaminated from the release of hazardous substances. A summary and details of these sites are detailed in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m). Exposure to hazardous materials during construction activities could occur as a result of any of the following:

- Direct dermal contact with hazardous materials
- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking)
- Inhalation of airborne dust released from dried hazardous materials

If any unidentified sources of contamination are encountered during demolition, grading, or excavation, the removal activities required could pose health and safety risks capable of resulting in various short-term or long-term adverse health effects in exposed persons.

Construction would require demolition of existing structures. Demolition of structures could potentially expose construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials (such as ACM, LBP, or PCBs). Both the federal OSHA and Cal/OSHA regulate worker exposure during construction activities that disturb LBP. Any ACMs, if present, would need appropriate abatement of identified asbestos before demolition begins, pursuant to the SCAQMD Rule 1403 and PM HAZ-4.

Additional effects could include the potential exposure of construction workers and/or the public to chemical compounds in soils, and soil gases; potential localized spread of contamination; potential exposure of workers, the public, and the environment to airborne chemical compounds migrating from the construction or demolition areas; and potential accidents during transportation of contaminated slurry or soils. Therefore, construction impacts related to creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials would be potentially significant.

The MSF Design Option would be required to implement MM HAZ-1 through MM HAZ-4, which would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling hazardous materials and would

minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials. Therefore, with implementation of MM HAZ-1 through MM HAZ-4, and adherence to applicable local, state, and federal regulations would reduce impacts related to the upset and accidental release of hazardous materials to a less than significant level.

6.2.8.3 Impact HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Construction of Alternative 3 would involve similar handling of hazardous materials and diesel-powered equipment within 0.25 mile of schools as that described for Alternative 1. Regulatory requirements associated with the handling of hazardous materials would be the same for Alternative 3. (Refer to the Construction Impacts discussion under Alternative 1 for further detail on regulatory requirements the govern the handling of hazardous materials).

Adherence to federal and state regulations reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With incorporation of existing regulations, construction of Alternative 3 would have less than significant impacts associated with the transportation, use, storage, and handling hazardous materials within one-quarter mile of an existing school.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design is not located within 0.25 miles of a school. Therefore, the MSF Base Design would have no impact related to emissions of hazardous materials within 0.25 miles of a school.

MSF Design Option 1

The MSF Design Option 1 is not located within 0.25 miles of a school. Therefore, the MSF Design Option 1 would have no impact related to emissions of hazardous materials within 0.25 miles of a school.

6.2.8.4 Impact HAZ-4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Alternative 3 includes 48 LUST sites that are identified on the Cortese List as having confirmed releases of hazardous materials, including petroleum hydrocarbons, VOCs, and metals to soil and groundwater. These sites are identified in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m). The LUST sites have been remediated and are classified as closed by the regulatory agency. Sites listed as sites are listed as “Closed” signify that they have been remediated to the satisfaction of the agency with oversight. Based on the regulatory status of case closed, these sites are not anticipated to have a negative environmental impact on the project site. Alternative 3 is located on a site that is included on one or more hazardous materials lists compiled in accordance with Government Code Section 65962.5. With adherence to existing regulations, Alternative 3 would not create or result in a significant hazard to people or the environment, and the Alternative 3 would result in a less than significant impact.

Maintenance and Storage Facilities

MSF Base Design

The hazardous site conditions for the MSF Base Design related to Government Code Section 65962.5, commonly known as the Cortese List, are associated with contaminated soils, and these sites are listed as "Closed," which signifies that they have been remediated to the satisfaction of the agency with oversight (refer to the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* [Metro, 2025m]). Based on the regulatory status of case closed, these sites are not anticipated to have a negative environmental impact on the project site. With adherence to existing regulations, MSF Base Design would not create or result in a significant hazard to people or the environment, and the MSF Base Design would result in a less than significant impact.

MSF Design Option 1

The hazardous site conditions for the MSF Design Option 1 related to Government Code Section 65962.5, commonly known as the Cortese List, are associated with contaminated soils, and these sites are listed as "Closed," which signifies that they have been remediated to the satisfaction of the agency with oversight (refer to the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* [Metro, 2025m]). Based on the regulatory status of case closed, these sites are not anticipated to have a negative environmental impact on the project site. With adherence to existing regulations, MSF Design Option 1 would not create or result in a significant hazard to people or the environment, and the MSF Design Option 1 would result in a less than significant impact.

6.2.8.5 Impact HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Alternative 3 is 0.9 mile from the Van Nuys Airport and 1.2 miles from the Santa Monica Municipal Airport. The Van Nuys Airport Plan for the Van Nuys Airport and the Los Angeles County ALUP for the Santa Monica Municipal Airport implements relevant policies and guidelines for land-use compatibility and specific findings of compatibility or incompatibility of land uses within the AIA, airport safety zones, and noise impact zones. These plans also address airport land-use compatibility concerns regarding exposure to aircraft noise, land use safety with respect both to people and property on the ground and the occupants of the aircraft, protection of airport airspace, and general concerns related to aircraft overflights. According to the Van Nuys Airport Plan for the Van Nuys Airport and the Los Angeles County ALUP for the Santa Monica Municipal Airport, Alternative 3 is located outside the AIA for both airports. Alternative 3 is not located within the safety zone or the noise impact zone for the airports. (DCP, 2006; LA County Planning, 1991; ALUC, 2003a, 2003b, 2023).

Alternative 3 would not interfere with CFR Title 14 Part 77.13 which requires that any construction or alterations to structures that exceed 200 feet in height above ground level must notify the FAA for project approval. The Alternative 3 is not within the AIA, Safety Zones, and Noise Impact Zones. Adherence to existing local, state, and federal regulations would ensure that during construction of the Alternative 3, impacts associated with potential aviation hazards would be less than significant).

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design would be approximately 2.6 miles from the Van Nuys Airport and outside the airport's AIA. Because the MSF Base Design would be outside of the AIA, there are no airport land use

plans applicable to MSF. Thus, construction of the MSF Base Design would have no impact with respect to safety hazards for people residing or working in the vicinity of the MSF Base Design.

MSF Design Option 1

MSF Design Option 1 is 0.9 mile from the Van Nuys Airport. The Van Nuys Airport Plan for the Van Nuys Airport implements relevant policies and guidelines for land-use within the AIA, airport safety zones, and noise impact zones. These plans also address airport land-use compatibility concerns regarding exposure to aircraft noise, land use safety with respect both to people and property on the ground and the occupants of the aircraft, protection of airport airspace, and general concerns related to aircraft overflights. According to the Van Nuys Airport Plan for the Van Nuys Airport, MSF Design Option 1 is located outside the AIA. MSF Design Option 1 would not interfere with CFR Title 14 Part 77.13 which requires that any construction or alterations to structures that exceed 200 feet in height above ground level must notify the FAA for project approval. With adherence to existing federal, state and local regulations, the MSF Design Option 1 would not result in a safety hazard or excessive noise related airports and construction impacts would be less than significant.

6.2.8.6 Mitigation Measures

Construction Impacts

Project Measures

The following Project measures are design features, BMP, or other measures required by law and/or permit approvals. These measures are components of the Project and are applicable to Alternative 3.

PM HAZ-2: *Construction BMPs shall include but not be limited to:*

- *The Project shall be required to obtain permits before construction begins and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases in accordance with the U.S. Environmental Protection Agency, State Water Resources Control Board, Department of Toxic Substances Control, California Division of Occupational Safety and Health, and the South Coast Air Quality Management District.*
- *The Project shall develop a Stormwater Pollution Prevention Plan in accordance with the State Water Resources Control Board's Construction Clean Water Act Section 402 General Permit conditions, and subject to regular inspections by applicable jurisdiction(s) to ensure compliance. The Stormwater Pollution Prevention Plan shall include specifications for, but not be limited to, the following:*
  - *Maintain proper working conditions for vehicles and equipment to minimize potential fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials.*
  - *Conduct servicing, refueling, and staging of construction equipment only at designated areas where a spill would not flow to drainages. Conduct equipment washing, if needed, only in designated locations where water would not flow into drainage channels.*

  - *Implement drainage best management practices to protect water quality (such as oil/water separators, catch basin inserts, storm drain inserts, media filtration, and catch basin screens).*
  - *Report hazardous spills to the designated Certified Unified Program Agency (i.e., Los Angeles County Fire Department Health Hazardous Materials Division or Santa Fe Springs Department of Fire and Rescue) and implement clean up immediately and proper disposal of contaminated soil at a licensed facility.*
  - *Establish properly designed, centralized storage areas to keep hazardous materials fully contained.*
  - *Keep spill cleanup materials (e.g., rags, absorbent materials, and secondary containment) properly stored and contained at the work site when handling materials.*
  - *Implement monitoring program by the construction site supervisor that includes both dry and wet weather inspections.*

- *Transportation of hazardous materials by the Project shall comply with state regulations governing hazardous materials transport included in the California Vehicle Code (Title 13 of the California Code of Regulations), the State Fire Marshal Regulations (Title 19 of the California Code of Regulations), and Title 22 of the California Code of Regulations. These regulations include the following :*
  - *Require all motor carrier transporters of hazardous materials to have a Hazardous Materials Transportation license issued by the California Highway Patrol.*
  - *Require the transport of hazardous materials via routes with the least overall travel time.*
  - *Prohibit the transport of hazardous materials through residential neighborhoods.*
  - *Require transporters to take immediate action to protect human health and the environment in the event of spill, release, or mishap.*
  - *Incorporate restrictions on haul routes into the construction specifications according to local permitting requirements.*
- *Contaminated soils and hazardous building materials and wastes shall be disposed of in accordance with federal, state, and local requirements at landfills serving Los Angeles County. The removal and disposal of hazardous building materials shall be the responsibility of a California Division of Occupational Safety and Health-certified contractor in accordance with South Coast Air Quality Management District Rule 1403 (Asbestos Emissions from Renovation/Demolition Activities).*
- *Traffic control during construction shall follow local jurisdiction guidelines. For specialized construction tasks, it may be necessary to work during nighttime hours to minimize traffic disruptions.*

PM HAZ-3: *Construction best management practices for activities within methane hazard zones shall include, but not be limited to, the following:*

- *Pursuant to Section 91.7104.1 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619), site testing of subsurface geological formations shall be conducted by a Project-approved testing agency under the supervision of a licensed architect or registered engineer or geologist. The licensed architect or registered engineer or geologist shall indicate the testing instruments used and testing procedure followed. The testing procedure shall meet the Methane Mitigation Standards established by the Superintendent of Building.*
- *All paving work, building construction, tunneling and underground station construction within the methane zone or methane buffer zone as defined by Los Angeles Department of Building and Safety shall be required to comply with Methane Mitigation Standards established by the Superintendent of Building as well as the requirements outlined in Sections 91.7103 and 91.7104 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619).*
- *All building and underground structures, including tunneling and stations, located in the Methane Zone shall provide a methane mitigation system as required by Los Angeles Municipal Code Table 71 in Section 91.7104.2 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619) based on the appropriate Site Design Level. The Superintendent of Building may approve an equivalent methane mitigation system designed by an architect, engineer, or geologist.*

PM HAZ-4: *Construction best management practices for demolition of existing structures shall include, but shall not be limited to, the following:*

- *Both the federal Occupational Safety and Health Administration and California Division of Occupational Safety and Health regulate worker exposure during construction activities that disturb lead-based paint. Any asbestos-containing materials, if present, shall require appropriate abatement of identified asbestos prior to demolition pursuant to South Coast Air Quality Management District Rule 1403.*
- *Polychlorinated biphenyls (PCB)-containing fluorescent light fixtures and electrical transformers that are not labeled "No PCBs" shall be assumed to contain polychlorinated biphenyls and shall be removed prior to demolition activities and shall be disposed of by a licensed and certified polychlorinated biphenyls removal contractor, in accordance with local, state, and federal regulations. The removal and disposal of the electrical transformers shall be the responsibility of the utility owner in accordance with all standards and practices.*

PM HAZ-5: *Construction best management practices for the areas with known or previously undiscovered hazardous materials shall include, but not be limited to, the following:*

- *The Project shall hire a qualified professional to sample soil suspected of contamination (obvious signs of contamination include indicators such as odors, stains, or other suspect materials) for the purpose of classifying material and determining disposal requirements before construction begins. If excavated soil is suspected or known to be contaminated, the Project shall:*
  - *Segregate and stockpile the excavated material in a way that shall facilitate measurement of the stockpile volume.*
  - *Spray the stockpile with water or a South Coast Air Quality Management District-approved vapor suppressant and cover the stockpile with a heavy-duty plastic (i.e., Visqueen) to prevent soil volatilization in the atmosphere or exposure to nearby workers per South Coast Air Quality Management District Rule 1166.*
- *Existing groundwater monitoring wells shall remain under ongoing groundwater investigations associated with off-site sources.*

Mitigation Measures

MM HAZ-1: ***Phase II Environmental Site Assessment.*** *Prior to the issuance of a grading permit and before any substantial ground disturbance occurs on or near the properties with documented releases, the Project shall hire a qualified environmental professional to conduct a Phase II Environmental Site Assessment to determine the potential presence of petroleum hydrocarbons, metals, and volatile organic compounds in soil and/or groundwater.*

- *If the Phase I ESA identifies any recognized environmental conditions (RECs) or other indicators of potential contamination, a Phase II ESA shall be conducted. The Phase II Environmental Site Assessment shall include sufficient soil and groundwater sampling and laboratory analysis to identify the types of chemicals and their respective concentrations. The Phase II Environmental Site Assessment shall compare soil and groundwater sampling results against applicable environmental screening levels developed by the Los Angeles Regional Water Quality Control Board and/or Department of Toxic Substances Control. If the Phase II Environmental Site Assessment identifies contaminant concentrations above the screening levels, a site-specific Soil and Groundwater Management Plan shall be prepared and implemented as described in MM HAZ-2. The Project shall consult with the Department of Toxic Substances Control, California Environmental Protection Agency, and/or other appropriate regulatory agencies to ensure sufficient minimization of risk to human health and the environment is completed.*

MM HAZ-2: ***Soil and Groundwater Management Plan.*** *Prior to the issuance of a grading permit, a site-specific Soil and Groundwater Management Plan shall be prepared by a qualified environmental professional to address handling and disposal of contaminated soil and groundwater prior to demolition, excavation, and construction activities.*

- *The Project shall implement the Soil and Groundwater Management Plan during construction activities. The Soil and Groundwater Management Plan shall specify*

all necessary procedures to ensure the safe handling and disposing of excavated soil, groundwater, and/or dewatering effluent in a manner that is protective of human health and in accordance with federal and state hazardous waste disposal laws, and with state and local stormwater and sanitary sewer requirements. At a minimum, the plan shall include the following:

- *Identification and delineation of contaminated areas and procedures for limiting access to such areas to properly trained personnel;*
- *Step-by-step procedures for handling, excavating, characterizing, and managing excavated soils and dewatering effluent including procedures for containing, handling, and disposing of hazardous waste; procedures for containing, handling, and disposing of groundwater generated from construction dewatering; the method used to analyze excavated materials and groundwater for hazardous materials likely to be encountered at specific locations; appropriate treatment and/or disposal methods. Removal of soil and materials shall be performed by a licensed engineering contractor with a Class A license and hazardous-substance removal certification;*
- *Requirements to water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, and staging;*
- *Requirements to cover or maintain at least 2 feet of free board space on haul trucks transporting soil or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered;*
- *Requirements to use wet power vacuum street sweepers to remove any visible track-out mud or dirt onto adjacent public roads at least once a day. Use of dry powered sweeping is prohibited;*
- *Procedures for handling volatile organic compound-contaminated soil, including, but not limited to, segregating volatile organic compound-contaminated stockpiles from non-volatile organic compound-contaminated stockpiles, spraying volatile organic compound-contaminated soil stockpiles with water and/or approved vapor suppressant and covering them with plastic sheeting for all periods of inactivity lasting more than 1 hour, conducting a daily visual inspection of all covered volatile organic compound-contaminated soil stockpiles to ensure the integrity of the plastic covered surfaces, and removing contaminated soil from an excavation or grading site within 30 days from the time of excavation to a licensed facility.*
- *Procedures for notification and reporting, including notifying and reporting to internal management and to local agencies.*

- *Minimum requirements for site-specific Health and Safety Plans to protect the general public and workers in the construction area. Prior to the issuance of grading permits, the Soil and Groundwater Management Plan and the results of environmental sampling shall be provided to contractors who shall be responsible for developing their own construction worker Health and Safety Plan and training requirements, per MM HAZ-4.*
- *The Project shall hire a qualified environmental professional to sample groundwater suspected of contamination. If any suspected groundwater contamination is encountered during construction, the contractor shall stop work in the vicinity, cordon off the area, and contact Metro who shall immediately notify the Regional Water Quality Control Board. In coordination with the Regional Water Quality Control Board, an investigation and remediation plan shall be developed by a qualified environmental professional in order to protect public health and the environment. Any hazardous or toxic materials shall be disposed of according to local, state, and federal regulations.*
- *Trucking operations shall comply with Caltrans and any other applicable regulations, and all trucks shall be licensed and permitted to carry the appropriate waste classification. The tracking of dirt by trucks leaving the project site shall be minimized by cleaning the wheels upon exit and cleaning the loading zone and exit area as needed.*

MM HAZ-3: ***Contractor Specifications.*** *The Project shall include in its contractor specifications the following requirement relating to hazardous materials:*

- *During all ground-disturbing activities, the contractor(s) shall inspect the exposed soil and groundwater for obvious signs of contamination, such as odors, stains, or other suspect materials. Qualified personnel shall monitor for volatile organize compounds and other subsurface gases for concentrations exceeding South Coast Air Quality Management District levels with a Photoionization Detector. Should signs of unanticipated contamination be encountered, work shall be suspended, and the Los Angeles County Department of Public Health shall be notified, and the area secured. Contaminated soil and/or groundwater shall be segregated and characterized, and a site-specific Soil and Groundwater Management Plan, as described under MM HAZ-2, shall be prepared and implemented.*

MM HAZ-4: ***Worker Health and Safety Plan.*** *The contractor shall prepare site-specific Worker Health and Safety Plan to protect the general public and workers in the construction area. The Health and Safety Plan shall be prepared in accordance with California and federal Occupational Safety and Health Administration regulations. Copies of the Health and Safety Plan shall be made available to construction workers for review during their orientation and/or regular health and safety meetings. The Health and Safety Plan shall identify chemicals of concern, potential hazards, worker training requirements, personal protective equipment and devices, decontamination procedures, the need for personal or area monitoring, and emergency response procedures. The Health and Safety Plan shall be amended, as necessary, if new information becomes available that could affect implementation of the plan.*

MM HAZ-5: ***Hazardous Building Survey and Abatement.*** *Prior to demolition activities of any structures, the Project shall retain a California Division of Occupational Safety and Health-certified contractor to determine the presence or absence of building materials or equipment that contains hazardous materials, including asbestos, lead-based paint, and polychlorinated biphenyls-containing equipment. If such substances are found to be present, the contractor shall prepare and submit a workplan to the relevant oversight agency to demonstrate how these hazardous materials would be properly removed and disposed of in accordance with federal and state law, including South Coast Air Quality Management District Rule 1403 (Asbestos Emissions from Renovation/Demolition Activities). The removal and disposal of hazardous building materials shall be the responsibility of a California Division of Occupational Safety and Health-certified contractor. Following completion of removal activities, the Project shall submit documentation to the relevant oversight agency verifying that all hazardous materials were properly removed and disposed of.*

Impacts After Mitigation

Implementation of MM HAZ-1 through MM HAZ-5 would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling hazardous materials, and would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials such as ACM, LBP, or PCBs during demolition activities; thus, impacts would be reduced to less than significant.

6.2.9 Land Use and Development

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-21.

Table 6-21. Alternative 3: Land Use and Development Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Land Use and Development Construction Impacts		
Impact LUP-1: Would the project physically divide an established community?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4
	Impacts After Mitigation	LTS
Impact LUP-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025h

LTS = less than significant
LUP = Land Use and Planning
MM = mitigation measure
NA = not applicable
PS = potentially significant
TRA = transportation

6.2.9.1 Impact LUP-1: Would the project physically divide an established community?

Construction activities for aboveground Project elements for Alternative 3 would be the same as those described for Alternative 1 north of Wilshire Boulevard. Accordingly, all impact discussion provided for Alternative 1 is applicable to aboveground Project elements for Alternative 3. The following discussion describes impacts associated with Alternative 3 Project elements that differ from Alternative 1, namely, the construction of the underground monorail transit (MRT) alignment between the proposed Getty Center Station and the Wilshire Boulevard/Metro D Line Station.

The underground alignment would be constructed underneath residential communities located in West Los Angeles, Westwood, and Bel Air-Beverly Crest via a bored tunneling machine. While construction activities for Alternative 3 would not result in permanent physical divisions of established communities, temporary street detours would be required to accommodate the proposed aerial and underground guideway and stations, soundwall, and I-405 on- and off-ramp construction. The proposed aerial guideway and stations would be constructed within or adjacent to I-405 and within the existing LOSSAN rail corridor ROW Without mitigation, these detours could result in significant impacts due to temporary limitations on property access.

The underground alignment would be constructed underneath residential communities located in West Los Angeles, Westwood, and Bel Air-Beverly Crest via a bored tunneling machine. While construction activities for Alternative 3 would not result in permanent physical divisions of established communities, temporary street detours would be required to accommodate the proposed underground guideway and station construction. Without mitigation, these detours could result in significant impacts due to temporary limitations on property access.

Alternative 3 would permanently close Dickens Street between Ventura Boulevard and Sepulveda Boulevard to vehicle traffic for the conversion of a bus loop and transit plaza. Street and sidewalk closures during construction would temporarily limit property access between established communities. Although these closures would be temporary and periodic, the potential for disruption to community access represents a potentially significant impact without mitigation.

Construction of Alternative 3 would require construction easements (i.e., the areas needed during construction) for the aerial and underground guideway and station installation, staging areas, soundwall installation, I-405 widening, street reconstruction, demolition, and utility relocation. These construction easements would consist of properties with land uses designated as commercial, public facilities, residential, open space and recreation, industrial, vacant, and institutions. While vehicle and non-vehicle access for communities within the RSA of the proposed alignment and stations would be maintained, without mitigation, access disruptions could result in a significant impact. The properties under construction easements would retain their original land use designation and zoning classifications.

Construction easements for implementation of Alternative 3 would not permanently limit or restrict access to existing communities to the extent that they would be disrupted or isolated. However, during construction, these easements could temporarily disrupt access to and from established communities, which could result in significant impacts without mitigation.

To address these potential impacts, Alternative 3 would be required to implement MM TRA-4. which would require preparation and implementation of a TMP to reduce the impacts of construction work zones, provide wayfinding signage to inform the public of reroutes due to closed pedestrian areas and roadways, and require Metro and the contractor to notify and coordinate with surrounding

communities regarding the construction schedule. With implementation of MM TRA-4, the potential significant impacts would be reduced to less than significant.

Maintenance and Storage Facilities

MSF Base Design

Construction activities for the proposed MSF Base Design would not create any permanent physical divisions within the surrounding community. Street and sidewalk closures during construction would result in temporary limitations on movement for pedestrians, bicyclists, and vehicles within and between local communities. Without mitigation, these closures could result in significant impacts related to community access.

The *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a) further analyzes the potential impacts on circulation and pedestrian access to adjoining or nearby properties. As discussed in that report, street and sidewalk closures may be required during construction of the MSF Base Design that would temporarily limit property access between established communities. These closures would be temporary and periodic. However, without mitigation, these temporary closures could still result in significant impacts related to community access.

To address these impacts, the proposed MSF Base Design would implement MM TRA-4, which would require preparation and implementation of a construction TMP to minimize disruptions from construction work zones, provide wayfinding signage to inform the public of reroutes, and require Metro and the contractor notify and coordinate with surrounding communities regarding the construction schedule. With implementation of MM TRA-4, the potential significant impacts would be reduced to less than significant.

MSF Design Option 1

Construction activities for the proposed MSF Design Option 1 would not create any permanent physical divisions within the surrounding community. Street and sidewalk closures during construction would result in temporary limitations on movement for pedestrians, bicyclists, and vehicles within and between local communities. Without mitigation, these closures could result in significant impacts related to community access.

The *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a) further analyzes the potential impacts on circulation and pedestrian access to adjoining or nearby properties. As discussed in that report, street and sidewalk closures may be required during construction of the MSF Design Option 1 that would temporarily limit property access between established communities. These closures would be temporary and periodic. However, without mitigation, these temporary closures could still result in significant impacts related to community access and connectivity.

To address these impacts, the proposed MSF Design Option 1 would implement MM TRA-4, which would require preparation and implementation of a construction TMP to minimize disruptions from construction work zones, provide wayfinding signage to inform the public of reroutes, and require Metro and the contractor notify and coordinate with surrounding communities regarding the construction schedule. With implementation of MM TRA-4, the potential significant impacts would be reduced to less than significant.

6.2.9.2 Impact LUP-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The construction impacts associated with Alternative 3 encompass various elements, including those stemming from tunneling, underground maintenance access, and the utilization of the TBM and cut-and-cover construction for the proposed stations. In addition, the construction of Alternative 3 would require construction easements and encroachment permits for construction, including aerial and underground guideway and station installation, soundwall installation, I-405 widening for Alternative 3, street reconstruction, demolition, and utility relocation. Construction easements and encroachment permits would vary along the Alternative 3 guideway alignment and stations, depending on the type of construction and adjacent land use. The properties under construction easements would retain their original land use designation and zoning classifications. The temporary construction easements would consist of properties with land use designated as commercial, public facilities, residential, industrial, vacant, and institutions. Construction activities impacts would be temporary and would not alter the distinct residential character and integrity of the community as a whole.

Alternative 3 would support Goal 11 to "encourage alternative modes of transportation to the use of single occupancy vehicles in order to reduce vehicle trips," and Policy 1-3.3 in "considering factors such as neighborhood character and identity, compatibility of land uses, impacts on livability, impacts on services and public facilities, and impacts on traffic levels when changes in residential densities are proposed."

Although construction activities associated with Alternative 3 would result in construction easements, they would not conflict with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the construction of Alternative 3 would result in a less than significant impact.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design would require construction easements and acquisition of properties with industrial uses. The parcels within the proposed MSF Base Design and in the vicinity are zoned as Light Industrial and Public Facilities Zone (City of Los Angeles, 2023a). A significant portion of the proposed MSF Base Design is occupied by the industrial uses owned by LADWP Valley Center. The construction easements would be temporary, and the properties would retain their original land use designation and zoning classifications. Given the existing industrial uses of the parcels to be acquired and of the parcels in the surrounding area, construction of the proposed MSF Base Design would not be considered a change in land use type and would not conflict with adjacent land uses.

The proposed MSF Base Design would not create any new land uses that could generate conflicts with land uses adjacent to the alignment, or conflict with local land use plans, policies, or regulations; therefore, impacts would be less than significant during construction. Operation of the proposed MSF Base Design would conflict with the LADWP Urban Water Management Plan (LADWP, 2020), which has identified this site for the Mid-Valley Water Facility project. The Mid-Valley Water Facility project would replace outdated buildings and trailers currently situated at various locations throughout the San Fernando Valley. The proposed facility is intended to improve efficiencies across LADWP divisions, support LADWP's mainline replacement program, and ensure infrastructure resiliency. LADWP's Board of Water and Power Commissioners approved a Mitigated Negative Declaration for the project on

February 11, 2020 and construction is anticipated to begin in 2027. Due to the conflict with the proposed facility, the proposed MSF Base Design may result in the need to relocate or construct a new facility which may have significant environmental effects. If it is determined that a new facility in a new location is needed, environmental review of the proposal would be required to determine potential environmental effects and identify feasible mitigation measures to address those effects. Metro has been in coordination with LADWP and continued coordination is required to identify a solution to the conflict and determine if a new or relocated facility is required. Therefore, since the conflict with the proposed LADWP facility is unresolved and no solution has been identified, operation of the proposed MSF Base Design would result in a significant and unavoidable impact related to conflicting with local land use plans.

MSF Design Option 1

The proposed MSF Design Option 1 would require construction easements and acquisition of properties with industrial uses. The parcels within the proposed MSF Design Option 1 and in the vicinity are zoned as Commercial Manufacturing, Light Industrial, and Automobile Parking Zone (City of Los Angeles, 2023a). A significant portion of the proposed MSF Design Option 1 is occupied by industrial and manufacturing businesses and warehouses. The construction easements would be temporary, and the properties would retain their original land use designation and zoning classifications. Given the existing industrial and manufacturing uses of the parcels to be acquired and of the parcels in the surrounding area, construction of the proposed MSF Design Option 1 would not be considered a change in land use type and would not conflict with adjacent land uses.

The proposed MSF Design Option 1 would not create any new land uses that could generate conflicts with land uses adjacent to the alignment, or conflict with local land use plans, policies, or regulations; therefore, impacts would be less than significant during construction.

6.2.9.3 Impact AFR-1: Would the project convert Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

There are no parcels designated for agricultural purposes within the RSA for Alternative 3. Implementation of Alternative 3 during construction activities would not involve changes that could result in conversion of farmland to non-agricultural uses and no impact would occur during construction activities.

Maintenance and Storage Facilities

MSF Base Design

The parcels that are part of the proposed MSF Base Design are not zoned for agricultural uses. Therefore, the proposed MSF Base Design would not involve conversion of Prime Farmland, Unique Farmland, or Farmlands of Statewide Importance to non-agricultural use, and no impact would occur during construction.

MSF Design Option 1

The parcels that are part of the proposed MSF Design Option 1 are not zoned for agricultural uses. Therefore, proposed MSF Design Option 1 would not involve conversion of Prime Farmland, Unique Farmland, or Farmlands of Statewide Importance to non-agricultural use, and no impact would occur during construction.

6.2.9.4 Impact AFR-2: Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Implementation of Alternative 3 would not conflict with existing agricultural zoning during construction activities. Alternative 3 and surrounding areas within the RSA are neither zoned for agricultural use nor a part of a Williamson Act contract. Implementation of Alternative 3 would not conflict with existing zoning for agricultural use or affect land under a Williamson Act Contract. Therefore, the Alternative 3 would have no impact on agricultural zoning. No mitigation would be required during construction.

Maintenance and Storage Facilities

MSF Base Design

The parcels that are part of the proposed MSF Base Design are not zoned for agricultural uses. Therefore, the proposed MSF Base Design would not conflict with existing zoning for agricultural use or affect land under a Williamson Act Contract, and no impact would occur during construction.

MSF Design Option 1

The parcels that are part of the proposed MSF Design Option 1 are not zoned for agricultural uses. Therefore, the proposed MSF Design Option 1 would not conflict with existing zoning for agricultural use or affect land under a Williamson Act Contract, and no impact would occur during construction.

6.2.9.5 Impact AFR-3: Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

Alternative 3 and the surrounding areas within the RSA are characterized by features typical of the urban landscape. There are no properties zoned as forest land or timberland within the RSA for Alternative 3. According to the USDA Forest Services, the closest designated forest land is the Angeles National Forest located approximately 12.53 miles east of the northern portion of Alternative 3 (USDA, 2023). Implementation of Alternative 3 would not conflict with existing zoning for, or cause rezoning of forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

Maintenance and Storage Facilities

MSF Base Design

The parcels that are part of the proposed MSF Base Design are not zoned as forest lands or timberland. Therefore, the proposed MSF Base Design would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

MSF Design Option 1

The parcels that are part of the proposed MSF Design Option 1 are not zoned as forest lands or timberland. Therefore, proposed MSF Design Option 1 would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

6.2.9.6 Impact AFR-4: Would the project result in the loss of forest land or conversion of forest land to non-forest land use?

Alternative 3 and the surrounding areas within the RSA are characterized by features typical of the urban landscape. There are no properties zoned as forest land or timberland within the RSA for Alternative 3. According to the USDA Forest Services, the closest designated forest land is the Angeles National Forest, located approximately 12.53 miles east of the northern portion of Alternative 3 (USDA, 2023). Implementation of Alternative 3 would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

Maintenance and Storage Facilities

MSF Base Design

The parcels that are part of the proposed MSF Base Design are not zoned as forest lands or timberland. Therefore, the proposed MSF Base Design would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

MSF Design Option 1

The parcels that are part of the proposed MSF Design Option 1 are not zoned as forest lands or timberland. Therefore, proposed MSF Design Option 1 would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

6.2.9.7 Impact AFR-5: Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Alternative 3 and surrounding areas within the RSA are characterized by features typical of the urban landscape. Implementation of Alternative 3 would not involve changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use. There are no agricultural uses, farmland, or forest land within or in close proximity to the RSA Alternative 3. Therefore, there would be no impact associated with conversion of farmland or forest land during construction.

Maintenance and Storage Facilities

MSF Base Design

The parcels that are part of the proposed MSF Base Design are not zoned as agricultural land, forest lands, or timberland. Therefore, the proposed MSF Base Design would not result in conversion of farmland or forest land, and no impact would occur during construction.

MSF Design Option 1

The parcels that are part of the proposed MSF Design Option 1 are not zoned as agricultural land, forest lands, or timberland. Therefore, the proposed MSF Design Option 1 would not result in conversion of farmland or forest land, and no impact would occur during construction.

6.2.9.8 Mitigation Measures

Construction Impacts

Construction of Alternative 3 would require implementation of MM TRA-4 to reduce disruption caused by construction work zones to a less than significant impact.

The following mitigation measure would be implemented for Alternative 3:

MM TRA-4 *The project contractor shall prepare a Transportation Management Plan to facilitate the flow of traffic and transit service in and around construction zones. The Transportation Management Plan shall include, at minimum, the following measures:*

- *Where feasible, schedule construction-related travel (i.e., deliveries, hauling, and worker trips) during off-peak hours and maintain two-way traffic circulation along affected roadways during peak hours. Avoid the closure of two major adjacent streets where feasible.*
- *Designated routes for project haul trucks shall primarily utilize the I-405, I-10, US-101 corridors. Throughout the construction process, these routes shall be coordinated with the City of Los Angeles and Veterans Affairs to ensure consistency with land use and mobility plans. Additionally, the routes shall be situated to minimize noise, vibration, and other possible impacts.*
- *Develop detour routes to facilitate traffic movement through construction zones without significantly increasing cut-through-traffic in adjacent residential areas.*
- *Where construction encroaches on the Los Angeles-San Diego-San Luis Obispo rail corridor right-of-way, coordinate construction activities with Union Pacific, Metrolink, and Amtrak to minimize disruptions to service and coordinate on outreach to inform passengers of service impacts. Provide temporary parking and drop-off facilities at the Van Nuys Metrolink/Amtrak Station to minimize passenger impacts.*
- *Develop and implement an outreach program and public awareness campaign in coordination with Caltrans, the City of Los Angeles, the City of Santa Monica, and the County of Los Angeles to inform the general public about the construction process and planned roadway closures, potential impacts, and mitigation measures, including temporary bus stop relocation.*
- *Where feasible, temporarily restripe roadways to maximize the vehicular capacity at locations affected by construction closures.*
- *Provide wayfinding signage, lighting, and access to specify pedestrian safety amenities (such as handrails, fences, and alternative walkways) during construction.*
- *Where construction encroaches on pedestrian facilities, special pedestrian safety measures shall be used, such as detour routes and temporary pedestrian barricades.*
- *Where construction encroaches onto the University of California, Los Angeles campus, the project contractor shall ensure that access to campus buildings is*

maintained through temporary decking and the construction of temporary stairs and ramps.

- *During final design, the project contractor shall coordinate with Metro Operations to minimize construction impacts on existing Metro rail operations in and around existing stations. Where construction results in the interruption of Metro rail operations, buses shall provide temporary service between rail stations.*
- *Provide on-street bicycle detour routes and signage to address temporary effects to bicycle circulation and minimize inconvenience (e.g., lengthy detours) as to minimize users potentially choosing less safe routes if substantially rerouted.*
- *During final design, the project contractor shall coordinate with first responders and emergency service providers to minimize impacts on emergency response. Coordination efforts shall include the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing.*
- *Maintain customer and delivery access to all operating businesses near construction work areas. Access shall be maintained to allow for reasonable business operations, including clear signage for alternate routes, temporary driveways, or entry points as necessary. Coordination with businesses shall be conducted to address specific access needs and minimize disruptions, ensuring that any restrictions are communicated in advance and alternative arrangements are provided as appropriate.*

Impacts After Mitigation

Regarding Impact LUP-1, implementation of MM TRA-4 would require preparation and implementation of a TMP during construction to minimize disruptions caused by construction activities of each of the project alternatives. The TMP would facilitate the flow of traffic and transit service in and around construction zones, ensuring access to and from established communities is maintained. With implementation of MM TRA-4, construction impacts associated with Alternative 3 under Impact LUP-1 would be reduced to than significant.

6.2.10 Noise and Vibration

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-22.

Table 6-22. Alternative 3: Noise and Vibration Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Noise and Vibration Construction Impacts		
Impact NOI-1: Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established by the Federal Transit Administration?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM NOI-3.2
	Impacts After Mitigation	SU

CEQA Impact Topic		Alternative 3
Impact NOI-2: Would the project result in generation of excessive groundborne vibration or groundborne noise levels?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM VIB-3.1
	Impacts After Mitigation	SU
Impact NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025j

MM = mitigation measure
NA = not applicable
NOI = noise
NI = no impact
PS = potentially significant
SU = significant and unavoidable
VIB = vibration

6.2.10.1 Impact NOI-1: Would the project cause generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction of Alternative 3 would include various phases that would involve the use of construction equipment at specific locations along the proposed alignment. Construction noise levels from Alternative 3 were predicted in terms of 8-hour L_{eq} for each phase of construction based upon the number and types of off-road construction equipment to be employed during the given phase. Table 6-12 shows the results of the construction noise predictions at a reference distance of 50 feet from construction activities and at the nearest sensitive receptors.

The FTA has provided guidance for assessing construction noise associated with transit projects. The criteria are based upon an 8-hour L_{eq}, as shown in Table 6-23. For residential uses, the threshold is 80 dBA for daytime construction and 70 dBA for nighttime construction. Commercial uses are held to an 85-dBA daytime and nighttime noise construction threshold, while industrial uses are held to a 90-dBA daytime and nighttime construction noise threshold. For the purposes of this analysis, the FTA's detailed assessment construction noise limit criteria of 8-hour L_{eq} have been applied. Table 6-23 is a summary of expected construction noise levels at locations of nearest noise-sensitive receptors to each construction activity. Additional detail regarding construction equipment and noise levels by phase are included in Attachment 7 of the *Sepulveda Transit Corridor Project Noise and Vibration Technical Report* (Metro, 2025j). Construction noise would range from 8-hour L_{eq} noise levels of approximately 79 to 101 dBA at the nearest sensitive receptors. A tunnel boring machine (TBM) would be required for tunneling underground segments of Alternative 3, but it would not generate aboveground noise. As shown in Table 6-23, construction activities would result in levels that exceed the FTA 80-dBA daytime and 70-dBA nighttime 8-hour L_{eq} thresholds for residential land uses.

The construction noise contours are depicted graphically in the *Sepulveda Transit Corridor Project Noise and Vibration Technical Report* (Metro, 2025j) which represent the noise levels that could potentially occur along the entirety of the alignment. The noisiest phase of construction is used to depict the contours. An interval of 5 dBA is used for each contour and each contour was calculated based on the

distance at which noise would decrease by 5 dBA, starting at a noise level of 90 dBA L_{eq} to 70 dBA L_{eq}. The 90 dBA L_{eq} noise level is representative of the FTA daytime and nighttime construction noise threshold for industrial uses. The 70 dBA L_{eq} contour shows the areas where construction noise levels would exceed the nighttime construction noise threshold for residential uses. Between the proposed Van Nuys Metrolink Station and the Getty Center, the 90 dBA L_{eq} contour includes areas within a distance of 100 feet from the nearest construction activity. The 70 dBA L_{eq} contour extends to a maximum distance of 1,000 feet. South of the Getty Center, the 90 dBA L_{eq} contour covers areas within a distance of 63 feet from the nearest construction activity. The 70 dBA L_{eq} contour extends to a maximum distance of 630 feet. The construction noise contours do not include noise reductions that may occur as a result of terrain or intervening structures. As an example of how to read the contours, the figures show that within the first contour of 100 feet (shown in dark purple), the calculated construction noise levels may be above 90 dBA L_{eq}. At the next distance of 178 feet (shown in light purple), noise levels would decrease to approximately 85 dBA L_{eq}.

Pile driving may be required for installation of retaining walls or potentially at TBM launch locations. Impact or vibratory piledrivers are the most noise intensive construction equipment that could result in elevated noise levels above typical construction methods. It is unknown at this stage of design if pile driving would be the required construction method which is dependent on soil type. Typically, where possible, piles are drilled which is a quieter method of pile installation such as CIDH. For instance, foundations for the aerial guideway are proposed to be constructed using CIDH instead of impact driven piles. Impact pile driving generates an hourly noise level of approximately 94.3 dBA L_{eq} at 50 feet, vibratory pile driving generates an hourly noise level of 93.8 dBA $L_{eq,}$ at 50 feet and CIDH generates an hourly noise level of approximately 77.4 dBA L_{eq} at 50 feet. Vibratory pile driving is approximately 0.5 dBA quieter than impact pile driving and CIDH is approximately 16.9 dBA quieter. To reduce noise levels where piles may be required, MM NOI-3.2 would require impact pile driving to be avoided where possible and to use drilled or vibratory piles where feasible. Soil improvements such as grouting injection would be required for cut-and-cover construction to stabilize soils. Soil improvement activity would typically require drilling equipment and pumping equipment to inject the grout into the soil. A noise level of 87 dBA 8-hour $L_{eq\_}$ at 50 feet reflects equipment required for cut-and-cover construction, which is shown in Table 6-23 as “Station Construction (UCLA and Wilshire).”

Alternative 3 would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA’s criteria, and, where applicable, the standards established by the local noise ordinances. While MM NOI-3.2 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

Regarding health effects of noise, it is unlikely for construction noise to result in noise-induced hearing loss for persons residing or working near construction zones, as this is an occupational hazard related to working over long periods of time (years) in high noise environments. However, construction noise could increase stress at affected sensitive uses. Nighttime construction could adversely affect sleep for residents living near active construction sites. As required by MM NOI-3.2, if required by the jurisdiction a noise variance would be prepared that demonstrates the implementation of control measures to maintain noise levels below the applicable Federal Transit Administration and local standards. Nonetheless, construction noise could potentially still exceed the FTA nighttime criteria.

Table 6-23. Alternative 3: Estimated Construction Noise Levels

Construction Phase	8-hour L_{eq} (dBA) at 50 feet	8-hour L_{eq} (dBA) at Nearest Receptors	Exceeds 80-dBA 8-Hour L_{eq} Daytime Threshold?	Exceeds 70-dBA 8-Hour L_{eq} Nighttime Threshold?
Monorail Transit Segments 1-4 Construction				
Utility Relocations	87	92	Yes	Yes
Demolition/Site Preparation	87	92	Yes	Yes
Substructure Foundations (CIDH)[a]	87-96	92-101	Yes	Yes
Launch Box (Segment 6)	88	80	Yes	Yes
Precast Superstructure Assembly	87	92	Yes	Yes
Finishing Work	85	90	Yes	Yes
Station Construction				
Utility Relocations	87	81	Yes	Yes
Demolition/Site Preparation	87	81	Yes	Yes
Substructure Foundations	87	81	Yes	Yes
Precast Superstructure Assembly	87	81	Yes	Yes
SOE Excavation (UCLA and Wilshire)	87	85-92	Yes	Yes
Station Construction (UCLA and Wilshire)	87	85-92	Yes	Yes
Finishing Work	85	79	No	Yes
Traction Power Substation Construction				
Utility Relocations	87	83	No	Yes
Demolition/Site Preparation	85	81	No	Yes
Excavation	87	83	No	Yes
Concrete Work	83	79	No	No
Utility Work	87	83	Yes	Yes
Paving	88	84	Yes	Yes
Maintenance and Storage Facility Construction				
Utility Relocation	87	85	Yes	Yes
Demolition/Site Preparation	87	85	Yes	Yes
Excavation	89	87	Yes	Yes
Concrete Work	86	84	Yes	Yes
Utility Work	87	85	Yes	Yes
Paving	88	86	Yes	Yes
Haynes Street Construction				
Utility Relocation	90	92	Yes	Yes
Missouri Avenue Construction				
Utility Relocation	90	92	Yes	Yes
La Grange Avenue Construction				
Utility Relocation	90	92	Yes	Yes
Mississippi Avenue Construction				
Utility Relocation	90	92	Yes	Yes
I-405 Improvements				
Utility Relocation	87	84	Yes	Yes
Demolition/Site Preparation	91	88	Yes	Yes
Grading/Excavation	94	91	Yes	Yes
Concrete Work	87	84	Yes	Yes
Precast Yard Construction				
Demolition/Site Preparation	87	85	Yes	Yes

Construction Phase	8-hour L_{eq} (dBA) at 50 feet	8-hour L_{eq} (dBA) at Nearest Receptors	Exceeds 80-dBA 8-Hour L_{eq} Daytime Threshold?	Exceeds 70-dBA 8-Hour L_{eq} Nighttime Threshold?
Excavation	89	87	Yes	Yes
Concrete Work	89	87	Yes	Yes
Utility Work	87	85	Yes	Yes
Paving	88	86	Yes	Yes
Guideway Fabrication	86	84	Yes	Yes

Source: HTA, 2024

CIDH = cast-in-drilled-hole
dBA = A-weighted decibel
L_{eq} = equivalent noise level
SOE = support of excavation
* Variation in noise levels for this phase are due to variation in number of equipment used for different segments.

Maintenance and Storage Facilities Noise

Construction of the MSF Base Design would involve activities such as utility relocation, demolition, excavation, concrete work, utility installation, and paving. As shown in Table 5-23, MSF construction would result in phased noise levels of approximately 86 to 89 dBA, an 8-hour L_{eq} at 50 feet. Sensitive receptors adjacent to the MSF site would be potentially exposed to noise levels that would exceed the FTA 80-dBA daytime and 70-dBA nighttime 8-hour L_{eq} thresholds for residential land uses. Construction of the MSF would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and, where applicable, the standards established by the local noise ordinances. The 90 dBA L_{eq} contours cover areas within a distance of 50 feet from the nearest construction activity. The 70 dBA L_{eq} contours extend to a maximum distance of 500 feet. While MM NOI-3.2 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

MSF Base Design Noise

Construction of the MSF Design Option 1 would involve activities such as utility relocation, demolition, excavation, concrete work, utility installation, and paving. MSF construction would result in phased noise levels of approximately 86 to 89 dBA, an 8-hour L_{eq} at 50 feet. Sensitive receptors adjacent to the MSF site would be potentially exposed to noise levels that would exceed the FTA 80-dBA daytime and 70-dBA nighttime 8-hour L_{eq} thresholds for residential land uses. Construction of the MSF would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and, where applicable, the standards established by the local noise ordinances. The construction noise contours are depicted graphically in DEIR *Section 3.11, Noise and Vibration*. The 90 dBA L_{eq} contours cover areas within a distance of 50 feet from the nearest construction activity. The 70 dBA L_{eq} contours extends to a maximum distance of 500 feet. While MM NOI-3.2 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

MSF Design Option 1 Noise

Construction of the MSF Design Option 1 would involve activities such as utility relocation, demolition, excavation, concrete work, utility installation, and paving. MSF construction would result in phased noise levels of approximately 86 to 89 dBA, an 8-hour L_{eq} at 50 feet. Sensitive receptors adjacent to the MSF site would be potentially exposed to noise levels that would exceed the FTA 80-dBA daytime and 70-dBA nighttime 8-hour L_{eq} thresholds for residential land uses. Construction of the MSF would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and, where applicable, the standards established by the local noise ordinances. The construction noise contours are depicted graphically in DEIR *Section 3.11, Noise and Vibration*. The 90 dBA L_{eq} contours cover areas within a distance of 50 feet from the nearest construction activity. The 70 dBA L_{eq} contours extends to a maximum distance of 500 feet. While MM NOI-3.2 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

6.2.10.2 Impact NOI-2: Would the project cause generation of excessive groundborne vibration or groundborne noise levels?

Construction Vibration Impacts on Sensitive Receptors

The primary concern related to vibration during construction is the potential to damage structures. Construction activities, such as pile driving, use of drill rigs, pavement breaking, and the use of tracked vehicles (e.g., bulldozers) and hoe rams, could result in perceptible levels of GBV at sensitive buildings located in close proximity to construction sites. These activities would typically be limited in duration and their vibration levels are likely to be well below thresholds for minor cosmetic building damage. Alternative 3 would also include the use of a TBM to construct the underground alignment.

Project construction would include a limited number of activities expected to generate vibration that approaches the lowest building damage limit of 0.12 in/sec PPV. Table 5-23 shows the distances at which the 0.12 in/sec PPV, 0.2 in/sec PPV, and 0.3 in/sec PPV thresholds would not be exceeded. For example, use of a drilling rig, hoe ram, or large bulldozer would be safe at distances greater than 22 feet from Category IV buildings. A vibratory roller would be safe at distances greater than 22 feet from Category IV buildings and typical impact pile driver operation would be safe at distances of 79 feet or greater. Typical building construction in an urban setting consists of buildings that are Category II engineered concrete and masonry that have a 0.3 in/sec PPV threshold or Category III non-engineered timber and masonry buildings that have a 0.2 in/sec PPV threshold. Typical construction equipment, such as a large bulldozer, would not exceed the 0.2 in/sec PPV building damage criterion at distances of 18 feet or greater and would not exceed the 0.3 in/sec PPV building damage criterion at distances of 13 feet or greater. A vibratory roller would not exceed the 0.2 in/sec PPV building damage criterion at distances of 32 feet or greater and would not exceed the 0.3 in/sec PPV building damage criterion at distances of 23 feet or greater. An impact pile driver would not exceed the 0.2 in/sec PPV building damage criterion at distances of 67 feet or greater and would not exceed the 0.3 in/sec PPV building damage criterion at distances of 47 feet or greater.

Vibration annoyance is another concern during construction. In rare instances, when vibration-intensive construction activities occur close to sensitive structures (within 25 feet), such as residential buildings or special use buildings like laboratories or recording studios, vibration could exceed the FTA vibration annoyance criteria.

Along the underground alignment of Alternative 3, the TBM would be the main source of GBVs. However, the TBM is slow moving and causes very little vibration and related GBN to the surrounding area when operating at full tunnel depths. The Alternative 3 underground tunnel would be at depths of less than 20 feet to nearly 400 feet from the aboveground buildings along the tunnel alignment. In a few multi-family residential areas south of Wilshire Boulevard and for residential buildings closest to the north tunnel portal, GBV from the TBM may be felt distinctly for a short period (about two days) while the machine passes under the receptor locations. Throughout the rest of the tunnel alignment, GBV from the TBM would be either not perceptible or just barely perceptible to some building occupants. Expected TBM vibration levels, however, would be well below the strictest building damage threshold of 0.12 in/sec. Construction of the proposed Wilshire/Metro D Line station along the underground alignment would likely be cut-and-cover construction, which could result in aboveground vibration. However, buildings would typically be located more than 50 feet away from station construction and appear to be constructed of engineered concrete and masonry (0.3 in/sec threshold), resulting in limited potential for excessive vibration damage and annoyance. The alignment would surface in the Santa Monica Mountains near the Getty Center parking area. Construction activity would typically occur at distances greater than 50 feet from sensitive buildings in the Santa Monica Mountains between the Getty Center and Green Leaf Street in the Valley because the alignment would be located in either the I-405 ROW or areas immediately adjacent to I-405, where there are limited to no structures. The potential for vibration damage and annoyance would be limited in this area. North of Greenleaf Street, the alignment would travel along the east side of I-405 in a constrained area with buildings adjacent to the construction footprint. The FTA building damage criteria and vibration annoyance criteria could potentially be exceeded at buildings in these areas.

While MM VIB-3.1 would be implemented, which would include vibration-reducing measures, there may still be temporary or periodic increases in vibration levels that exceed FTA construction vibration impact criteria. There are no additional feasible mitigation measures to reduce construction vibration levels. Therefore, impacts related to construction vibration would be significant and unavoidable.

Construction Vibration Impacts on Historic Resources

Construction under Alternative 3 would have the potential to damage historic buildings in close proximity to vibration-intensive construction activities. Using the reference levels in the FTA *Transit Noise and Vibration Impact Assessment Manual* (FTA, 2018), vibration levels from project construction activities were estimated at historic buildings or structures eligible for the National Register of Historic Places along the Alternative 3 alignment. Such buildings are generally classified as extremely susceptible to vibration damage (Building Type IV).

Findings of the construction vibration assessment at historic structures are as follows:

- Historic building located at 4511 Sepulveda Boulevard is very close to the Alternative 3 alignment. Most vibration-intensive construction activities at this location would result in levels exceeding the damage criterion of 0.12 in/sec PPV. Special consideration should be made for this building in MM VIB-3.1 (Vibration Control Plan).
- Pile driving at locations along the alignment in the vicinity of the following historic properties would potentially result in GBV levels exceeding the damage criterion of 0.12 in/sec PPV. Therefore, these locations must be addressed in the Vibration Control Plan if pile driving is to occur within 150 feet of the buildings:
  - Photo Electronics Corp. Building, 1944 Cotner Avenue, Los Angeles

- Dual Ultimate Pharmacy, 2020 Cotner Avenue, Los Angeles
- Building at 2114 Cotner Avenue, Los Angeles
- UCLA Ackerman Hall, 308 Westwood Plaza, Los Angeles
- Rodeo Realty, 15300 Ventura Boulevard, Los Angeles
- Historic building located at 14746 Raymer Street, Van Nuys

Implementation of MM VIB-3.1 would reduce the potential for permanent damage to occur at historic resources. Vibration levels would be monitored at historic resources to determine if the vibration damage criterion of 0.12 in/sec PPV would be exceeded. A pre-construction and post construction survey would be prepared, and any damage noted and restored per the requirements of SOI's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. Therefore, impacts related to construction vibration at historic resources would be less than significant with mitigation.

Maintenance and Storage Facilities Vibration

MSF Base Design

Under the MSF Base Design, monorail trains would access the site from the main alignment's northern tail tracks at the northwest corner of the site. Trains would travel parallel to the LOSSAN rail corridor before curving southeast to maintenance facilities and storage tracks. The guideway would remain in an aerial configuration within the MSF Base Design, including within maintenance facilities. Rail tracks in this MSF would be located in an industrial area with the nearest sensitive structures nearly 700 feet south of the maintenance facilities tracks. The vibration level at 700 feet would be 36 decibel notation (VdB) and would be below the 72 VdB criterion for residential uses. Therefore, operation of the MSF Base Design would result in a less than significant impact related to groundborne vibration or groundborne noise.

MSF Design Option 1

Under MSF Design Option 1, monorail trains would access the site from the monorail guideway east of Sepulveda Boulevard. From the northeast corner of the site, trains would travel parallel to the LOSSAN rail corridor before turning south to maintenance facilities and storage tracks parallel to I-405. The guideway would remain in an aerial configuration within the MSF Design Option 1, including within maintenance facilities. Distances from the elevated tracks to the nearest sensitive buildings would be nearly 400 feet to residences along Marson Street in Panorama City, 585 feet to 740 feet from the nearest residential structures southeast of the MSF. The nearest storage tracks would be located between 300 to 400 feet from the nearest residential buildings to the east and southeast of the MSF. At the nearest sensitive receptor located 300 feet away vibration levels from monorail movements within the MSF would be 40 VdB and would be below 72 VdB criterion for residential uses. Vibration levels at sensitive receptors further away would also be below the 72 VdB criterion for residential uses. Therefore, operation of the MSF Design Option 1 would result in a less than significant impact related to groundborne vibration or groundborne noise.

6.2.10.3 Impact NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the Project area to excessive noise levels?

The Santa Monica Airport and Van Nuys Airport are located within 2 miles of Alternative 3. However, Alternative 3 is a transit project that is not sensitive to noise. Transit riders would not dwell at one

location for an extended period of time that would result in exposure to excessive airport noise. Construction workers working on Alternative 3 would utilize ear protection as required while working on the Project. Therefore, no impacts related to airport noise would occur.

6.2.10.4 Mitigation Measures

Construction Impacts

The following mitigation measures would be needed to reduce construction noise and vibration levels to below the applicable limits:

MM NOI-3.2: ***Noise Control Plan****:*

- *Prior to the initiation of localized construction activities, the Project contractor shall develop a Noise Control Plan demonstrating how the Federal Transit Administration 8-hour $L_{eq.equip}$ (equivalent noise level of equipment) noise criteria would be achieved during construction. The Noise Control Plan shall be prepared by a board-certified acoustical engineer. The Federal Transit Administration 8-hour $L_{eq.equip}$ construction noise standards are as follows: Residential daytime standard of 80 dBA $L_{eq.equip}$ and nighttime standard of 70 dBA $L_{eq.equip}$, Commercial daytime and nighttime standard of 85 dBA $L_{eq.equip}$, and Industrial daytime and nighttime standard of 90 dBA $L_{eq.equip}$. The Noise Control Plan shall be designed to follow Metro requirements, and shall include measurements of existing noise, a list of the major pieces of construction equipment that would be used, predictions of the noise levels at the closest noise-sensitive receptors (residences, hotels, schools, religious facilities, and similar facilities), and noise mitigation measures to be implemented to achieve compliance with the Federal Transit Administration 8-hour $L_{eq.equip}$ construction noise standards to the degree feasible. The Noise Control Plan must be approved by Metro prior to initiating noise-generating construction activities. The Project contractor shall conduct continuous noise monitoring to demonstrate compliance with the Federal Transit Administration 8-hour $L_{eq.equip}$ noise limits. If the FTA 8-hour $L_{eq.equip}$ criteria are exceeded, the Project contractor shall implement measures to reduce construction noise as much as feasible. The Project contractor shall establish a public information and complaint system. The Project contractor shall respond to and provide corrective action for complaints within 24-hours. In addition, The Project shall comply with local noise ordinances when applicable, including by obtaining a variance(s) from the applicable local jurisdiction when nighttime work is required. Noise reducing methods that may be implemented by the Project contractor include:*
- *If nighttime construction is planned, a noise variance may be prepared by the Project contractor, if required by the jurisdiction, that demonstrates the implementation of control measures to maintain noise levels below the applicable Federal Transit Administration and local standards.*
- *Where feasible, minimize nighttime construction.*
- *Utilize specialty equipment equipped with enclosed engines and/or high performance mufflers as feasible. The Project contractor shall locate equipment and staging areas as far from noise-sensitive receptors as possible.*

- *Limit unnecessary idling of equipment.*
- *Install temporary noise barriers as needed where feasible.*
- *Reroute construction related truck traffic away from residential streets to the extent permitted by the relevant municipality.*
- *Avoid impact pile driving where possible. Drilled piles or vibratory pile drivers would be required where feasible.*
- *Where Project construction cannot be performed in accordance with the requirements of the applicable noise limits, the Project contractor shall be required to investigate alternative construction methods that would result in lower sound levels.*

MM VIB-3.1: ***Vibration Control Plan:***

- *Prior to construction, the Project contractor shall prepare a Vibration Control Plan demonstrating how the Federal Transit Administration building damage risk criteria and the Federal Transit Administration vibration annoyance criteria would be achieved. The Vibration Control Plan must be approved by Metro prior to initiating vibration-generating construction activities. The Vibration Control Plan shall include a list of the major pieces of construction equipment that will be used, and the predictions of the vibration levels at the closest sensitive receivers. The Project contractor shall conduct vibration monitoring to demonstrate compliance with the vibration limits during construction activity. Where the construction cannot be performed to meet the vibration criteria, the Project contractor shall implement alternative means and methods of construction measures to reduce vibration levels as much as feasible. Vibration reducing methods that may be implemented by the Project contractor include:*
  - *When feasible, less vibration intensive equipment or techniques near vibration sensitive locations.*
  - *Use as small an impact device (i.e., hoe ram, pile driver) as possible to accomplish necessary tasks.*
  - *Avoid impact pile driving where possible. Drilled piles or vibratory pile drivers will be required where feasible.*
  - *When feasible, in construction areas close to sensitive buildings, select non-impact demolition and construction methods such as saw or torch cutting and removal for off-site demolition, and use chemical splitting, or hydraulic jack splitting, instead of high impact methods.*
- *The Project contractor shall monitor construction vibration levels at structures identified as a "historic" resource within the meaning of CEQA Guidelines Section 15064.5(a) to ensure the vibration damage threshold of 0.12 in/sec peak particle velocity shall not be exceeded. The vibration monitoring shall be conducted by a qualified professional for real-time vibration monitoring for construction work at the Project construction site requiring heavy equipment or ground compaction devices. A pre-construction and post-construction survey of these buildings shall*

be conducted by a qualified structural engineer. Any damage shall be noted. All vibration monitors used for these measurements shall be equipped with an "alarm" feature to provide advanced notification that vibration impact criteria have been approached. Documented damage in the post-construction survey shall be repaired as required by the Secretary of the Interior's (SOI's) Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. The following historic resources shall be included in the Vibration Control Plan.

- *Historic building located at 4511 Sepulveda Boulevard, Sherman Oaks*
- *Photo Electronics Corp. Building, 1944 Cotner Avenue, Los Angeles*
- *Dual Ultimate Pharmacy, 2020 Cotner Avenue, Los Angeles*
- *Building at 2114 Cotner Avenue, Los Angeles*
- *Rodeo Realty, 15300 Ventura Boulevard, Sherman Oaks*
- *Historic building located at 14746 Raymer Street, Van Nuys*

Impacts After Mitigation

Noise

Project construction would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and where applicable, the standards established by the local noise ordinances. While MM NOI-3.2 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

Vibration

Significant GBV could exceed the FTA vibration damage and vibration annoyance criteria when certain construction activities would occur at close distances to sensitive receptors. While MM VIB-3.1 would be implemented, which would include vibration-reducing measures, there may still be temporary or periodic increases in vibration levels that exceed FTA construction vibration impact criteria. There are no additional feasible mitigation measures to reduce construction vibration levels. Therefore, impacts related to construction vibration would be significant and unavoidable .

6.2.11 Parklands

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-24.

Table 6-24. Alternative 3: Parklands Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Recreation Construction Impacts		
Impact REC-1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? OR	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternative 3
Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?		
Impact REC-2: Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025q

LTS = less than significant
NA = not applicable
NI = no impact
REC = recreation

6.2.11.1 Impact REC-1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Or

Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?

Alternative 3 construction activities would be similar to Alternative 1 and would consist of the same construction of the aerial viaduct, retaining walls, and I-405 on- and off-ramps, requiring street detours that would temporarily impact bicycle facilities and affect access to bicycle facilities. Similar to Alternative 1, Alternative 3 would require temporary street detours that would inhibit the circulation of pedestrians and bicyclists in locations that are adjacent to the I-405 corridor or LOSSAN rail corridor, or where I-405 corridor widening is necessary. In locations where the aerial viaduct would cross roadways that serve as I-405 or LOSSAN rail corridor underpasses (Santa Monica Boulevard, Constitution Avenue, Montana Avenue, Church Lane, Getty Center Drive, Sepulveda, and Ventura Boulevard), the installation of the supporting columns and erection of bent caps and guideway beams would affect sidewalk and bicycle access. As a result, the sidewalk would be relocated and temporarily decommissioned, and bicycle routes would be temporarily disrupted during construction and would require detours to maintain continuity with other portions of the bike lanes. Although street detours would disrupt bicycle and pedestrian circulation, bicycle movements would be maintained during construction. Refer to DEIR *Section 3.15, Transportation* for the discussion related to construction traffic and access. Construction activities would be temporary and would not affect access or use of surrounding recreational hiking trails. Therefore, construction-related impacts to parks and recreational facilities would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

MSF Base Design site construction activities would be temporary and would not create new residential populations that would directly increase the use of existing parks, recreational facilities, and bike facilities in the surrounding communities. Temporary construction activities would be located entirely on-site, would not be located on parklands or recreational facilities, and would not disrupt the essential functions of these facilities. Therefore, impacts to parklands associated with the MSF Base Design site would be less than significant.

MSF Design Option 1

MSF Design Option 1 construction activities would be temporary and would not create new residential populations that would directly increase the use of existing parks, recreational facilities, and bike facilities in the surrounding communities. Therefore, impacts to parklands associated with the MSF Design Option 1 site would be less than significant.

6.2.11.2 Impact REC-2: Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Construction of Alternative 3 would not include the construction of recreational facilities or require the expansion of existing recreational facilities. Therefore, no impacts would occur.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design site is currently developed as a materials storage site owned by LADWP. MSF site construction activities would not include the construction of recreational facilities or require the expansion of existing recreational facilities. Therefore, no impacts would occur.

MSF Design Option 1

MSF Design Option 1 construction activities would not include the construction of recreational facilities or require the expansion of existing recreational facilities. Therefore, no impacts would occur.

6.2.11.3 Mitigation Measures

Construction Impacts

Alternative 3 would have a less than significant impact; therefore, no mitigation measures would be required.

Impacts After Mitigation

Impacts are less than significant.

6.2.12 Real Estate and Acquisitions

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-25.

Table 6-25. Alternative 3: Real Estate and Acquisitions Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Population, Housing, and Growth Construction Impacts		
Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025i

LTS = less than significant
NA = not applicable
POP = population, housing, and growth

6.2.12.1 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Temporary acquisitions would be required for parcels that would only be used as TCEs.

Construction activities associated with Alternative 3 would not result in the displacement of any residential dwelling units. Therefore, no impacts related to the displacement of residential units and residents that would necessitate the construction of replacement units would.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design would not require the acquisition or displacement of any residential property. Therefore, the MSF Base Design would have no potential to displace existing people or housing nor necessitate the construction of replacement housing elsewhere. The MSF Base Design would have no impact.

MSF Design Option 1

The MSF Design Option 1 would not require the acquisition or displacement of any residential property. Therefore, the MSF Design Option 1 would have no potential to displace existing people or housing nor necessitate the construction of replacement housing elsewhere. The MSF Design Option 1 would have no impact.

6.2.12.2 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

6.2.13 Safety and Security

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-26.

Table 6-26. Alternative 3: Safety and Security Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Safety and Security Construction Impacts		
Impact PUB-1: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered fire protection and emergency response facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the fire protection and emergency response?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact PUB-2: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the police protection?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact WFR-1: Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4
	Impacts After Mitigation	LTS
Impact WFR-2: Would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM SAF-1, MM SAF-2
	Impacts After Mitigation	LTS
Impact WFR-3: Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM SAF-1, MM SAF-2
	Impacts After Mitigation	LTS
Impact WFR-4: Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025o

LTS = less than significant
MM = mitigation measure
NA = not applicable
PS = potentially significant
PUB = public services
SAF = safety and security
TRA = transportation
WFR = wildfire

6.2.13.1 Impact PUB-1: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered fire protection and emergency response facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the fire protection and emergency response?

Construction of Alternative 3 would have the same impacts on fire protection and emergency services responses as Alternative 1. As with Alternative 1, Metro standard practices require that lane and/or road closures are scheduled to minimize disruptions. Under MM TRA-4, a TMP would be prepared and approved in coordination with the LAFD prior to construction, including the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. (Refer to the Construction Impacts section in Alternative 1 for details regarding the provision of fire protection services, compliance with Cal/OSHA, compliance with California regulations, and safety measures during construction. As with Alternative 1, impacts of Alternative 3 associated with fire protection services would be less than significant during construction activities.

Maintenance and Storage Facilities

MSF Base Design

The construction of the MSF Base Design would increase the exposure of occupational hazards to the contractor and MSF employees and therefore increase demand for fire and life safety services when and if emergency circumstances would occur. Alternative 3 would comply with the provisions set forth under the CCR Title 8 (California Department of Industrial Relations, 2024) and Cal/OSHA (California Department of Industrial Relations, 2023) regulations. However, in any emergency situation, fire department personnel from LAFD Station 90 and Metro Transit Service Bureau officers would provide emergency response services to the MSF Base Design. The Metro Emergency Response Plan would be followed in the event of a fire, and Metro would coordinate with local fire protection service providers in advance of any construction activities to preserve emergency access. This includes compliance with the California Fire Code that specifies minimum access requirements for fire apparatus. The risk of fire-related injury would be minimized within the MSF locations by adhering to the requirements of the NFPA 101, the CBC, and the Los Angeles City Fire Code. Therefore, impacts associated with fire protection and emergency response services would be less than significant during construction activities.

MSF Design Option 1

The construction of the MSF Design Option 1 and would increase the exposure of occupational hazards to the contractor and MSF employees and therefore increase demand for fire and life safety services when and if emergency circumstances would occur. Alternative 3 would comply with the provisions set forth under the CCR Title 8 (California Department of Industrial Relations, 2024) and Cal/OSHA (California Department of Industrial Relations, 2023) regulations. However, in any emergency situation, fire department personnel from LAFD Station 81 and Metro Transit Service Bureau officers would respond. The Metro Emergency Response Plan would be followed in the event of a fire, and Metro would coordinate with local fire protection service providers in advance of any construction activities to preserve emergency access. MSF Design Option 1 would comply with the California Fire Code that specifies minimum access requirements for fire apparatus. The risk of fire-related injury would be minimized within the MSF Design Option 1 location by adhering to the requirements of NFPA 101, CBC,

and the Los Angeles City Fire Code. Therefore, impacts associated with fire protection services would be less than significant during construction activities.

6.2.13.2 Impact PUB-2: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the police protection?

Alternative 3 would have the same potential to increase the need for police services during construction as Alternative 1. Similar to Alternative 1, it is anticipated that all construction Health and Safety plans for Alternative 3 for workers and visitors to active construction sites would also be subject to evaluation by the relevant police service agency to ensure inclusion of safety measures, including nighttime lighting, clear signage, and pedestrian detour routes. As discussed in Alternative 1, Metro standard practices require that lane and/or roadway closures are scheduled to minimize disruptions and that a TMP would be prepared and approved in coordination with local police departments prior to construction. For these reasons, construction of Alternative 3 would not require the construction or expansion of police facilities to maintain service ratios, response times, or other performance objectives. Therefore, the impact would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

During construction, police services would be provided by LAPD under Metro's existing service agreements with the agency. Metro has contracted the LASD and LAPD Transit Services Division to provide policing services on the Metro system within the City of Los Angeles. Potential impacts would occur if the MSF were to result in unacceptable emergency response times that necessitate the construction or expansion of facilities, where such construction could cause significant environmental impact. The MSF Base Design would not require modifications to the adjacent roadways during construction or operations to the degree that would impart delays or affect police protection standards. Therefore, the MSF Base Design would not require the need for new or physically altered police protection services.

During construction of the MSF Base Design, there would be low potential increase in the demand for police protection services from incidents or emergencies, which could result in an increase in overall response calls within the local jurisdictions. Metro MSFs are typically fenced off and access is restricted. In addition, security cameras and nighttime lighting would be provided. For Alternatives 1 and 3, the MSF Base Design would be aerial, so this would add to the security of the site. Metro has an established service agreement with the LAPD. Additionally, during construction, relevant police service agencies would review Health and Safety Plans for the MSF. For these reasons, construction of the MSF would not require the construction or expansion of police facilities to maintain service ratios, response times, or other performance objectives. Therefore, the impact would be less than significant.

MSF Design Option 1

During construction, police services would be provided by LAPD under Metro's existing service agreements with the agency. Metro has contracted the LAPD Transit Services Division to provide policing services on the Metro system within the City of Los Angeles. Potential impacts would occur if the MSF Design Option 1 were to result in unacceptable emergency response times that necessitate the construction or expansion of facilities, where such construction could cause significant environmental

impact. The MSF Design Option 1 would not require modifications to the adjacent roadways during construction or operations to the degree that would impart delays or affect police protection standards. Therefore, the MSF Design Option 1 would not require the need for new or physically altered police protection services.

During construction of the MSF Design Option 1, there would be low potential increase in the demand for police protection services from incidents or emergencies, which could result in an increase in overall response calls within the local jurisdictions. Metro MSFs are typically fenced off and access is restricted. In addition, security cameras and nighttime lighting would be provided. For Alternatives 1 and 3, MSF Design Option 1 would be aerial, so this would add to the security of the site. Metro has an established service agreement with the LAPD. Additionally, during construction, relevant police service agencies would review Health and Safety Plans for the MSF Design Option 1. For these reasons, construction of the MSF Design Option 1 would not require the construction or expansion of police facilities to maintain service ratios, response times, or other performance objectives. Therefore, the impact would be less than significant.

6.2.13.3 Impact WFR-1: Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Alternative 3 would have the same potential to affect emergency response and evacuation plans as Alternative 1 because Alternative 3 would be required to provide adequate access for emergency vehicles and equipment during construction activities. The same temporary construction impacts on street traffic and within I-405 discussed for Alternative 1 would occur under Alternative 3 and would be addressed in the same manner as discussed for Alternative 1. Please refer to the Construction Impacts section in Alternative 1 for details regarding applicable emergency response documents and requirements, which are all applicable to Alternative 3.

Adherence to existing laws, regulations, preparedness plans, and implementation of the TMP under MM TRA-4 (refer to DEIR *Section 3.15, Transportation*) would ensure that Alternative 3 would provide adequate access for emergency vehicles and the impact would be less than significant with mitigation during construction activities for Alternative 3.

Maintenance and Storage Facilities

MSF Base Design

As required by existing regulations, the proposed MSF Base Design would be required to provide adequate access for emergency vehicles during construction activities. Temporary short-term construction impacts on street traffic adjacent to the proposed MSF Base Design due to roadway and infrastructure improvements could result in a reduction of the number of lanes or temporary closure of segments of adjacent roadways and therefore result in a potentially significant impact to emergency vehicle access and movement. Any such impacts would be limited to the construction period of the proposed MSF Base Design and would affect only adjacent streets. Furthermore, MM TRA-4 would ensure that emergency response teams for the City of Los Angeles, including the fire departments and police departments, would be notified of any lane closures during construction activities and that a minimum of one lane would remain open at all times to provide adequate emergency access to the site and surrounding neighborhoods. As discussed in the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), under MM TRA-4, MSF Base Design shall implement a TMP to ensure safe and efficient traffic flow in the area during project construction, including the development of detour routes and notification procedures. The nearest local first responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing.

Adherence to existing regulations and implementation of the TMP (refer to the *Sepulveda Transit Corridor Project Transportation Technical Report* [Metro, 2025a]) would ensure that the proposed MSF Base Design would provide adequate access for emergency vehicles, and the impact would be less than significant during construction activities with mitigation.

MSF Design Option 1

As required by existing regulations, the proposed MSF Design Option 1 would be required to provide adequate access for emergency vehicles during construction activities. Temporary short-term construction impacts on street traffic adjacent to the proposed MSF Design Option 1 because of roadway and infrastructure improvements could result in a reduction of the number of lanes or temporary closure of segments of adjacent roadways, resulting in a potentially significant impact to emergency vehicle access and movement. Any such impacts would be limited to the construction period of the proposed MSF Design Option 1 and would affect only adjacent streets. Furthermore, MM TRA-4 (Section 6.2.14.5) ensures that emergency response teams for the City of Los Angeles, including the fire departments and police departments, would be notified of any lane closures during construction.

As discussed in the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), a TMP and notification procedures would be implemented to ensure safe and efficient traffic flow in the area during project construction (MM TRA-4), including the proposed MSF Design Option 1. The TMP would address short-term traffic circulation and access effects during the proposed MSF Design Option 1 construction. Specifically, the TMP shall include elements to reduce traveler and emergency responder delays and enhance safety during the proposed MSF Design Option 1 construction.

Adherence to existing regulations and implementation of the TMP (refer to the *Sepulveda Transit Corridor Project Transportation Technical Report* [Metro, 2025a]) would ensure that the proposed MSF Design Option 1 would provide adequate access for emergency vehicles and the impact would be less than significant during construction activities with mitigation.

Adherence to existing regulations and implementation of the TMP (MM TRA-4) would ensure that the proposed MSF Design Option 1 would provide adequate access for emergency vehicles, and the impact would be less than significant during construction activities.

6.2.13.4 Impact WFR-2: Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?

Construction of Alternative 3 would require the same drainage features as Alternative 1, including implementation of a SWPPP. Please refer to the Construction Impacts section in Alternative 1 for details on construction activities and associated design features and BMPs to address drainage and slope instability during construction. Alternative 3 would not expose people or structures to significant risks, including downslope or downstream flooding or landslides. Therefore, impacts would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

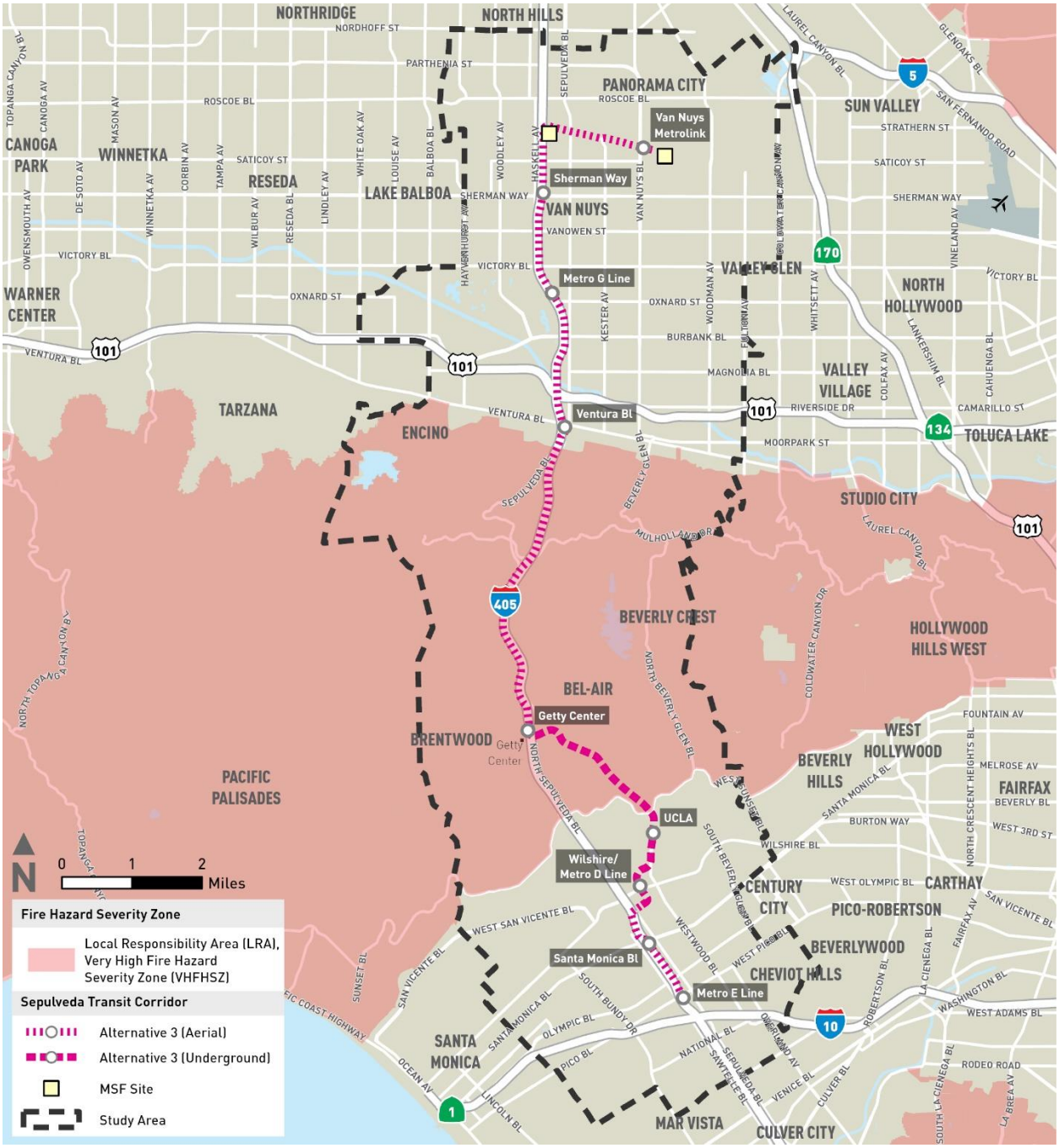
The proposed MSF Base Design would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires (Figure 6-10). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4 miles south of the MSF Base Design. The MSF Base

Design would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impacts would occur.

MSF Design Option 1

The proposed MSF Design Option 1 would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires (Figure 6-10). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4 miles south of the proposed MSF Design Option 1. The MSF Design Option 1 would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impacts would occur.

Figure 6-10. Alternative 3 Wildfire Hazard Zones



Source: CAL FIRE, 2011; Metro, 2025o

6.2.13.5 Impact WFR-3: Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Construction of Alternative 3 would require the same temporary infrastructure and associated fire minimization measures as Alternative 1. Please refer to the Construction Impacts section in Alternative 1 for details on construction activities that would contribute to Alternative 3 wildfire risks and associated avoidance measures. The implementation of MM SAF-1 and MM SAF-2 (Section 6.2.13.7) would ensure that the impacts associated with fire risks would be less than significant during construction activities with mitigation.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires (Figure 6-10). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4 miles south of the MSF Base Design. The MSF Base Design would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impacts would occur.

MSF Design Option 1

The proposed MSF Design Option 1 would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires (Figure 6-10). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4 miles south of the proposed MSF Design Option 1. The MSF Design Option 1 would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impacts would occur.

6.2.13.6 Impact WFR-4: Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Construction of Alternative 3 would require the same drainage features as Alternative 1, including implementation of a SWPPP. Please refer to the Construction Impacts section in Alternative 1 for details on construction activities and associated design features and BMPs to address drainage and slope instability during construction. Alternative 3 would not expose people or structures to significant risks, including downslope or downstream flooding or landslides. Therefore, impacts would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

The proposed MSF Base Design would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires as shown on Figure 6 10 of the *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Metro, 2025o). The closest areas designated as an SRA or land classified as VHFHSZ is located approximately 4 miles south of the MSF Base Design. The MSF Base

Design would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impacts would occur.

MSF Design Option 1

The proposed MSF Design Option 1 would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires as shown on Figure 6 10 of the *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Metro, 2025o). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4 miles south of the proposed MSF Design Option 1. The MSF Design Option 1 would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impacts would occur.

6.2.13.7 Project and Mitigation Measures

Construction Impacts

Alternative 3 would implement the following project and mitigation measures to ensure that impacts to emergency response plan or emergency evacuation plan, wildfire and fire risks remain less than significant during construction activities.

PM SAF-1: *The Project shall comply with all regulations of California Health and Safety Code Sections 13000 et seq. and City of Los Angeles Municipal Code pertaining to fire protection systems, such as the adequate provision of smoke alarms, fire extinguishers, building access, emergency response notification systems (master alarm system), fire flows, hydrant pressure and spacing, and relevant building codes relating to fire suppression and defensible space.*

MM SAF-1: *Curtail above ground construction and maintenance activities requiring spark-producing equipment during high-risk wildfire periods in applicable areas. Applicable areas would be areas in the Santa Monica Mountain Range that CAL FIRE designates as a wildfire zone and is populated with dried vegetation or other material that could ignite. Construction and maintenance activities utilizing motorized equipment shall be curtailed during red-flag warning days and other high-risk periods characterized by relative humidity of 15 percent or less combined with and windy conditions consisting of frequent gusts at 25 miles per hour or greater for at least 3 hours in a 12 hour period.*

MM SAF-2: *During construction of the Project, all staging areas, welding areas, or areas slated for development that use spark-producing equipment shall be cleared of dried vegetation or other material that could ignite. Any construction equipment that includes a spark arrestor shall be monitored to ensure the spark arrestor is in good working order. All vehicles and crews working on the Project shall have access to functional fire extinguishers at all times.*

Impacts After Mitigation

Compliance with all state laws, plans, policies, and regulations regarding wildfire prevention and suppression, as well as implementation of PM SAF-1 would ensure that impacts associated with wildfire and fire risks would be less than significant during operation activities.

Implementation of MM SAF-1 and MM SAF-2 would ensure that the impacts associated with wildfire and fire risks would be less than significant during construction activities.

Adherence to existing regulations and implementation of the TMP (MM TRA-4) would ensure that the Project would provide adequate access for emergency vehicles and the impact would be less than significant during construction activities for Alternative 3. (Refer to the *Sepulveda Transit Corridor Project Transportation Technical Report* [Metro, 2025a].)

6.2.14 Transportation

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-27.

Table 6-27. Alternative 3: Transportation Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Transportation Construction Impacts		
Impact TRA-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4, MM TRA-5
	Impacts After Mitigation	LTS
Impact TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact TRA-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact TRA-4: Would the project result in inadequate emergency access?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4, MM TRA-6
	Impacts After Mitigation	LTS

Source: Metro, 2025a.

LTS = less than significant
MM = mitigation measure
NA = not applicable
PS = potentially significant
TRA = transportation

6.2.14.1 Impact TRA-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities?

Given the temporary nature of construction, it is not expected that construction of Alternative 3 would preclude or conflict with any programs, plan ordinances, or policies addressing the circulation system. The following sections describe construction impacts on transit facilities, roadways, and active transportation.

Transit Facilities

Temporary full or partial closures of some intersections, lanes, or sidewalks may be necessary during construction, which may result in disruptions to bus service. Temporary re-routing and relocation of bus stops may be needed for the following transit lines:

- Metro Routes 4, 155, 162, 169, 233, 234, 240, and 761
- BBB 1, 2, 7/R7, R12, 17, and 18
- CCB 6/R6
- LADOT 549 and DASH Panorama City/Van Nuys
- LBT 405
- Amtrak Thruway
- BruinBus U1, U2, U3, U5

In addition to impacts to on-street bus service, construction at existing fixed guideway stations would temporarily impact rail and BRT service operations. At the existing Metro E Line Expo/Sepulveda Station, the construction of tail tracks and a pedestrian bridge connecting to the new project station would result in temporary nighttime and weekend service impacts on the Metro E Line. The construction of a new entrance and concourse level connection at the Metro D Line Westwood/UCLA Station would result in temporary impacts to Metro D Line rail operations and passenger experience. The construction of a pedestrian bridge connecting the Metro G Line project station with new Metro G Line platforms would result in temporary nighttime and weekend service impacts to the Metro G Line. In addition, construction of the guideway would require temporary nighttime Metro G Line Busway closures. Temporary impacts to Amtrak and Metrolink rail operations and passenger experience at the Van Nuys Metrolink/Amtrak Station would also occur as a result of the construction of a new pedestrian bridge crossing the LOSSAN rail corridor at the station. Construction activities would occur within the vicinity of the ESFV LRT Van Nuys Metrolink Station for the construction of the aerial alignment and Alternative 3 Van Nuys Metrolink Station which may temporarily affect passenger experience; however, disruptions to rail service or MSF operations are not anticipated.

Although temporary, the potential disruptions to the transit network under Alternative 3 would result in a potentially significant impact to transit facilities due to temporary road or lane closures, rail service interruptions during station improvements, and sidewalk closures. Implementation of MM TRA-4, to provide a TMP that specifies measures to limit disruption during construction, and MM TRA-5, to provide temporary bus service at rail stations taken out of passenger service, would reduce impacts to less than significant during construction of Alternative 3.

Roadways

Construction vehicles would primarily use major arterials and freeways to comply with Policy 1.8 from *Mobility Plan 2035* that “truck movement should be limited to the arterial street network as much as possible since these streets have the lanes and wider turning radii to accommodate these heavy large vehicles” (DCP, 2016). Table 6-28 identifies construction staging locations and roadway facilities that would be used for construction haul routes. Table 6-28 identifies these roadway facilities that would be used for construction haul routes.

Table 6-28. Alternative 3: Construction Staging Locations and Haul Routes

No.	Construction Staging Location Description	Haul Route
1	Public Storage between Pico Boulevard and Exposition Boulevard, east of I-405	Pico Boulevard, Cotner Avenue, I-405

No.	Construction Staging Location Description	Haul Route
2	South of Dowlen Drive and east of Greater LA Fisher House	Dowlen Drive, Sawtelle Boulevard, Santa Monica Boulevard, I-405
3	Federal Building Parking Lot	Veteran Avenue, Wilshire Boulevard, I-405
4	Kinross Recreation Center and UCLA Lot 36	Veteran Avenue, Wilshire Boulevard, I-405
5	North end of the Leo Baeck Temple Parking Lot (tunnel boring machine retrieval)	Sepulveda Boulevard, I-405
6	At 1400 N Sepulveda Boulevard	Sepulveda Boulevard, I-405
7	At 1760 N Sepulveda Boulevard	Sepulveda Boulevard, I-405
8	East of I-405 and north of Mulholland Drive Bridge	Mulholland Drive, Skirball Center Drive, I-405
9	Inside of I-405 Northbound to US-101 Northbound Loop Connector, south of US-101	I-405 or US-101
10	ElectroRent Building south of Metro G Line Busway, east of I-405	Oxnard Street, Sepulveda Boulevard, Burbank Boulevard, I-405
11	Inside the I-405 Northbound Loop Off-Ramp at Victory Boulevard	Victory Boulevard, I-405
12	Along Cabrito Road east of Van Nuys Boulevard	Cabrito Road, N Van Nuys Boulevard W, Arminta Street, Van Nuys Boulevard, Roscoe Boulevard, I-405

Source: LASRE, 2024; HTA, 2024

Guideway construction along I-405 would require limited duration off-peak median lane closures. Additional nighttime lane closures may be necessary to accommodate the movement of construction equipment and transportation of guideway components into the median work areas. Lane closures on I-405 would be coordinated and permitted through Caltrans in coordination with LADOT, Los Angeles County, and the California Highway Patrol. Guideway construction and TPSS transformer installation impacting local streets on the Westside, along Raymer Street and the I-405 northbound on-ramp at Burbank Boulevard in the San Fernando Valley would be coordinated and permitted through Caltrans and LADOT's Citywide Temporary Traffic Control Division. Traffic control measures necessary to complete construction of Alternative 3 would be temporary in nature and are considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction (such as establishing detour routes, informing the traveling public, and coordinating with local business owners to maintain customer and delivery access) — would further reduce temporary impacts due traffic control measures. Therefore, construction of Alternative 3 is considered a less than significant impact related to a conflict with a program, plan, ordinance, for policy on roadway facilities.

Bicycle and Pedestrian Circulation

Construction of the aerial guideway, retaining walls, I-405 ramps, and local street improvements would require roadway detours that would temporarily impact bicycle and pedestrian circulation. A majority of the aerial guideway would be constructed within the I-405 median where bicycle and pedestrian circulation does not exist and would not be impacted. However, in locations where the alignment would be adjacent to I-405 or the LOSSAN rail corridor and where the I-405 corridor widening or local street improvements would be necessitated, temporary roadway detours and sidewalk closures would inhibit the circulation of pedestrian and bicycle facilities.

Temporary sidewalk closures would be required during construction in areas where sidewalk improvements or construction access and staging activities occur. Construction activities requiring temporary sidewalk closures would include installation of temporary falsework and replacement of sidewalk sections surrounding Alternative 3 stations. Additionally, temporary sidewalk closures would

be required in areas where roadway reconfiguration or local street improvements require replacement of the existing sidewalk. Construction of the aerial guideway would temporarily impact underpasses that serve I-405 or the LOSSAN rail corridor underpass, (e.g., Sepulveda Boulevard, Bel Air Crest, Sherman Way, Ventura Boulevard), thus temporarily impacting pedestrian and bicycle sidewalk access at each underpass.

In addition, Alternative 3 would require temporary lane or road closures during construction that would affect existing and planned bicycle facilities. Bicycle through-access underneath existing underpasses and within areas of local street improvements or construction staging where existing bike facilities are present would require detours for the affected bike facilities, thereby inhibiting the flow of active transportation users. As the Alternative 3 alignment approaches the proposed Wilshire Boulevard/Metro D Line Station, sidewalks and bicycle movements surrounding the Federal Building would require detours during the construction of the aerial guideway and proposed station. Furthermore, bicycle facility detours would be anticipated at the proposed Wilshire Boulevard/Metro D Line and UCLA Gateway Plaza Stations to support cut-and-cover cast-in-drilled-hole installation and decking. Additionally, roadway reconfiguration locations, as defined in Chapter 2, Project Description, would require temporary closure of existing bicycle facilities to complete construction. As a result, affected bicycle facilities would be temporarily decommissioned and bicycle movements would require temporary detours.

Although temporary, the potential disruptions to bicycle and pedestrian circulation would result in a potentially significant impact during project construction. In addition to compliance with all local, state, and federal standards on construction, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction (such as establishing detour routes, informing the traveling public, and coordinating with local business owners to maintain customer and delivery access) — would minimize temporary impacts due to traffic control measures. Alternative 3 detour routes would be identified in the TMP, and bicyclists and pedestrians would be informed of such closures and detours through signage and online postings that would be consistent with Policy 1.6 from *Mobility Plan 2035* that states, “Design detour facilities to provide safe passage for all modes of travel during construction” (DCP, 2016). Therefore, implementation of MM TRA-4 would reduce impacts to less than significant during construction of Alternative 3.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design for Alternative 3 would be located on City of Los Angeles Department of Water and Power (LADWP) property east of the Van Nuys Metrolink/Amtrak Station and bounded by the LOSSAN rail corridor to the north, Saticoy Street to the south, and property lines extending north of Tyrone and Hazeltine Avenues to the east and west, respectively. Construction of the MSF Base Design would not conflict with a program, plan, ordinance, or policy addressing the circulation system. Therefore, construction of the MSF Base Design for Alternative 3 would result in no impact.

MSF Design Option 1

The electric bus MSF for Alternative 3 would be located on the northwest corner of Pico Boulevard and Cotner Avenue. Construction of the electric bus MSF would not conflict with a program, plan, ordinance, or policy addressing the circulation system; therefore, no impacts would occur.

6.2.14.2 Impact TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Construction of Alternative 3 would temporarily generate additional VMT related to construction workers commuting to the construction site, construction work activities, construction labor trips, and the transport of excavated materials, construction equipment, and supplies. This additional VMT would terminate upon completion of construction and would not be in effect during operation of Alternative 3. The temporary nature of construction-related VMT and construction-related traffic circulation changes (e.g., detours) would generally be localized to the work areas and construction staging locations listed in Table 6-28.

In addition, there would be minor impacts to traffic operations associated with construction staging areas and haul routes. Vehicles and trucks related to construction activities entering and exiting these areas would increase traffic and VMT on local streets. All construction trucks would use designated haul routes, as listed in Table 6-28, to access the regional freeway system. The construction-related traffic volumes would be minimal compared to overall background traffic volumes, and generally would occur during the off-peak periods when volumes and congestion are lower. Increased traffic generated by construction-related vehicle operations would be temporary in nature. As a result, construction would not result in a substantial or long-term change in regional travel patterns related to VMT and is considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic. Therefore, construction of Alternative 3 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and is considered a less than significant impact.

Maintenance and Storage Facilities

MSF Base Design

Construction of the MSF Base Design would result in a minor increase in traffic volumes as construction vehicles enter and exit the site. Construction vehicles entering and exiting the construction site would temporarily increase VMT on local streets. The construction-related traffic volumes would be minimal compared to overall background traffic volumes and generally would occur during the off-peak periods when volumes and congestion are lower. Increased traffic generated by construction-related vehicle operations would be temporary in nature. As a result, construction-related traffic would not result in a substantial or long-term change in regional travel patterns related to VMT and is considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic. Therefore, construction of the MSF Base Design for Alternative 3 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and is considered a less than significant impact.

MSF Design Option 1

Construction of the MSF Design Option 1 would result in a minor increase in traffic volumes as construction vehicles enter and exit the site. Construction vehicles entering and exiting the construction site would temporarily increase VMT on local streets. The construction-related traffic volumes would be minimal compared to overall background traffic volumes and generally would occur during the off-peak periods when volumes and congestion are lower. Increased traffic generated by construction-related vehicle operations would be temporary in nature. As a result, construction-related traffic would not result in a substantial or long-term change in regional travel patterns related to VMT and is considered a

less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic. Therefore, construction of MSF Design Option 1 for Alternative 3 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and is considered a less than significant impact.

6.2.14.3 Impact TRA-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?

Temporary modifications of existing transportation facilities under Alternative 3 would include full or partial road closures, lane reductions or modifications, and detour routes. Beyond the I-405 ROW, construction of Alternative 3 would include temporary modifications to segments of Cotner Avenue, Beloit Avenue, Dowlen Drive, Wilshire Boulevard, Veteran Avenue, and Westwood Plaza in the Westside, Sepulveda Boulevard in the Sepulveda Pass, and Dickens Street and Raymer Street in the San Fernando Valley. Construction worksites would be fenced, and lane closures, associated lane tapers, temporary advance warning signs, and detour signs would be implemented in accordance with OSHA, Cal/OSHA, and CA MUTCD (Caltrans, 2024) standards to ensure that no significant geometric design hazards or incompatible uses are introduced during construction. Safety for pedestrians, bicyclists, and motorists would be maintained during construction using signage, partial lane closures, construction barriers, and supervision by safety and security personnel at access points and throughout construction sites. Traffic control measures necessary to complete construction of Alternative 3 would be temporary in nature and are considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic control measures to ensure hazards are not introduced during construction. Therefore, construction of Alternative 3 would not substantially increase hazards due to a geometric design feature or incompatible use and is considered a less than significant impact.

Maintenance and Storage Facilities

MSF Base Design

Construction of the MSF Base Design may include construction staging, materials stockpiling, hauling of dirt and materials, temporary lane reductions, and use of temporary easements. Construction activities would meet all relevant and applicable safety standards, including OSHA, Cal/OSHA, and CA MUTCD (Caltrans, 2024) standards to ensure that no significant geometric design hazards or incompatible uses are introduced during construction. Thus, construction of the MSF Base Design would not result in an increase in hazards or incompatible uses due to a design feature. Therefore, construction of the MSF Base Design for Alternative 3 would result in no impact.

MSF Design Option 1

Construction of MSF Design Option 1 may include construction staging, materials stockpiling, hauling of dirt and materials, temporary lane reductions, and use of temporary easements. Construction activities would meet all relevant and applicable safety standards, including OSHA, Cal/OSHA, and CA MUTCD (Caltrans, 2024) standards to ensure that no significant geometric design hazards or incompatible uses are introduced during construction. Thus, construction of MSF Design Option 1 would not result in an increase in hazards or incompatible uses due to a design feature. Therefore, construction of MSF Design Option 1 for Alternative 3 would result in no impact.

6.2.14.4 Impact TRA-4: Would the project result in inadequate emergency access?

Project construction would include temporary lane reductions, road closures, and detours affecting local roadways and I-405. Construction on Dowlen Drive near the VA Medical Center and on Gayley Avenue and Westwood Plaza near the Ronald Reagan UCLA Medical Center would result in inadequate access for emergency service vehicles due to increased construction traffic and road closures during construction, resulting in a potentially significant impact. Implementation of MM TRA-6 would require coordination with the VA Medical Center and Ronald Reagan UCLA Medical Center to ensure adequate emergency access is maintained during construction. In addition, MM TRA-4 would be implemented in accordance with Metro standard practice, to require coordination with first responders during final design to further reduce temporary impacts on emergency access during construction. Therefore, implementation of MM TRA-4 and MM TRA-6 would reduce impacts to less than significant during construction of Alternative 3.

Maintenance and Storage Facilities

MSF Base Design

Construction of the MSF Base Design would result in temporary impacts to traffic operations due to a minor increase in traffic volumes as construction vehicles enter and exit the site. Traffic control measures necessary to complete construction of the MSF Base Design would be temporary in nature and are considered a less than significant impact. In accordance with standard Metro practice, implementation of MM TRA-4 would ensure adequate emergency access is maintained within and surrounding the site during construction to further reduce temporary impacts. Therefore, construction of the MSF Base Design for Alternative 3 is considered to have a less than significant impact.

MSF Design Option 1

Construction of MSF Design Option 1 would result in temporary impacts to traffic operations due to a minor increase in traffic volumes as construction vehicles enter and exit the site. Traffic control measures necessary to complete construction of MSF Design Option 1 would be temporary in nature and are considered a less than significant impact. In accordance with standard Metro practice, implementation of MM TRA-4 would ensure adequate emergency access is maintained within and surrounding the site during construction to further reduce temporary impacts. Therefore, construction of MSF Design Option 1 for Alternative 3 is considered to have a less than significant impact.

6.2.14.5 Mitigation Measures

Construction Impacts

MM TRA-4: *The project contractor shall prepare a Transportation Management Plan to facilitate the flow of traffic and transit service in and around construction zones. The Transportation Management Plan shall include, at a minimum, the following measures:*

- *Where feasible, schedule construction-related travel (i.e., deliveries, hauling, and worker trips) during off-peak hours and maintain two-way traffic circulation along affected roadways during peak hours. Avoid the closure of two major adjacent streets where feasible.*

- *Designated routes for project haul trucks shall primarily utilize the I-405, I-10, and US-101 corridors. Throughout the construction process, these routes shall be coordinated with the City of Los Angeles and U.S. Department of Veterans Affairs to ensure consistency with land use and mobility plans. Additionally, the routes shall be situated to minimize noise, vibration, and other possible impacts.*
- *Develop detour routes to facilitate traffic movement through construction zones without significantly increasing cut-through traffic in adjacent residential areas.*
- *Where construction encroaches on the Los Angeles-San Diego-San Luis Obispo rail corridor right-of-way, coordinate construction activities with Union Pacific, Metrolink, and Amtrak to limit disruptions to service and coordinate on outreach to inform passengers of service impacts. Provide temporary parking and drop-off facilities at the Van Nuys Metrolink/Amtrak Station to minimize passenger impacts.*
- *Develop and implement an outreach program and public awareness campaign in coordination with Caltrans, the City of Los Angeles, the City of Santa Monica, and the County of Los Angeles to inform the general public about the construction process and planned roadway closures, potential impacts, and mitigation measures, including temporary bus stop relocation.*
- *Where feasible, temporarily restripe roadways to maximize the vehicular capacity at locations affected by construction closures.*
- *Provide wayfinding signage, lighting, and access to specify pedestrian safety amenities (such as handrails, fences, and alternative walkways) during construction.*
- *Where construction encroaches on pedestrian facilities, special pedestrian safety measures shall be used, such as detour routes and temporary pedestrian barricades.*
- *Where construction encroaches onto the University of California, Los Angeles campus, the project contractor shall ensure that access to campus buildings is maintained through temporary decking and the construction of temporary stairs and ramps.*
- *During final design, the project contractor shall coordinate with Metro Operations to minimize construction impacts on existing Metro rail operations in and around existing stations. Where construction results in the interruption of Metro rail operations, buses shall provide temporary service between rail stations.*
- *Provide on-street bicycle detour routes and signage to address temporary effects to bicycle circulation and minimize inconvenience (e.g., lengthy detours) as to minimize users potentially choosing less safe routes if substantially rerouted.*

- *During final design, the project contractor shall coordinate with first responders and emergency service providers to minimize impacts on emergency response. Coordination efforts shall include the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing.*
- *Maintain customer and delivery access to all operating businesses near construction work areas. Access shall be maintained to allow for reasonable business operations, including clear signage for alternate routes, temporary driveways, or entry points as necessary. Coordination with businesses shall be conducted to address specific access needs and limit disruptions, ensuring that any restrictions are communicated in advance and alternative arrangements are provided as appropriate.*

MM TRA-5: *Where construction results in the interruption of Metro rail operations, the Project shall provide temporary bus service at rail stations taken out of passenger service. Temporary bus service may consist of either dedicated bus shuttles or extensions of other Metro bus service. Temporary bus service during closures of the Metro D Line Westwood/UCLA Station and/or Metro D Line Westwood/VA Hospital Station shall operate on Bonsall Avenue, Wilshire Boulevard, Santa Monica Boulevard, Century Park East, Avenue of the Stars, Century Park West, and/or Constellation Drive.*

MM TRA-6: *During final design, the project contractor shall coordinate with University of California, Los Angeles (UCLA) and the Veterans Affairs (VA) Medical Center to ensure adequate emergency access to the Ronald Reagan UCLA Medical Center and the VA Medical Center during construction.*

Impacts After Mitigation

Construction of Alternative 3 would result in a potentially significant impact under Impact TRA-1 due to temporary traffic control measures, rail service interruptions during station improvements, and sidewalk closures. Implementation of MM TRA-4 would reduce impacts to less than significant by requiring a TMP to minimize temporary disruptions associated with construction activities. Implementation of MM TRA-5 would reduce this impact to less than significant by providing temporary bus service at rail stations taken out of passenger service during construction.

Construction of Alternative 3 would result in a potentially significant impact under Impact TRA-4 due to temporary traffic control measures that would result in inadequate emergency access during construction. Implementation of MM TRA-4 and MM TRA-6 would reduce this impact to less than significant by requiring coordination with first responders and the VA Medical Center during final design to maintain adequate emergency access during construction.

6.2.15 Cultural Resources and Tribal Cultural Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-29.

Table 6-29. Alternative 3: Cultural Resources and Tribal Cultural Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Cultural Resources and Tribal Cultural Resources Construction Impacts		
Impact CUL-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM CUL-1 MM CUL-4 MM CUL-5
	Impacts After Mitigation	SU
Impact CUL-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM CUL-1 MM CUL-6 MM CUL-7
	Impacts After Mitigation	LTS
Impact CUL-3: Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM CUL-8
	Impacts After Mitigation	LTS
Impact TCR-1: Would the project cause a substantial adverse change in the significance of a TCR, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TCR-1, MM TCR-2
	Impacts After Mitigation	LTS

Source: Metro, 2025n.

CUL = cultural resources
LTS = less than significant
MM = mitigation measure
PS = potentially significant
SU = significant and unavoidable
TCR = tribal cultural resources

6.2.15.1 Impact CUL-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Alternative 3 activities during construction of the alignment would include property acquisitions, demolition of historical resources, and new construction of permanent Project features of Alternative 3. Construction impacts on historical resources could be direct and indirect. Direct impacts include the physical demolition, destruction, relocation, or alteration of historical resources. Indirect impacts during construction could include temporary visual, audible, or atmospheric intrusions affecting the surroundings of historical resources This assessment also considers the permanent impacts of Alternative 3's new infrastructure, such as its visual and physical presence within the setting of historical resources. These impacts are treated as construction-related impacts, rather than operational impacts, because these project changes are directly tied to the introduction of the infrastructure during the construction phase. For historical resources where construction activities would not result in physical demolition, destruction, relocation, or alteration, and where the setting would remain unaffected by the new infrastructure, impacts are considered less than significant. Similarly, where visual and physical changes would not materially impair the historical significance of a resource, the impacts are also identified as less than significant. Historical resources described in the following subsections are identified by Map Reference numbers corresponding to the maps included in Appendix A of the

Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report (Metro, 2025n).

Alternative 3 Historical Resources – Less than Significant Impacts

Construction of Alternative 3 would result in less than significant impact to 16 resources (Table 6-30) with further discussion on their analysis in the *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n).

Table 6-30. Alternative 3: Historical Resources – Less Than Significant Impacts

Map Reference #	Resource Name	Location
5	Southern Pacific Railroad Warehouse	7766 Van Nuys Boulevard
6	14704 Raymer Street	14704 Raymer Street
30	15233 Ventura Boulevard	15233 Ventura Boulevard
31	15250 Ventura Boulevard	15250 Ventura Boulevard
32	Sherman Oaks Circle Historic District	Between Firmament Avenue and I-405
34	15250 Ventura Boulevard	15250 Ventura Boulevard
37	15224 Dickens Street	15224 Dickens Street
40	3754 North Scadlock Lane	3754 North Scadlock Lane
41	3700 North Scadlock Lane	3700 North Scadlock Lane
42	3666 North Scadlock Lane	3666 North Scadlock Lane
43	3601 North Scadlock Lane	3601 North Scadlock Lane
85	522 S Sepulveda Boulevard	522 S Sepulveda Boulevard
118/119	General Telephone Company Building	1544 Cotner Avenue
120	Louise Green Millinery Co. Building	1616 Cotner Avenue
121	Western Electric Supply Co. Building	1620 Cotner Avenue
126/127	Big Tommy's	11285 and 11289 W Pico Boulevard

Source: Metro, 2025n

Alternative 3 Historical Resources – No Impact

Construction of Alternative 3 would result in no impact to 32 historical resources (Table 6-31). These historical resources would not be physically demolished, destroyed, relocated, or altered. Due to the underground nature of the improvements, no permanent visual impacts on these historical resources or their setting are anticipated from the addition of the underground alignment. These historical resources are either located within the underground portions of the alignment or are located a considerable distance from station locations, construction staging areas, or TBM launch and extraction sites.

Table 6-31. Alternative 3: Historical Resources – No Impact

Map Reference #	Resource Name	Location
1	13812 Saticoy Street	13812 Saticoy Street
2	13914 Saticoy Street	13914 Saticoy Street
3	13938 Saticoy Street	13938 Saticoy Street
4	13942 Saticoy Street	13942 Saticoy Street
18	Air Raid Siren No. 117	South side of Oxnard Street, west of Sepulveda Boulevard
19	Cabana Motel	5764 Sepulveda Boulevard
20	El Cortez Motel	5746 Sepulveda Boulevard

Map Reference #	Resource Name	Location
21	5724 Sepulveda Boulevard	5724 Sepulveda Boulevard
22	5724 Sepulveda Boulevard	5724 Sepulveda Boulevard
23	5450 Sepulveda Boulevard	5450 Sepulveda Boulevard
24	Cathedral of St. Mary Church	5335 North Sepulveda Boulevard
25	Lt. Patrick H. Daniels United States Army Reserve Center	5161 Sepulveda Boulevard
27	4700 Sepulveda Boulevard	4700 Sepulveda Boulevard
28	4737 Orion Avenue	4737 Orion Avenue
29	4714 Orion Avenue	4714 Orion Avenue
36	4506 Saugus Avenue	4506 Saugus Avenue
38	15564 Briarwood Drive	15564 Briarwood Drive
66	The John Thomas Dye School	11414 Chalon Road
68	10811 Ambazac Way	10811 Ambazac Way
67	619 Sarbonne Road	619 Sarbonne Road
71	Marymount High School (Main Administration Building, including Chapel and Auditorium)	10643-10685 Sunset Boulevard and 101-121 Marymount Place
72	UCLA Historic District	Encompasses the east-west axis of the campus and is bounded by Westwood Boulevard and Circle Drive
88	Engine Company #37	1090 Veteran Avenue
90	Holmby Building	921 Westwood Boulevard
92	California Pizza Kitchen	1001 Broxton Avenue
103	Gayley Center	1101 Gayley Avenue
104/105	Linde Medical Building	10921 Wilshire Boulevard
106	Tishman Building	10950 West Wilshire Boulevard
107	1220 Veteran Avenue	1220 Veteran Avenue
109	LADWP Westwood Distribution Headquarters	1400 S Sepulveda Boulevard
110	1400 Greenfield Avenue	1400 Greenfield Avenue
128	2467 Sawtelle Boulevard	2467 Sawtelle Boulevard

Source: HTA, 2024

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design would not physically demolish, destroy, relocate, or alter any historical resources. There would be no construction impacts to historical resources associated with the MSF Base Design. Therefore, the MSF Base Design would not cause a substantial adverse change in the significance of historical resources pursuant to CEQA Guidelines (Section 15064.5).

MSF Design Option 1

The MSF Design Option 1 would not physically demolish, destroy, relocate, or alter any historical resources. There would be no construction impacts to historical resources associated with MSF Design Option 1. Therefore, MSF Design Option 1 would not cause a substantial adverse change in the significance of historical resources pursuant to CEQA Guidelines (Section 15064.5).

6.2.15.2 Impact CUL-2: Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

An assessment of archaeological sensitivity for the Archaeological RSA indicates construction activities associated with the Alternative 3 alignment would have low to moderate potential to encounter

previously unidentified archaeological resources below ground surface. No portion of the Archaeological RSA was determined to have high potential because no intact significant archaeological resources have been identified within or directly adjacent to the Archaeological RSA. No prehistoric archaeological sites and only one historic-age archaeological site has been identified within the Archaeological RSA for Alternative 3. However, the sediments present across the Alternative 3 alignment consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits.

Locations considered to have low potential to encounter archaeological resources are those in older geologic deposits, such as where project components would be constructed at great depth, and those in areas with high levels of previous subsurface ground disturbance. Locations considered to have moderate potential to encounter archaeological deposits are those in younger soils, such as project components constructed in shallower depths and with low or unknown levels of previous disturbance. Proximity to previously recorded archaeological resources, important prehistoric resource areas, and water sources also increase sensitivity.

Archival research and field survey determined that one recorded historic-age resource (P-19-003803) was previously recorded in the Archaeological RSA but has likely been removed or heavily disturbed as a result of prior construction activity in the area. Archaeological resources of prehistoric and historic age have been documented in the Built Environment RSA and within a 0.5-mile radius of the Alternative 3 Archaeological RSA. They were often encountered in the context of subsurface construction activity, indicating there is potential in the area to encounter additional resources in a similar manner. Project activities during construction of the alignment would include property acquisitions, demolition of historical resources, and new construction of permanent project features.

Buried archaeological resources may exist within the Alternative 3 Archaeological RSA, and it is possible these resources could be unearthed during project excavation activities. The proposed alignment for Alternative 3 is largely within the public ROW that has already been disturbed with utility and street construction, but those disturbances were relatively shallow. Because of those prior disturbances, shallow construction work associated with the Alternative 3 would have lower potential to encounter intact archaeological resources. Other proposed construction activities, such as mass excavation required for new stations, MRT footings, at-grade alignment segments, portions of tunnel construction, and ancillary facilities with excavation depths greater than 5 feet have the potential to encounter intact archaeological deposits below the shallow previous ground disturbance and are considered to have moderate archaeological sensitivity.

Based on this analysis, construction of Alternative 3 has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the California Register of Historical Resources (CRHR) or in a local register of historical resources. The potential impacts to archaeological resources related to construction of the alignment alternative would be significant, and mitigation is required.

Maintenance and Storage Facilities

MSF Base Design

An assessment of archaeological sensitivity for the Archaeological RSA indicates construction activities associated with the Alternative 3 MSF Base Design would have moderate potential to encounter previously unidentified archaeological resources below ground surface. No prehistoric or historic-age archaeological sites have been identified within the MSF Base Design; however, the sediments present in the area consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits. Construction activities with excavation depths greater than 5 feet have the

potential to encounter intact archaeological deposits below the previous ground disturbance and are considered to have moderate archaeological sensitivity.

Construction of the MSF Base Design has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to archaeological resources related to construction of the alignment alternative would be significant, and mitigation is required.

MSF Design Option 1

An assessment of archaeological sensitivity for the Archaeological RSA, indicates construction activities associated with the Alternative 3 MSF Design Option 1 would have moderate potential to encounter previously unidentified archaeological resources below ground surface. No prehistoric or historic-age archaeological sites have been identified within the MSF Design Option 1; however, the sediments present in the area consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits. Construction activities with excavation depths greater than 5 feet have the potential to encounter intact archaeological deposits below the previous ground disturbance and are considered to have moderate archaeological sensitivity.

Construction of the MSF Design Option 1 has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to archaeological resources related to construction of the alignment alternative would be significant, and mitigation is required.

6.2.15.3 Impact CUL-3: Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?

Project activities during construction of the Alternative 3 alignment would include property acquisitions, demolition of historical resources, and new construction of permanent project features. Potential construction impacts on human remains, including those interred outside of formal cemeteries, would be related to ground-disturbing activities.

One known cemetery, the Los Angeles National Cemetery, is located within the Alternative 3 Cultural RSA. However, the probability of encountering human remains during construction is low because the Los Angeles National Cemetery is located outside of the proposed project footprint and no construction activities would occur within the cemetery grounds. While unlikely, because of the age of the cemetery and the documentation of at least one interment in the area prior to the official founding of the cemetery, there is potential for unmarked and forgotten graves to lie outside of the existing cemetery footprint.

Indigenous burials have been encountered within approximately 0.5 miles west of the Alternative 3 Cultural RSA At least two indigenous burials have been encountered within the previously recorded site of P-19-000382, an ethnohistoric village site located approximately 0.5 miles west of the Alternative 3 Archaeological RSA. The village site is not near the Alternative 3 RSA, but it provides evidence that there is potential to encounter Native American human remains in the vicinity. While no evidence of human remains has been previously identified within the Alternative 3 alignment, unknown human burials may exist within the Alternative 3 Archaeological RSA, and it is possible these burials could be unearthed during project excavation activities. Therefore, construction of Alternative 3 has the potential to cause a substantial adverse change to an unknown burial. Disturbance of unknown burial sites would result in a significant impact, and mitigation is required.

Maintenance and Storage Facilities

MSF Base Design

While no evidence of human remains has been previously identified within the Alternative 3 MSF Base Design, burials have been identified in proximity to the Alternative 3 Archaeological RSA. Unknown human burials may exist within the MSF Base Design, and it is possible these burials could be unearthed during project excavation activities. Therefore, construction of the Alternative 3 MSF Base Design has the potential to cause a substantial adverse change to an unknown burial. Disturbance of unknown burial sites would result in a significant impact, and mitigation is required.

MSF Design Option 1

While no evidence of human remains has been previously identified within the Alternative 3 MSF Design Option 1, burials have been identified in proximity to the Alternative 3 Archaeological RSA. Unknown human burials may exist within the MSF Design Option 1, and it is possible these burials could be unearthed during project excavation activities. Therefore, construction of the Alternative 3 MSF Design Option 1 has the potential to cause a substantial adverse change to an unknown burial. Disturbance of unknown burial sites would result in a significant impact, and mitigation is required.

6.2.15.4 Impact TCR-1: Would the Project cause a substantial adverse change in the significance of a TCR, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe?

Confidential information shared by tribal representatives and review of cultural resource management gray literature suggest a portion of the Alternative 3 Built Environment RSA may encompass a sacred location. Additionally, during AB 52 consultation and literature review, two landscape features, the Sepulveda Pass and the Los Angeles River, have been identified as significant places important to tribal cultural heritage. As such, for the purposes of this analysis, the Sepulveda Pass and the Los Angeles River are being treated in a manner consistent with a TCR. Further, the presence of previously recorded archaeological sites with Native American components within 0.5 mile of the RSA, and the presence of indigenous trails and important water resources in the vicinity, suggest that buried TCRs may exist within the Alternative 3 Tribal Cultural RSA. One of these archaeological sites, P-19-000382, is an ethnographic village where at least two indigenous burials have been encountered. It is possible that significant unknown TCRs could be unearthed during project excavation activities. The proposed alignment for Alternative 3 is largely within the public ROW that has already been disturbed with utility and street construction, but those disturbances were relatively shallow. Locations considered to have low potential to encounter TCRs are those in older geologic deposits, such as tunnel locations where project components would be constructed at great depth. Shallow construction work, such as for the at grade portions of the alignment, has limited potential to encounter intact TCR archaeological deposits or human remains because of the prior shallow disturbances. However, other proposed construction activities, such as mass excavation required for new stations, MRT footings, at-grade alignment segments, some tunnel construction, and ancillary facilities, have the potential to encounter deeper, intact archaeological deposits. Further, while an archaeologist may place greater importance on the intact nature of archaeological deposits, tribes may be concerned with the potential to identify and protect prehistoric resources, regardless of scientific value. Therefore, construction of the Alternative 3 alignment has the potential to cause a substantial adverse change in the significance of a TCR listed or eligible for listing in the CRHR or a local register of historical resources. Impacts would be potentially

significant. Section 6.2.1.5 discusses the proposed mitigation measures, which require Native American monitoring during ground disturbance, work stoppage and consultation if Tribal Cultural Resources or human remains are encountered, and the implementation of protective measures to ensure culturally appropriate treatment and compliance with legal requirements. Additionally, MM CUL-1, MM-CUL-6, MM CUL-7, and MM CUL-8, described in Section 3.4.6, would be implemented, which require construction personnel training on identifying and responding to cultural and Tribal Cultural Resources, archaeological monitoring in sensitive areas, work stoppage and treatment protocols for discovered artifacts, and procedures for the respectful handling of human remains in accordance with legal and tribal requirements. With implementation of MM TCR-1 and MM TCR-2, as well as MM CUL-1, MM CUL-6, MM CUL-7, and MM CUL-8, impacts on TCRs would be reduced to less than significant for Alternative 3.

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Maintenance and Storage Facilities

MSF Base Design

An assessment of TCR sensitivity for the Tribal Cultural RSA indicates construction activities associated with the Alternative 3 MSF Base Design would have moderate potential to encounter previously unidentified TCRs below ground surface. No TCRs have been identified within the MSF Base Design; however, the sediments present in the area consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits and TCRs that could be impacted by ground-disturbing activities.

Construction of the Alternative 3 MSF Base Design has the potential to cause a substantial adverse change in the significance of an TCR listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to TCRs related to construction of the alignment alternative would be significant, and mitigation is required. Section 6.2.15.5 discusses the proposed mitigation measures, which require Native American monitoring during ground disturbance, work stoppage and consultation if Tribal Cultural Resources or human remains are encountered, and the implementation of protective measures to ensure culturally appropriate treatment and compliance with legal requirements. Additionally, MM CUL-1, MM-CUL-6, MM CUL-7, and MM CUL-8 would be implemented, which require construction personnel training on identifying and responding to cultural and Tribal Cultural Resources, archaeological monitoring in sensitive areas, work stoppage and treatment protocols for discovered artifacts, and procedures for the respectful handling of human remains in accordance with legal and tribal requirements. With implementation of MM TCR-1 and MM TCR-2, as well as MM CUL-1, MM CUL-6, MM CUL-7, and MM CUL-8, impacts on TCRs would be reduced to less than significant for the MSF Base Design.

MSF Design Option 1

An assessment of TCR sensitivity for the Tribal Cultural RSA indicates construction activities associated with the Alternative 3 MSF Design Option 1 would have moderate potential to encounter previously unidentified TCRs below ground surface. No TCRs have been identified within the MSF Design Option 1; however, the sediments present in the area consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits and TCRs that could be impacted by ground-disturbing activities.

Construction of the Alternative 3 MSF Design Option 1 has the potential to cause a substantial adverse change in the significance of a TCR listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to TCRs related to construction of the alignment alternative

would be significant, and mitigation is required. Section 6.2.15.5 discusses the proposed mitigation measures, which require Native American monitoring during ground disturbance, work stoppage and consultation if Tribal Cultural Resources or human remains are encountered, and the implementation of protective measures to ensure culturally appropriate treatment and compliance with legal requirements. Additionally, MM CUL-1, MM-CUL-6, MM CUL-7, and MM CUL-8, described in Section 3.4.6, would be implemented, which require construction personnel training on identifying and responding to cultural and Tribal Cultural Resources, archaeological monitoring in sensitive areas, work stoppage and treatment protocols for discovered artifacts, and procedures for the respectful handling of human remains in accordance with legal and tribal requirements. With implementation of MM TCR-1 and MM TCR-2, as well as MM CUL-1, MM CUL-6, MM CUL-7, and MM CUL-8, impacts on TCRs would be reduced to less than significant for the Alternative 3 MSF Design Option 1.

6.2.15.5 Mitigation Measures

Construction Impacts

Under Alternative 3, there could be construction impacts to historical resources, archaeological resources, human remains, or TCRs during construction. Therefore, the following mitigation measures were developed. AB 52 consultation is ongoing, and any final mitigation measures for TCRs will be determined through consultation with tribes.

MM CUL-1: ***Cultural Resources Monitoring and Mitigation Plan.***

- *A project wide Cultural Resources Monitoring and Mitigation Plan shall be developed and implemented by Metro. The purpose of the Cultural Resources Monitoring and Mitigation Plan is to document the actions and procedures to be followed to ensure avoidance or minimization of impacts to cultural resources and to provide a detailed program of mitigation for direct and indirect impacts on cultural resources during Project construction. Preparation of the Cultural Resources Monitoring and Mitigation Plan shall necessitate the completion of a pedestrian survey of the private property parcels within the Resource Study Areas that were not accessible during the preparation of this EIR and the Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report; this shall occur only on parcels slated for acquisition and construction activities. Proposed ground disturbance for the Project shall be reviewed to make any necessary adjustments to archaeological sensitivity assessments as a result of ongoing project design.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include a detailed prehistoric and historic context that clearly demonstrates the themes under which any identified subsurface deposits would be determined significant. Should significant deposits be identified during earth moving activities, the Cultural Resources Monitoring and Mitigation Plan shall address methods for evaluation, treatment, artifact analysis for anticipated artifact types, report writing, repatriation of human remains and associated grave goods, and curation.*
- *The Cultural Resources Monitoring and Mitigation Plan will be a guide for archaeological and tribal monitoring activities as defined in MM CUL 7 and MM TCR 1. The Cultural Resources Monitoring and Mitigation Plan shall require that a Secretary of the Interior-qualified archaeologist in prehistoric and historical*

archaeology (36 Code of Federal Regulations Part 61) be retained prior to ground disturbing activities.

- *The Cultural Resources Monitoring and Mitigation Plan shall include recommended treatment measures. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include that, in the event, as a result of the resource evaluation and tribal consultation process, a resource is considered to be eligible for inclusion in the California Register of Historical Resources and/or a local register of historical resources or is determined to be a Tribal Cultural Resources through eligibility listing or determination of significance by the California Environmental Quality Act lead agency (Metro), an archaeological monitor and Native American monitor shall monitor all remaining ground disturbing activities in the area of the resource. If, during cultural resources monitoring, the Secretary of the Interior-qualified archaeologist determines that the sediments being excavated are previously disturbed or unlikely to contain significant cultural materials, the Secretary of the Interior qualified archaeologist can specify that monitoring be reduced or eliminated.*
- *The Cultural Resources Monitoring and Mitigation Plan shall outline the content and process for implementing pre-construction Cultural Resource training, as discussed in MM CUL 6.*
- *The Cultural Resources Monitoring and Mitigation Plan shall require a pre-construction baseline survey to identify building protection measures for historical resources in relation to tunnel boring machine launch/tunnel boring machine extraction, construction staging, and construction vibration and cut and cover activities adjacent to historical resources. The Project shall conduct a pre-construction survey to establish baseline, pre-construction conditions and to assess the potential for damage related to improvements adjacent to these historical resources.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include building protection measures such as fencing, sensitive construction techniques based on final project design, dust control measures, underpinning, soil grouting, or other forms of ground improvement, as well as lower vibration equipment and/or construction techniques. (Refer to vibration mitigation measures in the Sepulveda Transit Corridor Project Noise and Vibration Technical Report for more information.) In scenarios where a historical resource would be impacted by differential settlement caused by tunnel boring machine construction method, the Project shall require the use of an earth pressure balance or slurry shield tunnel boring machine. An architectural historian or historic architect who meets the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61) shall review proposed protection measures.*

- *The Cultural Resources Monitoring and Mitigation Plan shall require that a post construction survey be undertaken to ensure that no significant impacts had occurred to historical resources. An architectural historian or historic architect who meets the Secretary of Interior Professional Qualification Standards (36 CFR Part 61) shall prepare an assessment of the implementation of the mitigation measures.*
- *MM CUL-1 applies to the following historical resources:*
  - *Sherman Way Street Trees*
  - *15300 Ventura Boulevard*
  - *10811 Ambazac Way*
  - *UCLA Ackerman Hall*
  - *West Los Angeles VA Historic District*
  - *UCLA Veterans Rehabilitation Services*
  - *10940 Weyburn Avenue*
  - *Chatam Restaurant*
  - *Westwood Federal Building*
  - *14746 Raymer Street*
  - *Photo Electronics Corp. Building*
  - *Dual Ultimate Pharmacy*
  - *2114 Cotner Avenue*

MM CUL-4: ***Historical Resource Archival Documentation.***

- *The Project shall complete historical resource archival documentation of historical resources that will be demolished or substantially altered. The archival documentation shall follow the guidelines of the National Park Service's Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey program to create Historic American Building Survey-like documentation. At a minimum, the documentation shall consist of the following:*
  - *Large-format photographs including negatives and archival prints*
  - *Written narrative following the Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey short format*
  - *Site plan*
- *The Project shall provide copies of the documentation to the City of Los Angeles for archival purposes. Large-format photographs shall be completed prior to any demolition activities that would affect the Da Siani Ristorante (Sherwood Coiffeurs) building located at 4511 Sepulveda Boulevard. The documentation shall be prepared so that the original archival-quality documentation could be donated for inclusion in the Los Angeles Public Library. Copies of documentation shall be offered to the Los Angeles Public Library and local historical societies upon request.*
- *MM CUL-4 applies to the following historical resources:*

- *Da Siani Ristorante (Sherwood Coiffeurs) 4511 Sepulveda Boulevard*

MM CUL-5: Interpretive Program.

- *The Project shall prepare interpretive programs for historical resources that will be demolished or substantially altered. The Project shall provide interpretive materials in the form of an exhibit, pamphlet, website, or similar, that describes and/or illustrates the historic significance of these properties. Interpretive materials shall be provided to the City of Los Angeles for public education purposes. Copies of interpretive materials shall be offered to the Los Angeles Public Library and local historical societies upon request.*
- *MM CUL-5 applies to the following historical resources:*
  - *Da Siani Ristorante (Sherwood Coiffeurs) 4511 Sepulveda Boulevard*

MM CUL-6: Cultural Resource Training.

- *Prior to any ground disturbing activities, all construction personnel involved in ground disturbing activities shall be provided with appropriate cultural and Tribal Cultural Resources training in accordance with the Cultural Resources Monitoring and Mitigation Plan detailed in MM CUL 1.*
- *The training shall be prepared by an Secretary of the Interior qualified archaeologist to instruct the personnel regarding the legal framework protecting cultural resources and Tribal Cultural Resources, typical kinds of cultural resources and Tribal Cultural Resources that may be found during construction, artifacts that would be considered potentially significant, and proper procedures and notifications if cultural resources and/or Tribal Cultural Resources are discovered. The training shall be presented by, or under the supervision of, an Secretary of the Interior qualified archaeologist, who shall review types of cultural resources and artifacts that would be considered potentially significant to support operator recognition of these materials during construction. Contingent upon the results of Assembly Bill (AB) 52 consultation, Native American representatives shall be solicited to attend the Worker Environmental Awareness Program training and contribute to the course material to provide guidance on tribal perspectives on working in areas sensitive for Tribal Cultural Resources.*

MM CUL-7: Archaeological Monitoring.

- *Project related ground disturbing activities conducted in locations determined to have moderate to high archaeological sensitivity, or other locations determined appropriate through Assembly Bill 52 consultation, shall be monitored by, or under the supervision of, a Secretary of the Interior qualified archaeologist, in accordance with the Cultural Resources Monitoring and Mitigation Plan detailed in MM CUL 1. If monitoring does not reveal any archaeological artifacts, then there would be no impact to archaeological resources. If archaeological artifacts are discovered, then work shall be halted in the immediate vicinity of the find, and a Secretary of the Interior-qualified archaeologist shall assess the significance of the find and, if necessary, develop appropriate treatment*

measures. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation.

MM CUL-8: Unanticipated Discovery of Human Remains.

- *If human remains are discovered, work in the immediate vicinity of the discovery shall be suspended and the Los Angeles County Coroner shall be contacted immediately. If the remains are deemed Native American in origin, the coroner shall contact the Native American Heritage Commission and identify a Most Likely Descendant pursuant to Public Resource Code Section 5097.98 and California Code of Regulations Section 15064.5. The Most Likely Descendants (MLDs) may inspect the site within 48 hours of being notified and may issue recommendations for scientific removal and nondestructive analysis. If the Most Likely Descendant fails to make recommendations, then Metro and/or the landowner may rebury the remains in a location not subject to further disturbance, at their discretion. Work may be resumed at Metro's discretion but shall commence only after consultation and treatment have been concluded. Work may continue on other parts of the Project while consultation and treatment are conducted.*

MM TCR-1: Native American Monitoring

- *Project-related ground-disturbing activities conducted in locations determined to have moderate to high archaeological sensitivity, or other locations determined appropriate through Assembly Bill 52 consultation, shall be monitored by a Native American representative from a consulting tribe, in accordance with the Cultural Resources Monitoring and Mitigation Plan detailed in MM CUL-1. The tribal monitor shall be qualified by his or her tribe to monitor Tribal Cultural Resources.*
- *In the event that an archaeological resource discovered during project construction is determined to be potentially of Native American origin based on the initial assessment of the find by a Secretary of the Interior-qualified archaeologist pursuant to California Public Resource Code Section 21083.2(i), the Native American tribes that consulted on the Project pursuant to Assembly Bill 52 shall be notified. Those tribes shall also be provided information about the find to allow for early input from the tribal representatives with regard to the potential significance and treatment of the resource. Resources shall be treated with culturally appropriate dignity, taking into consideration the tribal cultural values and meaning of the resource.*
- *If, as a result of the resource evaluation and tribal consultation process, the resource is considered to be a Tribal Cultural Resource and determined, in accordance with California Public Resource Code Section 21074, to be eligible for inclusion in the California Register of Historical Resources or a local register of historical resources or is determined to be significant by the California Environmental Quality Act lead agency (Metro), the qualified archaeologist and Native American monitor shall monitor all remaining ground-disturbing activities in the area of the resource. The input of all consulting tribes shall be considered in*

the preparation of any required treatment plan activities prepared by the qualified archaeologist for any Tribal Cultural Resources identified during the project construction as required in the Cultural Resources Monitoring and Mitigation Plan (MM CUL-1).

- *Work in the area of the discovery may not resume until evaluation and treatment of the resource is completed and/or the resource is recovered and removed from the site. Construction activities may continue on other parts of the construction site while evaluation and treatment of the resource takes place.*

MM TCR-2: Unanticipated Discovery of Human Remains

- *If human remains are discovered, work in the immediate vicinity of the discovery shall be suspended and the Los Angeles County Coroner shall be contacted immediately. If the remains are deemed Native American in origin, the coroner shall contact the Native American Heritage Commission and identify a Most Likely Descendant pursuant to Public Resource Code Section 5097.98 and California Code of Regulations Section 15064.5. The Most Likely Descendants (MLDs) may inspect the site within 48 hours of being notified and may issue recommendations for scientific removal and nondestructive analysis. If the Most Likely Descendant fails to make recommendations, then Metro and/or the landowner may rebury the remains in a location not subject to further disturbance, at their discretion. Work may be resumed at Metro's discretion but shall commence only after consultation and treatment have been concluded. Work may continue on other parts of the Project while consultation and treatment are conducted.*

Impacts After Mitigation

After implementation of mitigation measures, Alternative 3 would result in less than significant impacts with mitigation on the following historical resources:

- Sherman Way Street Trees
- Rodeo Realty
- UCLA Ackerman Hall
- 10811 Ambazac Way
- 10940 Weyburn Avenue
- Westwood Federal Building
- UCLA Veterans Rehabilitation Services
- Chatam Restaurant
- West Los Angeles VA Historic District

Alternative 3 would result in a significant and unavoidable impact on the following historical resources:

- Dai Siani Ristorante (Sherwood Coiffeurs) 4511 Sepulveda Boulevard

Mitigation measures address the potential significant impacts to these historical resources. Mitigation would reduce impacts but cannot reduce impacts related to demolition to a less than significant level.

With implementation of MM CUL-1, MM CUL-6, MM CUL-7, MM CUL-8, MM TCR-1, and MM TCR-2 impacts related to archaeological resources, disturbance of human remains, and TCRs would be reduced to less than significant for Alternative 3.

6.2.16 Visual Quality and Aesthetics

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-32.

Table 6-32. Alternative 3: Visual Quality and Aesthetics Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Aesthetics Construction Impacts		
Impact AES-1: Would the project have a substantial adverse effect on a scenic vista?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact AES-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact AES-3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vintage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM AES-1 MM BIO-11
	Impacts After Mitigation	LTS
Impact AES-4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025c

AES = aesthetics
BIO = biological resources
LTS = less than significant
MM = mitigation measure
NA = not applicable

6.2.16.1 Impact AES-1: Would the project have a substantial adverse effect on a scenic vista?

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in a community. Construction of Alternative 3 would introduce visually disruptive elements in each LU, including:

- Light and heavy excavation
- Tunneling
- Roadway/bridge demolition and reconstruction
- Structural falsework
- Tree removal
- Soil removal/displacement
- Security fencing
- Stockpiled soil
- Stockpiled building materials
- Safety and directional signage

- Station platforms and plazas
- Ancillary facilities
- Large, heavy equipment may include cranes, bulldozers, scrapers, and trucks.

These construction activities could be visible to pedestrians and motorists on adjacent streets, as well as to viewers within nearby buildings. However, construction activities — while a visual nuisance — would not substantially obstruct views of the Santa Monica Mountains or San Gabriel Mountains because activities would be temporary and intermittent and limited to the immediate area. The implementation of best management practices discussed in Section 6.1.3 would also occur. Therefore, construction of Alternative 3 would not alter views or sightlines from scenic vistas, and impacts would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

Maintenance of monorail vehicles and equipment would occur at the MSF Base Design. Several buildings would be constructed, including a primary maintenance building, a maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, a parking area for employees, and traction power substation structure. These structures would be the primary visual elements of the MSF Base Design. The MSF site would be located within a heavily industrialized area, and operation of this MSF would generally fit within the context of the existing industrial character. While the MSF site would be highly visible, it would not substantially obstruct views of the San Gabriel Mountains to the north because the built-out urban landscape already prevents clear views of the mountains. As such, views of scenic vistas as a whole would not be substantially affected.

Construction activities could be visible to pedestrians and motorists on adjacent streets, as well as to viewers within nearby buildings. However, construction activities, while a visual nuisance, would not substantially obstruct views of the Santa Monica Mountains or San Gabriel Mountains, because activities would be temporary and intermittent and limited to the immediate area. Therefore, the vertical elements proposed under the MSF Base Design would not substantially alter views or sightlines from scenic vistas and operation of MSF Base Design would result in a less than significant impact to scenic vistas.

MSF Design Option 1

As part of the MSF Design Option 1, several buildings would be constructed, including a primary maintenance building, a maintenance-of-way building, a train car washing building, a parking area for employees, and a traction power substation structure. These structures would be the primary visual elements of the MSF Design Option 1. The MSF Design Option 1 would be constructed on an industrial property and would present new vertical features in the landscape that would be highly visible; however, views of the San Gabriel Mountains and Santa Monica Mountains from the residential area to the south would not be substantially obscured and continue to be limited by the surrounding urban development. As such, views of scenic vistas as a whole would not be substantially affected.

Construction activities could be visible to pedestrians and motorists on adjacent streets, as well as to viewers within nearby buildings and the residential area to the south. However, construction activities, while a visual nuisance, would not substantially obstruct views of the Santa Monica Mountains or San Gabriel Mountains, because activities would be temporary and intermittent and limited to the immediate area. Therefore, the vertical elements proposed under the MSF Design Option 1 would not

substantially alter views or sightlines from scenic vistas, and operation of the MSF Design Option 1 would result in a less than significant impact to scenic vistas.

6.2.16.2 Impact AES-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in a community. Construction of Alternative 3 would introduce visually disruptive elements in each LU, including the following:

- Light and heavy excavation
- Tunneling
- Roadway/bridge demolition and reconstruction
- Building demolition
- Structural falsework
- Security fencing
- Soil removal/stockpile
- Stockpiled building materials
- Safety and directional signage
- Station platforms and plazas
- Ancillary facilities
- Large, heavy equipment may include cranes, bulldozers, scrapers, and trucks

No California-designated scenic highways, scenic parkways, or proposed state scenic highways or parkways are located within the Project Study Area. While the Alternative 3 alignment would be located within both the inner and outer corridors of the MSPSP, no scenic resources within the viewshed of a state scenic highway would be affected. Furthermore, Metro projects are not required to adhere to local zoning ordinances; however, any elements located on properties outside the public ROW (e.g., station plazas and TPSSs) would comply with applicable zoning and design requirements. These would include design review, where applicable, and coordination with local jurisdictions and public entities during preliminary and final design. Additionally, while Alternative 3 would add new visible structures, it is expected that visual change associated with the aerial guideway would not damage scenic resources given the existing structures associated with I-405 and background conditions.

Nonetheless, construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. For Alternative 1, construction would introduce visually disruptive elements in each LU, including light and heavy excavation, tunneling, roadway and bridge demolition and reconstruction, building demolition, structural falsework, security fencing, stockpiled building materials, safety and directional signage, station platforms and plazas, and ancillary facilities. The use of large-scale construction equipment such as cranes, bulldozers, scrapers, and trucks would further contribute to the visual disruption. Additionally, tree removal during construction would create noticeable changes, exposing previously screened views of infrastructure and construction sites. However, these changes would be temporary and would not be located within a state scenic highway.

No California-designated scenic highways or scenic parkways (or proposed state scenic highways or parkways) are located within the Project Study Area. Construction of Alternative 3 would not substantially damage any scenic resources within SR-1 or SR-27, the nearest state scenic highways,

neither of which is within the Project Study Area. Therefore, construction of Alternative 3 would not damage any scenic resources within the viewshed of a state scenic highway, and impacts would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

No California-designated scenic highways or scenic parkways (or proposed state scenic highways or parkways) are located within the MSF Base Design area. Additionally, no state-designated scenic highways or City of Los Angeles-designated scenic highways are located in proximity to the MSF Base Design. Therefore, operation of the MSF Base Design would not substantially damage any scenic resources within a state scenic highway, and none of the six scenic highways designated by the City of Los Angeles would be impacted by the MSF Base Design.

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in a community. Metro projects are not required to adhere to local zoning ordinances. Any elements that would be located on properties outside of the public ROW (e.g., station plazas and TPSS) would comply with applicable zoning and design requirements, including undergoing mandated design review where applicable and coordinating with and/or other public entities during preliminary and final designs. In addition, while Alternative 3 would add new visible structures, it is expected that visual changes associated with the MSF Base Design would not be readily noticeable given the existing structures associated with I-405 and background conditions. Therefore, the MSF Base Design would not damage any scenic resources within the viewshed of a state scenic highway, and impacts would be less than significant.

MSF Design Option 1

Refer to Section 6.2.18.2 MSF Base Design, for impact evaluation. No California-designated scenic highways or scenic parkways (or proposed state scenic highways or parkways) are located within the MSF Design Option 1 area. Additionally, no state-designated scenic highways or City of Los Angeles-designated scenic highways are located in proximity to the MSF Design Option 1. Therefore, operation of MSF Design Option 1 would not substantially damage any scenic resources within a state scenic highway, and none of the six scenic highways designated by the City of Los Angeles would be impacted by the MSF Design Option 1.

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. However, as discussed previously, Metro projects are not required to adhere to local zoning ordinances; Any elements that would be located on properties outside of the public ROW (e.g., station plazas and TPSS) would comply with applicable zoning and design requirements, including undergoing mandated design review where applicable and coordinating with local jurisdictions and/or other public entities during preliminary and final designs. In addition, while Alternative 3 would add new visible structures, it is expected that visual change associated with the MSF Design Option 1 would not be readily noticeable given the existing structures associated with I-405 and background conditions. Therefore, the MSF Design Option 1 would not damage any scenic resources within the viewshed of a state scenic highway, and impacts would be less than significant.

6.2.16.3 Impact AES-3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vintage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The Alternative 3 alignment consists of a portion of the public ROW, including roadway and sidewalks, as well as City-owned, state-owned, and private properties. During the construction phase, the visual character of the alignment would change temporarily from existing conditions. Construction of the aerial guideway, stations, and freeway modifications would require equipment such as construction barriers and sound walls, cranes, and other appurtenances that would be visible during much of the approximately 102-month construction period.

Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings and other aerial transportation infrastructure. Certain areas may be fenced off with construction barriers and sound walls, resulting in a contrast and change in visual character from the existing conditions. MM AES-1 would include temporary privacy screens to minimize impacts from construction barriers and sound walls. In addition, the designated construction areas along the alignment would experience additional truck traffic compared to existing conditions, with trucks moving materials on- and off-site, and work crews and construction equipment moving around the alignment and between Alternative 3 components.

A line of mature trees presently between I-405 and Firmament Avenue would be removed to accommodate the placement of the proposed aerial guideway infrastructure. However, MM BIO-11 would be implemented to avoid and minimize impacts related to tree removal and replacement, as discussed in the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k). MM AES-1 would also be implemented during tree removal and construction activities to minimize impacts along Firmament Avenue by using temporary screens.

Some residents may have private views of Alternative 3 construction from their windows. While residents would be highly sensitive to visual changes and would have a higher degree of personal investment in Alternative 3, visual impacts are assessed based on changes to public views.

Motorists would primarily experience views of construction activities while driving along the roadways along and adjacent to Alternative 3. In addition, drivers would have prolonged views while idling at the various traffic signals surrounding the proposed station areas and aerial guideway. Passing drivers would notice the change in the visual character during the construction phase. However, drivers are considered to have a low sensitivity to any visual changes because they would likely be passing through the Project Study Area to reach their destinations and would not necessarily have a personal investment in the visual character or quality of the Project Study Area.

In addition, pedestrians would primarily experience views of construction activities while walking along public sidewalks, within transit stations, and near businesses that are adjacent to the proposed station areas and aerial guideway. The change in the visual character of the alignment during the construction phase would be noticeable by these viewers. In addition, pedestrians are considered to have a moderate sensitivity to visual changes because they may be engaged in observing their surroundings.

Tourists would also potentially experience views of construction while visiting the Getty Center or visiting one of the scenic overlooks along Mulholland Drive. Tourists are considered to have high

sensitivity to visual changes. In addition, construction of the aerial guideway would represent new visual elements for tourists who seek to enjoy the views of the Getty Center.

Recreationalists would similarly experience views of construction while visiting Westwood Park. Recreationalists are considered to have high sensitivity to visual changes. However, views of visual resources would not be interrupted during construction, because no visual resources are visible from Westwood Park. In addition, the aerial guideway and Wilshire Boulevard Station would have similar characteristics to existing transportation infrastructure, such as I-405, that is prevalent in views in this area. As such, the aerial guideway and Wilshire Boulevard Station would not significantly impact views in this area.

Overall, construction would represent a temporary change in the visual quality and character, resulting in a significant impact. The Alternative 3 components would potentially stand out as memorable or remarkable features in the landscape due to their scale, which would have a temporary impact on visual character and quality of the Project Study Area and its surroundings compared to existing conditions. Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings in urbanized areas. Impacts from construction activities would be temporary, and Alternative 3 related construction activities, equipment, stockpiles, and fencing would be removed once construction is completed. MM AES-1 would also be implemented during tree removal and construction activities to minimize impacts along Firmament Avenue by using temporary screens. MM AES-1 would be implemented to reduce significant impacts to levels below significance by including temporary privacy screens to minimize impacts from construction barriers and sound walls. In addition, Alternative 3 would comply with the BMPs noted in Section 6.1.2, as well as the City of Los Angeles' development standards related to scenic quality during construction, which would be verified during the permitting process. Therefore, construction of Alternative 3 would not conflict with applicable regulations governing scenic quality and would result in less than significant impacts.

Maintenance and Storage Facilities

MSF Base Design

Maintenance of monorail vehicles and equipment would occur at the MSF Base Design. Several buildings would be constructed, including a primary maintenance building, a maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, parking area for employees and traction power substation structures. These structures would be the primary visual elements of the MSF Base Design. The MSF Base Design site would be located within a heavily industrialized area, and operation of this MSF Base Design would generally fit within the context of the existing industrial character.

Viewer groups — including pedestrians, motorists, and transit commuters — would have a low to moderate sensitivity to the visual change and may have less of a personal investment in the visual appearance of Alternative 3 because they would be primarily passing through en route to other destinations.

Viewer groups — including residents — would have moderate to high sensitivity to the visual change, because they would have direct views of the MSF Base Design either from the public sidewalk adjacent to their apartments, or potentially from their private unit. The proposed MSF Base Design would represent a new and large element in the visual environment for residents.

The MSF Base Design would result in permanent alterations to commercial parcels. As discussed previously, for a project in an urban area, a significant impact to visual character or quality would occur if a project would conflict with applicable zoning and other regulations governing scenic quality.

The MSF Base Design would be located on the LADWP property east of the Van Nuys Metrolink Station. The MSF Base Design would be elevated consistent with the guideway height. The maintenance level for the train cars would be consistent with the guideway track elevation and would contain maintenance areas. The ground level would include multiple rows of columns and support beams for structural support, as well as an administrative building with parking areas. The massing and height of the MSF Base Design would be similar to several existing industrial buildings located directly adjacent to the LOSSAN rail corridor. The visual character of the new surface parking lot would be similar to the existing parking lot at the proposed MSF Base Design site.

The MSF Base Design would follow the Metro Art Program Policy, Metro's Rail Design Criteria, Standard/Directive Drawings, Systemwide Station Design Standards, and Adjacent Development Review. In addition, the MSF Base Design would be relatively the same height as the existing commercial structures along Van Nuys Boulevard. These railway structures are typically more visually tolerable in industrial and commercial areas. As such, these facilities would be similar to infrastructure that already exists in the urban landscape and would not be visually disruptive or incompatible with existing public views.

Alternative 3 would be generally consistent with the local policies regarding visual character and quality, including the *Citywide Design Guidelines* (DCP, 2019), which encourages “transit-friendly design and building orientation that promotes pedestrian activity and provides convenient access to transit for pedestrians and persons with disabilities.” Alternative 3 would be accessible to the regional transit systems, and would provide convenient access to transit for pedestrians and persons with disabilities.

During the construction phase, the visual character of the alignment would change temporarily from existing conditions. Construction of the MSF Base Design would require equipment such as construction barriers and sound walls, cranes, and other appurtenances that would be visible during the construction period.

Construction of the MSF Base Design would comply with applicable regulations governing scenic quality, including South Coast Air Quality Management District Rule 403, and would occur in an urbanized area. Rule 403 does not permit track-out dust to extend 25 feet or more beyond the active construction area and requires all track-out dirt to be removed at the end of each workday or evening shift. Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings and other aerial transportation infrastructure.

Although temporary and short-term in nature, construction activities would be a visual nuisance. However, certain areas may be fenced off with construction barriers and sound walls, resulting in a contrast and change in visual character from the existing conditions. MM AES-1 would include temporary privacy screens to minimize impacts from construction barriers and sound walls. In addition, the designated construction areas along the alignment would experience additional truck traffic compared to existing conditions, with trucks moving materials on- and off-site, and work crews and construction equipment moving around the alignment and between Alternative 3 components.

In addition, the designated construction areas along the alignment would experience additional truck traffic compared to existing conditions, with trucks moving materials on- and off-site, and work crews and construction equipment moving around the alignment and between Alternative 3 components.

Motorists would primarily experience views of construction activities while driving along the roadways along and adjacent to the MSF Base Design. In addition, drivers would have prolonged views while idling at the various traffic signals surrounding the proposed station areas and aerial guideway. Passing drivers

would notice the change in the visual character during the construction phase. However, drivers are considered to have a low sensitivity to any visual changes because they would likely be passing through the Project Study Area to reach their destinations and would not necessarily have a personal investment in the visual character or quality of the MSF Base Design area.

In addition, pedestrians would primarily experience views of construction activities while walking along public sidewalks, within transit stations, and near businesses that are to the proposed station areas and aerial guideway. The change in the visual character during the construction phase would be noticeable by these viewers. In addition, pedestrians are considered to have a moderate sensitivity to visual changes because they may be engaged in observing their surroundings.

The MSF Base Design includes entitlements and approvals to ensure consistent implementation of development standards. The development standards would recognize the MSF Base Design's unique characteristics, including unique opportunities for public benefits. The design standards included in the MSF Base Design's entitlements and approvals would ensure visual compatibility with adjacent development, as well as the MSF Base Design area's overall community character. The MSF Base Design would not conflict with applicable zoning or other regulations governing scenic quality. As such, the MSF Base Design would be consistent with applicable policies related to scenic quality during construction.

Overall, the MSF Base Design would not conflict with applicable zoning or other regulations governing scenic quality. Construction would represent a temporary change in the visual quality and character. Alternative 3 components would potentially stand out as memorable or remarkable features in the landscape due to their scale, which would have a temporary impact on visual character and quality of the MSF Base Design area and its surroundings compared to existing conditions. Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings in urbanized areas. Impacts from construction activities would be temporary, and post-construction views of Alternative 3-related construction activities, equipment, stockpiles, and fencing would be removed once construction is completed. In addition, the MSF Base Design would comply with the best management practices noted in Section 6.1.3, as well as the city's development standards related to scenic quality during construction, which would be verified during the permitting process. Therefore, the MSF Base Design would not conflict with applicable regulations governing scenic quality, or substantially degrade the existing visual character or quality of public views of the alignment and its surroundings, and the impact would be less than significant.

MSF Design Option 1

As part of the MSF Design Option 1, several buildings would be constructed, including a primary maintenance building, a maintenance-of-way building, a train car washing building, parking area for employees and traction power substation structures. These structures would be the primary visual elements of the MSF Design Option 1. Overall, the MSF Design Option 1 would follow Metro's Art Program Policy, and Metro's Rail Design Criteria, Standard/Directive Drawings, Systemwide Station Design Standards, and Adjacent Development Review. In addition, the MSF Design Option 1 would be relatively the same height as the existing transportation infrastructure (i.e., I-405) and commercial structures. These railway structures are typically more visually tolerable in industrial and commercial areas. An existing residential area to the south may have somewhat distant views of the MSF Design Option 1, but the proposed MSF facilities would be located in an industrial area. As such, these facilities would be similar to infrastructure that already exists in the urban landscape and would not be visually disruptive or incompatible with existing public views.

The MSF Design Option 1 would be generally consistent with the local policies regarding visual character and quality, including the *Citywide Design Guidelines* (DCP, 2019), which encourages "transit-friendly design and building orientation that promotes pedestrian activity and provides convenient access to transit for pedestrians and persons with disabilities." Alternative 3 would be accessible to the regional transit systems and would provide convenient access to transit for pedestrians and persons with disabilities.

Overall, the MSF Design Option 1 would not conflict with applicable zoning or other regulations governing scenic quality. Construction would represent a temporary change in the visual quality and character. Alternative 3 components would potentially stand out as memorable or remarkable features in the landscape due to their scale, which would have a temporary impact on visual character and quality of the Project Study Area and its surroundings compared to existing conditions. Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings in urbanized areas. Impacts from construction activities would be temporary and post-construction views of Alternative 3-related construction activities, equipment, stockpiles, and fencing would be removed once construction is completed. In addition, the MSF Design Option 1 would comply with the best management practices previously described, as well as the city's development standards related to scenic quality during construction, which would be verified during the permitting process. Therefore, the MSF Design Option 1 would not conflict with applicable regulations governing scenic quality, or substantially degrade the existing visual character or quality of public views of the site and its surroundings, and the impact would be less than significant.

6.2.16.4 Impact AES-4: Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Construction of Alternative 3 would primarily occur during daytime hours. Nighttime and weekend construction, if any, would comply with local ordinance restrictions. Such activities may include, but would not be limited to, tunneling, columns and trackwork, and stockpiling materials. As part of best management practices discussed in Section 6.1.3, construction lighting would be directed toward the construction areas and/or shielded with temporary screening to minimize light spillover and glare onto adjacent areas. In addition, construction-related illumination would be temporary and limited to safety and security purposes. Construction of the aerial guideway, freeway modifications, and aerial stations as part of Alternative 3 would not be a substantial source of light and glare because several nighttime lighting sources (e.g., streetlights, building illumination) already exist around the proposed construction areas. Therefore, construction of Alternative 3 would have less than significant impacts related to light and glare.

Maintenance and Storage Facilities

MSF Base Design

Maintenance of monorail vehicles and equipment would occur at the MSF Base Design. Several buildings would be constructed, including a primary maintenance building, a maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, parking area for employees, and traction power substation structure. New nighttime light would primarily emanate from the MSF Base Design, which would be a visible source of light, but would not represent a substantial increase in the amount of lighting in the immediate area because similar light sources and levels (e.g., buildings, streetlights, and parking lots) currently exist. The MSF Base Design would follow Metro's Rail Design Criteria and the Systemwide Station Design Standards Policy. Compliance with these requirements would ensure that permanent operations-related light sources at the MSF Base Design would be directed downwards or

feature directional shielding to minimize spillover onto adjacent properties, including residential uses and other light-sensitive uses.

Alternative 3-related sources of light and glare from the MSF Base Design would primarily emanate from buildings and parking areas. Per Metro's Rail Design Criteria or equivalent, all light sources at the proposed surface parking lots and stations would be directed downwards to minimize potential spillover onto surrounding properties, including light-sensitive uses.

The MSF Base Design would include several elements (e.g., glass or metal surfaces) that would create new sources of glare during the day. However, per Metro's Rail Design Criteria and the Systemwide Station Design Standards Policy, surfaces and architectural finishes would be used that reduce glare and reflection. Overall, the MSF Base Design would create a negligible addition to light and glare and would not constitute a substantial change in existing light and glare in the immediate area.

In addition, construction of the MSF Base Design would primarily occur during daytime hours. Nighttime and weekend construction, if any, would comply with local ordinance restrictions. As part of best management practices discussed in *the Sepulveda Transit Corridor Project Visual Quality and Aesthetics Technical Report* (Metro, 2025c), construction lighting would be directed toward the construction areas and/or shielded with temporary screening to minimize light spillover and glare onto adjacent areas. In addition, construction-related illumination would be temporary and limited to safety and security purposes. Construction of the MSF Base Design would not be a substantial source of light and glare as several nighttime lighting sources already exist around the construction areas (e.g., streetlights, building illumination). Therefore, the MSF Base Design would have less than significant impacts related to light and glare.

MSF Design Option 1

Maintenance of monorail vehicles and equipment would occur at the MSF Design Option 1. As part of the MSF Design Option 1, several buildings would be constructed, including a primary maintenance building, a maintenance-of-way building, a train car washing building, parking area for employees and traction power substation structure. Overall, the MSF Design Option 1 would create a negligible addition to light and glare and would not constitute a substantial change in existing light and glare in the immediate area. In addition, construction of the MSF Design Option 1 would not be a substantial source of light and glare as several nighttime lighting sources already exist around the construction areas (e.g., streetlights, building illumination). Therefore, the MSF Design Option 1 would have less than significant impacts related to light and glare.

6.2.16.5 Mitigation Measures

Construction Impacts

Construction activities would be a temporary and short-term visual nuisance. Temporary changes and contrast from the visual character from the existing conditions are impacted by construction activities such as site operations, tree removals, and construction traffic. Construction related structures such as barrier, sound walls, and fencing also impact visual resources.

As a result, the following mitigation measures would be implemented:

MM AES-1: *Privacy screens, as applicable and appropriate, shall be placed in high visibility areas that have construction related structures or activities. Privacy screens shall be used in areas requiring tree removal activities adjacent visually sensitive areas, including but not limited to residential areas.*

MM BIO-11: ***Avoid and Minimize Construction-Related Impacts to Protected Trees and Shrubs (Applicable to Alternatives 1 and 3).*** *Impacts to protected trees and shrubs shall be avoided, minimized, and/or mitigated by incorporation of the following:*

- *A Tree Expert, as defined under the City of Los Angeles Protected Tree and Shrub Ordinance, shall complete a detailed tree survey report prior to construction and once access is obtained to properties within the alignment. The report shall build upon the Initial Protected Tree and Shrub Inventory Memorandum (Attachment 2 of the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report) and include detailed field methods and data for each protected tree or shrub, such as species, height, diameter, canopy spread, physical condition, and precise location. The City of Los Angeles Protected Tree and Shrub Ordinance has jurisdiction in the Project; therefore, a Tree Expert shall be required to conduct the detailed survey and procure permit for protected tree/shrub removal from the Los Angeles Board of Public Works. The Tree Expert's follow-up report shall expand upon the initial assessment to provide a comprehensive dataset with verification of tree/shrub species, height, canopy width, and tree/shrub health for the Ground Disturbance Area. This follow-up report shall be used to procure the required permit prior to commencement of tree impacts within the City of Los Angeles.*
- *Impacts to protected trees and shrubs shall be minimized to the maximum extent feasible. For the purposes of this measure, "feasible" is defined as the ability to avoid or minimize impacts while meeting project design, safety, and operational requirements, as determined by the Tree Expert and project engineers. When trimming and/or encroachment into the tree/shrub protection zone (defined as the dripline or canopy) is needed, the following measures shall be implemented.*
- *Trimming of protected trees/shrubs must comply with the pruning standards set forth by the Western Chapter of the International Society of Arboriculture and conducted in a manner that does not cause permanent damage or adversely affect the health of the trees or shrubs. Since the Metro Tree Policy Trimming shall require coordination and permitting with the appropriate entities as follows:*
  - *Species protected under the Los Angeles Protected Tree and Shrub Ordinance shall coordinate with the City of Los Angeles Board of Public Works, Urban Forestry Division.*
  - *Trees protected under the City of Los Angeles Street Tree Policy shall require coordination with the City of Los Angeles Department of Public Works, Urban Forestry Division.*
  - *Trees covered by the Metro Tree Policy and designated for retention shall require the Project to prepare a Tree Protection Plan. The Tree Protection Plan shall identify Tree Protection Zones for all trees designated for retention and shall protect larger trees from immediate damage during construction and delayed damage from construction activities, such as loss of root area or soil compaction. The Project shall prepare a mitigation plan for damaged and removed trees with a minimum replacement ratio of 2:1 per removed street tree.*

  - *Trees protected by the Los Angeles County Oak Tree Ordinance shall require coordination with the Los Angeles County Director of Public Works prior to tree work.*
  - *Trees within the Santa Monica Mountains National Recreation Area shall require coordination for tree trimming or removal with the appropriate entities (e.g., National Park Service, Santa Monica Mountains Conservancy, Mountains Recreation and Conservation Authority).*

- *For impacts to protected trees and shrubs beyond trimming, the required tree removal permits shall be obtained, and replacement shall occur at the below rates. Mitigation locations of replacement trees shall be determined through the permitting process.*
  - ***Los Angeles County Oak Tree Ordinance:*** *All trees within the oak genus (Quercus) shall be replaced at a ratio of 2:1 per individual oak tree.*
  - ***City of Los Angeles Protected Tree and Shrub Ordinance:*** *Protected trees and shrubs included trees of the oak genus (indigenous to California), western sycamore, southern California black walnut and California bay, and two shrub species (Mexican elderberry and toyon). Individual trees and shrubs shall be replaced at a 4:1 ratio by plants that are the same species of protected plant.*
  - ***Policy-Protected Trees:*** *All policy-protected trees, which fall under the purview of the Los Angeles Street Tree Policy or the Metro Tree Policy, shall be replaced at a ratio of 2:1 per individual. The Los Angeles Street Tree Policy allows for an in-lieu fee to be made with approval of the Board of Public Works following verification that replacement trees cannot be feasibly planted onsite. Trees under the Metro Tree Policy that are designated as heritage trees in a local ordinance shall be replaced at a 4:1 ratio with trees of the same variety.*
  - ***Santa Monica Mountains National Recreation Area:*** *Any tree within the Santa Monica Mountains National Recreation Area shall be replaced by trees of a species and ratio at the discretion of National Park Service, Santa Monica Mountains Conservancy, Mountains Recreation and Conservation Authority.*
- *All trees occurring on private property or Caltrans right-of-way shall not require permitting but shall require coordination and negotiation with property owners. Mitigation implementation shall follow Metro Tree Policy's replacement ratio of 2:1 per individual.*

- *For protected trees and shrubs that are not anticipated to be impacted, a Tree Protection Zone shall be established around each tree/shrub or cluster of trees/shrubs prior to the commencement of work. The Tree Protection Zone shall be erected using temporary fencing in an environmentally sensitive manner and remain in place until all site work has been completed. Specific installation timeframe may vary but the Tree Protection Zone must be inspected and approved by a Qualified Arborist prior to construction work occurring, including staging of equipment. Work can commence directly following arborist inspection and approval. No construction-related materials shall be stored or staged within the Tree Protection Zone (fenced areas).*
- *The LA Street Tree Policy would require coordination with the City of Los Angeles Department of Public Works for removal or maintenance of protected trees; this policy does not apply to trees within private property, UCLA, or within the Caltrans right-of-way. Metro Tree Policy would not require permitting but would require coordination with the landowners (i.e., private landowners, UCLA, Caltrans) when a tree must be removed. Additionally, Metro Tree Policy states a mitigation plan would be required to be developed in consultation with a Certified Arborist if construction impacts resulted in a damage to or removed a protected tree; decisions would be made in accordance with local ordinances identifying protected trees.*

Impacts After Mitigation

During construction MM AES-1 would reduce the temporary visual nuisance of construction activities. Privacy screens would also minimize the visual impacts from tree removals at Firmament Avenue in LU-6. MM BIO-11 from the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k) would reduce impacts related to tree removal during construction to a less than significant level. To the greatest extent practicable protected trees and shrubs would not be removed. When removal is unavoidable, such as along Firmament Avenue, mitigation would be implemented, including installing temporary privacy screens to limit direct residential views of tree removals directly adjacent east of I-405. The implementation of these mitigation measures would result in less than significant impacts related to construction.

6.2.17 Water Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 6-33.

Table 6-33. Alternative 3: Water Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 3
Hydrology and Water Quality Operational Impacts		
Impact HWQ-1: Would the project violate any water quality standards or Waste Discharge Requirements or otherwise substantially degrade surface or groundwater quality?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternative 3
Impact HWQ-3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would: i. result in substantial erosion or siltation on- or off-site; ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv. impede or redirect flood flows??	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-4: Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025g

HWQ = hydrology and water quality
LTS = less than significant
NA = not applicable

6.2.17.1 Impact HWQ-1: Would the project violate any water quality standards or Waste Discharge Requirements or otherwise substantially degrade surface or groundwater quality?

Construction of Alternative 3 includes a guideway column foundation along I-405, seven aerial rail stations, two underground rail stations, and an approximately 3.6-mile tunnel to the east of I-405. Construction of the Alternative 3 components would include site clearing and excavation, utility relocation, foundation construction, installation of support columns and beams, construction of stations, towers, junctions, and tunnels, as well as construction of MSFs, TPSSs, roadway modifications, replacement or restoration of paving, sidewalks, parking, and landscaping, and the installation of rails and vehicles. Portions of Alternative 3 south of the Wilshire Boulevard/Metro D Line Station and north of the Getty Center Station would be the same as what was previously described for Alternative 1; therefore, construction activities associated with the Alternative 3 monorail transit (MRT) alignment would be the same as those described for Alternative 1 and would result in the same potential stormwater discharges. The construction impacts discussion for Alternative 1 presents the regulatory requirements to address stormwater discharges. The same regulatory requirements described for Alternative 1 would also be applicable to Alternative 3 construction activities.

The proposed bored tunnel for Alternative 3 would cut through the south flanks of the Santa Monica Mountains and extend beneath the Bel Air Country Club and University of California, Los Angeles (UCLA) campus. The depth of the proposed tunnel would range from 30 feet to 300 feet in the south flanks of the Santa Monica Mountains. As the tunnel extends through Westwood area, it would be shallower and transition to a bored tunnel at depths ranging from 80 to 110 feet. The groundwater depth is shallow by the Wilshire Boulevard/Metro D Line Station ranging from approximately 30 to 40 feet. There is potential for groundwater to be encountered during tunnel boring activities in areas where the tunnel invert is below groundwater level; however, proposed tunnel boring activities would not be expected to

require dewatering because tunnel boring would involve a closed mode machine that would operate under the water table, and a precast concrete tunnel liner (designed for full hydrostatic pressure) would be installed post-excavation. Both of these features would substantially reduce (if not eliminate) groundwater ingress during construction.

If dewatering is required, dewatering activities would be conducted in compliance with the LARWQCB NPDES dewatering permits, *Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* (Order R4-2018-0125) and *Waste Discharge Requirements for Specified Discharges to Groundwater in the Santa Clara River and Los Angeles River Basins* (Order No. 93-010), as applicable. The watertight systems (e.g., secant pile, slurry wall) to be employed during station construction would minimize groundwater intrusion, and any residual impacts would be managed under the established regulatory framework. In such cases, temporary pumps and filtration systems would be used in compliance with the applicable NPDES permits. The temporary system would be required to comply with all relevant NPDES requirements related to construction and discharges from dewatering operations. Water removed from the boreholes would be containerized and analyzed to determine the proper disposal method or possible treatment and re-use on-site. The treatment and disposal of the dewatered water would occur in accordance with the requirements of NPDES Order R4-2018-0125 and Order No. 93-010, as applicable. The WDRs require that waste be analyzed prior to being discharged in order to determine if it contains pollutants in excess of the applicable Basin Plan water quality objectives. Or if possible, the dewatered water would potentially be treated and reused on-site (e.g., for dust control or cleaning equipment) rather than being disposed.

Improper handling, storage, or disposal of construction materials used during construction activities of underground components, such as sediments, concrete waste, grouting materials, and petroleum products, would result in accidental spills and discharges that would contribute to groundwater pollution. Grouting operations, in particular, may involve the use of chemical additives and materials that, if not properly contained, could infiltrate groundwater or surface water systems. These materials may include bentonite, cement-based grouts, and chemical additives, which could alter water chemistry if discharged improperly. Uncontrolled discharge of groundwater carrying these potential pollutants would result in degradation of groundwater and surface water if it is not properly managed during construction activities. If groundwater containing contaminants such as VOCs, heavy metals, or petroleum hydrocarbons is encountered during dewatering activities, additional treatment or special disposal methods would be required to comply with applicable regulatory requirements and prevent contamination of receiving waters. BMPs would be implemented to ensure proper containment and disposal of grouting materials and wastewater, as well regular monitoring and adaptive management.

Alternative 3 would be required to comply with all applicable water quality protection laws and regulations at the federal, state, regional, and local levels, as well as commonly used industry standards. These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Policies, NPDES Construction General Permit (CGP), the Municipal Separate Storm Sewer Systems (MS4) Permit, Caltrans NPDES Statewide Stormwater Permit, and the City of Los Angeles and County of Los Angeles LID Ordinance.

With adherence to existing laws and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or WDRs or substantial degradation of surface or groundwater quality during construction activities of Alternative 3 would be less than significant.

With adherence to existing laws and proper implementation of stormwater compliance requirements, regulations, and permit requirements, potential impacts related to the violation of any water quality standards or WDRs, or substantial degradation of surface or groundwater quality, during construction activities would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

Maintenance of monorail vehicles and equipment would occur at the MSF Base Design. Multiple buildings would be constructed, including a multi-level maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, and TPSS structure). The MSF would be constructed on parcels containing existing impervious surfaces. Additionally, the MSF Base Design compound would be in an aerial configuration, limiting the ground-level area that would be impervious to column footings and vertical circulation elements such as elevators and stairs. Therefore, the MSF Base Design would not substantially increase the existing impervious surface area at the MSF Base Design site.

Improper handling, storage, or disposal of fuels, chemical, soaps and vehicle-related fluids or improper cleaning and maintenance of equipment within the maintenance shop and train car wash building of the MSF Base Design would result in accidental spills and discharges that would contribute to water pollution.

Construction activities such as demolition, excavation, and grading would temporarily expose bare soil, increasing the risk of erosion. Sediments (and their associated pollutants) from erosion if not properly managed would accumulate and block storm drain inlets in the vicinity of the MSF Base Design or indirectly be carried into the closest receiving water body (e.g., Pacoima Wash).

In addition to sediments, trash, concrete waste, and petroleum products, such as fuels, solvents, and lubricants, would degrade water quality and contribute to water pollution. The use of construction equipment and vehicles during the proposed Project would result in spills of vehicle-related fluids that would contribute to water pollution. Improper handling, storage, or disposal of these materials or improper cleaning and maintenance of equipment would result in accidental spills and discharges that would contribute to water pollution.

Construction activities associated with foundations would involve general earthwork and concrete work to prepare the foundations. Excavations for foundations would be between 6 and 8 feet below ground surface, and piles would be installed up to approximately 80 feet below ground surface. The groundwater depth increases progressively northward along the Project Study Area up to approximately 90 feet below grade (Metro, 2024b), where the alignment shifts from being adjacent to I-405 to being adjacent to the SCRRA Metrolink ROW where the MSF Base Design would be located. As a result, the seepage of groundwater into boreholes would be expected to be minimal. However, in the unlikely event of seepage, water removed from the boreholes would be containerized and analyzed to determine the proper disposal method.

The MSF Base Design would be required to comply with the CGP in effect at the time of construction. In accordance with the CGP, the MSF Base Design would be required to prepare and submit a construction SWPPP, which must be submitted to the SWRCB prior to construction, and adhered to during construction of the MSF Base Design. Proper implementation of the construction SWPPP would avoid potential impacts to water quality. The construction SWPPP would identify the BMPs that would be in place prior to the start of construction activities and during construction of the MSF Base Design. BMP categories would include erosion control, sediment control, tracking control, wind erosion, stormwater

and non-stormwater management, and materials management. Although specific temporary construction-related BMPs would be selected at the time of SWPPP preparation, potential BMPs would likely include fiber rolls, bonded-fiber matrix hydroseeding, soil furrowing, water bars, and check dams for erosion control, inlet protection (sand/gravel bags and geotextiles), silt fencing, sediment traps/basins for sediment controls, soil berming around disturbed areas, and phasing of soil disturbance during the wet season (i.e., limiting widespread grading) for effectively managing erosion and pollutant discharge during significant rainfall events.

The construction of the MSF Base Design would be required to comply with all applicable water quality protection laws and regulations at the federal, state, regional, and local levels, as well as commonly used industry standards. These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Policies, NPDES CGP, the MS4 Permit, and the City of Los Angeles and County of Los Angeles LID Ordinance.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or WDRs or substantial degradation of surface or groundwater quality during construction of the MSF Base Design would be less than significant.

MSF Design Option 1

M Potential impacts associated with the MSF Design Option 1 for Alternatives 1 and 3 would be the same as that previously described for the MSF Base Design for Alternatives 1 and 3. With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or WDRs, or substantial degradation of surface or groundwater quality, during construction of the MSF Design Option 1 would be less than significant.

6.2.17.2 Impact HWQ-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Construction activities associated with the above ground portions of the Alternative 3 MRT alignment would be the same as those previously described for Alternative 1. The construction impacts discussion for Alternative 1 presents the regulatory compliance requirements to address groundwater impacts.

The proposed bored tunnel for Alternative 3 would cut through the south flanks of the Santa Monica Mountains and extend beneath the Bel Air Country Club and UCLA campus. The depth of the proposed tunnel would range from 30 feet to 300 feet in the south flanks of the Santa Monica Mountains. As the tunnel extends through Westwood area, it would be shallower and transition to a bored tunnel at depths ranging from 80 to 110 feet. The groundwater depth is shallow by Wilshire Boulevard/Metro D Line Station ranging from approximately 30 to 40 feet. There is potential for groundwater to be encountered during tunnel boring activities in areas where the tunnel invert is below groundwater level; however, proposed tunnel boring activities would not be expected to require dewatering because tunnel boring would involve a closed mode machine that would operate under the water table, and a precast concrete tunnel liner (designed for full hydrostatic pressure) would be installed post-excavation. Both of these features would substantially reduce (if not eliminate) groundwater ingress during construction.

If dewatering is required, groundwater would be removed, containerized, and analyzed consistent with existing applicable regulations to determine the proper disposal method, or the dewatered water would

potentially be treated and reused on-site (e.g., for dust control or cleaning equipment) rather than being disposed. Dewatering would be limited to the construction phase only. Extracting large volumes of groundwater that would decrease groundwater supplies would not be expected during construction. The volume of groundwater removed during construction would be monitored and documented.

Alternative 3 would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, as well as commonly used industry standards. These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Policies, NPDES CGP, the MS4 Permit, Caltrans NPDES Statewide Stormwater Permit, and the City of Los Angeles and County of Los Angeles LID Ordinance.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, construction activities are not anticipated to interfere substantially with groundwater recharge or groundwater resource supplies, and potential impacts to groundwater supply and recharge during construction of Alternative 3 would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

The proposed Project would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, water quality control and/or sustainable groundwater management plans, including the *Basin Plan* and *City of Los Angeles General Plan*, as well as commonly used industry standards. Dewatering would be limited to the construction phase only. Extracting large volumes of groundwater that would decrease groundwater supplies would not be expected during construction.

Due to the limited amount of groundwater seepage anticipated to be encountered, and with adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts to groundwater supply and recharge during construction of the MSF Base Design would be less than significant.

MSF Design Option 1

The MSF Design Option 1 would be required to comply with applicable federal, state, regional, and local agency water quality protection laws and regulations, and water quality control and/or sustainable groundwater management plans, including the Basin Plan, as well as commonly used industry standards. The MSF Design Option 1 would include design elements that would serve to capture, treat, and re-use stormwater in accordance with current LID requirements, promoting infiltration and groundwater recharge. Extracting large volumes of groundwater that would decrease groundwater supplies would not be expected during construction.

Due to the limited amount of groundwater seepage anticipated to be encountered, and with adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts to groundwater supply and recharge during construction of the MSF Design Option 1 would be less than significant.

6.2.17.3 Impact HWQ-3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on- or off-site;

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv) impede or redirect flood flows?

Alternative 1 Construction Impacts, presents the impact evaluation of the Alternative 3 components and discusses the regulatory requirements to address site runoff and drainage. Construction of Alternative 3 would also include tunneling and cut-and-cover construction. Tunneling activities may encounter groundwater ingress, which would require dewatering in compliance with applicable NPDES permits and WDRs. Drilling fluids and tunnel spoils generated during boring operations would be properly managed to prevent pollutant discharge. Cut-and-cover construction for underground stations may temporarily increase erosion or sediment discharge, which would be addressed through erosion control BMPs such as silt fencing and sediment basins.

With adherence to existing laws and regulations and proper implementation of stormwater compliance requirements, potential impacts related to substantial erosion or siltation, a substantial increase in the rate or amount of surface runoff that would cause flooding, creation of runoff that would exceed drainage system capacity or provide additional sources of polluted runoff, or impede or redirect flood flows during construction of Alternative 3 would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

The proposed Project would comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, as well as commonly used industry standards. The proposed Project would include design elements that serve to capture and re-use stormwater in accordance with current LID requirements — thereby minimizing the potential for increased runoff rates/amounts, flooding, erosion and siltation, and pollutant runoff. LID design features slow (detain or retain) stormwater, which reduces the runoff volume discharged from the proposed Project and decreases the peak runoff discharge velocity for design storms. As a result, Project design and LID BMPs would offset any increases in flow and changes to drainage patterns post-project; therefore, less flow with fewer pollutants would be transported through the conveyance systems minimizing flooding and pollutant transport into surface receiving waters. In addition, existing drainage patterns would be maintained as much as possible and operation of the proposed Project would not alter the course of any streams or rivers or impede or redirect flows. Construction activities would comply with all applicable federal and local floodplain regulations any impacts to existing drainage patterns would be temporary. Implementation of the project design features and BMPs in compliance with the construction SWPPP would control stormwater runoff from the project site to minimize construction-related flooding impacts, erosion, and the discharge of potential pollutants, including sedimentation/siltation.

With adherence to existing laws and regulations and proper implementation of stormwater compliance requirements, potential impacts related to substantial erosion or siltation, a substantial increase in the rate or amount of surface runoff that would cause flooding, creation of runoff that would exceed drainage system capacity or provide additional sources of polluted runoff, or impeding or redirecting flood flows during construction of the MSF Base Design would be less than significant.

MSF Design Option 1

The MSF Base Design is applicable to the MSF Design Option 1. With adherence to existing laws and regulations and proper implementation of stormwater compliance requirements, potential impacts related to substantial erosion or siltation, a substantial increase in the rate or amount of surface runoff that would cause flooding, creation of runoff that would exceed drainage system capacity or provide additional sources of polluted runoff, or impeding or redirecting flood flows during construction of the MSF Design Option 1 would be less than significant.

6.2.17.4 Impact HWQ-4: Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Impacts related to release of pollutants due to inundation by flood, tsunami, or seiche during construction activities would be similar to operational impacts. Similar to operational impacts, the majority of the Alternative 3 alignment would be constructed outside of the FEMA-designated 100-year floodplain and would be in an inland area that is not in proximity to the ocean; therefore, the risk of inundation by a tsunami is considered low.

Given the distance of Alternative 3 from the Encino Reservoir and Stone Canyon Reservoir, any oscillation and subsequent release of water in the reservoirs as part of a seiche would not inundate Alternative 3. Therefore, there would be low potential for risk of release of pollutants due to inundation by seiche.

The Los Angeles River and Ballona Creek are the major flood control measures for draining stormwater from the Project Study Area and directing it safely to the San Pedro Bay and Santa Monica Bay, respectively. The risk related to flooding would be considered low as Alternative 3 would extend along well-developed areas that maintain storm drainage and water runoff control.

Construction of the Alternative 3 alignment would not result in impacts to the hydrology, hydraulics, and connectivity of natural watercourses, including floodways.

Alternative 3 would have no impacts related to risk of release of pollutants due to inundation by flood, tsunami, or seiche, and potential impacts during construction would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

Impacts related to release of pollutants due to project inundation by flood, tsunami, or seiche during construction activities of the MSF Base Design would be similar to operational and construction activities of the rest of the project components. The majority of the proposed Project alignment would be constructed outside of the FEMA-designated 100-year floodplain and would be in an inland area that is not in close proximity to the ocean; therefore, the risk of inundation by a tsunami is considered low.

Given the MSF Base Design's distance from Encino and Stone Canyon reservoirs, any oscillation and subsequent release of water in the reservoir as part of a seiche would not inundate the Project. Therefore, there would be low potential for risk of release of pollutants due to inundation by seiche.

The Los Angeles River and Ballona Creek are the major flood control measures for draining stormwater from the Project Study Area and directing it safely to the San Pedro Bay and Santa Monica Bay, respectively. The risk related to flooding would be considered low as the project extends along well-developed areas that maintain storm drainage and water run-off control.

The MSF Base Design would not result in impacts to the hydrology, hydraulics, and connectivity of natural watercourses, including floodways.

The MSF Base Design would have no impacts related to risk of release of pollutants due to project inundation by flood, tsunami, or seiche, and potential impacts during construction of the MSF Base Design would be less than significant.

MSF Design Option 1

The MSF Design Option 1 would be constructed outside of the FEMA-designated 100-year floodplain and would be in an inland area that is not in proximity to the ocean; therefore, the risk of inundation by a tsunami is considered low.

Given the distance of the MSF Design Option 1 from the Encino Reservoir and Stone Canyon Reservoir, any oscillation and subsequent release of water in the reservoirs as part of a seiche would not inundate the MSF Design Option 1. Therefore, there would be low potential for risk of release of pollutants due to inundation by seiche.

The Los Angeles River and Ballona Creek are the major flood control measures for draining stormwater from the Project Study Area and directing it safely to the San Pedro Bay and Santa Monica Bay, respectively. The risk related to flooding would be considered low as the MSF Design Option 1 is within a well-developed area that maintains storm drainage and water runoff control.

Construction of the MSF Design Option 1 would not result in impacts to the hydrology, hydraulics, and connectivity of natural watercourses, including floodways.

The MSF Design Option 1 would have no impacts related to risk of release of pollutants due to inundation by flood, tsunami, or seiche, and potential impacts during construction of the MSF Design Option 1 would be less than significant.

6.2.17.5 Impact HWQ-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Alternative 3 would have the same construction impact evaluation as Alternative 1. With adherence to existing laws and regulations and with proper implementation of stormwater compliance requirements, potential impacts related to conflict with implementation of a water quality control plan or sustainable groundwater management plan during construction of Alternative 3 would be less than significant.

Maintenance and Storage Facilities

MSF Base Design

The MSF Base Design would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, and water quality control and/or sustainable groundwater management plans. The MSF Base Design would not be expected to result in a decrease in groundwater supplies or interfere substantially with groundwater recharge to the extent that the MSF Base Design may impede sustainable groundwater management of the basin. Dewatering would be limited to the construction phase only. Extracting large volumes of groundwater that would decrease groundwater supplies would not be expected during construction.

With adherence to existing laws and regulations and with proper implementation of stormwater compliance requirements, potential impacts related to conflict with implementation of a water quality control plan or sustainable groundwater management plan during construction of the MSF Base Design would be less than significant.

MSF Design Option 1

The MSF Design Option 1 would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, and water quality control and/or sustainable groundwater management plans. Construction of the MSF Design Option 1 would not be expected to result in a decrease in groundwater supplies or interfere substantially with groundwater recharge to the extent that the MSF Design Option 1 may impede sustainable groundwater management of the basin. Dewatering would be limited to the construction phase only. Extracting large volumes of groundwater that would decrease groundwater supplies would not be expected during construction.

With adherence to existing laws and regulations and with proper implementation of stormwater compliance requirements, potential impacts related to conflict with implementation of a water quality control plan or sustainable groundwater management plan during construction of the MSF Design Option 1 would be less than significant.

6.2.17.6 Mitigation Measures

Construction Impacts

No mitigation measures are required with adherence to all existing local, regional, and federal regulations, guidelines, and standards. As such, all water-related impacts are less than significant.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

7 ALTERNATIVE 4

7.1 Alternative Description

Alternative 4 is a heavy rail transit (HRT) system with a hybrid underground and aerial guideway track configuration that would include four underground stations and four aerial stations. This alternative would provide transfers to five high-frequency fixed guideway transit and commuter rail lines, including the Los Angeles County Metropolitan Transportation Authority's (Metro) E, Metro D, and Metro G Lines, the East San Fernando Valley Light Rail Transit Line, and the Metrolink Ventura County Line. The length of the alignment between the terminus stations would be approximately 13.9 miles, with 5.7 miles of aerial guideway and 8.2 miles of underground configuration.

The four underground and four aerial HRT stations would be as follows:

1. Metro E Line Expo/Sepulveda Station (underground)
2. Santa Monica Boulevard Station (underground)
3. Wilshire Boulevard/Metro D Line Station (underground)
4. UCLA Gateway Plaza Station (underground)
5. Ventura Boulevard/Sepulveda Boulevard Station (aerial)
6. Metro G Line Sepulveda Station (aerial)
7. Sherman Way Station (aerial)
8. Van Nuys Metrolink Station (aerial)

7.1.1 Operating Characteristics

7.1.1.1 Alignment

As shown on Figure 7-1, from its southern terminus station at the Metro E Line Expo/Sepulveda Station, the alignment of Alternative 4 would run underground north through the Westside of Los Angeles (Westside) and the Santa Monica Mountains to a tunnel portal south of Ventura Boulevard in the San Fernando Valley (Valley). At the tunnel portal, the alignment would transition to an aerial guideway that would generally run above Sepulveda Boulevard before curving eastward along the south side of the Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor to the northern terminus station adjacent to the Van Nuys Metrolink/Amtrak Station.

The proposed southern terminus station would be located underground east of Sepulveda Boulevard between the existing elevated Metro E Line tracks and Pico Boulevard. Tail tracks for vehicle storage would extend underground south of National Boulevard east of Sepulveda Boulevard. The alignment would continue north beneath Bentley Avenue before curving northwest to an underground station at the southeast corner of Santa Monica Boulevard and Sepulveda Boulevard. From the Santa Monica Boulevard Station, the alignment would continue and curve eastward toward the Wilshire Boulevard/Metro D Line Station beneath the Metro D Line Westwood/UCLA Station, which is currently under construction as part of the Metro D Line Extension Project. From there, the underground alignment would curve slightly to the northeast and continue beneath Westwood Boulevard before reaching the UCLA Gateway Plaza Station.

Figure 7-1. Alternative 4: Alignment

Source: STCP, 2024; HTA, 2024

From the UCLA Gateway Plaza Station, the alignment would turn to the northwest beneath the Santa Monica Mountains to the east of Interstate 405 (I-405). South of Mulholland Drive, the alignment would curve to the north to reach a tunnel portal at Del Gado Drive, just east of I-405 and south of Sepulveda Boulevard.

The alignment would transition from an underground configuration to an aerial guideway structure after exiting the tunnel portal and would continue northeast to the Ventura Boulevard/Sepulveda Boulevard

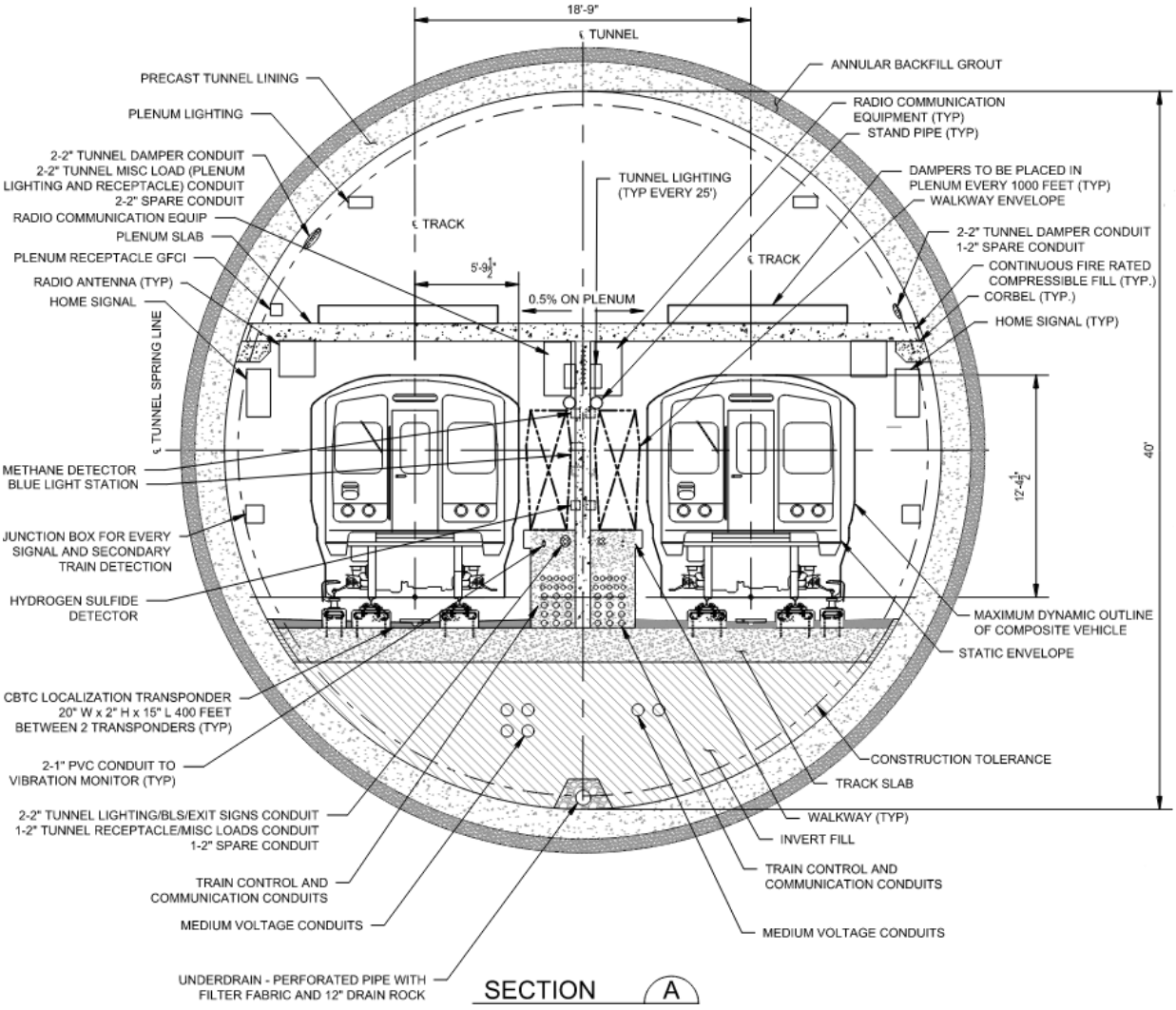
Station located over Dickens Street, immediately west of the Sepulveda Boulevard and Dickens Street intersection. North of the station, the aerial guideway would transition to the center median of Sepulveda Boulevard. The aerial guideway would continue north on Sepulveda Boulevard and cross over U.S. Highway 101 (US-101) and the Los Angeles River before continuing to the Metro G Line Sepulveda Station, immediately south of the Metro G Line Busway. Overhead utilities along Sepulveda Boulevard in the Valley would be undergrounded where they would conflict with the guideway or its supporting columns.

The aerial guideway would continue north above Sepulveda Boulevard where it would reach the Sherman Way Station just south of Sherman Way. After leaving the Sherman Way Station, the alignment would continue north before curving to the southeast to parallel the LOSSAN rail corridor on the south side of the existing tracks. Parallel to the LOSSAN rail corridor, the guideway would conflict with the existing Willis Avenue Pedestrian Bridge, which would be demolished. The alignment would follow the LOSSAN rail corridor before reaching the proposed northern terminus Van Nuys Metrolink Station located adjacent to the existing Metrolink/Amtrak Station. Tail tracks and yard lead tracks would descend to a proposed at-grade maintenance and storage facility (MSF) east of the northern terminus station. Modifications to the existing pedestrian underpass to the Metrolink platforms to accommodate these tracks would result in reconfiguration of an existing rail spur serving City of Los Angeles Department of Water and Power (LADWP) property.

7.1.1.2 Guideway Characteristics

Alternative 4 would utilize a single-bore tunnel configuration for underground tunnel sections, with an outside diameter of approximately 43.5 feet. The tunnel would include two parallel tracks with 18.75-foot track spacing in tangent sections separated by a continuous central dividing wall throughout the tunnel. Inner walkways would be constructed adjacent to the two tracks. Inner and outer walkways would be constructed within tunnel sections near the track crossovers. At the crown of tunnel, a dedicated air plenum would be provided by constructing a concrete slab above the railway corridor. The air plenum would allow for ventilation throughout the underground portion of the alignment. Figure 7-2 illustrates these components at a typical cross-section of the underground guideway.

Figure 7-2. Typical Underground Guideway Cross-Section

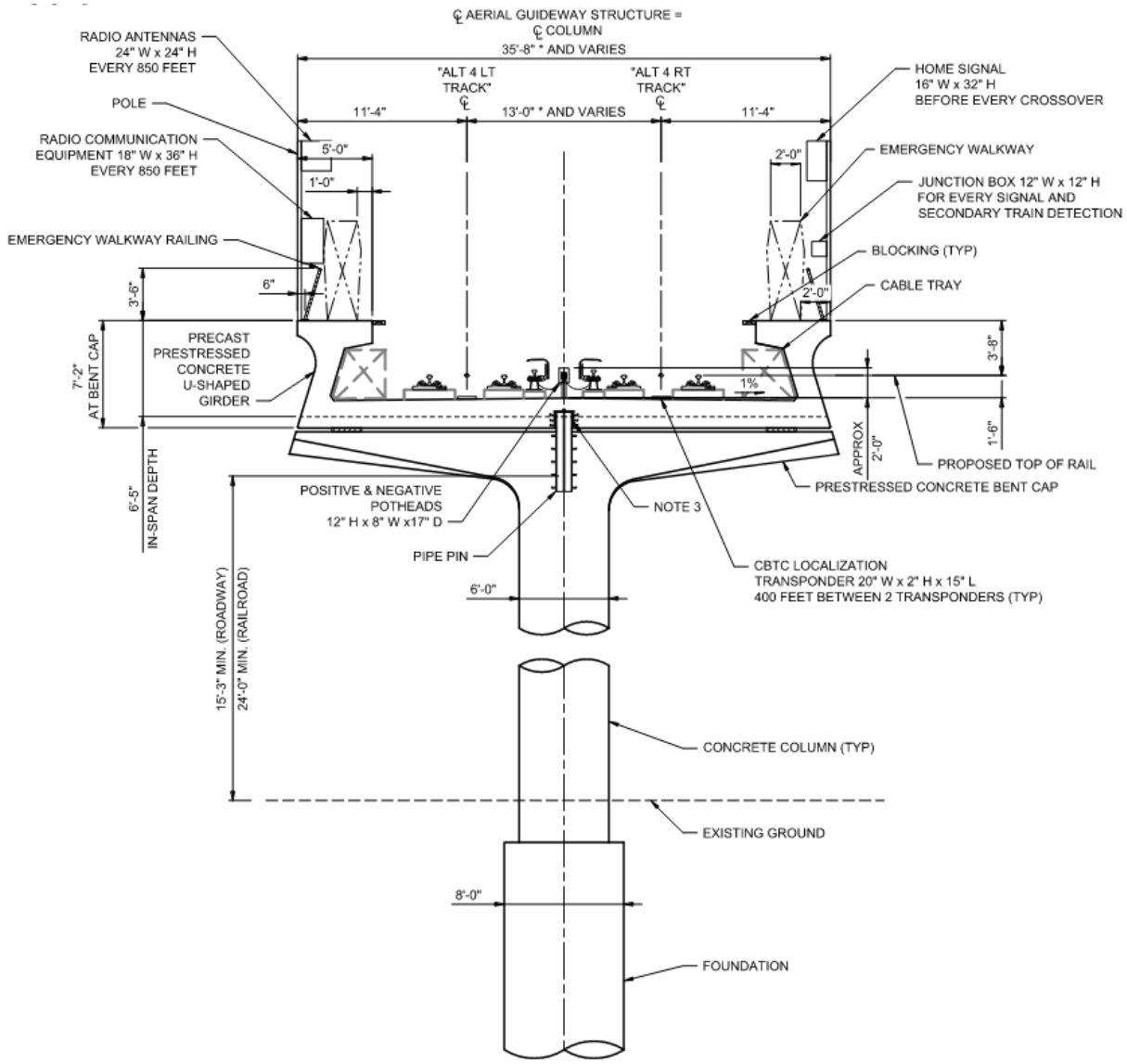


Source: STCP, 2023

In aerial sections, the guideway would be supported by either single columns or straddle-bents. The single-column spans would include a concrete girder structure that supports the railway track atop a series of individual columns. The single-column aerial guideway would be approximately 36 feet wide. The track would be constructed on the concrete girders and would maintain a minimum of 13 feet between the two track centerlines. On the outer side of the tracks, emergency walkways would be constructed with a minimum width of 2 feet.

The single-column aerial guideway would be the primary aerial structure throughout the aerial portion of the alignment. Crash protection barriers would be used to protect columns located in the median of Sepulveda Boulevard in the Valley. Figure 7-3 shows a typical cross-section of the single-column aerial guideway.

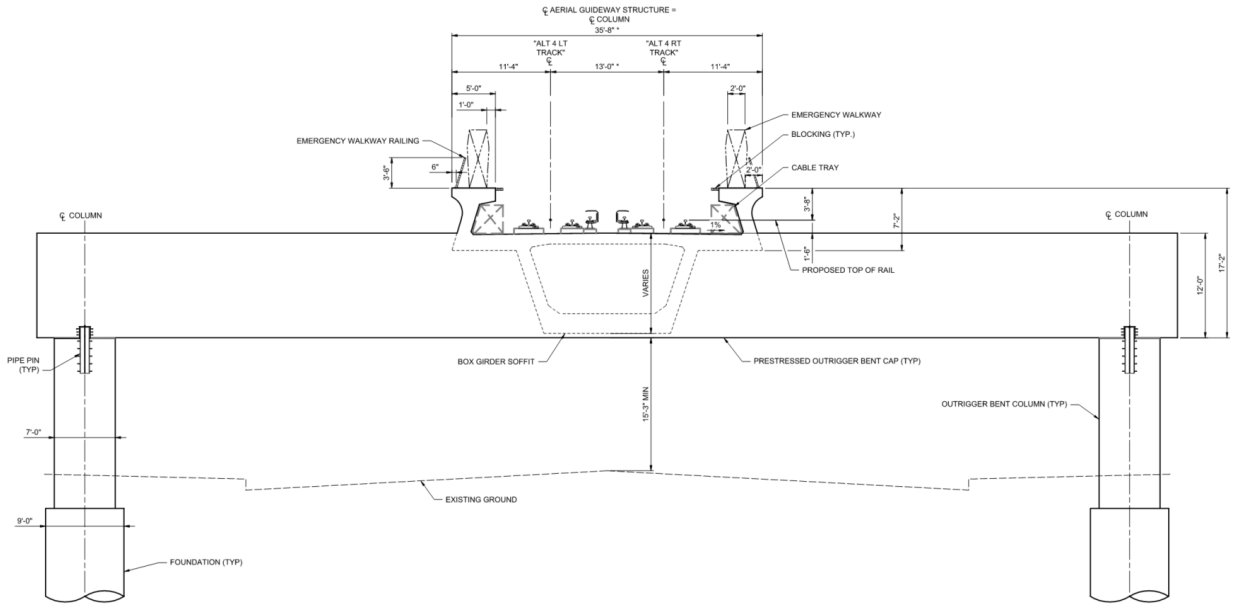
Figure 7-3. Typical Aerial Guideway Cross-Section



Source: STCP, 2024

In order to span intersections and maintain existing turn movements, sections of the aerial guideway would be supported by straddle bents, a concrete straddle-beam placed atop two concrete columns constructed outside of the underlying roadway. Figure 7-4 illustrates a typical straddle-bent configuration.

Figure 7-4. Typical Aerial Straddle-Bent Cross-Section



Source: STCP, 2024

7.1.1.3 Vehicle Technology

Alternative 4 would utilize steel-wheel HRT trains, with automated train operations and planned peak-period headways of 2.5 minutes and off-peak-period headways ranging from 4 to 6 minutes. Each train could consist of three or four cars with open gangways between cars. The HRT vehicle would have a maximum operating speed of 70 miles per hour; actual operating speeds would depend on the design of the guideway and distance between stations. Train cars would be approximately 10 feet wide with three double doors on each side. Each car would be approximately 72 feet long with capacity for 170 passengers. Trains would be powered by a third rail.

7.1.1.4 Stations

Alternative 4 would include four underground stations and four aerial stations with station platforms measuring 280 feet long for both station configurations. The aerial stations would be constructed a minimum of 15.25 feet above ground level, supported by five rows of dual columns with 8-foot diameters. The southern terminus station would be adjacent to the Metro E Line Expo/Sepulveda Station, and the northern terminus station would be adjacent to the Van Nuys Metrolink/Amtrak Station.

All stations would be side-platform stations where passengers would select and travel to station platforms depending on their direction of travel. All stations would include 20-foot-wide side platforms separated by 30 feet for side-by-side trains. Station platforms would be covered, but not enclosed. Each underground station would include an upper and lower concourse level prior to reaching the train platforms. Each aerial station, except for the Sherman Way Station, would include a mezzanine level prior to reaching the station platforms. At the Sherman Way Station, separate entrances on opposite sides of the street would provide access to either the northbound or southbound platform. Each station would have a minimum of two elevators, two escalators, and one stairway from the ground level to the concourse or mezzanine.

Stations would include automatic, bi-parting fixed doors on all station platforms. These platform screen doors would be integrated into the automatic train control system and would not open unless a train is stopped at the platform.

The following information describes each station, with relevant entrance, walkway, and transfer information. Bicycle parking would be provided at each station.

Metro E Line Expo/Sepulveda Station

- This underground station would be located just north of the existing Metro E Line Expo/Sepulveda Station, on the east side of Sepulveda Boulevard.
- A station entrance would be located on the east side of Sepulveda Boulevard north of the Metro E Line.
- A walkway to transfer to the Metro E Line would be provided at street level within the fare paid zone.
- A 126-space parking lot would be located immediately north of the station entrance, east of Sepulveda Boulevard. Passengers would also be able to park at the existing Metro E Line Expo/Sepulveda Station parking facility, which provides 260 parking spaces.

Santa Monica Boulevard Station

- This underground station would be located under the southeast corner of Santa Monica Boulevard and Sepulveda Boulevard.
- The station entrance would be located on the south side of Santa Monica Boulevard between Sepulveda Boulevard and Bentley Avenue.
- No dedicated station parking would be provided at this station.

Wilshire Boulevard/Metro D Line Station

- This underground station would be located under Gayley Avenue between Wilshire Boulevard and Lindbrook Drive.
- Station entrances would be provided on the northeast corner of Wilshire Boulevard and Gayley Avenue and on the northeast corner of Lindbrook Drive and Gayley Avenue. Passengers would also be able to use the Metro D Line Westwood/UCLA Station entrances to access the station platform.
- A direct internal station transfer to the Metro D Line would be provided at the south end of the station.
- No dedicated station parking would be provided at this station.

UCLA Gateway Plaza Station

- This underground station would be located underneath Gateway Plaza on the University of California, Los Angeles (UCLA) campus.
- Station entrances would be provided on the north side of Gateway Plaza and on the east side of Westwood Boulevard across from Strathmore Place.
- No dedicated station parking would be provided at this station.

Ventura Boulevard/Sepulveda Boulevard Station

- This aerial station would be located west of Sepulveda Boulevard spanning over Dickens Street.

- A station entrance would be provided on the west side of Sepulveda Boulevard south of Dickens Street.
- A 52-space parking lot would be located adjacent to the station entrance on the southwest corner of the Sepulveda Boulevard and Dickens Street intersection, and an additional 40-space parking lot would be located on the northwest corner of the same intersection.

Metro G Line Sepulveda Station

- This aerial station would be located over Sepulveda Boulevard immediately south of the Metro G Line Busway.
- A station entrance would be provided on the west side of Sepulveda Boulevard south of the Metro G Line Busway.
- An elevated pedestrian walkway would connect the platform level of the proposed station to the planned aerial Metro G Line Busway platforms within the fare paid zone.
- Passengers would be able to park at the existing Metro G Line Sepulveda Station parking facility, which has a capacity of 1,205 parking spaces. Currently, only 260 parking spaces are used for transit parking. No additional vehicle parking would be provided at the proposed station.

Sherman Way Station

- This aerial station would be located over Sepulveda Boulevard between Sherman Way and Gault Street.
- Station entrances would be provided on either side of Sepulveda Boulevard south of Sherman Way.
- A 46-space parking lot would be located on the northwest corner of the Sepulveda Boulevard and Gault Street intersection, and an additional 76-space parking lot would be located west of the station along Sherman Way.

Van Nuys Metrolink Station

- This aerial station would span Van Nuys Boulevard, just south of the LOSSAN rail corridor.
- The primary station entrance would be located on the east side of Van Nuys Boulevard just south of the LOSSAN rail corridor. A secondary station entrance would be located between Raymer Street and Van Nuys Boulevard.
- An underground pedestrian walkway would connect the station plaza to the existing pedestrian underpass to the Metrolink/Amtrak platform outside the fare paid zone.
- Existing Metrolink Station parking would be reconfigured, maintaining approximately the same number of spaces, but 66 parking spaces would be relocated west of Van Nuys Boulevard. Metrolink parking would not be available to Metro transit riders.

7.1.1.5 Station-to-Station Travel Times

Table 7-1 presents the station-to-station distance and travel times at peak period for Alternative 4. The travel times include both run time and dwell time. Dwell time is 30 seconds for transfer stations and 20 seconds for other stations. Northbound and southbound travel times vary slightly because of grade differentials and operational considerations at end-of-line stations.

Table 7-1. Alternative 4: Station-to-Station Travel Times and Station Dwell Times

From Station	To Station	Distance (miles)	Northbound Station-to-Station Travel Time (seconds)	Southbound Station-to-Station Travel Time (seconds)	Dwell Time (seconds)
Metro E Line Station					*30*
Metro E Line	Santa Monica Boulevard	0.9	89	86	—
Santa Monica Boulevard Station					*20*
Santa Monica Boulevard	Wilshire/Metro D Line	0.9	91	92	—
Wilshire/Metro D Line Station					*30*
Wilshire/Metro D Line	UCLA Gateway Plaza	0.7	75	68	—
UCLA Gateway Plaza Station					*20*
UCLA Gateway Plaza	Ventura Boulevard	6.1	376	366	—
Ventura Boulevard Station					*20*
Ventura Boulevard	Metro G Line	1.9	149	149	—
Metro G Line Station					*30*
Metro G Line	Sherman Way	1.4	110	109	—
Sherman Way Station					*20*
Sherman Way	Van Nuys Metrolink	1.9	182	180	—
Van Nuys Metrolink Station					*30*

Source: STCP, 2024

— = no data

7.1.1.6 Special Trackwork

Alternative 4 would include 10 double crossovers throughout the alignment, enabling trains to cross over to the parallel track. Each terminus station would include a double crossover immediately north and south of the station. Except for the Santa Monica Boulevard Station, each station would have a double crossover immediately south of the station. The remaining crossovers would be located along the alignment midway between the UCLA Gateway Plaza Station and the Ventura Boulevard Station.

7.1.1.7 Maintenance and Storage Facility

The MSF for Alternative 4 would be located east of the Van Nuys Metrolink Station and would encompass approximately 46 acres. The MSF would be designed to accommodate 184 rail cars and would be bounded by single-family residences to the south, the LOSSAN rail corridor to the north, Woodman Avenue on the east, and Hazeltine Avenue and industrial manufacturing enterprises to the west. Trains would access the site from the fixed guideway's tail tracks at the northwest corner of the site. Trains would then travel southeast to maintenance facilities and storage tracks.

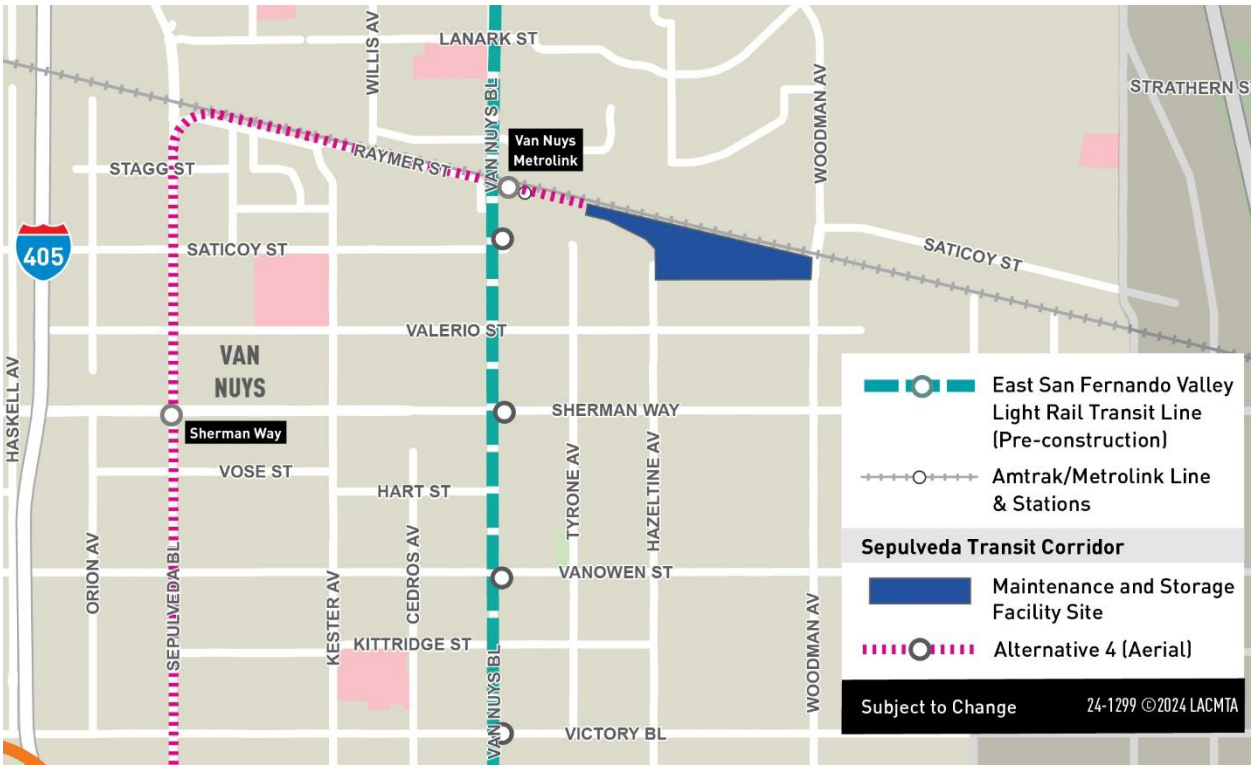
The site would include the following facilities:

- Two entrance gates with guard shacks
- Main shop building
- Maintenance-of-way building
- Storage tracks
- Carwash building
- Cleaning and inspections platforms
- Material storage building
- Hazmat storage locker

- Traction power substation (TPSS) located on the west end of the MSF to serve the mainline
- TPSS located on the east end of the MSF to serve the yard and shops
- Parking area for employees
- Grade separated access roadway (over the HRT tracks at the east end of the facility, and necessary drainage)

Figure 7-5 shows the location of the MSF site for Alternative 4.

Figure 7-5. Alternative 4: Maintenance and Storage Facility Site



Source: STCP, 2024; HTA, 2024

7.1.1.8 Traction Power Substations

TPSSs transform and convert high voltage alternating current supplied from power utility feeders into direct current suitable for transit operation. Twelve TPSS facilities would be located along the alignment and would be spaced approximately 0.5 to 2.5 miles apart. TPSS facilities would generally be located within the stations, adjacent to the tunnel through the Santa Monica Mountains, or within the MSF. TPSSs would be approximately 2,000 to 3,000 square feet. Table 7-2 lists the TPSS locations for Alternative 4.

Figure 7-6 shows the TPSS locations along the Alternative 4 alignment.

Table 7-2. Alternative 4: Traction Power Substation Locations

TPSS No.	Location Description	Configuration
1	TPSS 1 would be located east of Sepulveda Boulevard and north of the Metro E Line.	Underground (within station)

TPSS No.	Location Description	Configuration
2	TPSS 2 would be located south of Santa Monica Boulevard between Sepulveda Boulevard and Bentley Avenue.	Underground (within station)
3	TPSS 3 would be located at the southeast corner of UCLA Gateway Plaza.	Underground (within station)
4	TPSS 4 would be located south of Bellagio Road and west of Stone Canyon Road.	Underground (adjacent to tunnel)
5	TPSS 5 would be located west of Roscomare Road between Donella Circle and Linda Flora Drive.	Underground (adjacent to tunnel)
6	TPSS 6 would be located east of Loom Place between Longbow Drive and Vista Haven Road.	Underground (adjacent to tunnel)
7	TPSS 7 would be located west of Sepulveda Boulevard between the I-405 Northbound On-Ramp and Dickens Street.	At-grade (within station)
8	TPSS 8 would be located west of Sepulveda Boulevard between the Metro G Line Busway and Oxnard Street.	At-grade (within station)
9	TPSS 9 would be located at the southwest corner of Sepulveda Boulevard and Sherman Way.	At-grade (within station)
10	TPSS 10 would be located south of the Los Angeles-San Diego-San Luis Obispo rail corridor and north of Raymer Street and Kester Avenue.	At-grade
11	TPSS 11 would be located south of the Los Angeles-San Diego-San Luis Obispo rail corridor and east of the Van Nuys Metrolink Station.	At-grade (within MSF)
12	TPSS 12 would be located south of the Los Angeles-San Diego-San Luis Obispo rail corridor and east of Hazeltine Avenue.	At-grade (within MSF)

Source: STCP, 2024; HTA, 2024

Figure 7-6. Alternative 4: Traction Power Substation Locations

Source: STCP, 2024; HTA, 2024

7.1.1.9 Roadway Configuration Changes

Table 7-3 lists the roadway changes necessary to accommodate the guideway of Alternative 4. Figure 7-7 shows the location of roadway changes in the Sepulveda Transit Corridor Project (Project) Study Area, and Figure 7-8 shows detail of the street vacation at Del Gado Drive.

In addition to the changes made to accommodate the guideway, as listed in Table 7-3, roadways and sidewalks near stations would be reconstructed, resulting in modifications to curb ramps and driveways.

Table 7-3. Alternative 4: Roadway Changes

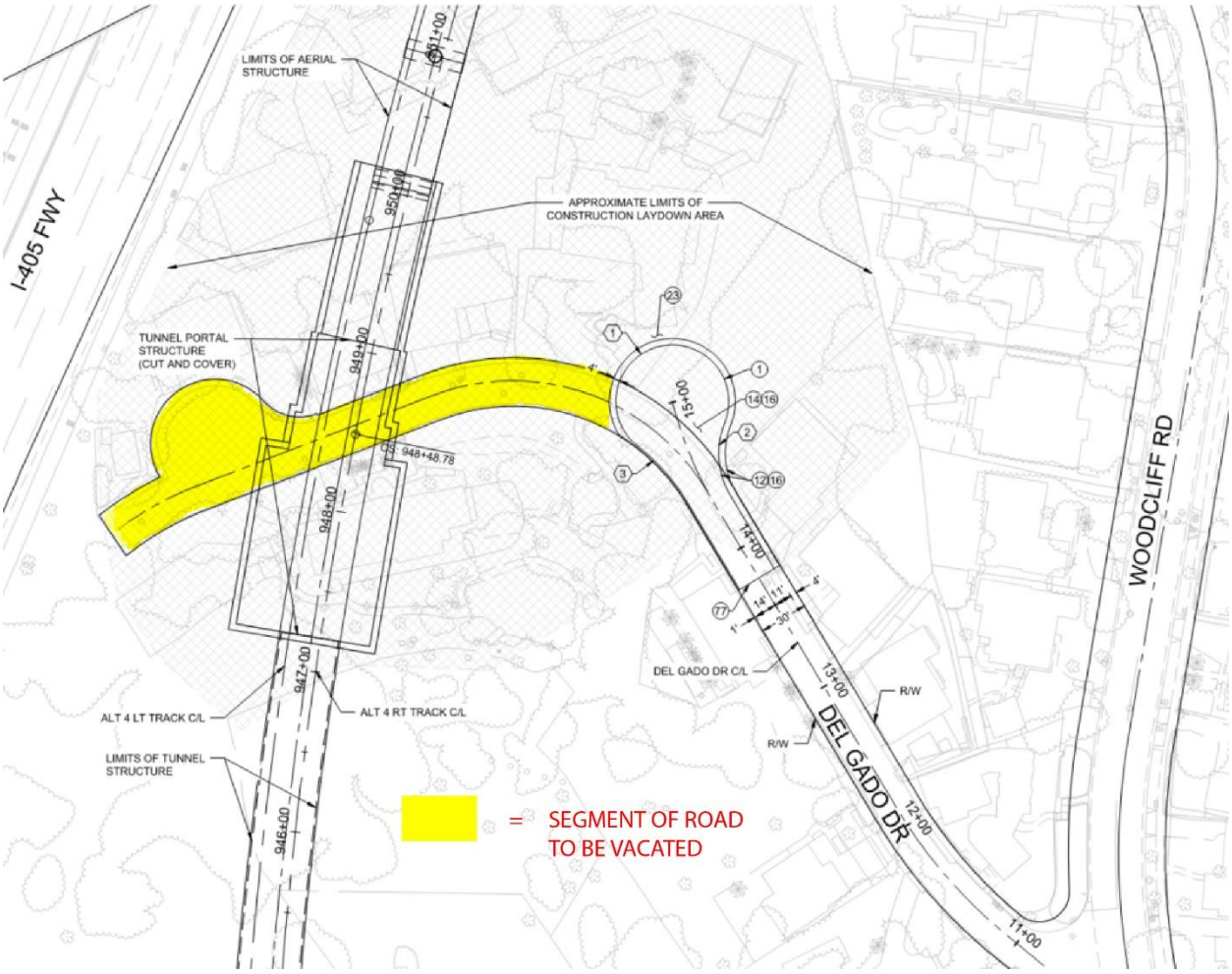
Location	From	To	Description of Change
Del Gado Drive	Woodcliff Road	Not Applicable	Vacation of approximately 325 feet of Del Gado Drive east of I-405 to accommodate tunnel portal
Sepulveda Boulevard	Ventura Boulevard	Raymer Street	Construction of raised median and removal of all on-street parking on the southbound side of the street and some on-street parking on the northbound side of the street to accommodate aerial guideway columns
Sepulveda Boulevard	La Maida Street	Not Applicable	Prohibition of left turns to accommodate aerial guideway columns
Sepulveda Boulevard	Valleyheart Drive South, Hesby Street, Hartsook Street, Archwood Street, Hart Street, Leadwell Street, Covello Street	Not Applicable	Prohibition of left turns to accommodate aerial guideway columns
Raymer Street	Kester Avenue	Keswick Street	Reconstruction resulting in narrowing of width and removal of parking on the westbound side of the street to accommodate aerial guideway columns

Source: STCP, 2024; HTA, 2024

Figure 7-7. Alternative 4: Roadway Changes

Source: STCP, 2024; HTA, 2024

Figure 7-8. Alternative 4: Street Vacation at Del Gado Drive



Source: STCP, 2024; HTA, 2024

7.1.1.10 Ventilation Facilities

For ventilation of the alignment's underground portion, a plenum within the crown of the tunnel would provide a separate compartment for air circulation and allow multiple trains to operate between stations. Each underground station would include a fan room with additional ventilation facilities. Alternative 4 would also include a stand-alone ventilation facility at the tunnel portal on the northern end of the tunnel segment, located east of I-405 and south of Del Gado Drive. Within this facility, ventilation fan rooms would provide both emergency ventilation, in case of a tunnel fire, and regular ventilation, during non-revenue hours. The facility would also house sump pump rooms to collect water from various sources, including storm water; wash water (from tunnel cleaning); and water from a fire-fighting incident, system testing, or pipe leaks.

7.1.1.11 Fire/Life Safety – Emergency Egress

Within the tunnel segment, emergency walkways would be provided between the center dividing wall and each track. Sliding doors would be located in the central dividing wall at required intervals to connect the two sides of the railway with a continuous walkway to allow for safe egress to a point of safety during an emergency. Similarly, the aerial guideway would include two emergency walkways

located on the outer side of the tracks. Access to tunnel segments for first responders would be through stations and the portal.

7.1.2 Construction Activities

Temporary construction activities for Alternative 4 would occur within project work zones at permanent facility locations, construction staging and laydown areas, and construction office areas. Construction of the transit facilities through substantial completion is expected to have a duration of 8¼ years. Early works, such as site preparation, demolition, and utility relocation, could start in advance of construction of the transit facilities.

For the guideway, Alternative 4 would consist of a single-bore tunnel through the Westside and Santa Monica Mountains. The tunnel would be comprised of two separate tunnel segments, one running north from the southern terminus to the UCLA Gateway Plaza Station, and the other running south from the portal in the San Fernando Valley to the UCLA Gateway Plaza Station. Two underground tunnel boring machines (TBM) with approximately 45-foot-diameter cutting faces would be used to construct the two tunnel segments underground. For the Westside segment, the TBM would be launched from Staging Area No. 1 in Table 7-4 at Sepulveda Boulevard and National Boulevard. For the Santa Monica Mountains segment, the TBM would be launched from Staging Area No. 4 in the San Fernando Valley. Both TBMs would be extracted from the UCLA Gateway Plaza Station Staging Area No. 3 in Table 7-4. Figure 7-9 shows the location of construction staging locations along the Alternative 4 alignment.

Table 7-4. Alternative 4: On-Site Construction Staging Locations

No.	Location Description
1	Commercial properties on southeast corner of Sepulveda Boulevard and National Boulevard
2	North side of Wilshire Boulevard between Veteran Avenue and Gayley Avenue
3	UCLA Gateway Plaza
4	Residential properties on both sides of Del Gado Drive and south side of Sepulveda Boulevard adjacent to I-405
5	West of Sepulveda Boulevard between Valley Vista Boulevard and Sutton Street
6	West of Sepulveda Boulevard between US-101 and the Los Angeles River
7	Lot behind Los Angeles Fire Department Station 88
8	Commercial property on southeast corner of Sepulveda Boulevard and Raymer Street
9	South of the LOSSAN rail corridor east of Van Nuys Metrolink Station, west of Woodman Avenue

Source: STCP, 2024; HTA, 2024

Figure 7-9. Alternative 4: On-Site Construction Staging Locations

Source: STCP, 2024; HTA, 2024

The distance from the surface to the top of the tunnel for the Westside tunnel segment would vary from approximately 40 feet to 90 feet depending on the depth needed to construct the underground stations. The depth for the Santa Monica Mountains tunnel segment would vary from approximately 470 feet as it passes under the Santa Monica Mountains to 50 feet near UCLA. The tunnel segment through the Westside would be excavated in soft ground, while the tunnel through the Santa Monica Mountains would be excavated primarily in hard ground or rock as geotechnical conditions transition from soft to hard ground near the UCLA Gateway Plaza Station.

The aerial guideway viaduct would be primarily situated in the center of Sepulveda Boulevard in the San Fernando Valley, with guideway columns located in both the center and outside of the right-of-way of Sepulveda Boulevard. This would result in a linear work zone spanning the full width of Sepulveda Boulevard along the length of the aerial guideway. Three to five main phases would be required to construct the aerial guideway. A phased approach would allow travel lanes along Sepulveda Boulevard to remain open as construction individually occupies either the center, left, or right side of the roadway via the use of lateral lane shifts. Additional lane closures on side streets may be required along with appropriate detour routing.

The aerial guideway would comprise a mix of simple spans and longer balanced cantilever spans ranging from 80 to 250 feet in length. The repetitive simple spans would be utilized when guideway bent is located within the center median of Sepulveda Boulevard. Longer balanced cantilever spans would be provided at locations such as freeways, arterials, or street crossings. Foundations would consist of cast-in-drilled-hole (CIDH) shafts with both precast and cast-in-place structural elements. During construction of the aerial guideway, multiple crews would work on components of the guideway simultaneously.

Construction work zones would also be co-located with future MSF and station locations. All work zones would comprise the permanent facility footprint with additional temporary construction easements from adjoining properties.

The Metro E Line, Santa Monica Boulevard, Wilshire Boulevard/Metro D Line, and UCLA Gateway Plaza Stations would be constructed using a “cut-and-cover” method whereby the station structure would be constructed within a trench excavated from the surface with a portion or all being covered by a temporary deck and backfilled during the later stages of station construction. Traffic and pedestrian detours would be necessary during underground station excavation until decking is in place and the appropriate safety measures are taken to resume cross traffic. Constructing the Ventura Boulevard/Sepulveda Boulevard, Metro G Line Sepulveda, Sherman Way, and Van Nuys Metrolink Stations would include construction of CIDH elevated viaduct with two parallel side platforms supported by outrigger bents.

In addition to work zones, Alternative 4 would require construction staging and laydown areas at multiple locations along the alignment as well as off-site staging areas. Construction staging areas would provide the necessary space for the following activities:

- Contractors’ equipment
- Receiving deliveries
- Storing materials
- Site offices
- Work zone for excavation
- Removing soils
- Other construction activities (including parking and change facilities for workers, location of construction office trailers, storage, staging and delivery of construction materials and permanent plant equipment, and maintenance of construction equipment)

A larger, off-site staging area would be used for temporary storage of excavated material from both tunneling and station cut-and-cover excavation activities. Table 7-4 and Figure 7-9 present potential construction staging areas along the alignment for Alternative 4. Table 7-5 and Figure 7-10 present candidate sites for off-site staging and laydown areas.

Table 7-5. Alternative 4: Potential Off-Site Construction Staging Locations

No.	Location Description
S1	East of Santa Monica Airport Runway
S2	Ralph's Parking Lot in Westwood Village
N1	West of Sepulveda Basin Sports Complex, south of the Los Angeles River
N2	West of Sepulveda Basin Sports Complex, north of the Los Angeles River
N3	Metro G Line Sepulveda Station Park & Ride Lot
N4	North of Roscoe Boulevard and Hayvenhurst Avenue
N5	LADWP property south of the LOSSAN rail corridor, east of Van Nuys Metrolink Station

Source: STCP, 2024; HTA, 2024

Figure 7-10. Alternative 4: Potential Off-Site Construction Staging Locations

Source: STCP, 2024; HTA, 2024

Construction of the HRT guideway between the Van Nuys Metrolink Station and the MSF would require reconfiguration of an existing rail spur serving LADWP property. The new location of the rail spur would require modification to the existing pedestrian undercrossing at the Van Nuys Metrolink Station.

The site of the MSF would initially be used as the primary staging area for all elevated guideway work and providing space for a casting yard that would produce precast concrete tunnel lining segments and aerial structure segments. As areas of the MSF site begin to become available following completion of

pre-casting operations, construction of permanent facilities for the MSF would begin, including construction of surface building such as maintenance shops, administrative offices, train control, traction power and systems facilities. Some of the yard storage track would also be constructed at this time to allow delivery and inspection of passenger vehicles that would be fabricated elsewhere. Additional activities occurring at the MSF during the final phase of construction would include staging of trackwork and welding of guideway rail.

7.2 Impacts Evaluation

7.2.1 Air Quality

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-6.

Table 7-6. Alternative 4: Air Quality Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Air Quality Construction Impacts		
Impact AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact AQ-2: Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under and applicable federal or state ambient air quality standard?	Impacts Before Mitigation	SU
	Applicable Mitigation	MM AQ-1 through MM AQ-3
	Impacts After Mitigation	SU
Impact AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations?	Impacts Before Mitigation	SU
	Applicable Mitigation	MM AQ-1 through MM AQ-3
	Impacts After Mitigation	SU
Impact AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025f

AQ = air quality
LTS = less than significant
MM = mitigation measure
NA = not applicable
SU = significant and unavoidable

7.2.1.1 Impact AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Construction projects within the jurisdiction of the SCAQMD must comply with several rules and regulations aimed at controlling air pollution and minimizing environmental impact. Key SCAQMD rules that typically apply to construction projects include the following, among others:

- Rule 403 – Fugitive Dust, to reduce emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area. Requires that contractors implement best management practices such as watering down construction sites, covering trucks, and using windbreaks.

- Rule 401 – Visible Emissions, which prohibits the discharge of visible air contaminants into the atmosphere. Contractors must ensure that emissions from construction activities do not exceed the visible emissions limits, typically by controlling dust and particulate matter.
- Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities, to regulate the emissions of asbestos during demolition and renovation activities. Contractors must conduct thorough inspections for asbestos, notify SCAQMD before starting work, and follow specific procedures for handling and disposing of asbestos-containing materials.
- Rule 1113 – Architectural Coatings, which limits the volatile organic compound (VOC) content in architectural coatings. Contractors must use paints and coatings that comply with the VOC content limits specified by the rule.
- Rule 1108 – Cutback Asphalt, which limits the VOC emissions from the use of cutback asphalt and emulsified asphalt. Contractors must use compliant asphalt products with low VOC content.
- Rule 1157 – PM_{10} Emission Reductions from Aggregate and Related Operations, which serves to reduce PM_{10} emissions from aggregate operations, which can be a component of construction projects involving earth-moving activities. Contractors must implement dust control measures during material handling and processing operations.

Alternative 4 would comply with all relevant SCAQMD rules, and as such, would implement all required AQMP emissions control measures during construction. Impacts would be less than significant.

7.2.1.2 Impact AQ-2: Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under and applicable federal or state ambient air quality standard?

Alternative 4 construction activities would generate criteria pollutant emissions from off-road equipment, mobile sources including workers, vendor trucks, and haul trucks traveling to and from construction sites, demolition, soil handling activities, paving, application of architectural coatings, and operation of temporary concrete batch plants. These emissions sources would be related to constructing the heavy rail transit (HRT) system alignment, TPSSs, stations, and the MSF.

Construction emissions would vary substantially from day to day, depending on the level of activity and the specific type of construction activity. The peak daily construction emissions for Alternative 4 were estimated for each construction year. Based on the construction schedule for Alternative 4, construction phases for components could potentially overlap; therefore, the estimates of peak daily emissions included these potential overlaps by combining the relevant construction phase daily emissions. The peak daily emissions are predicted values for the worst-case day and do not represent the emissions that would occur for every day of construction. Table 7-7 summarizes the peak daily regional emissions for each construction year.

Table 7-7. Alternative 4: Unmitigated Peak Daily Regional Construction Criteria Pollutant Emissions

Construction Year	Daily Emissions (lbs/day)					
	VOC	NO_X	CO	SO_2	PM_{10}[a]	$PM_{2.5}$[a]
2027	2	21	57	<0.1	2	<1
2028	12	113	331	<1	29	7
2029	20	246	601	2	72	18
2030	26	339	747	3	101	25
2031	29	340	788	2	89	22

Construction Year	Daily Emissions (lbs/day)					
	VOC	NO_X	CO	SO_2	PM_{10}[a]	$PM_{2.5}$[a]
2032	38	359	900	2	100	28
2033	33	247	716	1	33	10
2034	24	195	442	<1	22	7
2035	19	119	294	<1	15	5
2036	1	14	41	<0.1	2	<1
2037	1	14	41	<0.1	2	<1
Peak Daily Emissions	**38**	**359**	**900**	**3**	**101**	**28**
SCAQMD Regional Significance Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	**Yes**	**Yes**	No	No	No

Source: HTA, 2024

[a]PM_{10} and $PM_{2.5}$ emissions include exhaust and fugitive dust emissions.

SCAQMD = South Coast Air Quality Management District
VOC = volatile organic compounds

As shown in Table 7-7, Alternative 4 construction emissions would exceed the SCAQMD regional significance thresholds for NO_X and CO emissions. SCAQMD's cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. Because Alternative 4 construction emissions would exceed the applicable SCAQMD's regional construction significance thresholds for NO_X and CO, Alternative 4 construction emissions would be cumulatively considerable. Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the NAAQS and CAAQS, which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, Alternative 4's contribution of pollutant emissions during short-term construction activities may result in appreciable human health impacts on a regional scale.

NO_x emissions can have various regional health and environmental impacts. Exposure to NO_x may cause eye and respiratory tract irritation and contribute to broader environmental issues such as acid rain and nitrate contamination in stormwater. Additionally, NO_x is a precursor to O_3 formation, which poses significant health and ecological risks. High concentrations of O_3 can irritate the lungs, and prolonged exposure may lead to damaged lung tissue, increased cancer risk, and harm to plant materials. Long-term O_3 exposure can damage vegetation, reduce crop productivity, and disrupt ecosystems.

CO emissions primarily affect human health by reducing the blood's ability to carry oxygen, leading to symptoms such as headaches, dizziness, confusion and, in severe cases, loss of consciousness or death. These health effects are more pronounced in individuals with pre-existing cardiovascular conditions, because CO exposure can exacerbate symptoms like chest pain or arrhythmias.

As discussed in the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f), the emissions analysis incorporated Tier 4 Final engines for off-road equipment greater than or equal to 50 horsepower, trucks with model years 2007 or newer, and included dust control measures to be implemented during each phase of construction, as required by SCAQMD Rule 403. The construction analysis for Alternative 4 conservatively assumed all equipment would be diesel powered. The Metro *Green Construction Policy* contains measures that aim to reduce construction emissions through utilization of hybrid drive off-road equipment and using electric power instead of diesel power.

Mitigation measures (MM) AQ-1, MM AQ-2, and MM AQ-3 would reduce criteria pollutant emissions during construction, but mitigation measures would not reduce Alternative 4 NO_X and CO emissions below SCAQMD significance thresholds; therefore, Alternative 4 construction emissions would result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard, and impacts would be significant and unavoidable.

7.2.1.3 Impact AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations?

Using the conservative methodology described in the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f) to assess the potential localized air quality impacts resulting from Alternative 4 on nearby receptors during construction, the daily on-site construction emissions from the Alternative 4 components (alignment, stations, TPSSs, MSF) were compared to SCAQMD's applicable construction LSTs. Alternative 4 localized emissions would include exhaust emissions from off-road equipment and trucks, and fugitive dust from demolition, earth movement activities, and truck travel. As shown in Table 7-8, Alternative 4 localized construction emissions would exceed the PM_{10} and $PM_{2.5}$ LSTs for construction activity in the Valley and exceed the PM_{10} LST in the Westside; therefore, Alternative 4 localized construction emissions would have adverse health risk implications and would be considered to be significant.

Table 7-8. Alternative 4: Unmitigated Localized Construction Criteria Pollutant Emissions

Construction Area	Daily Emissions (lbs/day)[a]			
	NO_X	CO	PM_{10}[b]	$PM_{2.5}$[b]
Valley Construction Components[c]				
Segment 2 – Reach 2 Tunnel (North Portal to UCLA Gateway Plaza Station)	23.6	64.3	9.0	1.1
Segment 3 – Aerial Guideway (North Portal to MSF)	44.4	200.5	1.2	0.7
(Ventura Boulevard Station Staging Area	3.2	12.0	0.3	0.1
Ventura Boulevard Station	8.2	57.1	0.7	0.3
Metro G Line Station	22.5	77.3	0.6	0.3
Sherman Way Station	22.5	77.3	0.6	0.4
Van Nuys Metrolink Station	28.1	91.5	0.7	0.4
TPSS 11-STA 1260	—	—	—	—
MSF	3.0	15.4	14.9	5.9
Precast Yard	16.6	48.6	13.4	2.4
Components In Proximity to Each Other				
Segment 2 + Ventura Boulevard Station	31.7	121.4	9.7	1.4
Segment 3 + Metrolink Van Nuys Station + TPSS 11 + MSF + Precast	92.2	356.0	30.2	9.4
Peak Daily Localized Emissions	**92.2**	**356.0**	**30.2**	**9.4**
SCAQMD Localized Significance Threshold[d]	114	786	7	4
Exceeds Threshold?	No	No	**Yes**	**Yes**
Westside Construction Components[c]				
Segment 1 – Reach 1 Tunnel (Southern Terminus to UCLA Gateway Plaza Station)	13.4	53.8	8.0	1.0
Segment 2 – Reach 2 Tunnel (North Portal to UCLA Gateway Plaza Station)	—	—	—	—
Metro E Line Station	27.3	33.2	0.9	0.3
Santa Monica Station	15.4	80.4	2.6	0.4

Construction Area	Daily Emissions (lbs/day)[a]			
	NO_X	CO	PM_{10}[b]	$PM_{2.5}$[b]
D Line Wilshire-Westwood Station	17.8	47.1	4.7	0.8
UCLA Gateway Plaza Station	15.3	80.5	3.3	0.7
Components In Proximity to Each Other				
Not Applicable	—	—	—	—
Peak Daily Localized Emissions	**27.3**	**80.5**	**8.0**	**1.0**
SCAQMD Localized Significance Threshold[e]	147	827	6	4
Exceeds Threshold?	No	No	**Yes**	No

Source: HTA, 2024

[a]Daily emissions for each construction component represent the contribution to the maximum daily localized emissions in the Valley or Westside.

[b]PM_{10} and $PM_{2.5}$ emissions include exhaust and fugitive dust emissions.

[c]TPSSs listed in table would be located at standalone locations and not within the construction area of a station, MSF, track alignment, or tunnel. Each of these standalone TPSSs had their own construction phasing in the construction emissions analysis. For TPSSs located within the construction area of a station, MSF, track alignment, or tunnel, their construction activity was accounted for in the overall construction activity for the component.

[d]LST values are based on a 2-acre site with a 25-meter receptor distance in SRA 7 East San Fernando Valley.

[e]LST values are based on a 2-acre site with a 25-meter receptor distance in SRA 2 Northwest Coastal LA County.

SCAQMD = South Coast Air Quality Management District

Short-term exposure to elevated PM_{10} levels during construction can lead to significant health effects, particularly for sensitive populations such as children, the elderly, and individuals with pre-existing respiratory or cardiovascular conditions. These health impacts include respiratory irritation, which can manifest as coughing, wheezing, shortness of breath, and worsened asthma symptoms. Additionally, PM_{10} exposure can exacerbate cardiovascular conditions, increasing heart rate variability, inflammation, and the risk of cardiac events. Acute respiratory infections, such as bronchitis, may also occur, particularly affecting vulnerable groups like children and older adults.

Exposure to $PM_{2.5}$ presents more significant health risks than PM_{10}, primarily due to its smaller particle size, which enables it to penetrate deeper into the lungs and enter the bloodstream. While both PM_{10} and $PM_{2.5}$ contribute to respiratory irritation and cardiovascular issues, the smaller $PM_{2.5}$ particles can reach the alveoli (the tiny air sacs in the lungs) where they cause inflammation and long-term damage to lung tissue. In addition to respiratory impacts, $PM_{2.5}$ can enter the bloodstream, leading to systemic inflammation and an increased risk of cardiovascular diseases such as heart attacks, strokes, and arrhythmias. Long-term exposure to $PM_{2.5}$ has also been linked to cognitive decline, including Alzheimer's disease and other neurodegenerative conditions, because these particles can cross the blood-brain barrier. Moreover, $PM_{2.5}$ is a significant risk factor for cancer, particularly lung cancer, due to the toxic substances it often carries, including heavy metals and polycyclic aromatic hydrocarbons (PAH). Furthermore, prolonged exposure to $PM_{2.5}$ is associated with premature mortality, making it one of the leading environmental risk factors for early death from respiratory and cardiovascular diseases. In contrast, while PM_{10} is still harmful, particularly for people with pre-existing conditions such as asthma, its impact is generally less severe, because it remains in the upper respiratory tract and is not absorbed into the bloodstream. Thus, $PM_{2.5}$ poses a broader range of health risks, including more severe cardiovascular and neurological effects.

DPM, a component of PM_{10} from diesel engines, poses additional risks. It is associated with respiratory irritation, acute inflammation, and oxidative stress. Prolonged or high-level exposure can elevate the risk of lung cancer and cardiovascular issues. These impacts are particularly pronounced near construction sites, where emissions are concentrated, and receptors in close proximity are exposed

As discussed in the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f), the emissions analysis incorporated Tier 4 Final engines for off-road equipment greater than or equal to 50 horsepower, trucks with model years 2007 or newer, and included dust control measures to be implemented during each phase of construction, as required by SCAQMD Rule 403. The construction analysis for Alternative 4 conservatively assumed all equipment would be diesel powered. The Metro *Green Construction Policy* contains measures that aim to reduce construction emissions through utilization of hybrid drive off-road equipment and using electric power instead of diesel power.

Although MM AQ-1, MM AQ-2, and MM AQ-3 prescribed as follows would reduce criteria pollutant emissions during construction, including localized PM_{10} and $PM_{2.5}$ emissions, mitigation measures would not reduce Alternative 4 PM_{10} and $PM_{2.5}$ emissions below SCAQMD localized significance thresholds; therefore, Alternative 4 construction emissions would potentially expose sensitive receptors to substantial concentrations and impacts would be significant and unavoidable.

The SCAQMD's LSTs for each SRA represent the maximum emissions a project can emit without causing or contributing to a violation of any short-term NAAQS or CAAQS. As noted previously, the NAAQS and CAAQS are health-protective standards that define the maximum amount of ambient pollution that can be present without harming public health. Consequently, projects with emissions below the applicable LSTs would not be in violation of the NAAQS or CAAQS and, thus, EPA and CARB health-protective standards. Because Alternative 4 construction emissions would exceed the PM_{10} LST, Alternative 4 would cause or contribute to a violation of one or more health-protective CAAQS and NAAQS. Given that DPM emissions would constitute a portion of localized PM_{10} emissions, impacts related to localized DPM emissions during construction are also considered to be significant and unavoidable due to the following: (1) the elevated background carcinogenic risk, (2) the duration of construction activity, and (3) the proximity of sensitive receptors to DPM emissions sources.

7.2.1.4 Impact AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

During construction of Alternative 4, exhaust from equipment, activities associated with the application of architectural coatings and other interior and exterior finishes, and paving activities may produce discernible odors typical of most construction sites. Such odors would be, at worst, a temporary source of nuisance to adjacent uses, if at all, and would not affect a substantial number of people. Alternative 4 would use architectural coatings compliant with SCAQMD Rule 1113, which would limit the odors associated with off-gassing from those coatings. Additionally, material deliveries and heavy-duty haul truck trips could occasionally produce odors from diesel exhaust. These odors would not affect a substantial number of people because construction would be temporary, and construction-generated emissions dissipate rapidly with increasing distance from the source. Overall, odors associated with Alternative 4 construction would be temporary and intermittent in nature and would not create a significant level of objectionable odors affecting a substantial number of people.

7.2.1.5 Mitigation Measures

Construction Impacts

Under Alternative 4, there would be potential construction impacts related to exceedances of South Coast Air Quality Management District regional emissions thresholds for nitrogen oxides and carbon monoxide, as well as localized emissions thresholds for respirable particulate matter of diameter less than 10 microns and (fine particulate matter of diameter less than 2.5 microns). Therefore, the following three mitigation measures were developed.

MM AQ-1: *The Project shall require zero emissions or near zero emissions on-road haul trucks such as heavy-duty trucks with natural gas engines that meet or exceed the California Air Resources Board's adopted optional nitrogen oxides emissions standard at 0.02 grams per brake horsepower hour (g/bhp-hr), if and when feasible. Operators shall maintain records of all trucks associated with project construction to document that each truck used meets these emission standards. These records shall be submitted monthly to Metro for review and shall be made available to regulatory agencies upon request. To ensure compliance, Metro or its designated representative shall conduct regular inspections of construction operations, including on-site verification of truck compliance. Inspections shall occur at least twice per month during active construction. Any contractor found to be using non-compliant trucks without prior approval from Metro shall be subject to penalties, including suspension of operations until compliance is achieved.*

MM AQ-2: *Construction contracts shall include language that compels contractors to implement all policies and emissions control measures as presented in Metro's Green Construction Policy.*

MM AQ-3: *Construction contracts shall include language that compels contractors to implement all fugitive dust control measures as detailed in South Coast Air Quality Management District.*

Impacts After Mitigation

Although construction of the Project alternatives would require implementation of MM AQ-1, it is not technically feasible at the time of document preparation to verify the commercial availability of zero emissions (ZE) and near zero emissions (NZE) trucks to the extent needed to reduce construction-period NO_X, CO, PM_{10}, and $PM_{2.5}$ emissions below SCAQMD's regional and localized emissions thresholds. MM AQ-2 and MM AQ-3 simply enforce Metro and SCAQMD policies that are already required, independent of any additional prescribed mitigation. Given the current uncertainty around the availability of sufficient ZE and NZE trucks to reduce construction period impacts, impacts regarding construction period emissions would remain significant and unavoidable. Due to this uncertainty, all of the project alternatives would result in NO_X and PM_{10} construction emissions that cannot be reduced below SCAQMD's regional and localized emissions thresholds. In addition to significant and unavoidable construction-period NO_X and PM_{10} emissions, Alternatives 1 and 3 would also result in significant and unavoidable construction emissions of CO, and Alternatives 4 and 5 would result in significant and unavoidable construction emissions of CO and $PM_{2.5}$.

7.2.2 Communities and Neighborhoods

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-9.

Table 7-9. Alternative 4: Communities and Neighborhoods Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Communities and Neighborhoods Construction Impacts		
Impact POP-1: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact PUB-3: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4
	Impacts After Mitigation	LTS
Impact US-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-3: Would the project result in a determination by the wastewater treatment provider who serves, or may serve, the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-4: Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025b

LTS = less than significant
MM = mitigation measure
NA = not applicable
POP = population, housing, and growth
PS = potentially significant
PUB = public services
TRA = transportation
US = utilities and service systems

7.2.2.1 Impact POP-1: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Alternative 4 would result in temporary economic growth through the influx of construction workers to the Alternative 4 RSA. However, these workers would likely be sourced from the local labor pool, and thus the temporary employment opportunities under Alternative 4 are unlikely to directly foster the construction of permanent housing for workers in the Alternative 4 RSA. Thus, construction of Alternative 4 would result in less than significant impacts related to unplanned economic or population growth.

Maintenance and Storage Facilities

Construction of the MSF would not construct any new housing units, and therefore the proposed MSF would not generate new or unplanned population and housing growth. Thus, construction of the MSF would result in less than significant impacts related to unplanned economic or population growth.

7.2.2.2 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Construction of Alternative 4 would involve site preparation and demolition of structures; utility relocation; tunneling and cut-and-cover activities; construction of the aerial and subsurface alignments, stations, MSF, TPSS, auxiliary facilities, and parking facilities; street widening; and street and sidewalk reconstruction. Some parcels that would be permanently acquired for the operations of Alternative 4 would also be used for construction purposes, such as for construction access, staging, and laydown. TCEs would be required for 15 multi-family residential parcels that would be used for construction activities and not needed for long-term project operations. These TCEs would only occupy portions of the affected residential properties as required to support construction vehicle access and would not substantially interfere with the habitability of the impacted residential properties. Therefore, construction activities associated with Alternative 4 would not result in the displacement of any residential dwelling units. Therefore, no impacts related to the displacement of residential units and residents that would necessitate the construction of replacement units would occur as a result of construction.

Maintenance and Storage Facilities

The proposed MSF site is currently developed as a materials storage site owned by LADWP and an auto storage lot. No residential uses are located on the MSF site; therefore, while property acquisitions would be required to develop the MSF, no residential displacements would occur that would necessitate the construction of replacement unit. The MSF would result in no impact.

7.2.2.3 Impact PUB-3: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools or other public facilities?

Construction of Alternative 4 would be temporary and does not require the expansion of existing school facilities. With exception to UCLA, no educational facilities are located immediately adjacent to the proposed alignment or transit stations. Table 8-6 of the *Sepulveda Transit Corridor Project Communities and Neighborhoods Technical Report* (Metro, 2025b), lists the school facilities located within the RSA

most of which would be subject to construction-related disruptions. In particular, multiple educational facilities are located within 500 feet of the proposed TBM launch site at National Boulevard and Sepulveda Boulevard. Specifically, Clover Avenue Elementary, St. John's Presbyterian Nursery School, and Maple Tree Academy Preschool are all located within 500 feet of the proposed TBM launch site and have either Sepulveda Boulevard or National Boulevard as major means of vehicular access. During construction, substantial truck traffic would be experienced along Sepulveda Boulevard and National Boulevard as well as various construction-related traffic disruptions associated with equipment movement and construction personnel accessing the TBM launch site. During certain periods of construction activities at the TBM launch site would require temporary closure or lane reductions to accommodate tunnel boring operations. Closures and lane reductions along local roadways could impede the vehicle circulation network in the RSA as well as access to nearby schools.

Similarly, during construction of the UCLA Gateway Plaza Station, pedestrian movements and access through UCLA Gateway Plaza would be inhibited by the presence of construction equipment and activities affecting Westwood Plaza and adjacent pedestrian areas. All educational facilities on the UCLA campus would remain accessible and functional throughout construction and no new or physically altered education facilities would be required on the UCLA campus.

Alternative 4 would have no potential to displace or otherwise affect operation of existing libraries or post offices as there are no public facilities adjacent to the aboveground portions of the Alternative 4 HRT alignment (within 50 feet) and no other public facilities property would be temporarily affected such that new or physically altered facilities would be required. Impacts to other public facilities as a result of Alternative 4 would be less than significant.

Implementation of MM TRA-4 (refer to Section 7.2.14.5), would ensure access to education facilities on UCLA campus and access to other educational facilities would be maintained throughout construction through the development of Transportation Management Plan (TMP). The TMP would specify measures to lessen disruption during construction and to maintain access to schools and associated circulation patterns. The TMP would also identify detour routes, and bicyclists would be informed of such closures and detours through signage. Impacts would be less than significant with mitigation. The TMP would include coordination with emergency service providers as well as property owners, such as UCLA, to maintain adequate access and services.

Maintenance and Storage Facilities

The proposed MSF site consists of an auto storage lot and a portion of a materials storage site owned by LADWP. MSF site construction activities do not include construction of educational facilities or require the expansion of existing educational facilities. No public facilities are located on or adjacent to the site. The nearest school is Panorama High School located approximately 0.5 miles northwest of the proposed MSF site. The nearest community facility is the Panorama City Post Office located approximately 1 mile north of the proposed MSF site. The MSF would not affect on-site or street parking or otherwise affect access to Panorama High School or the Panorama City Post Office. Therefore, impacts to schools or other public facilities associated with the MSF would be less than significant. Implementation of MM TRA-4 would require a TMP (refer to Section 7.2.14.5), that specifies measures to lessen disruption during construction and to maintain access to schools and associated circulation patterns.

7.2.2.4 Impact US-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Utility conflicts would primarily occur within the proposed station areas, columns and support for the aerial structure, construction at the MSF site, and roadway relocations to accommodate Alternative 4's footprint. Since not all utility depth data is available and the condition of each utility is unknown, additional subsurface utility investigation is recommended to verify the assumptions and impacts. Potentially impacted utilities are shown in Table 7-10. Approximately 308 components of utility infrastructure would be potentially impacted including 108 electrical, 96 telecommunications, 43 water, 40 sewer, 11 gas, and 10 storm drainage.

These components would likely be relocated near existing facilities, typically within a few feet of existing locations. The utility relocation efforts could potentially result in environmental effects related to construction and the temporary disruption of services, including generating construction emissions, disrupting roadway circulation, and temporarily decreased capacity of the electrical, natural gas, water supply, water treatment system, and telecommunications systems. These potential impacts are included in the assessments of construction-related impact in the relevant resource sections of the Draft Environmental Impact Report. Pursuant to project feature (PF)-US-1, Utility Identification and Coordination, if relocations are required, the construction contractor would verify the locations of existing utilities potentially affected by construction activities and determine specific relocation and setback and, pursuant to PF-US-2, Service Interruption Notification, the construction contractor would develop a construction plan that minimizes interruptions to utilities services to the greatest extent feasible and notify the public if/when interruptions would occur. Therefore, construction of Alternative 4 would result in a less than significant impact related to utilities and service systems.

Table 7-10. Alternative 4: Potentially Impacted Utilities

Utility Type	Number of Potentially Impacted Utilities
Electrical	108
Gas	11
Oil	0
Sewer	40
Storm Drainage	10
Telecommunications	96
Water	43
Total	**308**

Source: STCP, 2023

Water Facilities

Construction of Alternative 4 would not require substantial consumption of potable water. Water use would occur primarily through water trucks required for dust control, operation of the TBM, and for the production of concrete. Although water use for construction would occur over a multi-year construction period, the water supply in the RSA has been determined to be adequate to meet demand, including construction water use, in normal, single-dry year, and multiple dry years. Construction of Alternative 4 would therefore not require the expansion or construction of new water facilities. Therefore, construction of Alternative 4 would result in a less than significant impact related to water facilities.

Wastewater Treatment

Construction activities would generate negligible wastewater through the use of temporary worker restrooms, which would have no potential to necessitate the construction of new or expanded wastewater facilities. Wastewater treatment facilities would not be required to be relocated during construction of Alternative 4. Therefore, construction of Alternative 4 would result in a less than significant impact related to wastewater facilities.

Stormwater Drainage

Stormwater runoff would be increased in the study as a result of construction. As described in the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g), any drainage pattern impacts from construction would be minor and temporary, minimizing the potential for exceeding stormwater drainage systems (Metro, 2025g). In accordance with the Construction General Permit and Municipal Separate Storm Sewer Systems Permits, the Alternative 4 would be required to prepare and submit a construction Stormwater Pollution Prevention Plan (SWPPP) which must be submitted to the State Water Resources Control Board prior to construction and adhered to during construction. The construction SWPPP would identify the BMPs that would be in place prior to the start of construction activities and during construction. These measures would help reduce stormwater runoff velocity, thereby limiting its capacity to cause stormwater drainage systems exceedance. If necessary, new stormwater drainage facilities constructed at stations or along the alignment would comply with design requirements established by state and local regulations. For additional information regarding state and local regulations governing stormwater pollution prevention, refer to the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g). Compliance with these state and local regulations would reduce construction related impacts to stormwater drainage facilities. Therefore, a less than significant impact would occur related to stormwater drainage facilities.

Electric Power

Construction of Alternative 4 has no potential to require new or expanded electric power facilities. Minimal electricity would be used to power field offices for the construction contractor. Temporary lighting or some electrically powered pieces of construction equipment may temporarily consume electricity. Electric power would also be required for powering the TBM, but would be a temporary use only required for tunnel portions of the alignment. Therefore, construction of Alternative 4 would result in a less than significant impact related to electric power facilities.

Natural Gas

Construction of Alternative 4 has no potential to require new or expanded natural gas or oil facilities. Minimal natural gas would be required. Therefore, construction of Alternative 4 would result in a less than significant impact related to natural gas and oil infrastructure.

Telecommunication Facilities

Construction activities would have no potential to necessitate the construction of new or expanded telecommunication facilities. It is anticipated that existing telecommunication facilities would still be able to adequately serve construction crews and the RSA. Therefore, a less than significant impact would occur related to telecommunication facilities.

Maintenance and Storage Facilities

Construction of the proposed MSF would require relocation of existing utilities. The proposed MSF site is occupied by industrial uses. These utilities would likely be relocated near existing facilities, typically within a few feet of existing locations. The utility relocation efforts could potentially result in

environmental effects related to construction and the temporary disruption of services, including generating construction emissions, disrupting roadway circulation, and temporarily decreased capacity of the electrical, natural gas, water supply, water treatment system, and telecommunications systems. Pursuant to PF-US-1, Utility Identification and Coordination, if relocations are required, the construction contractor would verify the locations of existing utilities potentially affected by construction activities and determine specific relocation and setback and, pursuant to PF-US-2, Service Interruption Notification, the construction contractor would develop a construction plan that minimizes interruptions to utilities services to the greatest extent feasible and notify the public if/when interruptions would occur. Therefore, construction of the proposed MSF would result in a less than significant impact related to utilities and service systems.

7.2.2.5 Impact US-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Construction of Alternative 4 would not require substantial consumption of potable water. Water use would occur primarily related to water trucks required for dust control. However, a TBM would be used during construction of Alternative 4. Slurry would be used to apply fluid (hydraulic) pressure to the tunnel face and to transport soil cuttings from the tunneling machine's pressure chamber to the surface. The slurry would require water use since water is added to the bentonite to create the fluid mixture used in the TBM. Water from the discharge slurry would be recycled for further use in preparing slurry. Water would also be required for cooling the TBM motors. Typically, cooling water is recycled and cooled using cooling towers near the access shafts. Thus, cooling water will have little impact on water use or discharge into the sanitary or storm drain system. Water use for the cooling towers would be temporary during construction and would be approved during specific construction design. The short-term use of water would require minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities. Therefore, construction of Alternative 4 would result in a less than significant impact related to water supplies.

Maintenance and Storage Facilities

Similar to construction of the transit line, the proposed MSF would not require substantial consumption of potable water. Water use would occur primarily related to water trucks required for dust control. The short-term use of water requires minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities. Therefore, construction of proposed MSF would result in a less than significant impact related to water supplies.

7.2.2.6 Impact US-3: Would the project result in a determination by the wastewater treatment provider who serves, or may serve, the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Alternative 4 would generate wastewater during construction through the use of temporary worker restrooms and limited construction uses. Any wastewater generated during construction would be transported to wastewater facilities via vacuum service trucks. The RSA is serviced by the Joint Water Pollution Control Plant, Hyperion Water Reclamation Plant, Donald C. Tillman Water Reclamation Plant, and the Los Angeles-Glendale Water Reclamation Plant, which have a combined capacity of 950 million gallons of wastewater per day. The City of Santa Monica has an additional 1 million gallons per day of wastewater treatment capacity from its sustainable Water Infrastructure Project wastewater treatment

facility. Wastewater generated by temporary worker restrooms for construction of Alternative 4 would represent a negligible proportion of the daily wastewater processed by the regional water reclamation plant and the facilities are anticipated to have adequate capacity to serve Alternative 4. Therefore, construction of Alternative 4 would result in a less than significant impact related to wastewater treatment capacity.

Maintenance and Storage Facilities

Similar to construction of the transit line, the proposed MSF would generate wastewater during construction through the use of temporary worker restrooms and limited construction uses. Any wastewater generated during construction would be transported to wastewater facilities via vacuum service trucks. Wastewater generated by temporary worker restrooms for construction of the proposed MSF would represent a negligible proportion of the daily wastewater processed by the regional water reclamation plants and the facilities are anticipated to have adequate capacity. Therefore, construction of the proposed MSF would result in a less than significant impact related to wastewater treatment capacity.

7.2.2.7 Impact US-4: Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Construction of Alternative 4 would generate solid waste related to discarded construction material. Solid waste would be hauled to regional landfills that have a remaining approximate capacity of 256,156,907 cubic yards (CY). Contaminated soils and hazardous building materials will be disposed of at permitted landfills. Landfills that accept contaminated soils include the Clean Harbors Button Willow Landfill located in Button Willow, California, the South Yuma County Landfill located in Yuma, Arizona, and the US Ecology Landfill located in Beatty, Nevada. The Clean Harbors Button Willow Landfill has a maximum permitted capacity of 10,500 tons per day and a maximum remaining capacity of 13,250,000 CY.

Based on the processing capacity of the Button Willow, California Landfill and the other two sites as a representative sample of contaminated soil processing capacity, landfills would be able to adequately process the small amount of contaminated soil anticipated to be generated by Alternative 4. Contaminated soil processing would not be limited to the identified landfills and could potentially occur at other permitted landfills. The TBM would also generate muck during the tunneling process that would be required to be disposed of at regional landfills. Alternative 4 would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Additionally, construction of Alternative 4 would be required to comply with all applicable federal, state, and local statutes and regulations pertaining to solid waste disposal. The construction contractor would comply with Assembly Bill 939, which requires a Solid Waste Diversion Program and diversion of at least 50 percent of the solid waste generated during construction activities from landfills to recycling facilities. Regional facilities have capacity for construction-related solid waste. Therefore, construction of Alternative 4 would result in a less than significant impact related to compliance with solid waste standards and capacity.

Maintenance and Storage Facilities

Construction impacts related to MSF Design Option 1 would be similar to those described for the proposed MSF and construction of the MSF would generate solid waste related to discarded construction material. MSF Design Option 1 would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Therefore, construction of MSF Design Option 1 would result in a less than significant impact related to solid waste.

7.2.2.8 Impact US-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Alternative 4 would generate typical construction waste such as wood, concrete, and asphalt. Additionally, because Alternative 4 would be constructed within an urban built out environment, Alternative 4 is anticipated to encounter contaminated soil. As described previously, regional permitted facilities are anticipated to have the capacity to process all contaminated and non-contaminated construction related solid waste. Alternative 4 would fully comply with all federal, state, and local statutes and regulations regarding proper disposal, including AB 939 and AB 1327. Additionally, California Green Building Standards requires construction projects to recycle and/or salvage for reuse a minimum 65 percent of the nonhazardous construction and demolition waste or meet a local construction and demolition waste management ordinance, whichever is more stringent. There is no element of construction activities that would be outside of compliance. Therefore, no impact would occur related to compliance with solid waste regulations.

Maintenance and Storage Facilities

Solid waste generated during constructional activities associated with the proposed MSF would comply with AB 939, AB 1327 and all federal, state, and local statutes and regulations regarding proper disposal. Therefore, no impact would occur related to compliance with solid waste regulations.

7.2.2.9 Mitigation Measures

Construction Impacts

Construction of Alternative 4 would have a less than significant impact. Construction of Alternative 4 would require implementation of MM TRA-4 (refer to Section 7.2.14.5) to reduce disruption caused by construction work zones.

Impacts After Mitigation

After implementation of mitigation measures, Alternative 4 would result in less than significant impacts with mitigation.

7.2.3 Climate Change and Greenhouse Gas Emissions

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-11.

Table 7-11. Alternative 4: Climate Change and Greenhouse Gas Emissions Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Climate Change and Greenhouse Gas Emissions Construction Impacts		
Impact GHG-1: Would the project result in greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternative 4
Impact GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025d

GHG = greenhouse gas emissions
LTS = less than significant
NA = not applicable

7.2.3.1 Impact GHG-1: Would the project result in greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction of Alternative 4 would result in greenhouse gas (GHG) emissions from off-road equipment, mobile sources including worker vehicles, vendor trucks, and haul trucks, as well as electricity consumptions from usage of TBMs and on-site portable offices. These emissions sources would be related to constructing the HRT system alignment, TPSSS, stations, and the MSF.

As discussed in Section 3.1 of the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025d), construction GHG emissions are measured exclusively as cumulative impacts; therefore, the Alternative 4 construction emissions are considered part of its total GHG emissions in conjunction with operational emissions. In accordance with SCAQMD guidance (SCAQMD, 2008), the Alternative 4 construction emissions were amortized over Alternative 4's design lifetime of 30 years, then combined with the Alternative 4 annual operational GHG emissions. Table 7-12 summarizes the Alternative 4 GHG emissions throughout the construction period. Alternative 4 construction would generate a total of 274,027 $MTCO_2e$ and would result in 9,134 $MTCO_2e$ annually when amortized over the project lifetime of 30 years.

Table 7-12. Alternative 4: Construction Greenhouse Gas Emissions

Construction Year	GHG Emissions ($MTCO_2e$)[a,b]
2027	476
2028	7,451
2029	23,169
2030	37,717
2031	36,532
2032	33,543
2033	16,632
2034	10,660
2035	4,729
2036	1,225
2037	605
TBM Electricity Consumption	101,198
Portable Office Electricity Consumption	88
Total	**274,027**
Amortized Construction Emissions (30 Years)	9,134

Source: HTA, 2024

[a]Totals may vary due to rounding.
[b]GHG emissions related to electricity consumption represent the total GHG emissions over the entire construction period.

$MTCO_2e$ = metric tons of carbon dioxide equivalents

Because construction emission sources would cease once construction is complete, they are considered short term. It should be noted that total and annual construction GHG emissions represent a conservative assessment because GHG emissions would decrease in future years as the construction industry shifts toward implementation of cleaner fuels (i.e., electrified equipment) and more efficient technologies. Additionally, Metro's Green Construction Policy (Metro, 2011) requires contractors to use renewable diesel, which would reduce upstream GHG emissions related to producing the fuel, as well as reduce GHG emissions from fuel combustion in off-road equipment and trucks as compared to petroleum diesel. GHG emissions for electric powered equipment such as the TBM and portable offices would also decrease in future years as LADWP continues to increase the amount of renewable energy sources in its power mix to meet state RPS goals. Thus, the annual construction GHG emissions associated with Alternative 4 would decrease with time and are likely to be lower than estimated herein. Alternative 4 construction emissions were amortized over Alternative 4's design lifetime of 30 years, then combined with Alternative 4 annual operational GHG emissions. Annual operations of Alternative 4 compared to 2045 without Project conditions would result in a net reduction of GHG emissions; therefore, impacts from Alternative 4 construction emissions would be considered less than significant.

7.2.3.2 Impact GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Construction of Alternative 4 would generate short-term GHG emissions related to off-road equipment, mobile sources, and electricity consumption. Alternative 4 construction would comply with Metro's Green Construction Policy (GCP), which requires idling restrictions for off-road equipment and trucks, using trucks with model years 2007 or newer, and implementing best management practices (BMP), such as using electric powered equipment in lieu of diesel equipment where available. Upon completion of Alternative 4 construction, these emissions would cease. As GHG emissions are exclusively cumulative impacts, the Alternative 4 amortized construction emissions were included with the long-term operational emissions for Alternative 4. As such, construction emissions were evaluated in conjunction with annual operational emissions in the next section. Based on the following discussion, annual operational emissions, which included construction emissions, were found to not conflict with plans or policies to reduce GHG emissions; therefore, impacts for construction related GHG emissions would be less than significant.

7.2.3.3 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

7.2.4 Ecosystems and Biological Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-13.

Table 7-13. Alternative 4: Biological Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Biological Resources Construction Impacts		
Impact BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-4 through MM BIO-10, MM BIO-16 through MM BIO-20, MM BIO-22 through MM BIO-27, MM BIO-29
	Impacts After Mitigation	LTS
Impact BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-10, MM BIO-16 through MM BIO-18, MM BIO-23 through MM BIO-25
	Impacts After Mitigation	LTS
Impact BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-15, MM BIO-18, MM BIO-21
	Impacts After Mitigation	LTS
Impact BIO-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-4, MM BIO-5, MM BIO-7, MM BIO-14
	Impacts After Mitigation	LTS
Impact BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-5 through MM BIO-10, MM BIO-12, MM BIO-15 through MM BIO-17, MM BIO-20, MM BIO-22, MM BIO-23, MM BIO-26
	Impacts After Mitigation	LTS
Impact BIO-6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025k

BIO = biological resources
LTS = less than significant
MM = mitigation measure
NA = not applicable
PS = potentially significant
NI = no impact

7.2.4.1 Impact BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Impacts to vegetation within the Ground Disturbance Area have the potential to affect sensitive vegetation communities, as well as special-status wildlife or plant species, both directly and through modifications to their habitat. Construction activities for Alternative 4 would result in significant impacts to special-status wildlife including nesting birds, special-status plant species, and sensitive vegetation communities if mitigation measures are not implemented. These potentially significant impacts include injury to or mortality of individuals, habitat loss due to permanent vegetation removal, behavioral and health modifications from noise pollution or exposure to fugitive dust from prolonged heavy equipment operation, and behavioral modifications due to extended human disturbances within species habitats during construction.

Ground Disturbance Area is present for the length of the aerial alignment, station footprints, staging areas, the tunnel portal, and the MSF. Construction of the two tunnel segments would be underground except for the launch and extraction sites located within stations or staging yards that are included in the Ground Disturbance Area. Clearing and grading of vegetation within the Ground Disturbance Area would be required for construction of the structural support beams for the guideway track, tunnel portal, staging yards, aerial HRT stations, and "cut-and-cover" construction for underground stations. While most of the vegetation that would be impacted consists of non-native and ornamental landscaping, some native vegetation is also present within the Ground Disturbance Area.

Other anticipated construction impacts related to the construction of Alternative 4 include the possibility of increased noise, dust, and vibration during at-grade impacts, including drilling of the aerial track support structures, "cut-and-cover" installation of the stations, and the tunnel boring machine (TBM) launch and extraction locations for the tunnel excavation (launch sites at Staging Area 1 at Sepulveda Boulevard and National Boulevard and Staging Area 4 in the San Fernando Valley; extraction site at the UCLA Gateway Plaza Station). For construction of the underground tunnel, impacts of noise, dust and vibration are not expected at surface levels due to tunnel depth, except at the tunnel portal near Del Gado Drive. Excessive noise generated from the drilling and heavy equipment operation could significantly disturb avian species and/or other special-status species who are dependent on auditory signals during essential daily activities. Vibration-related disturbances from drilling could also disrupt their normal behavioral patterns near the TBM launch and extraction sites. Impacts through the Santa Monica Mountains are not anticipated due to tunnel depth. Construction-related dust (associated with drilling for the support structures for the aerial guideway, vegetation clearing, grading, etc.) could temporarily impact the overall quality of habitat present. Dust deposition on vegetation can result in reduced photosynthesis and an increase in leaf temperature, making vegetation more susceptible to drought (Farmer, 1993). Evaluation of the Project's impact on wildfire risk and occurrence is discussed in the wildfire chapter of the *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Metro, 2025o).

Vegetation Communities/Land Cover Types and Sensitive Vegetation Communities

Direct impacts to vegetation communities would occur within the Ground Disturbance Area; acreages of temporary and permanent impacts to vegetation communities within Alternative 4 are detailed in Table 7-14. Due to the sparse vegetation, lack of diversity, and continued anthropogenic disturbance, special-status species are less likely to be found in developed, agricultural, and ruderal land cover types.

Approximately 89 percent (244.8 acres) of acreage planned for ground disturbing activities consists of developed, agricultural, and ruderal vegetation. Excluding these areas, construction of Alternative 4 is anticipated to result in 29.8 acres of temporary impacts and 0.3 acre of permanent impacts. Within the vegetated areas subject to impacts, approximately 8 percent (26.2 acres of temporary impacts) is California annual grassland. The two native vegetation communities, coyote brush shrubland and coast live oak woodland, represent approximately 1 percent (3.9 acres) of the impacted area, of which 0.3 acres of coast live oak woodland are anticipated to be permanently impacted from construction of Alternative 4. Indirect impacts to vegetation communities may also occur during construction activities. For example, fugitive dust deposition on foliage may reduce photosynthesis and increase plant vulnerability to drought. Additionally, vegetation removals may increase edge effects, including incursion of nonnative, weedy plants that compete with natives for space and resources.

There are no sensitive vegetation communities within the Ground Disturbance Area. However, one vegetation community has potential to be considered sensitive (** in Table 7-14) depending on the associated codominant species present (Section 3.2.2 and Section 8.2.5.4 in the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* [Metro, 2025k]). Up to an additional 3.6 acres of coyote brush scrubland, a potentially sensitive community, is located within potential off-site staging yard N2 at the western end of the Sepulveda Basin. For this analysis, Metro is conservatively considering impacts to these communities to be significant pending further analysis and refinement of vegetation mapping.

The removal and degradation of native and sensitive vegetation communities would constitute potentially significant impacts.

Table 7-14. Alternative 4: Impacts on Land Cover Types and Vegetation Communities

Vegetation Community/Land Cover Type [a]	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Impacts (acres) [b]	Percent of Total Project Impact
Developed	158.2	14.5	172.7	62.8
Agricultural Land	0	65.8	65.8	23.9
Ruderal	0.6	5.7	6.3	2.3
Developed, Agricultural, Ruderal Total	**158.8**	**86.0**	**244.8**	**89.1**
California Annual Grassland	0	26.2	26.2	9.5
Coyote Brush Shrubland**	0	3.6	3.6	1.3
Coast Live Oak Woodland	0.3	0	0.3	0.1
Vegetation Total	**0.3**	**29.8**	**30.1**	**10.9**
GRAND TOTAL	**159.1**	**115.8**	**274.9**	**100.0**

Source: HTA, 2024

[a]Vegetation communities based on the classifications provided in *A Manual of California Vegetation*, 2nd Edition (Sawyer et al., 2009).

[b]Inconsistencies in calculations due to rounding.

** Potential sensitive vegetation community based on codominant species on-site.

Special-Status Invertebrates

One special-status invertebrate, Crotch's bumble bee, has potential to be present within the Alternative 4 RSA during construction activities. Despite having a relatively narrow range, this species is known to occupy a wide variety of natural and disturbed habitat for nesting and foraging and could be present

throughout the RSA in undeveloped areas where pavement is not present and the earth is not regularly maintained through grading, tilling or planting. Based on their broad range of suitable habitat and generalist foraging behavior, Crotch's bumble bee are likely to occur foraging throughout the RSA where preferred flowering plants are present (e.g., native sage species [*Salvia* spp.], milkweeds [*Asclepias* spp.], and plants within the pea family [*Fabaceae*]) and nesting where abandoned rodent burrows are present.

Individuals in occupied burrow nests or overwintering queens in surface soils would be crushed or trapped during construction if present within the Ground Disturbance Area. Additionally, foraging Individuals also would be injured or killed if they are foraging during vegetation clearing activities. This species would also be impacted by the removal of nectar sources and nests in the Ground Disturbance Area result from vegetation clearing and grading for construction of Alternative 4 features including structural support beams for the guideway track, the tunnel portal and associated roadway configuration changes, stations, and construction staging locations. Ground-disturbing impacts from grading and vegetation clearing throughout the RSA would impact individuals and would likely result in loss of suitable habitat that would be used for nesting, breeding, shelter, and/or foraging for Crotch's bumble bee.

The loss of individual Crotch's bumble bees and suitable habitat for this species would constitute a significant impact.

Special-Status Reptiles

Three special-status reptiles are known to occur and two have a high or moderate potential to occur within the Alternative 4 RSA; individuals of these species may be present during construction activities. Reptiles present during construction activities would be directly injured or killed due to collisions with vehicles and equipment or during vegetation clearing activities. Species that shelter in burrows or under debris would be entrapped and suffocate or be crushed during grading activities; buried nests would similarly be crushed or destroyed. Additionally, if individuals become entrapped in open trenches or excavations during construction activities, special-status reptiles would be subject to injury or mortality due to dehydration, opportunistic predation, inability to properly thermoregulate, starvation, or other causes associated with constrained movement. Indirect impacts would include disruption of normal feeding, basking, sheltering, and breeding behaviors due to avoidance of excessive noise and vibration, fugitive dust, and increased human presence. Normal movement patterns throughout a home range also may be disrupted temporarily by avoidance of areas adjacent to construction activities, or permanently by habitat structure modifications. During construction, special-status reptiles also may be subject to higher predation rates by opportunistic predators such as common ravens (*Corvus corax*), coyote, or skunk, that would be attracted to work areas if food debris is present.

Two of the species, southwestern pond turtle and two-striped garter snake, are most likely to occur near aquatic resources such as the ponds in the Sepulveda Basin. Since aquatic resources are limited in Alternative 4, impacts to these two species are expected to be less than significant. Thus, construction of Alternative 4 is likely to have limited impacts on individuals and suitable habitat for the following two species of reptiles:

- Southwestern pond turtle (*Actinemys pallida,* federal candidate for listing)
- Two-striped garter snake (*Thamnophis hammondii*, SSC)

Based on habitat requirements, the remaining three are most likely to be found in the Sepulveda Pass and Santa Monica Mountains, but a broad range of acceptable habitats would result in potentially significant impacts to these three species in areas with ground disturbance even though the alignment is underground in the Santa Monica Mountains. Construction of Alternative 4 may result in injury or

mortality of individuals, disruptions of natural behaviors, and loss of suitable habitat that would be used for nesting, breeding, sheltering, and/or foraging for the following three species of reptiles:

- Southern California legless lizard (*Anniella stebbinsi*, SSC)
- Coastal whiptail (*Aspidoscelis tigris stejnegeri*, SSC)
- Coast horned lizard (*Phrynosoma blainvillii*, SSC)

The loss of suitable habitat for these special-status species would constitute a significant impact.

Special-Status Birds

One special-status bird species was identified as present and eight have a high potential to occur within the Alternative 4 RSA. Based on habitat requirements for these nine species, they are likely to be found throughout the RSA in transit, resting and/or foraging from the Los Angeles National Cemetery in the south to the Sepulveda Basin in the north. Birds in transit are unlikely to be affected by construction activities; adults are highly mobile and can be expected to relocate away from construction activities of their own volition. However, migratory individuals may experience temporary or permanent loss of transitory habitat. If overwintering burrowing owls are present, individuals would be entrapped and suffocate or be crushed if burrows are present in the work areas during grading and vegetation removal. Additionally, grading would result in loss of suitable wintering burrows for migratory burrowing owls. If native birds breeding within or adjacent to work areas, nests, eggs, and nestlings would be vulnerable to destruction, injury, or mortality if they are present during vegetation clearing and other construction activities. Ground nests may be vulnerable to crushing, trampling, or destruction by pedestrians and vehicles. Nests in adjacent areas also may be exposed to noise, fugitive dust, human presence, and vibration that would disrupt natural breeding behaviors including incubation of eggs and care and feeding of young; these disruptions would result in failure of a nest to successfully produce young. Excessive disruption, or substantial changes in habitat during the nesting period, would also result in abandonment of nest sites, eggs, or young. Further, impacts associated with clearing and grading of vegetation adjacent to I-405 would likely result in loss of suitable habitat that would be used for nesting, breeding, sheltering, and/or foraging for the following nine special-status avian species and nesting birds protected under the MBTA:

- Tricolored blackbird (*Agelaius tricolor*; state threatened and SSC)
- Burrowing owl (*Athene cunicularia*; state candidate and SSC)
- Swainson's hawk (*Buteo swainsoni*; state threatened)
- Northern harrier (*Circus hudsonius*; SSC)
- Olive-sided flycatcher (*Contopus cooperi*; SSC)
- Bald eagle (*Haliaeetus leucocephalus*, state endangered and fully protected)
- Loggerhead shrike (*Lanius ludovicianus*; SSC)
- Vermilion flycatcher (*Pyrocephalus obscurus*; SSC)
- Least Bell's vireo (*Vireo bellii pusillus*; FE and SE)

The loss of nests, eggs, or nestlings, impacts to natural breeding behaviors, eviction from wintering burrows, and loss of suitable habitat for these special-status species would constitute a significant impact.

Special-Status Mammals

Three special-status mammal species were identified as present within the Alternative 4 RSA, including mountain lion, silver-haired bat, and hoary bat. Mountain lions are known to occur within the Santa Monica Mountains, while the silver-haired and hoary bat have broader habitat requirements and have

potential to forage in both natural and developed habitats. Within the Sepulveda Pass and Santa Monica Mountains, special-status mammals would occur in or proximate to work areas along I-405. Impacts from roadway realignment along I-405 into existing hillsides between Sunset Boulevard and Mulholland Drive would include clearing and grading of native vegetation adjacent to the freeway.

Within the developed northern and southern ends of the projects, special-status bats would be present in ornamental street trees or on existing infrastructure, such as bridges and buildings. Individuals may be subject to injury or mortality if special-status mammals are present as roosting adults during vegetation clearing activities. Roosting adults also may be disturbed by construction-related noise and vibration, causing them to flee roosts during daylight hours. Maternal roosts would also be vulnerable to injury or mortality if present, as pups are unable to take flight and would be likely to be killed if present. Suitable foraging, sheltering, and roosting habitats have potential to be removed during vegetation clearing and grading, or temporarily impacted by construction noise, fugitive dust, and increased human presence. Nighttime construction lighting also may impact foraging habitat by attracting prey species, which may attract some bat species and repel others.

Individual larger mammals, including mountain lions, are unlikely to be directly impacted by construction activities since they are highly mobile and can be anticipated to relocate away from work areas of their own volition. Individuals are not likely to be vulnerable to collisions with slower moving construction equipment and vehicles. However, natural foraging, sheltering, and breeding behaviors may be disrupted by construction activities, both temporarily through avoidance of areas with construction-related noise, human presence, vibration, and fugitive dust, and permanently through changes in habitat due to vegetation clearing and grading.

The clearing of vegetation in the Sepulveda Pass and along city streets and demolition of structures with suitable roosts would also likely result in loss of suitable habitat that would be used for roosting, breeding, shelter, and/or foraging for the following three special-status mammals:

- Mountain lion (*Puma concolor*, state candidate for listing)
- Silver-haired bat (*Lasionycteris noctivagans*, WBWG Medium priority)
- Hoary bat (*Lasiurus cinereus*, WBWG Medium priority)

Specifically for mountain lion, Alternative 4 is unlikely to result in significant impacts to suitable habitat due to the small size and linear nature of the clearing and grading activities in comparison to the species large home range size. The construction of Alternative 4 is unlikely to significantly impact mountain lion movement and usage of wildlife corridors based on the underground configuration without associated ground-disturbance activities through the Santa Monica Mountains from UCLA Gateway Plaza Station in the south until the tunnel portal at Del Gado Drive. Movements of other vertebrate species would be significantly impacted.

The loss of individuals and suitable habitat for silver-haired bats and hoary bats would constitute a significant impact.

Special-Status Plants

Six special-status plant species were identified with medium or high potential to occur within the Alternative 4 RSA; none were present. Based on habitat requirements, these six species are most likely to occur in chaparral and/or coastal sage scrub which occurs on the Project in the Sepulveda Pass and would occur in or proximate to work areas along I-405 in the Santa Monica Mountains. Impacts from roadway realignment along I-405 into existing hillsides between Sunset Boulevard and Mulholland Drive would include clearing and grading of native vegetation adjacent to the freeway. Clearing and grading of

vegetation would also be required for construction of the structural support beams for the guideway track, staging yards, TPSSs, and aerial MRT stations. Although vegetation to be impacted is largely non-native and/or ornamental landscaping, native vegetation is also present. If individuals are present during clearing and grading activities, special-status plants would be subject to trampling, crushing, and removal. Individuals present in adjacent areas may be exposed to fugitive dust, which can settle on vegetation and interrupt photosynthesis. Following vegetation clearing, adjacent areas also may be subject to edge effects including higher exposure to sun, dust, and wind, and incursion by nonnative, weedy species, which can increase competition for space and resources and decrease habitat value for special-status plants.

The clearing of vegetation in the Sepulveda Pass would likely result in loss of suitable habitat for the following special-status plant species:

- Braunton's milk-vetch (*Astragalus brauntonii*, federally endangered, CRPR 1B.1)
- Slender mariposa lily (*Calochortus clavatus* var. *gracilis*, CRPR 1B.2)
- Davidson's bushmallow (*Malacothamnus davidsonii*, CRPR 1B.2)
- Chaparral nolina (*Nolina cismontana*, CRPR 1B.2)
- Nuttall's scrub oak (*Quercus dumosa*, CRPR 1B.1)
- Sanford's arrowhead (*Sagittaria sanfordii*, CRPR 1B.2)

Further detail on each species' potential to occur in the Alternative 4 RSA is provided in the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k).

The loss of individuals or suitable habitat for these special-status plants would constitute a significant impact.

Mitigation Measures

Mitigation measures would be implemented to reduce construction-related impacts to special-status plant and wildlife species and their habitats to less than significant through establishment of survey and monitoring requirements (MM BIO-4 through MM BIO-9, MM BIO-17, MM BIO-29); monitoring of bird nests and determination if no-disturbance buffers require adjustments (such as due to noise from construction activities) (MM BIO-4); education and training of personnel about Project 's biological concerns and requirements (MM BIO-18); and creation of a habitat restoration plan (MM BIO-9).

General construction measures to protect special-status species include protection from wildfire (MM BIO-19), domestic pets (MM BIO-20), night lighting (MM BIO-22), invasive plants (MM BIO-23), dust (MM BIO-24), vehicular collisions (MM BIO-25), entrapment (MM BIO-26), and construction-related trash (MM BIO-27).

Maintenance and Storage Facilities

The MSF for Alternative 4 would be on developed land located east of the Van Nuys Metrolink Station and south of the LOSSAN rail corridor, bounded by Hazeltine Avenue to the west and Woodman Avenue to the east; no habitat modifications or removal would be required for the construction of the MSF. No impacts to special-status plant species would result from the construction of the MSF since suitable habitat is not present. Roosting bats and MBTA-protected nesting birds have potential to be impacted during construction of the MSF if ornamental trees and/or shrubs located within the Ground Disturbance Area of the MSF are trimmed or removed; this would potentially be a significant impact. Impacts may include disruption of natural breeding and sheltering behaviors; injury or morality to bat pups; destruction, injury, or mortality of nests, eggs, nestlings, and individuals; loss of roosting and breeding habitat; and temporary impacts to roosting sites and nesting sites in adjacent areas due to

noise, vibration, and human presence. MM BIO-4 through MM BIO-5, presented in Section 7.2.4.7, are included to reduce construction-related impacts to nesting birds and special-status bats from vegetation trimming or removal to less than significant.

7.2.4.2 Impact BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

No riparian habitat occurs within the Ground Disturbance Area, although 8.3 acres of undifferentiated riparian habitat are located in the RSA, specifically in the Los Angeles River at the western end of Sepulveda Basin, in the 500-foot buffer for off-site staging yards N1 and N2. Clearing of vegetation for staging locations N1 and N2 would occur approximately 100 feet from the riparian habitat; no riparian habitat is likely to be present within the staging yard footprints as the areas are previously disturbed (as indicated through vegetation mapping of agricultural and California annual grasslands). Therefore, direct impacts such as removal of riparian vegetation are unlikely.

No sensitive natural vegetation communities are known to occur within the Ground Disturbance Area or 500-foot buffer for Alternative 4. One potentially sensitive community, coyote brush shrubland, occurs within off-site staging yard N2 located adjacent to the Los Angeles River at the western end of Sepulveda Basin; 3.6 acres are present within the Alternative 4 Ground Disturbance Area. Clearing of vegetation in this area for construction activities would likely result in loss of sensitive natural communities within the Ground Disturbance Area of the Alternative 4 RSA. Tires of vehicles and equipment used for construction of Alternative 4 have potential to transport invasive plant seeds into native habitat at this location during clearing and grading. An additional risk to sensitive natural community would exist from elevated levels of particulate matter from tires and dust deposition on vegetation from active construction within the staging yard and particulate matter from tires that can disrupt photosynthesis and other processes critical for plant survival.

The Project may cause indirect impacts to riparian habitat as a result of excessive dust from construction activities within the yards following vegetation clearing; this would be a less than significant impact. However, the Project also has potential to cause significant impacts to sensitive vegetation communities due to clearing for N2 staging yard. MM BIO-10, MM-BIO 16 through MM BIO-18, and MM BIO-23 through MM BIO-25, described in Section 7.2.4.7, are included to reduce construction-related impacts to sensitive natural communities to less than significant. These measures include the establishment of Environmentally Sensitive Areas, biological monitoring during work within these communities, environmental training for Project workers, protection from invasive weeds, and dust control measures from speeding vehicles or other sources.

Maintenance and Storage Facilities

The MSF for Alternative 4 would be on developed land located east of the Van Nuys Metrolink Station and south of the LOSSAN rail corridor, bounded by Hazeltine Avenue to the west and Woodman Avenue to the east. No riparian habitat or sensitive natural communities are present within the Ground Disturbance Area or the 500-foot buffer of the MSF. No impacts to riparian habitat or sensitive natural communities are expected from the operation or construction of the MSF.

7.2.4.3 Impact BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The Los Angeles River is concrete-lined and devoid of riparian or herbaceous wetland vegetation where Alternative 4 traverses and crosses the river; no wetlands are associated with the river at this location. There are no state or federally protected wetlands that occur within the Ground Disturbance Area for Alternative 4; consequently, no impacts to protected wetlands are anticipated from construction of Alternative 4.

The Los Angeles River is considered WOTUS under the jurisdiction of the USACE, RWQCB, and CDFW. A total of 0.13 acres of non-wetland waters associated with the Los Angeles River is located within the Alternative 4 Ground Disturbance Area. Construction activities would occur outside of jurisdictional areas associated with the Los Angeles River; therefore, no direct impacts to the Los Angeles River are anticipated during construction. However, as construction would occur over the river channel, temporary indirect construction-related impacts are possible. These impacts would include sedimentation into the waterway. This would be a potentially significant impact to aquatic resources that would be managed through mitigation measures and BMPs.

No other non-wetland waters occur in the Alternative 4 Ground Disturbance Area.

Impacts to the Los Angeles River would be avoided, minimized, and mitigated for through implementation of MM BIO-15, MM BIO-18, and MM BIO-21, which require aquatics monitoring during work near jurisdictional waters, work area delineation, BMP implementation to protect against sedimentation, worker education on sensitive aquatic resources, and avoidance of work near jurisdictional waters during and following rain events.

Maintenance and Storage Facilities

The MSF for Alternative 4 would be located on developed land located east of the Van Nuys Metrolink Station and south of the LOSSAN rail corridor, bounded by Hazeltine Avenue to the west and Woodman Avenue to the east. Since there are no wetlands or non-wetland waters present within the Ground Disturbance Area of the MSF, no impacts to protected wetlands or jurisdictional waters are expected from the construction of the MSF.

7.2.4.4 Impact BIO-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Native Resident or Migratory Fish

There are no native resident or migratory fish with established native resident corridors or migration routes present within the Alternative 4 RSA. Thus, no construction-related impacts to the movement of resident or migratory fish are anticipated for Alternative 4.

Native Resident or Migratory Wildlife

Construction of the guideway between the launch sites at the southern terminus and the tunnel portal at Del Gado Drive remains underground between the TBM launch and extraction sites. Since the stations and TPSSs are also underground, the primary surface level impacts south of Del Gado Drive are

associated with the cut-and-cover construction of the four southern stations and clearing and grading for staging areas. Construction of the aerial guideway, stations, and MSF would potentially impact wildlife movement due to construction activities. Based on the size of the station footprints and that there are no surface impacts in the Santa Monica Mountains, which have best quality habitat within the Alternative 4 RSA, construction impacts to wildlife corridors are anticipated to be localized and temporary south of the tunnel portal.

North of Del Gado Drive, where the aerial tram is present, potential impacts to movement would occur. Local movement through corridors may be temporarily impacted due to construction noise, lights, anthropogenic presence, and air pollution associated with construction. Resident species within this already urbanized environment are assumed to be exposed to, and therefore acclimated to, some level of existing disturbance associated with I-405 and other nearby development; therefore, impacts to wildlife movement are anticipated to be less than significant. Impacts to migratory birds and bats from construction of Alternative 4 may occur due to equipment and lighting associated with nightwork, if required. Bat species have differing reactions to light, with some being attracted and some repelled, but the insects they prey on are influenced by artificial lighting. If artificial lighting for nightwork is adjacent to roosting habitat, it can negatively affect the quality of the habitat.

Special-status birds and one special-status migratory bat species, the hoary bat, have potential to occur in the Alternative 4 RSA during construction of Alternative 4. The Santa Monica Mountains provide habitat for the hoary bat for roosting, and foraging resources during their migration from south to north, and vice-versa. Migratory special-status birds also have the potential to occur in the Alternative 4 RSA during construction of Alternative 4. Ground-disturbance activities including removal of vegetation/habitat, drilling, excavating, pile driving, topsoil removal, and grading associated with construction of Alternative 4 would result in a potentially significant impact to migratory bat and migratory avian species. MM BIO-4, MM BIO-5, MM BIO-7, and MM BIO-14, described in Section 7.2.4.7, are included to reduce construction-related impacts to migratory species to less than significant through protection to nesting birds and special-status bats, protection of least Bell's vireo, protection of natal dens if located, vegetation restoration, and development of a monitoring plan to document changes in wildlife movement over time.

Maintenance and Storage Facilities

The MSF for Alternative 4 east of the Van Nuys Metrolink Station and south of the LOSSAN rail corridor, bounded by Hazeltine Avenue to the west and Woodman Avenue to the east. Since there is no open habitat, waterways, or native vegetation present in the MSF, no impacts to the movement of native resident or migratory fish or wildlife would be expected from the operation or construction of the MSF.

7.2.4.5 Impact BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Table 7-15 provides a summary of the protected trees and shrubs potentially affected by Alternative 4 A total of 1,575 protected trees and shrubs are mapped within the Alternative 4 Tree Survey Area. Of those, 82 are protected under the purview of the City of LA Ordinance, irrespective of land ownership, and require permits for any alterations made to protected trees and shrubs during construction, including trimming and encroaching into the tree/shrub protection zone. Seventy-six are on property owned by the City of Santa Monica that would be used during construction as a potential off-site staging yard. These trees are covered by the City of Santa Monica Tree Code and would require a City permit from the Santa Monica City Director before trees can be altered in any manner, including but not limited to removal, trimming, pruning, and planting. The remaining 1,417 trees are under the jurisdiction of the

City of LA Policy or the Metro Tree Policy. Heritage or protected trees as determined by local ordinances or policy, may be present within the Alternative 4 Tree Survey Area; impacts to them are anticipated to be less than significant for Alternative 4.

Table 7-15. Alternative 4: Ordinance-Protected Trees and Shrubs within Ground Disturbance Area

Jurisdiction	Scientific Name	Common Name	Quantity	Mitigation Amount (# replacement trees)
City of LA Protected Tree and Shrub Ordinance	*Juglans californica*	Southern CA black walnut	2	8
	Platanus racemosa	Western sycamore	11	44
	Quercus agrifolia	Coast live oak	53	212
	Quercus chrysolepis	Canyon live oak	13	52
	Quercus lobata	Valley oak	1	4
	Sambucus mexicana	Mexican elderberry	2	8
City of Santa Monica Tree Code	Numerous native and non-native tree species[a]		76	152 to 304[b]
TOTAL			**158**	**480 to 632**
Metro/City of Los Angeles Street Tree Policy	Numerous native and non-native tree species[a]		1,417	2,834 plus additional for heritage trees
GRAND TOTAL			**1,575**	**3,314 to 3,466 plus heritage trees**

Source: HTA, 2024

[a]Los Angeles County Oak Tree Ordinance states “any tree of the oak genus”; therefore, non-native oak species are included in this inventory and mitigation calculations.

[b]Full list of SMMNRA and Policy-protected trees listed in the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k), Appendix B – Attachment 1, Tree Inventory Tables.

[c]SMMNRA and City of Santa Monica Tree Code mitigation amounts presumed to be within range of ordinances and policies within the area; final mitigation would be decided through coordination with appropriate entities.

[d]Mitigation amounts would be at discretion of City of Santa Monica.

*Mitigation amount describes the number of replacement trees as per applicable tree ordinance or policy.
SMMNRA = Santa Monica Mountains National Recreation Area
TBD = to be determined

Unless mitigated, the anticipated removal and alteration of protected trees and shrubs during construction of Alternative 4 would conflict with the City and County tree ordinances and with Metro and City tree policies. This is considered a significant impact. Refer to the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k), Appendix B – Attachment 1, Tree Inventory Tables for the full list of these recorded trees.

To address this impact, Alternative would 4 would implement MM BIO-12, described in Section 7.2.4.7, which would require installation and maintenance of replacement trees or shrubs following the requirements of the pertinent preservation policy or ordinance when impacts are unavoidable. With implementation of MM BIO-12, impacts associated with the removal of protected trees and shrubs during construction of Alternative 4 would be reduced to less than significant.

Maintenance and Storage Facilities

The MSF for Alternative 4 would be on developed land located east of the Van Nuys Metrolink Station and south of the LOSSAN rail corridor, bounded by Hazeltine Avenue to the west and Woodman Avenue to the east. Within the Alternative 4 MSF, there are 43 ornamental trees including Mexican fan palm (*Washingtonia robusta*), Canary Island pine, Chinese elm, and eucalyptus trees among others. Since the MSF would be within Los Angeles Metro property lines, Metro is responsible for trees within the MSF.

Impacts to trees at the MSF during the operations phase would conflict with the Metro Tree Policy, which applies to tree removal within Metro property lines or Metro's ROW; Trees within the MSF are anticipated to be removed during construction. Those that are not removed during construction would be subject to potentially significant impacts during operations if maintenance, such as trimming, injury that would result in death, or removal, is required during operations. With implementation of MM BIO-3, impacts to protected trees and shrubs during operations of the MSF for Alternative 4 would be reduced to less than significant.

Tree removal at the MSF during construction would conflict with the Los Angeles Street Tree and Metro Tree Policies, which would constitute a significant impact. To address this impact, the MSF for Alternative 4 would implement MM BIO-12, described in Section 7.2.4.7, which would require the installation and maintenance of replacement trees or shrubs following requirements of the pertinent tree preservation policy or ordinance. With implementation of MM BIO-12, impacts associated with removal of protected trees and shrubs during construction of the MSF for Alternative 4 would be reduced to less than significant.

7.2.4.6 Impact BIO-6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

There are no adopted HCPs, NCCPs, or other approved regional or state HCPs that occur within the Alternative 4 RSA. Therefore, no impacts to an adopted HCP, NCCP, or other state HCP would occur.

Maintenance and Storage Facilities

There are no adopted HCPs, NCCPs, or other approved regional or state HCPs that occur within the Alternative 4 or Alternative 5 RSAs. Therefore, no impacts to an adopted HCP, NCCP, or other state HCP would occur.

7.2.4.7 Mitigation Measures

Construction Impacts

MM BIO-4: ***Avoid and Minimize Construction-Related Impacts to Nesting Birds.*** *Vegetation clearance for construction of Alternative 4 related to construction activities shall occur outside of the nesting bird season (generally February 15 through September 15) to the extent feasible. If vegetation removal outside this time period is not feasible, the following additional measures shall be employed to avoid and minimize impacts to special-status bird species and nesting birds protected under the Migratory Bird Treaty Act and California Fish and Game Code:*

- *A preconstruction nesting bird survey of the work area (as defined by the Ground Disturbance Area, including staging and laydown yards) plus a 300-foot buffer shall be conducted by a Qualified Biologist within three days prior to the start of ground disturbing activities (including vegetation removal activities) to determine*

whether active nests (defined as nests with eggs or young) are present within or adjacent to (i.e., within 100 feet for non-special status songbirds, 300 feet for raptors and special-status species) the work zone. Any active nests found shall be recorded and a nest avoidance zone shall be established where no work shall occur. If project activities are delayed beyond 72 hours, a new nesting bird survey should be completed within 72 hours prior to the resumption of ground disturbing activities.

- *Active bird nests for species protected by the Migratory Bird Treaty Act shall have a clearly demarcated (via flagging, fencing and/or signage) no-disturbance buffer established as follows: 300-foot radius buffer for raptors and special-status birds (see MM BIO-7 for additional least Bell's vireo measures) and 100-foot-radius buffer for non-raptor and non-special status avian nests. The Qualified Biologist can adjust buffer distances to increase or decrease the radius contingent on topography, existing noise levels, planned operational activities, species specific tolerances to disturbances such as noise and vibration from construction activities, and observations specific nesting pair tolerance to disturbances. Nest monitoring by the Qualified Biologist shall be required following buffer modifications to ensure new buffer is appropriate; adjustments can be made only following monitoring of nesting pair to determine if buffer is adequate to protect nest from construction impacts including from noise and vibrations. Installation of temporary noise barriers between the work area and nest can also be evaluated, if installation can occur in a manner to not disturb the nesting pair based on the Qualified Biologist's recommendation. If a Qualified Biologist determines work activities may result in nest failure, project work shall cease within the recommended no-disturbance buffer until a Qualified Biologist determines nest status. Additional follow-up surveys shall be conducted as necessary to determine nest status. Once the nest is determined to be fledged or no longer active, the buffer shall be removed.*
- *A Qualified Biologist shall inform maintenance personnel of any active nests, facilitate avoidance measures, and verify operational activities do not cause disturbance. Maintenance personnel shall be updated on nest status and when avoidance buffers are no longer necessary.*
- *A Qualified Biologist shall monitor each nest on a biweekly basis and project activities shall not occur within the buffer until a Qualified Biologist determines the nest is no longer active (either by fledging or failing naturally). If a nest is adjacent to an access road where no project activities are being conducted, vehicles can drive past the nest without stopping or parking. Signage stating no stopping of idling vehicles will be posted (facing outwards from the buffer) at the start and end of the nest buffer where it crosses the road.*
- *A Qualified Biologist can determine a nest to be inactive (defined as eggs and young no longer present or reliant on the nest site, including fledged young that still depend upon the nest), following no observations of activity at the nest location for 1 hour for non-raptor avian nests and 4 hours for raptors.*

- *A summary of nesting bird surveys, monitoring efforts, and any no-disturbance buffers that were installed shall be documented by the biologist at the conclusion of each nesting season and submitted to Metro. In the event that an active bird nest identified is associated with a special-status species afforded protection under the California Endangered Species Act or the federal Endangered Species Act, then the appropriate agency will be immediately informed, and additional coordination will occur, as needed.*

MM BIO-5: ***Avoid and Minimize Construction-Related Impacts to Roosting Special-Status Bat Species.*** *To reduce impacts on roosting bats resulting from construction activities, the following shall be implemented:*

- *A bat habitat assessment will be conducted during the bat maternity season (generally April 15 through August 31 for southern California, yearly timing dependent on weather conditions) at least one year prior to construction. A Qualified Bat Biologist will conduct surveys to determine the presence of bat roosting or maternity habitat within suitable areas where vegetation trimming, tree removal, bridge repair activities, structure demolition, or other construction-related activities may occur and bats may be present. A visual inspection and/or one-night emergence survey of potential bat habitat that may be impacted by activities shall be completed utilizing acoustic recognition technology to determine if any maternity roosts are present. Results from this survey will be used to create a Bat Habitat Mitigation and Monitoring Plan (BHMMP), produced by a Qualified Bat Biologist, and which will include site-specific minimization and avoidance measures for operations and construction of the Project. These measures will include but not be limited to establishment of no-disturbance buffers, monitoring of roosting bats to ensure tolerance to disturbances such as noise and vibration from Project activities, mitigation for habitat impacts, and humane eviction or exclusion. If monitoring indicates established no-disturbance buffer is not adequate to prevent disturbances to roosting bats, a Qualified Bat Biologist can adjust the buffer as needed.*
- *Flight pathways, i.e., line of flight into and out of the roost, shall be maintained during maintenance Project work. Modifications to ingress and egress routes are not allowed, including but not limited to obstacles presented from construction equipment use and staging, location and type of lighting or reconfiguration of staged materials (e.g., vehicles, equipment, etc.) at night relative to roosting locations.*
- *If swallow nests need to be removed during construction, removal should occur in the fall (September 1 to October 31 or based on local expert bat biologist input as long as it is outside of bat maternity or hibernation season), preferably at night. Nests should be inspected for occupancy by a Qualified Bat Biologist and if empty, removed. If a bat is present, if feasible a small portion of the nest can be carefully removed to make the nest a less suitable for roosting. The following night, if the nest is empty, it can be removed entirely. If not, another small portion can be removed if feasible. If removal is not feasible or bats are still present, consultation with CDFW may be appropriate.*

- *Trees or structures to be removed as part of the Project shall be evaluated for their potential to support bat roosts. An experienced bat biologist shall conduct a one-night emergence survey during acceptable weather conditions, before the start of removal. The following measures shall apply to trees or structures to be removed that provide potential bat roost habitat; these shall be implemented by a Qualified Bat Biologist.*
  - *If roosting bats are determined present in a tree or on a structure during the maternity season (April 15 through August 31), the tree/structure shall be avoided until after the maternity season when young are self-sufficient. If other trees/structures in the immediate vicinity are slated for removal, or other work will occur in the immediate vicinity that might disturb roosting bat, a no-work buffer may be needed.*
  - *If roosting bats are determined to be present during the winter months when bats are in torpor (i.e., a state in which the bats have significantly lowered their physiological state that occurs generally October 31 through February 15), and if conditions permit, a Qualified Bat Biologist shall physically examine the roost for the presence or absence of bats before the start of project activities; equipment such as an electric lift may be utilized to conduct the inspection. If the roost is determined to be occupied during this time, the tree or structure shall be avoided until after the winter season when bats are once again active.*
- *Trees or structures with potential to serve as colonial bat habitat can be removed outside of the maternity season and winter season (generally February 16 through April 14 and September 1 through October 30, or as determined by a Qualified Bat Biologist) using a two-step process that occurs over two consecutive days.*
  - *Day 1, Step 1: Under the supervision of a Qualified Bat Biologist, tree branches and limbs with no cavities shall be removed by hand (e.g., using handsaws) or smaller components of the structure should begin to be removed by hand (e.g., hammer, screwdriver). The associated vibrational and noise disturbance and physical alteration of the tree/structure will likely cause bats roosting to either abandon the roost immediately or avoid returning to the roost after emergence.*
  - *Day 2, Step 2: Removal of the remainder of the tree or structure can occur the following day under the supervision of a Qualified Bat Biologist.*
- *Trees that are only to be trimmed and not removed shall also require a two-step process with these deviations from the removal process explained above: if a branch with a potential roost must be removed, all surrounding branches shall be trimmed on Day 1 under supervision of a Qualified Bat Biologist and then the limb with the potential roost shall be removed on Day 2.*
- *The results of bat surveys, evaluations, and monitoring efforts that are undertaken shall be documented in a report by the biologist and provided to*

CDFW in electronic format at the conclusion of all bat-related mitigation activities.

MM BIO-6: ***Avoid and Minimize Construction-Related Impacts to Crotch's Bumble Bee.*** *To reduce impacts on Crotch's bumble bee from construction activities, the following shall be implemented:*

- *A pre-construction habitat assessment for Crotch's bumble bee shall be conducted by a Qualified Biologist within the Ground Disturbance Area and a surrounding 100-foot buffer to demarcate potentially suitable nesting and foraging habitat.*
- *Nesting surveys and foraging surveys shall be conducted during the most active flight period and peak blooming period of nectar and pollen sources (generally April 1 through July 31). The survey shall be conducted between at least 1 hour after sunrise and at least 2 hours before sunset, with ambient air temperature between 60- and 90-degrees Fahrenheit. Surveys shall not be conducted during windy periods with speeds of over 10 mph, during fog or low visibility, or precipitation heavier than drizzling rain.*
- *Foraging surveys shall focus on areas of high abundance of nectar and pollen sources with meandering transects within these areas at a rate of no more than 2.5 acres per hour.*
- *Nesting surveys shall focus on areas with existing, abandoned, rodent burrows; the biologist shall focus on detecting potential Crotch's bumble bee nest within suitable habitat.*
- *If a nest is documented, a 50-foot "no-disturbance" buffer shall be established and clearly identified in the field for avoidance. Construction activities shall avoid the nest location and surrounding buffer until the nest has senesced.*
- *Results of all survey efforts will be summarized in writing and submitted to Metro for documentation. In the event species presence is confirmed and/or a nest is located, California Department of Fish and Wildlife will be informed, and additional coordination will occur as needed.*

MM BIO-7: ***Avoid and Minimize Project-Related Impacts to Least Bell's Vireo.*** *To reduce impacts on least Bell's vireo from construction activities, the following shall be implemented:*

- *Prior to initiation of construction activities, the Project shall perform one full season of protocol surveys for least Bell's vireo in suitable habitat within 500 feet of construction activities following the accepted U.S. Fish and Wildlife Service protocol. Focused surveys shall be completed prior to construction initiation and results shall be used to inform a consultation process with the U.S. Fish and Wildlife Service for project permitting. Eight surveys shall be conducted between April 10 and July 31, with each survey spaced at least 10 days apart. Reduction in the prescribed number of individual surveys may be evaluated in accordance with the U.S. Fish and Wildlife Service protocol. Surveys shall be conducted between dawn and 11:00am and outside of periods of inclement weather (excessive heat or cold, high winds, rain, etc.). Surveys shall not be*

conducted concurrently with other surveys. Per the U.S. Fish and Wildlife Service protocol, surveyors shall not survey more than 3 linear kilometers or more than 50 hectares in one day.

- *Following completion of protocol surveys, pre-construction presence/absence clearance surveys shall be required if construction is planned to begin within the nesting season. Clearance surveys shall be required within 500 feet of suitable habitat and must occur 3 or fewer days prior to start of activities. Presence/absence surveys shall be conducted by a Qualified Biologist who is familiar with species visually and aurally, and who is able to differentiate similar species. The Qualified Biologist shall not be required to have an Endangered Species Act Section 10(a) recovery permit covering this species since recorded vocalizations shall not be used to illicit responses and nest monitoring (i.e., locate and monitor the nest, including removal of brown-headed cowbird (Molothrus ater) eggs and chicks from parasitized nests) and handling of individual are not proposed.*
- *If protocol and pre-construction survey results are negative, construction activities can commence, and a Qualified Biologist shall conduct presence/absence surveys weekly during the breeding season while construction is occurring within 500 feet of suitable habitat. If least Bell's vireo are detected during a survey, a Qualified Biologist shall be required to monitor construction activities within 500 feet of suitable habitat until the end of the breeding season. If construction within 500 feet of suitable habitat is paused for more than 3 days, a new survey must be conducted to verify if least Bell's vireo are present.*
- *If an active nest is documented, a no-disturbance 300-foot radius buffer shall be established and clearly identified in the field. Construction activities shall avoid the nest location and buffer until a Qualified Biologist declares the nest inactive. A Qualified Biologist shall be required to monitor construction activities within 500 feet of suitable habitat every day work is occurring while the nest is active. Noise monitoring shall be required weekly on varying days to account for changes in construction-related noise levels from before the nest is active to after. Monitoring shall be to ensure noise levels remain at or below 60 A-weighted decibels (dBA) or to the ambient noise level if it already exceeds 60 dBA before construction at specified monitoring locations within 100 feet of the nest. The Qualified Biologist shall either conduct the noise monitoring or escort the noise monitor if they are not a Qualified Biologist.*
- *The results of the surveys shall be used to design project features and temporary work areas to avoid direct impacts to occupied habitat for listed riparian bird species. Results of all survey efforts shall be summarized in writing and submitted to Metro for documentation. In the event species presence is confirmed, the U.S. Fish and Wildlife Service shall be informed, and additional coordination will occur as needed and in compliance with Section 7 of the Endangered Species Act.*

MM BIO-8: ***Avoid and Minimize Construction-Related Impacts to Special-Status Reptiles.*** *To reduce impacts on special-status reptiles from construction activities, the following shall be implemented:*

- *Prior to the start of vegetation removal, the Ground Disturbance Area shall be clearly fenced (usually with silt fencing) to delineate the extent of the construction area.*
- *Once fencing is in place, a Qualified Biologist shall conduct a pre-vegetation clearance sweep to look for and remove any special-status reptile species (e.g., coast horned lizard, two-striped garter snake, southwestern pond turtle, coastal whiptail, and southern California legless lizard) that may occur within the Ground Disturbance Area. If any special-status reptile species are detected within the Ground Disturbance Area, personnel shall allow the species to escape unimpeded if possible. Alternatively, the Qualified Biologist shall move the species outside of the fencing to the closest suitable habitat pending authorization from USFWS or CDFW, if required.*
- *Trash and food items will be contained in closed containers and removed daily to reduce the attraction of opportunistic predators such as common ravens, coyotes, and feral cats and dogs that may prey on sensitive species.*
- *Any observations of special-status reptiles will be summarized in writing and submitted to Metro. In the event that an observed special-status species is afforded protection under CESA or ESA, then the appropriate agency will be immediately informed and additional coordination will occur, as needed.*

MM BIO-9: ***Avoid and Minimize Construction-Related Impacts to Special-Status Plants.*** *Impacts to special-status plants shall be avoided, minimized and/or mitigated through incorporation of the following:*

- *Prior to any Project activities that may modify vegetation, focused rare plant surveys shall be conducted following California Department of Fish and Wildlife protocols. Focused surveys shall occur during optimal blooming periods for special-status species likely to occur, which typically results in multiple visits within one growing season (e.g., early, mid- and late-season surveys). In the event a federally listed species is confirmed, the U.S. Fish and Wildlife Service shall be informed, and additional coordination will occur as needed and in compliance with Section 7 of the Endangered Species Act.*
- *If focused rare plant data is more than 1 year old at commencement of construction, pre-*construction surveys during the optimal blooming periods shall occur to demarcate special-status plant populations for avoidance (where feasible). The results of the focused surveys shall be used to design project features and temporary work areas to avoid direct impacts to federally and state-listed plant species.
- *Any observations of special-status plants will be summarized in writing and submitted to Metro. In the event that an observed special-status species is afforded protection under the California Endangered Species Act or federal Endangered Species Act, then the appropriate agency will be immediately*

informed and additional coordination will occur, as needed. When impacts to special-status plants are unavoidable, mitigation would be required and would be implemented by the Project consistent with a Mitigation Monitoring and Reporting Program, as required under California Environmental Quality Act. Furthermore, the Project shall prepare a Habitat Restoration Plan to meet the conditions stated in the Project's Mitigation Monitoring and Reporting Program. Mitigation may include restoring impacted areas through seeding, plantings, and weed abatement if project activities result in non-native species within the Ground Disturbance Area that were not present before activities began, as described below:

- *If feasible, special-status plant species observed during focused surveys within or adjacent to the Ground Disturbance Area that can be transplanted, such as the slender mariposa lily (Calochortus clavatus* var. *gracilis), may be dug up from the Ground Disturbance Area before work begins, stored in an appropriate manner depending on species, and replanted within the Ground Disturbance Area close to its original location at project conclusion.*
- *When the location of special-status plant population is at risk from human access not related to the Project, fencing or staking may be installed to reduce or eliminate public access once construction is completed.*
- *If proposed repair and restoration efforts are not feasible or adequate to mitigate for impacted plants, additional options shall be explored, including off-site compensation, such as mitigation banking or permanent protection of an existing off-site native or introduced population. This option would require determination of appropriateness and approval from appropriate agencies to be enacted.*

MM BIO-10: ***Avoid and Minimize Construction-Related Impacts to Sensitive Vegetation Communities.*** *Impacts to sensitive vegetation communities shall be avoided, minimized, and/or mitigated as follows:*

- *The Project shall minimize impacts to sensitive vegetation communities including California walnut woodland and sugar bush shrubland (and any other communities determined to be state ranked S1 to S3 by California Department of Fish and Wildlife following mapping refinement) by planning for impacts to occur in previously disturbed areas when feasible.*
- *Impacts to any natural vegetation communities designated sensitive, such as California walnut woodland and sugar bush shrubland, shall be reduced by attempting to trim vegetation instead of removing entire trees and shrubs where feasible. Where warranted, removal will be implemented; for example, removal may be required when the extent of trimming necessary to provide clearance for the Project to be constructed and operate safely would result in permanent damage or would adversely affect the plant's health and result in death.*
- *When feasible, temporary impact areas shall have vegetation trimmed and rootballs left intact to enable regrowth once construction is complete.*

- *In conjunction with appropriate entities with jurisdiction (i.e., Caltrans for their right-of-way, Santa Monica Mountains Conservancy for Santa Monica Mountains National Recreation Area), Metro shall design and develop a 5-year restoration plan which shall include monitoring, irrigation, and native plantings/seedings to native vegetation communities that are disturbed by construction activities. If feasible, native species that can be transplanted, such as succulents, bulb species, and cactus, may be moved from the Ground Disturbance Area before work begins, stored in an appropriate manner depending on species, and replanted within the Ground Disturbance Area close to its original location at project conclusion as part of the restoration efforts. Preconstruction assessment of sensitive vegetation communities will be conducted to collect a comprehensive plant species list, community structure data, cover assessments for native, nonnative annual, and nonnative perennial plants, and preconstruction photos for permanent photo points. Success standards to indicate restoration is complete will include native cover restored to or exceeding preconstruction conditions by the end of the five-year period, along with nonnative annual cover of 10 percent or less. Nonnative perennials shall not be present within the restoration site. If the cover success standards are not met by Year Five, additional measures such as replanting, remedial seeding, and/or supplemental watering shall be considered. The monitoring period shall extend until success criteria are met.*

MM-BIO-12: ***Avoid and Minimize Construction-Related Impacts to Protected Trees and Shrubs (Applicable to Alternatives 4 and 5).*** *Impacts to protected trees and shrubs shall be avoided, minimized, and/or mitigated by incorporation of the following:*

- *A Tree Expert, as defined in the City of Los Angeles Protected Tree and Shrub Ordinance, shall utilize the Initial Protected Tree and Shrub Inventory Memorandum (Appendix B of the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report) to complete a separate, more in-depth tree survey report prior to the start of construction and access is procured for properties within the alignment. The Tree Expert Report shall include field survey methods and details of each protected tree or shrub, including height, diameter, canopy spread, physical condition, and location. The City of Los Angeles Protected Tree and Shrub Ordinance has jurisdiction in the Project; therefore, a Tree Expert shall be required to conduct the detailed survey and procure permits for protected tree/shrub removal from the Los Angeles Board of Public Works. The Tree Expert's follow-up report shall expand upon the initial assessment to provide a comprehensive dataset with verification of tree/shrub species, height, canopy width, and tree/shrub health for the Ground Disturbance Area. This follow-up report shall be used to procure the required permit prior to commencement of tree impacts within the City of Los Angeles.*
- *Impacts to protected trees and shrubs shall be minimized to the maximum extent feasible. When trimming and/or encroachment into the tree/shrub protection zone (defined as the dripline or canopy) is needed, the following measures shall be required:*

- *Trimming of protected trees/shrubs must comply with the pruning standards set forth by the Western Chapter of the International Society of Arboriculture and conducted in a manner that does not cause permanent damage or adversely affect the health of the trees or shrubs. Trimming shall require coordination and permitting with the appropriate entities as follows:*
  - *Species protected under the Los Angeles Protected Tree and Shrub Ordinance shall coordinate with the City of Los Angeles Board of Public Works, Urban Forestry Division.*
  - *Trees protected under the City of Los Angeles Street Tree Policy shall require coordination with the City of Los Angeles Department of Public Works, Urban Forestry Division.*
  - *Trees protected under the City of Santa Monica Tree Ordinance shall require coordination with the Director of Community and Cultural Services for pruning, maintenance, removal, and care for all affected trees*
  - *Trees covered by the Metro Tree Policy shall require the Project to prepare a tree protection plan identifying Tree Protection Zones for all trees designated for retention and to prepare a mitigation plan for damaged and removed trees.*
- *For impacts to protected trees and shrubs beyond trimming, the required tree removal permits shall be obtained, and replacement shall occur at the below rates. Mitigation locations of replacement trees shall be determined through the permitting process.*
  - ***City of Los Angeles Protected Tree and Shrub Ordinance:*** *Protected trees and shrubs included trees of the oak genus (indigenous to California), western sycamore, southern California black walnut and California bay, and two shrub species (Mexican elderberry and toyon). Individual trees and shrubs shall be replaced at a 4:1 ratio by plants that are the same species of protected plant.*
  - ***City of Santa Monica Tree Code****: Trees protected under the City of Santa Monica Tree Code shall require coordination with the Director of Community and Cultural Services for pruning, maintenance, removal, and care for all affected trees.*
  - ***Policy-Protected Trees:*** *All policy-protected trees, which fall under the purview of the Los Angeles Street Tree Policy or the Metro Tree Policy, shall be replaced at a ratio of 2:1. The Los Angeles Street Tree Policy allows for an in-lieu fee to be made with approval of the Board of Public Works following verification that replacement trees cannot be feasibly planted onsite. Trees under the Metro Tree Policy that are designated as heritage trees in a local ordinance shall be replaced at a 4:1 ratio with trees of the same variety.*
- *All trees occurring on private property, or Caltrans right-of-way, shall not require permitting, but shall require coordination and negotiation with property owners.*

Mitigation implementation shall follow Metro Tree Policy's replacement ratio of 2:1.

- *For protected trees and shrubs that are not anticipated to be impacted, a Tree Protection Zone shall be established around each tree/shrub or cluster of trees/shrubs prior to the commencement of work. The Tree Protection Zone shall be erected using temporary fencing in an environmentally sensitive manner and remain in place until all site work has been completed. Specific installation timeframe may vary but the Tree Protection Zone must be inspected and approved by a Qualified Arborist prior to construction work occurring including staging of equipment. Work can commence directly following arborist inspection and approval. No construction-related materials shall be stored or staged within the Tree Protection Zone (fenced areas).*
- *The LA Street Tree Policy would require coordination with the City of Los Angeles Department of Public Works for removal or maintenance of protected trees; this policy does not apply to trees within private property, UCLA, or within the Caltrans right-of-way. Metro Tree Policy would not require permitting but would require coordination with the landowners (i.e., private landowners, UCLA, Caltrans) when a tree must be removed. Additionally, Metro Tree Policy states a mitigation plan would be required to be developed in consultation with a Certified Arborist if construction impacts damaged or removed a tree; decisions would be made in accordance with local ordinances identifying protected trees.*

MM BIO-15: ***Avoid and Minimize Construction-Related Impacts to Jurisdictional Aquatic Resources.*** *Potential impacts to drainages shall be avoided and/or minimized when working in or adjacent to aquatic resources as defined in the Aquatic Resources Delineation Report (Appendix A from the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report) through incorporation of the following:*

- *A Qualified Biologist/Aquatic Specialist shall monitor construction activities adjacent to jurisdictional aquatic resources during vegetation clearing and/or initial ground-disturbance activities. Additionally, they shall support impact avoidance and minimization measures detailed in permits and approvals obtained for the Project.*
- *Limits of the Ground Disturbance Areas shall be designated with lathe staking or a similar method. All equipment and workers shall remain within approved work limits.*
- *Wherever possible, construction personnel shall utilize existing access roads or previously disturbed areas to reach the project area or stage their vehicles and equipment.*
- *Maintenance personnel will also not leave any waste or debris behind which would impact natural habitats.*
- *To protect water quality:*

- *Appropriate BMPs shall be installed to prevent erosion and guide runoff during rain events.*
- *Equipment and materials shall be staged within the alignment and away from water drainages. Parked equipment shall have secondary containment to prevent any fluid leaks from coming into contact with the ground surface.*
- *Water containing mud, silt, or other pollutants from construction activities shall not be allowed to enter into an aquatic resource.*
- *Disposal or temporary placement of excess fill, brush, or other debris shall not be allowed in Waters of the United States, Waters of the State, and California Department of Fish and Wildlife streambeds or their banks.*

General Construction Measures

The following general construction measures are proposed for implementation during construction activities:

MM BIO-16: *Prior to vegetation clearing, grading, and/or construction activities that may impact habitats of special-status species, a Qualified Biologist(s) shall oversee installation of appropriate temporary Environmentally Sensitive Area fencing and/or flagging to delineate the limits of construction and the approved construction staging areas for protection of identified sensitive resources outside the approved construction/staging zones. All construction access and circulation shall be limited to designated construction/staging zones. Fencing shall be of a type that will not entangle or otherwise detrimentally effect wildlife or the environment. Fencing should be checked weekly to ensure it is intact and functioning as intended, to look for signs of degradation that might cause harm to wildlife or the environment, and to ensure fenced construction limits are not exceeded. This fencing shall be removed upon completion of construction activities.*

MM BIO-17: *A Qualified Biologist(s) shall monitor project activities during vegetation clearing, grading, and/or construction within or adjacent to areas identified as sensitive habitat and/or jurisdictional aquatic resources. If special-status species and/or sensitive habitats adjacent to the project sites are inadvertently impacted by activities, then the Qualified Biologist(s) shall immediately inform the on-site construction supervisor who shall temporarily halt or redirect work away from the area of impact. If unanticipated impacts occur to occupied habitat for special-status species, the Project shall consult with the appropriate regulatory agencies.*

MM BIO-18: *A Worker Environmental Awareness Plan (WEAP) shall be developed and implemented prior to the start of construction. Environmental training shall be led by the Qualified Biologist(s) and shall cover the sensitive resources found on-site, flagging/fencing of exclusion areas, permit requirements, and other environmental issues. New workers added to construction after the initial training at work start shall be required to receive WEAP training before they may begin work on the Project. Documentation of personnel who have attended WEAP training will be maintained and submitted to Metro. All information included in WEAP training should be kept on Project sites to be readily accessible to any personnel in a form deemed appropriate for the Project (e.g., wallet cards, printed flyers, etc.).*

MM BIO-19: *Wildfires shall be prevented by exercising care when driving to prevent sparks and by not parking construction vehicles where catalytic converters could ignite dry vegetation. All construction vehicles shall carry water and shovels or fire extinguishers in the field. The use of shields, protective mats, or other fire prevention equipment shall be used during grinding and welding to prevent or minimize the potential for fire. Smoking shall take place within designated areas and away from vegetated areas.*

MM BIO-20: *Construction workers shall be prohibited from bringing pets and firearms to the site.*

MM BIO-21: *To prevent unnecessary erosion, runoff, and sedimentation, all construction activities within 100 feet of drainages or wetlands shall cease during Stormwater Pollution Prevention Plan-defined rain events and shall not resume until conditions are suitable for the movement of equipment and materials. Vehicle access along unpaved access routes shall not occur during saturated soil condition to avoid rutting or other soil disturbance.*

MM BIO-22: *If night work should occur, all lighting used during night construction shall be temporary and shall be implemented to reduce lighting effects onto adjacent open space areas (i.e., downcast, away from habitat) and/or shall also be directed away from nests/roosting sites on man-made structures. Light shields shall be used to minimize light pollution adjacent to the Project.*

MM BIO-23: *Prior to entering the construction areas, equipment and personnel shall be free of mud, debris, or vegetation to prevent the introduction and spread of weeds or invasive species to the Project. If required, vehicle washing shall occur within designated areas within project construction areas where appropriate containment has been established, or at a suitable off-site facility.*

MM BIO-24: *Dust suppression measures shall be implemented during construction to minimize the creation of dust clouds and possible degradation of sensitive vegetation communities and special-status species suitable habitat. These measures shall include applying water at least once per day or as determined necessary by the Qualified Biologist(s) to prevent visible dust emissions from exceeding 100 feet in length in any direction. In addition, watering frequency shall be increased to four times per day if winds exceed 25 miles per hour. Nontoxic soil stabilizers may be used on access roads to control fugitive dust, as needed.*

MM BIO-25: *Vehicle speeds shall be restricted to posted speed limits on existing paved roads and to 15 miles per hour on dirt or gravel access roads during all phases of the Project. Speed limit signs shall be posted on dirt or gravel access roads throughout the site to remind workers of travel speed restrictions.*

MM BIO-26: *Trenches and excavations located within open areas shall be backfilled with earth at the end of each workday or have one edge sloped into an escape ramp with a less than 1:1 (45 degree) slope to prevent wildlife entrapment. A non-slip material may be used (e.g., wooden ramp with traction) when an earthen escape ramp cannot be created. For instances when these methods are not feasible (e.g., deep, long-term excavations for underground segments), temporary exclusion fencing can be installed around the perimeter of the work area to prevent animal entrapment. The Qualified Biologist shall ensure the temporary exclusion fencing is sufficiently supported to maintain integrity under all conditions and shall be checked daily to ensure integrity is maintained and inspect it daily while work is occurring. Fencing will be repaired each day, as needed to ensure integrity is maintained. A Qualified Biologist shall inspect all trenches and excavations for trapped animals at the beginning and end of each day, as well as before excavations are backfilled. Should wildlife become trapped in any trenches or excavations, a Qualified Biologist(s) shall remove and relocate them outside the construction zone. When entrapped wildlife is a listed species with handling restrictions, relocation must be conducted by a biologist permitted to handle the species. Where trenches or excavations cannot be immediately backfilled or sloped, open excavations shall be covered and the end of each day with boards or plates. The edges of the boards shall be sealed with native spoils to prevent wildlife from entering the excavation in gaps at the board edges.*

MM BIO-27 *Spoils, trash, and any construction-generated debris will be removed to an approved off-site disposal facility. Trash and food items will be contained in closed containers and removed daily to reduce the attraction of opportunistic predators such as common ravens, coyotes, and feral cats and dogs that may prey on sensitive species.*

Impacts After Mitigation

Implementation of the mitigation measures listed in this subsection shall mitigate biological resources impacts related to project operations and construction to a level that is considered less than significant.

7.2.5 Energy

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-16.

Table 7-16. Alternative 4: Energy Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Energy Construction Impacts		
Impact ENG-1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact ENG-2: Would the project conflict or obstruct a state or local plan for renewable energy or energy efficiency?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025p

ENG = energy
NA = not applicable
LTS = less than significant

7.2.5.1 Impact ENG-1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Alternative 4 would require petroleum-based transportation fuels and electricity to construct the transit system. Construction activities would comply with Metro's GCP and construction equipment would be maintained in accordance with manufacturers' specifications. Construction would result in a one-time expenditure of approximately 16,198,435 gallons of diesel fuel, 1,106,877 gallons of gasoline, and 393,824 megawatt-hours (MWh) of electricity. Table 7-17 provides a summary of the energy consumption estimated for construction of Alternative 4.

Table 7-17. Alternative 4: Construction Fuel and Electricity Consumption

Source Type	Fuel Consumption (gal)	Electricity Consumption (MWh)
Mobile Source Fuel Consumption		
Off-Road Equipment (Diesel)	9,180,785	NA
Worker Vehicles (Gasoline)	1,106,877	NA
Vendor Trucks (Diesel)	336,469	NA
Haul Trucks (Diesel)	6,681,181	NA
Electricity Consumption		
Tunnel boring machine	NA	393,480
Onsite Portable Offices	NA	344
Summary		
Total Gasoline (gal):	**1,106,877**	**NA**
Total Diesel (gal):	**16,198,435**	**NA**
Total Electricity (MWh):	**NA**	**393,824**

Source: HTA, 2024

gal = gallons
MWh = megawatt-hour
NA = not applicable

All equipment and vehicles used in construction activities would comply with applicable California Air Resources Board regulations, Low Carbon Fuel Standards, and the Corporate Average Fuel Economy (CAFE) Standards. Construction would not place an undue burden on available energy resources. The one-time expenditure of energy associated with diesel fuel consumption would be offset by operations within approximately 9 years through transportation mode shift, and the one-time expenditure of energy associated with gasoline consumption would be offset by operations within 1 year. The temporary additional transportation fuels consumption does not require additional capacity provided at the local or regional level. CEC transportation energy demand forecasts indicate that gasoline and diesel fuel production is anticipated to increase between 2021 and 2035, while demand for both gasoline and diesel transportation fuels is projected to decrease over the same time period (CEC, 2021). Construction vehicles and equipment activities would not place an undue burden on available petroleum fuel resources during construction of Alternative 4.

Construction activities may include lighting for security and safety in construction zones. Nighttime construction would be limited; lighting would be sparse and would not require additional capacity provided at the local or regional level.

The GCP requires and commits project contractors to using newer engines for off-road diesel-powered construction equipment that are more fuel efficient than older models. All equipment and vehicles

would be maintained in accordance with manufacturer specifications and would be subject to idling limits. As required by the California Green Building Standards (CALGreen) Code Tier 2, at least 80 percent of the nonhazardous construction debris generated by demolition activities will be diverted from landfills. Also, CALGreen includes the mandatory requirement to reuse or recycle all clean soil that would be displaced during construction of Alternative 4, which would result in reduced energy consumption from hauling trucks. Furthermore, the Metro 2020 Moving Beyond Sustainability Strategic Plan and the Metro Design Criteria and Standards require and commit contractors to using high-efficiency lighting as opposed to less energy-efficient lighting sources in alignment with Leadership in Energy and Environmental Design (LEED) sustainability energy standards.

Based on the substantiation previously described, construction would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, Alternative 4 results in a less-than-significant impact related to construction activities.

Maintenance and Storage Facilities

Construction of the MSF would require petroleum-based transportation fuels and electricity. Construction activities would comply with Metro's GCP and adhere to Metro's policy for aligning with LEED Silver sustainable certification. The required energy demand to construct and operate the MSF would be more than offset by the energy savings in the forms of petroleum fuels and natural gas, and the consumption would support a mass transit system that would contribute to regional efforts to enhance energy efficiency and reduce reliance on nonrenewable resources. Construction of the MSF would not result in wasteful, inefficient, or unnecessary consumption of energy resources and the MSF would result in a less than significant impact.

7.2.5.2 Impact ENG-2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Alternative 4 would require petroleum-based transportation fuels and electricity to construct the transit system. Construction would result in a one-time expenditure of approximately 16,198,435 gallons of diesel fuel, 1,106,877 gallons of gasoline, and 393,824 MWh of electricity. Alternative 4 would be consistent with state and local energy plans and policies to reduce energy consumption as activities would comply with Metro's GCP, CALGreen Code, Title 24, and LEED Version 4 Building and Design Construction (LEED v4 BD+C) Level Silver certification. The GCP requires and commits project contractors to using newer engines for off-road diesel-powered construction equipment that are more fuel efficient than older models. Compliance with GCP would limit excess petroleum fuels consumption. The CALGreen Code requires reduction, disposal, and recycling of at least 80 percent of nonhazardous construction materials and requires demolition debris to be recycled and/or salvaged, which would ultimately result in reductions of indirect energy use associated with waste disposal and storage. Alternative 4 would comply with state and local plans for energy efficiency in construction activities. Therefore, Alternative 4 would result in a less-than-significant impact related to construction activities.

Maintenance and Storage Facilities

The MSF would support Alternative 4 operations, providing energy efficient mass transit to the region and reducing auto passenger vehicle trips. The benefits of Alternative 4 are consistent with the goals, objectives, and policies of SCAG and the City of Los Angeles. The MSF would be designed to meet the LEED Version 4 Building and Design Construction (LEED v4 BD+C) Level Silver certification — Envision Version 3 certification if LEED is not applicable — and Tier 2 of the California Green Building Standards Code. There is no potential for construction or operations of the MSF to conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The MSF would not conflict with any adopted

plan or regulation to enhance energy efficiency or reduce transportation fuels consumption and would support the initiatives of the Metro Climate Action and Adaptation Plan. In addition, the MSF would not interfere with renewable portfolio targets and would not result in a wasteful or inefficient expenditure of energy resources. The MSF would positively contribute to statewide, regional, and local efforts to create a more efficient and sustainable transportation infrastructure network. Therefore, the MSF would result in a less than significant impact.

7.2.5.3 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

7.2.6 Geotechnical, Subsurface, Seismic, and Paleontological Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-18.

Table 7-18. Alternative 4: Geology, Soils, Seismicity, and Paleontological Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Geology, Soils, Seismicity, and Paleontological Resources Construction Impacts		
Impact GEO-1: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-2: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking and/or seismic-related ground failure, including liquefaction?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-3: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-2
	Impacts After Mitigation	LTS
Impact GEO-4: Would the project result in substantial soil erosion or the loss of topsoil?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-5: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-1 through MM GEO-5
	Impacts After Mitigation	LTS
Impact GEO-6: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-5
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternative 4
Impact GEO-7: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI
Impact GEO-8: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-6 through MM GEO-9
	Impacts After Mitigation	SU

Source: Metro, 2025l

GEO = geotechnical
LTS = less than significant
MM = mitigation measure
NA = not applicable
PS = potentially significant
NI = no impact
SU = significant and unavoidable

7.2.6.1 Impact GEO-1: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Construction of Alternative 4 would occur within the Santa Monica Fault zone, north of Santa Monica Boulevard and along I-405. Aerial guideway and station construction would involve installing CIDH piles (shafts with both precast and CIP structural elements), simple spans, and longer balanced cantilever spans within the I-405 ROW, arterials, and street crossings. A TBM would be used to construct the underground segment of the guideway. Tunneling depth would range between 40 feet to 470 feet. Underground stations would use a “cut-and-cover” construction method whereby the station structure would be constructed within a trench excavated from the surface that is covered by a temporary deck and backfilled during the later stages of station construction.

These components would be constructed in compliance with applicable seismic and geotechnical regulatory requirements and using established engineering practices to minimize ground disturbance and ensure structural stability in areas near active faults. Construction of Alternative 4 would not directly or indirectly exacerbate rupture of a known earthquake fault causing substantial adverse effects, including the risk of loss, injury, or death because these elements, including the CIDH piles, TBM-excavated tunnels, and cut-and-cover stations, do not reach a depth or be of an intensity that would affect geological processes such as faults. Therefore, construction impacts related to the rupture of a fault are less than significant

Maintenance and Storage Facilities

The proposed MSF would be located west of Woodman Avenue and south of the LOSSAN rail corridor ROW. The proposed MSF is not within the Alquist-Priolo Earthquake Fault Zone. The closest Alquist-Priolo Earthquake Fault Zone is the Hollywood Fault located approximately 8.3 miles southeast from the

proposed MSF. Therefore, no impacts related to loss, injury, or death involving the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map during operations or construction

7.2.6.2 Impact GEO-2: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking and/or seismic-related ground failure, including liquefaction?

Construction of Alternative 4 would occur within liquefaction zones, both within the San Fernando Valley and the Los Angeles Basin. Aerial guideway and station construction would involve installing CIDH piles (shafts with both precast and CIP structural elements), simple spans, and longer balanced cantilever spans within the I-405 ROW, arterials, and street crossings. A TBM would be used to construct the underground segment of the guideway. Tunneling depth would range between 40 feet to 470 feet. Underground stations would use a "cut-and-cover" construction method whereby the station structure would be constructed within a trench excavated from the surface that is covered by a temporary deck and backfilled during the later stages of station construction.

While construction activities for the underground alignment would involve subsurface work at depths where liquefaction could potentially occur, these activities would not directly or indirectly cause seismic ground shaking or induce liquefaction because the construction processes would not be of sufficient intensity to cause geological processes such as faults or liquefaction. Moreover, the construction of Alternative 4 would adhere to seismic and geotechnical regulations, which would require appropriate engineering measures to ensure that liquefaction risks do not exceed unacceptable levels. As such, impacts related to seismic ground shaking including liquefaction would be less than significant during construction activities.

Special construction considerations to protect workers and future users of the alternative against liquefaction hazards can be found within the *Final Draft Geotechnical Design Memorandum* (Metro, 2023).

Maintenance and Storage Facilities

Construction of the proposed HRT MSF does not involve extensive excavation and do not reach a depth or be of an intensity that would affect geological processes such as faults. As such, impacts related to seismic ground shaking including liquefaction would be less than significant during construction

7.2.6.3 Impact GEO-3: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

The tunnel portal for Alternative 4 traverses through the Santa Monica Mountains which are within a designated LHZ making construction near surface-level soils vulnerable to inducing a landslide. As such, the impacts associated with a landslide hazard within the Santa Monica Mountains are potentially significant. However, the portions of Alternative 4 that cross the LHZ would be situated deep underground in this location and the risk of landslides would be low. According to the *Final Draft Geotechnical Design Memorandum* (Metro, 2023), the north tunnel portal in Sherman Oaks would be the most impacted section of the Alternative 4 alignment in terms of landslide risk. The Modelo Formation, which consists of diatomaceous shale, is exposed in a slope in this area. The layers of this shale are angled toward the north, which is not ideal for the proposed portal excavation. To improve long-term slope stability in this area, Alternative 4 may install an anchored retaining wall or use ground anchors.

Consistent with local requirements, further investigations into the slope along I-405 would be conducted during the design phase when site-specific data and final geometry of improvements are available. The foundation types would be determined as part of the required site-specific geotechnical investigation conducted during the final design phase and would ensure that the potential for landslides would not cause potential for substantial adverse effects, including the risk of loss, injury, or death.

Construction activities for Alternative 4 would also include the installation of the portal in the Sherman Oaks community. Temporary engineering would be erected to support the retaining wall during cut-and-cover excavation. These activities would be located within a designated LHZ, and potential landslides during construction could cause injury or death to construction workers.

Construction of Alternative 4 would adhere to existing regulations and the provisions listed in the CBC and equivalent design criteria as the MRDC that require site-specific geotechnical evaluation during the final design phase that would include specific structural engineering recommendations. Grading and construction activities would be carried out in compliance with the regulatory requirements, including state regulations and the equivalent design criteria such as the MRDC, to account for the portion of Alternative 4 that would be within an LHZ.

The final design of the tunnel portal's retaining walls, and its temporary engineering would abide with structural engineering standards set forth in the provisions listed in the CBC. The CBC provisions that relate to the construction and design of the retaining walls include the requirements for foundation and soil investigations, excavation, grading, and fill-allowable, load-bearing values of soils. The CBC provision also relates to design of footings, foundations, and slope clearances, retaining walls, and pier, pile, driven, and CIP foundation support systems (Section 1810). Chapter 33 includes requirements for safeguards at work sites to ensure stable excavations and cut or fill slopes). Appendix J includes grading requirements for the design of excavations and fills (Sections J106 and J107) and for erosion control (Section J110). Construction activities are subject to occupational safety standards for excavation, shoring, and trenching as specified in Cal/OSHA regulations (CCR Title 8).

Alternative 4 would require a site-specific slope-stability design to ensure adherence to the standards contained in the CBC and any County of Los Angeles and City of Los Angeles guidelines, as well as by Cal/OSHA requirements for stabilization. Alternative 4 would include manufactured slopes (using grading techniques) in the retention basins, which would mostly occur on the perimeter of the construction sites where they would also serve as a buffer to protect the tunnel and surrounding infrastructure from landslide-related hazards. Retention basins would be designed with due consideration for slope stability.

The combination of site-specific slope-stability design, compliance with applicable regulatory requirements, and the use of manufactured slopes and retention basins is anticipated to effectively manage constructed-slope instability such that impacts associated with constructed-slope instability, including landslides, are reduced, but may still be potentially significant.

This is particularly true for temporary slopes, as excavation activities for Alternative 4 within Landslide Zones could encounter unstable soils. Temporary slopes generally pose a higher risk of slope failure due to their steeper gradients compared to permanent, manufactured slopes. Similar to permanent slope construction, temporary slopes would be required to comply with Cal/OSHA requirements for shoring and stabilization.

To address these significant impacts, MM GEO-2 would be implemented so that any excavations for the construction of the underground segment of Alternative 4 would shore excavation walls or flatten or

"lay back" the excavation walls to a shallower gradient as required by applicable local, state, or federal laws or regulations to ensure stability of temporary slopes.

With the implementation of MM GEO-2, the impacts associated with landslides and/or slope instability during construction activities would be reduced to less than significant

Maintenance and Storage Facilities

The proposed MSF would be located west of Woodman Avenue and south of the LOSSAN rail corridor ROW. The proposed MSF would not be located on land designated as a LHZ Area. The closest landslide zone would be located approximately 4.10 miles south from the proposed MSF. Therefore, the proposed MSF would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides, and no impact would occur

7.2.6.4 Impact GEO-4: Would the project result in substantial soil erosion or the loss of topsoil?

Ground-disturbing activities occurring during construction would temporarily expose surficial soils to wind and water erosion and have the potential to temporarily increase erosion and loss of topsoil. Construction work that would involve ground-disturbing activities would include installation of CIDH piles for the HRT aerial guideway, installation of temporary engineering for the portal, installation of TPSS sites, utility relocations, mass excavation of the underground stations, and grading relating to these activities. Retaining-wall installation at the portal would involve considerable earth-moving activities. However, construction activities would be required to comply with existing regulatory requirements, including implementation of BMPs and other erosion and sedimentation control measures that would ensure that grading, excavation, and other earth-moving activities would avoid a significant impact.

Metro would be required to prepare a site-specific SUSMP, which is part of the NPDES Municipal General Permit. Preparation of the site-specific SUSMP would describe the minimum required BMPs to be incorporated into the Alternative 4 design and ongoing operation of the facilities. Prior to the initiation of grading activities associated with the implementation of Alternative 4, Metro would submit a site-specific SUSMP to reduce the discharge of pollutants to the maximum extent practical using BMPs, control techniques and systems, design and engineering methods, and other provisions that are appropriate during construction activities. All development activities associated with Alternative 4 would comply with the site-specific SUSMP.

Preparation of a site-specific SUSMP and adherence to existing regulations would ensure the maximum practicable protection available for soils excavated during the construction of buildings and associated infrastructure. Compliance with existing regulations would minimize effects from erosion and ensure consistency with the Regional Water Quality Control Board Water Quality Control Plan. In view of these requirements, Alternative 4 would have a less than significant impact associated with soil erosion or loss of topsoil during construction activities.

Maintenance and Storage Facilities

The proposed MSF would comply with post-construction measures in applicable NPDES permits and LID standards required by Los Angeles County and the City of Los Angeles that aim to minimize erosion impacts from development projects. Therefore, the proposed MSF would result in a less than significant impact related to substantial soil erosion or the loss of topsoil during construction

7.2.6.5 Impact GEO-5: Would the project be located on a geographic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Construction activities for Alternative 4 would involve foundation support installation and earthwork at the tunnel portal at the Sherman Oaks community. Certain construction activities, such as CIDH drilling for the aerial guideway and excavation and erection of the temporary engineering of the tunnel portal, could affect soil stability leading to ground movements (both lateral movements and settlements) or subsidence. Additionally, the use of unsuitable materials for fill and/or foundation support would have the potential to create future heaving, subsidence, spreading, or collapse problems, leading to foundation and roadway settlement. Excavation for construction of underground structures — such as station boxes, cut-and-cover tunnels, and tunnel portals — would be reinforced by shoring systems to protect abutting buildings, utilities, and other infrastructure. Tunneling using a TBM would result in ground volume loss and potential ground movements. Dewatering, when performed to create a dry work condition for construction of the underground structures, if allowed to draw down the groundwater table beyond the limits of excavation, could result in compaction or consolidation of the subsurface soils and thus potentially result in surface settlements. These surface settlements could potentially affect the stability of nearby buildings, roads, and utilities, leading to structural damage, uneven ground surfaces, and the need for additional maintenance or repair work in the affected areas. This would be a potentially significant impact.

However, Alternative 4 construction would be in compliance with the regulatory requirements as defined in PM GEO-2. Under PM GEO-2, a site-specific evaluation of soil conditions shall be conducted and shall contain recommendations for ground preparation, earthwork, and compaction specifications based on the geological conditions specific to the site.

In addition, Alternative 4 would implement MM GEO-1 through MM GEO-5. MM GEO-3 would also ensure compliance with the recommendations of the final soils and geotechnical report for the Project, which would provide site-specific information pertaining to the depths and areal extents of lateral spreading, subsidence, or collapse. Additionally, prior to construction, MM GEO-5 specifies preparation of a CMP detailing how to address geologic constraints and minimize or avoid impacts to geologic hazards during construction.

Adherence to existing regulations and policies and implementation of MM GEO-1 through MM GEO-5 would ensure the maximum practicable protection available for users of buildings and infrastructure and associated trenches, slopes, and foundations. Therefore, with the implementation of mitigation measures, Alternative 4 would have a less than significant impact associated with the exposure of people or structures to hazards associated with unstable geologic units or soils.

Maintenance and Storage Facilities

The proposed MSF would be located on stable soils where no liquefaction or landslide zones are present as addressed in Section 7.2.6.2 and Section 7.2.6.3. Construction would not occur on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed MSF, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. As with Alternative 4, the proposed MSF would be designed in compliance with applicable local, state, or federal laws or regulations, including recommendations on engineering and design considerations and with implementation of MM GEO-1 through MM GEO-5. Thus, construction of the proposed MSF would have

less than significant impacts related to soil stability that could potentially result in landslides, lateral spreading, subsidence, liquefaction, or collapse.

7.2.6.6 Impact GEO-6: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Construction activities for Alternative 4 involve building both aerial and underground sections, as well as its aerial and underground stations. The underground guideway will be constructed using a TBM whereas the aerial guideway would consist of simple spans and longer balanced cantilever spans. Foundations require CIDH shafts with both precast and CIP structural elements. Underground stations would be constructed using a "cut-and-cover" method whereby the station structure would be constructed within a trench excavated from the surface with a portion or all being covered by a temporary deck and backfilled during the later stages of station construction. Aerial stations would include construction of CIDH elevated viaduct with two parallel side platforms supported by outrigger bents.

Expansive soils can be found almost anywhere, including the Los Angeles Basin, Santa Monica Mountains, and San Fernando Valley. Expansive soils could have an impact on project elements, including the proposed stations, guideway, and TPSS sites. Construction of Alternative 4 includes excavation and surface ground disturbances, if expansive soils do exist, construction activities have the potential to create substantial direct or indirect risks to life or property. As such, impacts related to construction activities could be potentially significant.

To reduce these risks, Alternative 4 would be designed in accordance with the equivalent seismic design criteria such as the MRDC, Los Angeles County and other applicable local building codes, and the CBC. This includes compliance with equivalent MRDC Section 5 (or equivalent seismic design criteria), which requires preparation of a geotechnical investigation during final design. This design-level geotechnical investigation must include a detailed evaluation of geologic hazards, including the depths and areal extents of liquefaction, soil expansiveness, lateral spread, and seismically induced settlement. This investigation would include collecting soil samples and performing tests to assess the potential for corrosion, consolidation, expansion, and collapse. Based on the investigation and test results, specific design recommendations, including potential remediation of expansive soils, would be developed to address any identified issues. Expansive soil remediation could include soil removal and replacement, chemical treatment, or structural enhancements.

Alternative 4 would be in compliance with the regulatory requirements as defined in PM GEO-2 which calls for a California-registered geologist and geotechnical engineer to submit to and conduct a site-specific evaluation of unstable soil conditions to confirm the existence of expansive soils. The evaluation would also provide recommendations for ground preparation and earthwork activities specific to the site and take into consideration both aerial and underground construction.

Alternative 4 would be required to comply with applicable provisions of the CBC and the MRDC or an equivalent criteria with regard to soil hazard-related design, as described by PM GEO-3. The MRDC or an equivalent criteria ,the County of Los Angeles, and City of Los Angeles building codes require site-specific investigations and reports for each construction site. The reports must identify any unsuitable soil conditions and provide recommendations for foundation type and design criteria, consistent with the analysis and building code standards. Regulations exist to address weak soil issues, including expansion.

As mandated by PM GEO-3, Alternative 4 would comply with applicable local, state, or federal laws or regulations to address any potential weak soil issues during construction.

Prior to construction, the Project shall implement MM GEO-5, which requires preparation of a CMP which addresses geologic hazards such as soils with shrink-swell potential (expansive soils) and outlines strategies to minimize or avoid impacts.

With compliance with the regulatory requirements as defined in PM GEO 2, PM GEO-3, and implementation of MM GEO-5, Alternative 4 would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils during construction

Maintenance and Storage Facilities

Construction of the proposed MSF would involve grading, excavation, or other ground disturbances. If expansive soils exist at these sites, construction activities have the potential to create substantial direct or indirect risks to life or property. As such, impacts related to construction activities could be potentially significant.

The proposed MSF would be in compliance with the regulatory requirements as defined in PM GEO-2 which calls for a California-registered geologist and geotechnical engineer to submit to and conduct a site-specific evaluation of unstable soil conditions to confirm the existence of expansive soils. The evaluation would also provide recommendations for ground preparation and earthwork activities specific to the site. Moreover, the proposed MSF would be required to comply with applicable provisions of the CBC and the MRDC or equivalent criteria with regard to soil hazard-related design, as described by PM GEO-3. Finally, prior to construction, the proposed MSF shall implement MM GEO-5, which requires the preparation of a CMP which addresses geologic hazards such as soils with shrink-swell potential (expansive soils) and outlines strategies to minimize or avoid impacts.

With compliance with the regulatory requirements as defined in PM GEO-2, PM GEO-3, and implementation of MM GEO-5, the proposed MSF would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils during construction

7.2.6.7 Impact GEO-7: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No septic systems or alternative wastewater disposal systems are proposed for Alternative 4. Alternative 4 would have no impacts associated with soils incapable of adequately supporting such systems during construction activities.

Maintenance and Storage Facilities

No septic systems or alternative wastewater disposal systems are proposed for the proposed MSF. Therefore, the proposed MSF would have no impacts associated with soils incapable of adequately supporting such systems during operations and construction

7.2.6.8 Impact GEO-8: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Alternative 4 would have more than half of the rail it proposes to be located under the ground surface. The proposed tunnel would be nearly 9 miles long and would begin just east of Sepulveda Boulevard and south of National Boulevard. Possible construction impacts involved with Alternative 4 would all be a result of access, staging, and lay down areas that would be required for placing the heavy rail track and

excavating the tunnel. The proposed tunnel would include four underground stations and would transition to an elevated guideway extending from Sepulveda Boulevard to Raymer Street, where it would turn southeast and run along the south side of the Amtrak/Metrolink corridor to Van Nuys Boulevard. The surface sediments that the elevated guideway would overlie are mapped as alluvium (Qa), young alluvium fan deposits, unit 1 (Qyf1), and young alluvium fan deposits, unit 2 (Qyf2). The units listed are not representative of what could be encountered below the surface level. (Campbell et al., 2014).

Geologic units such as the Santa Monica Slate (Jsm, Jsms, and Jsmp) lack paleontological sensitivity and are not known to preserve fossil material. Santa Monica Slate is a geologic unit composed of metamorphic rock, formed under intense pressure and temperature which limits fossil preservation potential. This metamorphic process usually destroys or deforms any fossil material that could have been present. However, due to the relatively low grade of metamorphism in this unit, some relevant features of fossils may still be preserved (Imlay, 1963). Additionally, the Quaternary young alluvium (Qya2) has a low sensitivity due to limited potential for preserving fossil material because this unit is too young to have preserved any significant fossil material. The Modelo Formation labeled Tm, Tms, and Tmd have a high sensitivity for preserving fossil material due to their age and the presence of fossil localities within the same units in nearby areas (SVP, 1995; Bell, 2023).

Because of the uncertainty regarding the depth of sensitive sediments and the potential for encountering unique paleontological resources during ground disturbance, the impact would be significant. To address this significant impact, MM GEO-6 through MM GEO-9 would be implemented. These measures include the use of onsite paleontological monitors who can quickly identify and protect resources until any discovered localities can be safely removed. These mitigation measures are designed to minimize impacts to paleontological resources by ensuring that any discoveries are properly documented, evaluated, and protected during construction activities. With the implementation of MM GEO-6 through MM GEO-9, impacts to paleontological resources would be reduced to less than significant for non-TBM activities.

However, for the underground tunnels of Alternative 4, which would require use of a TBM, it may not be possible to mitigate impacts paleontological resources to less than significant levels. TBMs are designed to excavate sediments to the precise dimensions of the finished tunnel, removing the excavated material through an internal conveyor belt while simultaneously erecting the tunnel's concrete walls. However, the operation of the TBM does not allow for real-time monitoring of the excavated sediments or the tunnel walls prior to the installation of the concrete lining. As a result, it is not possible to identify, document, and recover of paleontological resources that may be present within the paleontologically sensitive geologic units encountered during tunneling. Therefore, excavations for tunnel construction would result in a significant and significant impact to paleontological resources when a TBM is used (See Figure 5 in the *Paleontological Resources Technical Memorandum*, Attachment A in the *Sepulveda Transit Corridor Project Geotechnical, Subsurface, and Seismic Technical Report* (Metro, 2025l)*).*

Maintenance and Storage Facilities

The impacts involved with the MSF include the construction of the administrative buildings, maintenance buildings, wash facilities, drive aisles, and storage tracks. The surface rocks in the underground portions of the proposed MSF are mapped as Qya2 but may be more paleontologically sensitive (older) than indicated, at depth. Since the depth and extent of sensitive sediments are unknown, there is a potential to impact sensitive paleontological resources during ground disturbance activities. This would constitute a significant impact.

To address these impacts, the MSF would be required to implement MM GEO-6 through MM GEO-9, which include requirements for construction monitoring and resource management. With the implementation of these measures, the impact on paleontological resources from construction of the MSF would be reduced to less than significant.

7.2.6.9 Impact GEO-9: Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or an important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Construction of Alternative 4 would require excavation (cut and cover) for underground stations and column foundations and would use a TBM for tunnel construction. However, Alternative 4 would not be located in an area with known mineral deposits. Alternative 4 is located in areas designated as MRZ-1 and MRZ-3. The California Department of Conservation, Division of Mines and Geology has classified areas of regional significance as MRZ-2 (CGS, 2021). Alternative 4 would not be located within an area designated as MRZ-2. Alternative 4 would be located within areas designated as MRZ-1 in the northern portion of Alternative 4 in the San Fernando Valley as well as the southern portion of Alternative 4 near West Los Angeles. MRZ-1-designated areas indicate that no significant mineral deposits are present or little likelihood exists for their presence.

No mining operations are present within the Alternative 4 RSA, so construction of Alternative 4 would not disrupt mining operations. Therefore, Alternative 4 would have no construction impacts related to the loss of availability of a known mineral resource or a locally important mineral resource recovery site.

Maintenance and Storage Facilities

Construction of the MSF would not require excavation that may affect mineral resources. No mining operations are present within or in the vicinity of the MSF. Therefore, the MSF would have no construction impacts related to the loss of availability of a known mineral resource or a locally important mineral resource recovery site.

7.2.6.10 Project and Mitigation Measures

Alternative 4 would implement the following project and mitigation measures to ensure that impacts to the geology, soils, and seismicity remain less than significant during construction activities:

PM GEO-1: *The Project shall demonstrate to the County of Los Angeles and the City of Los Angeles that the design of the Project complies with all applicable provisions of the California Building Code with respect to seismic design. Compliance shall include the following:*

- *California Building Code Seismic Zone 4 Standards as the minimum seismic-resistant design for all proposed facilities*
- *Seismic-resistant earthwork and construction design criteria (i.e., for the construction of the tunnel below ground surface, liquefaction, landslide, etc.), based on the site-specific recommendations of a California Registered Geologist in cooperation with the Project Engineers.*
- *An engineering analysis to characterize site specific performance of alluvium or fill where either forms part or all of the support.*

PM GEO-2: *A California-registered geologist and geotechnical engineer shall submit to and have approval by the Project a site specific evaluation of unstable soil conditions, including recommendations for ground preparation and earthwork activities specific to the site and in conformance with City of Los Angeles Building Code, County of Los Angeles Building Code, the California Building Code, Metro Rail Design Criteria (as applicable), and Caltrans Structure Seismic Design Criteria.*

PM GEO-3: *The Project shall demonstrate that the design of the Project complies with all applicable provisions of the County of Los Angeles Building Code and City of Los Angeles Building Code.*

MM GEO-1: *The Project's design shall include integration and installation of early warning system to detect and respond to strong ground motion associated with ground rupture. Known active fault(s) (i.e., Santa Monica Fault) shall be monitored. Linear monitoring systems such as time domain reflectometers or equivalent or more effective technology shall be installed along fixed guideway in the zone of potential ground rupture.*

MM GEO-2: *Where excavations are made for the construction of the below surface tunnel, the Project shall either shore excavation walls with shoring designed to withstand additional loads or reduce the slope of the excavation walls to a shallower gradient. Excavation spoils shall not be placed immediately adjacent to excavation walls unless the excavation wall is shored to support the added load. Spoils should be stored at a safe distance from the excavation site to prevent undue pressure on the walls.*

MM GEO-3: *The Project shall comply with the recommendations of the final soils and geotechnical report. These recommendations shall be implemented in the design of the Project, including but not limited to measures associated with site preparation, fill placement, temporary shoring and permanent dewatering, groundwater seismic design features, excavation stability, foundations, soil stabilization, establishment of deep foundations, concrete slabs and pavements, surface drainage, cement type and corrosion measures, erosion control, shoring and internal bracing, and plan review.*

MM GEO-4: *In locations where soils have a potential to be corrosive to steel and concrete, the soils shall be removed, and buried structures shall be designed for corrosive conditions, and corrosion-protected materials shall be used in infrastructure.*

MM GEO-5: *Prior to construction, the Project shall prepare a Construction Management Plan (CMP) that addresses geologic constraints and outlines strategies to minimize or avoid impacts to geologic hazards during construction. The plan shall address the following geological and geotechnical constraints/resources and incorporate standard mitigation measures (shown in parentheses):*

- *Groundwater withdrawal (using dewatering pumps and proper disposal of contaminated groundwater according to legal requirements)*
- *Risk of ground failure from unstable soils (retaining walls and inserting soil stabilizers)*
- *Subsidence (retaining walls and shoring)*

- *Erosion control methods (netting on slopes, bioswales, sediment basins, re-vegetation)*
- *Soils with shrink-swell potential (inserting soil stabilizers)*
- *Soils with corrosive potential (protective coatings and protection for metal, steel or concrete structures, soil treatment, removal of corrosive soils and proper disposal of any corrosive soils)*
- *Impact to topsoils (netting, and dust control)*
- *The recommendations of the CMP would be incorporated into the project plans and specifications.*

MM GEO-6: *The potential to avoid impacts to previously unrecorded paleontological resources shall be avoided by having a qualified Paleontologist or Archaeologist cross-trained in paleontology, meeting the Society of Vertebrate Paleontology Standards retained as the project paleontologist, with a minimum of a bachelor's degree (B.S./B.A.) in geology, or related discipline with an emphasis in paleontology and demonstrated experience and competence in paleontological research, fieldwork, reporting, and curation. A paleontological monitor, under the guidance of the project paleontologist, shall be present as required by the type of earth-moving activities in the Project, specifically in areas south of Ventura Boulevard that have been deemed areas of high sensitivity for paleontological resources. The monitor shall be a trained paleontological monitor with experience and knowledge of sediments, geologic formations, and the identification and treatment of fossil resources.*

MM GEO-7: *A Paleontological Resources Impact Mitigation Program (PRIMP) shall be prepared by a qualified paleontologist. The PRIMP shall include guidelines for developing and implementing mitigation efforts, including minimum requirements, general fieldwork, and laboratory methods, threshold for assessing paleontological resources, threshold for excavation and documentation of significant or unique paleontological resources, reporting requirements, considerations for the curation of recovered paleontological resources into a relevant institution, and process of documents to Metro and peer review entities.*

MM GEO-8: *The project paleontologist or paleontological monitor shall perform a Workers Environmental Awareness Program training session for each worker on the project site to familiarize the worker with the procedures in the event a paleontological resource is discovered. Workers hired after the initial Workers Environmental Awareness Program training conducted at the pre-grade meeting shall be required to take additional Workers Environmental Awareness Program training as part of their site orientation.*

MM GEO-9: *To prevent damage to unanticipated paleontological resources, a paleontological monitor shall observe ground-disturbing activities including but not limited to grading, trenching, drilling, etc. Paleontological monitoring shall start at full time for geological units deemed to have "High" paleontological sensitivity. Geological units deemed to have "Low" paleontological sensitivity shall be monitored by spot checks. No monitoring is required for geologic units identified as having "No" paleontological sensitivity. "Unknown" paleontological sensitivity is assigned to the less metamorphosed portions of the Santa Monica Slate, as detailed below.*

- *The monitor shall be empowered to temporarily halt or redirect construction efforts if paleontological resources are discovered. The paleontological monitor shall flag an area 50 feet around the discovery and notify the construction crew immediately. No further disturbance in the flagged area shall occur until the qualified paleontologist has cleared the area. In consultation with the qualified paleontologist, the monitor shall quickly assess the nature and significance of the find. If the specimen is not significant, it shall be quickly removed, and the area cleared. In the event paleontological resources are discovered and deemed by the project paleontologist to be scientifically important, the paleontological resources shall be recovered by excavation (i.e., salvage and bulk sediment sample) or immediate removal if the resource is small enough and can be removed safely in this fashion without damage to the paleontological resource. If the discovery is significant, the qualified paleontologist shall notify Metro immediately. In consultation with Metro, the qualified paleontologist shall develop a plan of mitigation, which will likely include salvage excavation and removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation of the find in a local qualified repository, and preparation of a report summarizing the find.*
- *Generally, geologic units that have endured metamorphic processes (i.e., extreme heat and pressure over long periods of time) do not contain paleontological resources. The Santa Monica Slate, originally a fossiliferous shale, has been subjected to various levels of metamorphism and thus, in areas of "low-grade metamorphism," paleontological resources may be discovered. Due to the rarity of paleontological resources dating to the Mesozoic (between approximately 65.5 to 252 million years ago) of Southern California, any such materials have high importance to the paleontology of the region. When encountered, the project paleontologist shall assess the levels of metamorphism that portion of the Santa Monica Slate has experienced. The Santa Monica Slate shall be monitored part time where the project paleontologist has determined lower levels of metamorphism have taken place and the preservation of paleontological resources is possible. If exposures of the Santa Monica Slate have been subjected to high levels of metamorphism (i.e., phyllite components of Jsmp), paleontological monitoring in that portion of the formation is not necessary.*

- *Recovered paleontological resources shall be prepared, identified to the lowest taxonomic level possible, and curated into a recognized repository (i.e., Natural History Museum of Los Angeles County). Bulk sediment samples, if collected, shall be "screen-washed" to recover the contained paleontological resources, which will then be identified to the lowest taxonomic level possible, and curated (as above). The report and all relevant field notes shall be accessioned along with the paleontological resources.*

Impacts After Mitigation

Adherence to existing regulations and implementation of PM GEO-1 and MM GEO-1 would ensure that Alternative 4 remains with less than significant impacts associated with exposing people or structures to seismic ground shaking, including effects related to seismic-related ground failure during construction activities.

Adherence to existing regulations and implementation of PM GEO-1 would ensure that Alternative 4 remains with a less than significant impact associated with the exposure of people or structures to liquefaction during construction activities.

With implementation of PM GEO-1 and adherence to existing regulations, Alternative 4 would have a less than significant impact associated with landslides and/or slope instability during construction activities.

Adherence to existing regulations and policies, and implementation of PM GEO-2 and MM GEO-3 through MM GEO-5, would ensure the maximum practicable protection available for users of buildings and infrastructure and associated trenches, slopes, and foundations. Therefore, Alternative 4 would have a less than significant impact associated with the exposure of people or structures to hazards associated with unstable geologic units or soils.

With implementation of PM GEO-3 and adherence to existing regulations, Alternative 4 would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils.

Possible construction impacts involved with paleontological resources would all be a result of access, staging and lay down areas that would be required for placing the heavy rail track and excavating the tunnel. With implementation of MM GEO-6 through MM GEO-9, impacts to surrounding sediments for staging areas and access pathways for all four of the underground stations that are planned for Alternative 4 (Metro E Line Expo/Sepulveda Station, Santa Monica Boulevard Station, Wilshire Boulevard/Metro D Line Station, UCLA Gateway Plaza Station) would be reduced to less than significant.

7.2.7 Growth Inducing Impacts

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-19.

Table 7-19. Alternative 4: Growth Inducing Impacts Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Growth Inducing Impacts		
Impact GI-1: Would the Project foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternative 4
Impact GI-2: Would the project remove obstructions to population growth … [or] encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025e

GI = growth inducing
LTS = less than significant
NA = not applicable

7.2.7.1 Impact GI-1: Would the project foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment?

Construction of Alternative 4 would result in temporary environmental impacts within the RSA due to the necessary addition of construction workers. However, these workers would likely be sourced from the local labor pool, and thus the temporary employment opportunities for Alternative 4 would not directly foster the construction of permanent housing for workers in the Alternative 4 RSA. Thus, construction of Alternative 4 would result in less than significant impacts related to unplanned population, housing, and employment growth.

Maintenance and Storage Facilities

Construction of the MSF would not construct any new housing units; therefore, the MSF would not generate new or unplanned population and housing growth. Thus, construction of the MSF would result in less than significant impacts related to unplanned population, housing, and employment growth.

7.2.7.2 Impact GI-2: Would the project remove obstructions to population growth … [or] encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively?

Construction of Alternative 4 would result in temporary influxes of construction workers to the Alternative 4 RSA. However, because the Alternative 4 RSA would be within a densely developed region, and because construction workers would likely reside in the wider metropolitan area, construction activities would not induce growth or extend environmental impacts into previously undeveloped areas. Construction activities for Alternative 4 would not remove obstructions to population growth, nor encourage or facilitate other projects that have not already been identified in the SCAG 2024-2050 RTP/SCS, Metro's 2020 LRTP, the 2023 FTIP, or Measure M. Thus, construction of Alternative 4 would result in less than significant impacts related to the removal of obstructions to population growth or encouragement and facilitation of other activities that could significantly affect the environment, either individually or cumulatively.

Maintenance and Storage Facilities

The MSF would be within an urbanized region and would be constructed on a previously developed area. The MSF would not construct any housing units and thus would not generate unplanned population or housing growth. Thus, construction of the MSF would result in less than significant impacts related to the removal of obstructions to population growth or encouragement and facilitation of other activities that could significantly affect the environment, either individually or cumulatively.

7.2.7.3 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

7.2.8 Hazards and Hazardous Materials

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-20.

Table 7-20. Alternative 4: Hazards and Hazardous Materials Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Hazards and Hazardous Materials Construction Impacts		
Impact HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM HAZ-1 through MM HAZ-5
	Impacts After Mitigation	LTS
Impact HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025m

HAZ = hazards and hazardous materials
LTS = less than significant
MM = mitigation measure
NA = not applicable
PS = potentially significant

7.2.8.1 Impact HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction of Alternative 4 could expose the public or the environment to hazardous materials if the following situations occurred: improper handling or use of hazardous materials or hazardous wastes (particularly if used or handled by untrained personnel); transportation accident; environmentally

unsound disposal methods; or fire, explosion, or other emergencies. The severity of potential effects would vary with the activity conducted, the concentration of and type of hazardous material or wastes present, and the proximity of sensitive receptors.

There is an established, comprehensive federal, state, regional, and local framework independent of the CEQA process that is intended to reduce the risks associated with the use, transport, and disposal of hazardous materials. Transportation of hazardous materials on area roadways is regulated by the CHP and Caltrans. The use and disposal of hazardous materials is heavily regulated at both the federal and state level; these regulations are declared and enforced by agencies such as EPA, SWRCB, DTSC, Cal/OSHA, and the SCAQMD. Metro would be required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases. In accordance with the SWRCB and PM HAZ-2, Metro would obtain and comply with an NPDES permit. In addition, coverage under the SWRCB's Construction General Permit would be obtained. As part of the Construction General Permit, the contractor would be required to prepare and implement an SWPPP, which would include BMPs as mandated by PM HAZ-2, including the following and/or similar measure to minimize the risk of accidental spills of hazardous materials during construction.

The types and amounts of hazardous materials would vary according to the nature of the construction activity. Construction of Alternative 4 would require use of typical construction equipment (e.g., gasoline- or diesel-powered machinery) and vehicles containing fuel, oil, and grease, as well as use and transport of these materials. Limited quantities of certain hazardous materials such as paints, solvents, and glues would be used during construction. Construction staging and laydown would occur at multiple locations along the alignment and station sites and could include storage of excavated materials, construction offices, equipment storage, mechanical shops, and plants (grout, water treatment, foam, etc.) (Metro, 2023). There is low likelihood that substantial quantities of hazardous materials would be stored during construction. Moreover, these hazardous materials would not include acutely hazardous materials or substances listed in 40 CFR 355 *Appendix A: Extremely Hazardous Substances and Their Threshold Planning Quantities* that could harm construction workers or the general public.

Whether a person exposed to a hazardous substance suffers adverse health effects as a result of that exposure depends upon a complex interaction of factors, including the following: the exposure pathway (the route by which a hazardous material enters the body); the amount of material to which the person is exposed; the physical form of the hazardous material (e.g., liquid, vapor) and its characteristics (e.g., toxicity); the frequency and duration of exposure; and the individual's unique biological characteristics, such as age, gender, weight, and general health. Adverse health effects from exposure to hazardous materials may be short term (acute) or long term (chronic). Acute effects can include damage to organs or systems in the body and possibly death. Chronic adverse effects, which may result from acute short-term or long-term exposure to a hazardous material, can also include organ or systemic damage, but chronic effects of particular concern include birth defects, genetic damage, and cancer.

Transportation of hazardous materials, such as contaminated soils; hazardous building materials, including asbestos, lead, and PCBs; and other hazardous wastes (i.e., TWW, roadway demolition debris, and hazardous building materials) would occur along designated truck routes within the Alternative 4 corridor and/or along major streets connecting to construction staging areas and the nearest freeways (e.g., I-405, Interstate 10, US-101). Consistent with local plans, truck routes that may be used for transporting and hauling hazardous materials include Van Nuys Boulevard, Ventura Boulevard, Beverly Glen Boulevard, Santa Monica Boulevard, and Bundy Drive. As mandated by PM HAZ-2, transportation of hazardous materials would comply with state regulations governing hazardous materials transport as stated in the California Vehicle Code (Title 13 of the CCR), the State Fire Marshal Regulations (Title 19 of

the CCR), and Title 22 of the CCR. Restrictions on haul routes can be incorporated into the construction specifications according to local permitting requirements.

Contaminated soils, including muck associated with the TBM activities, and hazardous building materials and wastes would be disposed of in accordance with federal, state, and local requirements at the landfills which have potential haul routes. Table 7-21 provides a representative list of the hazardous waste disposal landfills and potential haul routes.

Adherence to federal and state regulations stipulated by PM HAZ-2 reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With compliance with existing regulations, impacts related to the creation of significant hazards to the public or the environment through the routine transport, storage, use, and disposal of hazardous materials during construction of Alternative 4 would be less than significant.

Table 7-21. Alternative 4: Hazardous Waste Disposal Landfills and Potential Haul Routes

Landfill Site Name	Hazardous Waste Accepted	General Potential Haul Route
South Yuma County Landfill 19536 South Avenue 1E Yuma, AZ	Contaminated soil, PCBs, asbestos	I-405 South to SR-91 East to I-15 South to I-8 East to Yuma, Arizona
Clean Harbors Buttonwillow 2500 West Lokern Road Buttonwillow, CA	Acutely hazardous materials[a], contaminated soil, PCBs, asbestos, RCRA waste with heavy metals	I -405 North to I-5 North to SR-58 West to Lokern Road
U.S. Ecology Highway 95 South Beatty, NV	Contaminated soil, PCBs, asbestos	I-405 North to I-10 East to I-15 North to I-95 North to Beatty, Nevada

Source: HTA, 2024

[a]Acutely hazardous materials are defined as waste containing dangerous chemicals that could pose a threat to human health and the environment even when properly managed.

PCB = polychlorinated biphenyls
RCRA = Resource Conservation and Recovery Act

Maintenance and Storage Facilities

The types and amounts of hazardous materials would vary according to the nature of the activity. Construction of the MSF would require use of typical construction equipment (e.g., gasoline- or diesel-powered machinery) and vehicles containing fuel, oil, and grease, as well as use and transport of these materials. Limited quantities of certain hazardous materials such as paints, solvents, and glues would be used during construction.

Adherence to federal and state regulations stipulated by PM HAZ-2 reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With compliance with existing regulations, impacts related to the creation of significant hazards to the public or the environment through the routine transport, storage, use, and disposal of hazardous materials during construction of the MSF would be less than significant.

7.2.8.2 Impact HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction activities for the proposed Project, such as grading and excavation, could result in the exposure of construction personnel and the public to previously unidentified hazardous substances in the soil. Exposure to unanticipated hazardous substances could occur from previously unidentified soil contamination caused by the contaminants originating at nearby listed sites (e.g., roadways and industrial uses). Or from construction-related soil contamination caused by spillage and/or mixing of construction trash and debris into the soil. EDR searched various regulatory databases and identified several sites in the surrounding area as being contaminated or having the potential to become contaminated from the release of hazardous substances. In addition, the eastern portion of the plume is depicted as moving south, just east of Alternative 4 (ICF, 2022b). A summary and details of these sites are presented in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m). Exposure to hazardous materials during construction activities could occur as a result of any of the following:

- Direct dermal contact with hazardous materials
- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking)
- Inhalation of airborne dust released from dried hazardous materials

If any unidentified sources of contamination are encountered during demolition, grading, or excavation, the removal activities required could pose health and safety risks capable of resulting in various short-term or long-term adverse health effects in exposed persons. The risks are particularly heightened during tunneling activities, which would involve deeper excavation and may encounter legacy contamination or naturally occurring hazardous materials that are less likely to be present near the surface.

If tunneling is advanced through contaminated soil or groundwater, the excavated soil/slurry mix could be considered hazardous, depending on the levels of contamination encountered. Potentially affected parcels within one-quarter mile of Alternative 4 may have subsurface contamination from undocumented releases associated with current and/or historical use of the property(ies) (e.g., gas stations, dry cleaners, or industrial properties) (ICF, 2022b). During construction, there is the potential to encounter, dewater, and dispose of contaminated groundwater during ground-disturbing activities, shallow excavation, tunnel boring, excavation for the underground guideway, or relocation of utilities. During construction activities involving ground-disturbing activities, there is potential to encounter contaminated groundwater. This risk is heightened when performing shallow excavations, utilities relocation, or construction that requires dewatering. If contaminated groundwater is encountered, it would be managed and disposed of in compliance with local, state, and federal regulations. This could include treating the contaminated groundwater on-site or offsite or transporting it to a wastewater treatment facility capable of handling hazardous materials.

The Area 4 Pollock OU could potentially extend near the northern portions of Alternative 4 north of Saticoy Street (ICF, 2022b). A historical manufacturing work in the Valley groundwater basin, dating back to World War II, contaminated the groundwater in the region with volatile organic compounds (VOCs), including trichloroethylene (TCE) and tetrachloroethylene (PCE). Use of contaminated groundwater poses the greatest risk at this site. The Valley Area 4 groundwater contamination is being addressed

through the coordination of federal, state and municipal agencies including EPA, DTS, SRWQCB, and Los Angeles Regional Water Quality Control Board (LARWQCB). EPA conducted rounds of indoor sampling in the Atwater Village area (outside of the RSA) and determined that the VOCs migrating from the groundwater did not impact the area. Based on these results, it can be inferred that VOCs would not affect proposed stations under Alternative 4.

The tunnel alignment for Alternative 4 would traverse the methane and methane buffer zones in the southern portion of the alignment. The Santa Monica Boulevard Station and the Wilshire/Metro D Line Station would be within the methane hazard zone. As described in DEIR *Section 3.8.4, Hazards and Hazardous Materials*, methane gas and hydrogen sulfide are highly flammable and can pose challenges during construction, particularly when tunneling activities disturb formations where methane gas and/or hydrogen sulfide may accumulate. The use of a TBM in such areas increase the potential for encountering pockets of methane gas and/or hydrogen sulfide, which could lead to fire or explosion hazards if proper precautions are not taken. Pursuant to Section 91.7104.1 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619) and as outlined in PM HAZ-3, all construction activities within the methane hazard zone would implement the City's methane mitigation measures. These measures include subsurface testing of geological formations, compliance with Methane Mitigation Standards established by the Superintendent of Building, and installation of methane and/or hydrogen sulfide mitigation systems for all underground structures, such as stations and tunnels. During tunneling, monitoring for methane gas and/or hydrogen sulfide concentrations, maintaining ventilation systems to minimize accumulation of gas.

Several high-pressure pipelines containing crude oil traverse the RSA. A review of the PHMSA Pipeline Map Viewer (PHMSA, 2023) indicated there have been no recorded pipeline releases within the RSA. However, Project-related excavation and earthmoving activities could encounter buried pipelines resulting in accidental rupture or leaks, which could cause a human health and environmental hazard. For security reasons, the PHMSA Pipeline Map Viewer (PHMSA, 2023) cannot be used for field verification of exact high-pressure pipeline locations, and the potential presence of other pipelines is unknown. In addition, it is possible buried underground utility lines may be within the RSA such as stormwater, sewer, electrical, or communication cables. In addition, utility relocation could result in TWW that requires disposal.

Construction would require demolition of existing structures. Demolition of structures could potentially expose construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials such as ACM, LBP, or PCBs. Both the federal OSHA and Cal/OSHA regulate worker exposure during construction activities that disturb LBP. Any ACMs, if present, would need appropriate abatement of the identified asbestos prior to demolition pursuant to the SCAQMD Rule 1403 and PM HAZ-4.

Additional effects from construction activities, such as excavation, tunneling, demolition, and grading, could include potential exposure of construction workers and/or the public to chemical compounds present in soils or soil gases. These activities may also result in the localized spread of contamination if disturbed soils or materials are improperly handled, leading to the migration of contaminants to previously uncontaminated areas. In addition, airborne chemical compounds released from construction or demolition areas, such as dust containing hazardous substances, could pose inhalation risks to workers, nearby residents, and the environment. Transportation of contaminated slurry or soils off-site for disposal could also result in accidental releases, such as spills or leaks, if proper containment measures are not implemented. Therefore, construction impacts related to creating a significant hazard

to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials would be potentially significant.

Alternative 4 would be required to implement MM HAZ-1 through MM HAZ-5, which would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling, transporting, and disposing of hazardous materials. Implementation of MM HAZ-1 through MM HAZ-5 would minimize the risk of exposing construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials such as ACM, LBP, or PCBs) during demolition activities. Regulations stipulated by PM HAZ-3 would ensure that the city's methane mitigation measures to reduce the potential exposure of construction workers and the public to methane gas would be implemented Therefore, with implementation of MM HAZ-1 through MM HAZ-5, and adherence to PM HAZ-3, applicable local, state, and federal regulations would reduce impacts related to the upset and accidental release of hazardous materials to a less than significant level.

Maintenance and Storage Facilities

As discussed in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m), operation of stations, guideway, and MSF would involve the use of small amounts of hazardous substances such as oil, grease, solvents, paints, and common cleaning materials. None of these substances would be acutely hazardous. No activities are proposed that would result in the use or discharge of unregulated hazardous materials. Storage and disposal of hazardous materials and waste would be conducted in accordance with all federal and state regulatory requirements as mandated by PM HAZ-1, that are intended to prevent or manage hazards, and if a spill does occur, it would be remediated accordingly.

Construction activities for the proposed Project, such as grading and excavation, could result in the exposure of construction personnel and the public to previously unidentified hazardous substances in the soil. Exposure to unanticipated hazardous substances could occur from previously unidentified soil contamination caused by the contaminants originating at nearby listed sites (e.g., roadways and industrial uses). Or from construction-related soil contamination caused by spillage and/or mixing of construction trash and debris into the soil. EDR searched various regulatory databases and identified several sites in the surrounding area as being contaminated or having the potential to become contaminated from the release of hazardous substances. A summary and details of these sites are presented in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m). Exposure to hazardous materials during construction activities could occur as a result of any of the following:

- Direct dermal contact with hazardous materials
- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking)
- Inhalation of airborne dust released from dried hazardous materials

If any unidentified sources of contamination are encountered during demolition, grading, or excavation, the removal activities required could pose health and safety risks capable of resulting in various short-term or long-term adverse health effects in exposed persons.

Construction would require demolition of existing structures. Demolition of structures could potentially expose construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials (such as ACM, LBP, or PCBs). Both

the federal OSHA and Cal/OSHA regulate worker exposure during construction activities that disturb LBP. Any ACMs, if present, would need appropriate abatement of the identified asbestos before demolition begins, pursuant to the SCAQMD Rule 1403 and PM HAZ-4.

Additional effects could include the potential exposure of construction workers and/or the public to chemical compounds in soils, and soil gases; potential localized spread of contamination; potential exposure of workers, the public, and the environment to airborne chemical compounds migrating from the construction or demolition areas; and potential accidents during transportation of contaminated slurry or soils. Therefore, construction impacts related to creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials would be potentially significant.

The MSF would be required to implement MM HAZ-1 through MM HAZ-4, which would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling hazardous materials and would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials. Therefore, with implementation of MM HAZ-1 through MM HAZ-4, and adherence to applicable local, state, and federal regulations would reduce impacts related to the upset and accidental release of hazardous materials to a less than significant level.

7.2.8.3 Impact HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Construction of Alternative 4 would involve handling of hazardous materials and operation of diesel-powered equipment within 0.25 mile of schools. Such activities, if not appropriately managed, could result in hazardous emissions that would potentially affect nearby schools.

As described throughout the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m), there is an established, comprehensive federal, state, regional, and local framework independent of the CEQA process that is intended to reduce the risks associated with handling of hazardous materials, including transport, use, storage, and disposal. The use and disposal of hazardous materials is heavily regulated at both the federal and state level; these regulations are declared and enforced by agencies such as EPA, the SWRCB and DTSC, Cal/OSHA, and the SCAQMD. By implementing the SWPPP and associated BMPs, as mandated by the SWRCB Construction General Permit and described in PM HAZ-2, construction-related hazardous substances, such as oil and greases, would be managed through appropriate material handling and BMP. In addition, transportation of hazardous materials would comply with state regulations governing hazardous materials transport included in the California Vehicle Code (Title 13 of the CCR), the State Fire Marshal Regulations (Title 19 of the CCR), and Title 22 of the CCR. Cooperation with the corridor cities would occur throughout the construction process. Restrictions on haul routes can be incorporated into the construction specifications according to local permitting requirements as set forth in PM HAZ-2.

Adherence to federal and state regulations reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a faster, more coordinated response to emergencies. By adhering to existing regulations, construction of Alternative 4 would have less than significant

impacts associated with the transportation, use, storage, and handling of acutely hazardous materials within 0.25 mile of an existing school.

Maintenance and Storage Facilities

The MSF is not located within 0.25 miles of a school. Therefore, the MSF would have no impact related to emissions of hazardous materials within 0.25 miles of a school.

7.2.8.4 Impact HAZ-4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Alternative 4 includes 48 LUST sites that are identified on the Cortese List as having confirmed releases of hazardous materials, including petroleum hydrocarbons, VOCs, and metals to soil and groundwater. These sites are identified in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m). The LUST sites have been remediated and are classified as closed by the regulatory agency. Sites listed as sites are listed as "Closed" signify that they have been remediated to the satisfaction of the agency with oversight. Based on the regulatory status of case closed, these sites are not anticipated to have a negative environmental impact on the project site. Alternative 4 is located on a site that is included on one or more hazardous materials lists compiled in accordance with Government Code Section 65962.5. With adherence to existing regulations, Alternative 4 would not create or result in a significant hazard to people or the environment, and the Alternative 4 would result in a less than significant impact.

Maintenance and Storage Facilities

The hazardous site conditions for the MSF related to Government Code Section 65962.5, commonly known as the Cortese List, are associated with contaminated soils, and these sites are listed as "Closed," which signifies that they have been remediated to the satisfaction of the agency with oversight (refer to the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* [Metro, 2025m]). Based on the regulatory status of case closed, these sites are not anticipated to have a negative environmental impact on the project site. With adherence to existing regulations, MSF would not create or result in a significant hazard to people or the environment, and the MSF would result in a less than significant impact.

7.2.8.5 Impact HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

According to the Van Nuys Airport Plan for the Van Nuys Airport and the Los Angeles County ALUP for the Santa Monica Municipal Airport, staging area for Alternative 4 would be located within the Van Nuys Airport AIA. During construction, a 55-acre temporary staging area would potentially be located north of the Van Nuys Airport, north of Roscoe Boulevard, and within the AIA and a 7-acre temporary staging area would potentially be located north of the Santa Monica Airport runway and within the AIA. Staging areas are used principally for the operation of contractors' equipment, receipt of deliveries and storage of materials, site offices as well as other construction activities such as maintenance, parking, and removal of spoils. There would be no other construction equipment or activities that could penetrate

the Airspace Protection Zone or create or cause visual, electronic, or wildlife hazards. There are no safety compatibility policies related to temporary construction staging.

Construction of Alternative 4 would comply with CFR Title 14 Part 77.13 which requires that any construction or alterations to structures that exceed 200 feet in height above ground level must notify the FAA for project approval. Construction activities would be temporary. Adherence to existing local, state, and federal regulations would ensure that during construction of Alternative 4, impacts associated with potential aviation hazards remain less than significant.

Maintenance and Storage Facilities

The MSF would be approximately 2.6 miles from the Van Nuys Airport and outside the airport's AIA. Because the MSF would be outside of the AIA, there are no airport land use plans applicable to the MSF. Thus, construction of the MSF would have no impact with respect to safety hazards for people residing or working in the project area.

7.2.8.6 Mitigation Measures

Construction Impacts

Project Measures

The following project measures are design features, BMP, or other measures required by law and/or permit approvals. These measures are components of the Project and are applicable to Alternative 4.

PM HAZ-2: *Construction BMPs shall include but not be limited to:*

- *The Project shall be required to obtain permits before construction begins and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases in accordance with the U.S. Environmental Protection Agency, State Water Resources Control Board, Department of Toxic Substances Control, California Division of Occupational Safety and Health, and the South Coast Air Quality Management District.*
- *The Project shall develop a Stormwater Pollution Prevention Plan in accordance with the State Water Resources Control Board's Construction Clean Water Act Section 402 General Permit conditions, and subject to regular inspections by applicable jurisdiction(s) to ensure compliance. The Stormwater Pollution Prevention Plan shall include specifications for, but not be limited to, the following:*
  - *Maintain proper working conditions for vehicles and equipment to minimize potential fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials.*
  - *Conduct servicing, refueling, and staging of construction equipment only at designated areas where a spill would not flow to drainages. Conduct equipment washing, if needed, only in designated locations where water would not flow into drainage channels.*
  - *Implement drainage best management practices to protect water quality (such as oil/water separators, catch basin inserts, storm drain inserts, media filtration, and catch basin screens).*

  - *Report hazardous spills to the designated Certified Unified Program Agency (i.e., Los Angeles County Fire Department Health Hazardous Materials Division or Santa Fe Springs Department of Fire-Rescue) and implement clean up immediately and proper disposal of contaminated soil at a licensed facility.*
  - *Establish properly designed, centralized storage areas to keep hazardous materials fully contained.*
  - *Keep spill cleanup materials (e.g., rags, absorbent materials, and secondary containment) properly stored and contained at the work site when handling materials.*
  - *Implement monitoring program by the construction site supervisor that includes both dry and wet weather inspections.*

- *Transportation of hazardous materials by the Project shall comply with state regulations governing hazardous materials transport included in the California Vehicle Code (Title 13 of the California Code of Regulations), the State Fire Marshal Regulations (Title 19 of the California Code of Regulations), and Title 22 of the California Code of Regulations. These regulations include the following :*
  - *Require all motor carrier transporters of hazardous materials to have a Hazardous Materials Transportation license issued by the California Highway Patrol.*
  - *Require the transport of hazardous materials via routes with the least overall travel time.*
  - *Prohibit the transport of hazardous materials through residential neighborhoods.*
  - *Require transporters to take immediate action to protect human health and the environment in the event of spill, release, or mishap.*
  - *Incorporate restrictions on haul routes into the construction specifications according to local permitting requirements.*
- *Contaminated soils and hazardous building materials and wastes shall be disposed of in accordance with federal, state, and local requirements at landfills serving Los Angeles County. The removal and disposal of hazardous building materials shall be the responsibility of a California Division of Occupational Safety and Health-certified contractor in accordance with South Coast Air Quality Management District Rule 1403 (Asbestos Emissions from Renovation/Demolition Activities).*
- *Traffic control during construction shall follow local jurisdiction guidelines. For specialized construction tasks, it may be necessary to work during nighttime hours to minimize traffic disruptions.*

PM HAZ-3: *Construction best management practices for activities within methane hazard zones shall include, but not be limited to, the following:*

- *Pursuant to Section 91.7104.1 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619), site testing of subsurface geological formations shall be conducted by a Project-approved testing agency under the supervision of a licensed architect or registered engineer or geologist. The licensed architect or registered engineer or geologist shall indicate the testing instruments used and testing procedure followed. The testing procedure shall meet the Methane Mitigation Standards established by the Superintendent of Building.*
- *All paving work and building construction within the methane zone or methane buffer zone as defined by Los Angeles Department of Building and Safety shall be required to comply with Methane Mitigation Standards established by the Superintendent of Building as well as the requirements outlined in Sections 91.7103 and 91.7104 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619).*
- *All buildings located in the Methane Zone shall provide a methane mitigation system as required by Los Angeles Municipal Code Table 71 in Section 91.7104.2 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619) based on the appropriate Site Design Level. The Superintendent of Building may approve an equivalent methane mitigation system designed by an Architect, Engineer, or Geologist.*

PM HAZ-4: *Construction best management practices for demolition of existing structures shall include, but shall not be limited to, the following:*

- *Both the federal Occupational Safety and Health Administration and California Division of Occupational Safety and Health regulate worker exposure during construction activities that disturb lead-based paint. Any asbestos-containing materials, if present, shall require appropriate abatement of identified asbestos prior to demolition pursuant to South Coast Air Quality Management District Rule 1403.*
- *Polychlorinated biphenyls (PCB)-containing fluorescent light fixtures and electrical transformers that are not labeled "No PCBs" shall be assumed to contain polychlorinated biphenyls and shall be removed prior to demolition activities and shall be disposed of by a licensed and certified polychlorinated biphenyls removal contractor, in accordance with local, state, and federal regulations. The removal and disposal of the electrical transformers shall be the responsibility of the utility owner in accordance with all standards and practices.*

PM HAZ-5: *Construction best management practices for the areas with known or previously undiscovered hazardous materials shall include, but not be limited to, the following:*

- *The Project shall hire a qualified professional to sample soil suspected of contamination (obvious signs of contamination includes indicators such as odors, stains, or other suspect materials) for the purpose of classifying material and determining disposal requirements before construction begins. If excavated soil is suspected or known to be contaminated, the Project shall:*

  - *Segregate and stockpile the excavated material in a way that shall facilitate measurement of the stockpile volume.*
  - *Spray the stockpile with water or a South Coast Air Quality Management District-approved vapor suppressant and cover the stockpile with a heavy-duty plastic (i.e., Visqueen) to prevent soil volatilization in the atmosphere or exposure to nearby workers per South Coast Air Quality Management District Rule 1166.*

- *Existing groundwater monitoring wells shall remain under ongoing groundwater investigations associated with off-site sources.*

Mitigation Measures

MM HAZ-1: ***Phase II Environmental Site Assessment.*** *Prior to the issuance of a grading permit and before any substantial ground disturbance occurs on or near the properties with documented releases, the Project shall hire a qualified environmental professional to conduct a Phase II Environmental Site Assessment to determine the potential presence of petroleum hydrocarbons, metals, and volatile organic compounds in soil and/or groundwater.*

- *If the Phase I Environmental Site Assessment identifies any recognized environmental conditions or other indicators of potential contamination, a Phase II Environmental Site Assessment shall be conducted. The Phase II Environmental Site Assessment shall include sufficient soil and groundwater sampling and laboratory analysis to identify the types of chemicals and their respective concentrations. The Phase II Environmental Site Assessment shall compare soil and groundwater sampling results against applicable environmental screening levels developed by the Los Angeles Regional Water Quality Control Board and/or Department of Toxic Substances Control. If the Phase II Environmental Site Assessment identifies contaminant concentrations above the screening levels, a site-specific Soil and Groundwater Management Plan shall be prepared and implemented as described in MM HAZ-2. The Project shall consult with the Department of Toxic Substances Control, California Environmental Protection Agency, and/or other appropriate regulatory agencies to ensure sufficient minimization of risk to human health and the environment is completed.*

MM HAZ-2: ***Soil and Groundwater Management Plan.*** *Prior to the issuance of a grading permit, a site-specific Soil and Groundwater Management Plan shall be prepared by a qualified professional environmental contractor to address handling and disposal of contaminated soil and groundwater prior to demolition, excavation, and construction activities.*

- *The Project shall implement the Soil and Groundwater Management Plan during construction activities. The Soil and Groundwater Management Plan shall specify all necessary procedures to ensure the safe handling and disposing of excavated soil, groundwater, and/or dewatering effluent in a manner that is protective of human health and in accordance with federal and state hazardous waste disposal laws, and with state and local stormwater and sanitary sewer requirements. At a minimum, the plan shall include the following:*

- *Identification and delineation of contaminated areas and procedures for limiting access to such areas to properly trained personnel.*
- *Step-by-step procedures for handling, excavating, characterizing, and managing excavated soils and dewatering effluent, including procedures for containing, handling, and disposing of hazardous waste; procedures for containing, handling, and disposing of groundwater generated from construction dewatering; the method used to analyze excavated materials and groundwater for hazardous materials likely to be encountered at specific locations; appropriate treatment and/or disposal methods. Removal of soil and materials shall be performed by a licensed engineering contractor with a Class A license and hazardous-substance removal certification.*
- *Requirements to water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, and staging.*
- *Requirements to cover or maintain at least 2 feet of free board space on haul trucks transporting soil or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.*
- *Requirements to use wet power vacuum street sweepers to remove any visible track out mud or dirt onto adjacent public roads at least once a day. Use of dry powered sweeping is prohibited.*
- *Procedures for handling volatile organic compound-contaminated soil, including, but not limited to, segregating volatile organic compound-contaminated stockpiles from non-volatile organic compound-contaminated stockpiles, spraying volatile organic compound-contaminated soil stockpiles with water and/or approved vapor suppressant and covering them with plastic sheeting for all periods of inactivity lasting more than 1 hour, conducting a daily visual inspection of all covered volatile organic compound-contaminated soil stockpiles to ensure the integrity of the plastic covered surfaces, and removing contaminated soil from an excavation or grading site within 30 days from the time of excavation to a licensed facility.*
- *Procedures for notification and reporting, including notifying and reporting to internal management and to local agencies.*
- *Minimum requirements for site-specific Health and Safety Plans to protect the general public and workers in the construction area. Prior to the issuance of grading permits, the Soil and Groundwater Management Plan and the results of environmental sampling shall be provided to contractors who shall be responsible for developing their own construction worker Health and Safety Plan and training requirements, per MM HAZ-4.*

- *The Project shall hire a qualified environmental professional to sample groundwater suspected of contamination. If any suspected groundwater contamination is encountered during construction, the contractor shall stop work in the vicinity, cordon off the area, and contact the Los Angeles County Metropolitan Transportation Authority who shall immediately notify the Regional Water Quality Control Board. In coordination with the Regional Water Quality Control Board, an investigation and remediation plan shall be developed by a qualified environmental professional in order to protect public health and the environment. Any hazardous or toxic materials shall be disposed of according to local, state, and federal regulations.*
- *Trucking operations shall comply with the California Department of Transportation and any other applicable regulations, and all trucks shall be licensed and permitted to carry the appropriate waste classification. The tracking of dirt by trucks leaving the project site shall be minimized by cleaning the wheels upon exit and cleaning the loading zone and exit area as needed.*

MM HAZ-3: ***Contractor Specifications.*** *The Project shall include in its contractor specifications the following requirement relating to hazardous materials:*

- *During all ground-disturbing activities, the contractor(s) shall inspect the exposed soil and groundwater for obvious signs of contamination, such as odors, stains, or other suspect materials. Qualified personnel shall monitor for volatile organize compounds and other subsurface gases for concentrations exceeding South Coast Air Quality Management District levels with a photoionization detector. Should signs of unanticipated contamination be encountered, work shall be suspended, and the Los Angeles County Department of Public Health shall be notified, and the area secured. Contaminated soil and/or groundwater shall be segregated and characterized, and a site-specific Soil and Groundwater Management Plan, as described under MM HAZ-2, shall be prepared and implemented.*

MM HAZ-4: ***Worker Health and Safety Plan.*** *The contractor shall prepare site-specific Worker Health and Safety Plan to protect the general public and workers in the construction area. The Health and Safety Plan shall be prepared in accordance with California and federal Occupational Safety and Health Administration regulations. Copies of the Health and Safety Plan shall be made available to construction workers for review during their orientation and/or regular health and safety meetings. The Health and Safety Plan shall identify chemicals of concern, potential hazards, worker training requirements, personal protective equipment and devices, decontamination procedures, the need for personal or area monitoring, and emergency response procedures. The Health and Safety Plan shall be amended, as necessary, if new information becomes available that could affect implementation of the plan.*

MM HAZ-5: ***Hazardous Building Survey and Abatement.*** *Prior to demolition activities of any structures, the Project shall retain a California Division of Occupational Safety and Health-certified contractor to determine the presence or absence of building materials or equipment that contains hazardous materials, including asbestos, lead-based paint, and polychlorinated biphenyl-containing equipment. If such substances are found to be present, the contractor shall prepare and submit a workplan to the relevant oversight agency to demonstrate how these hazardous materials would be properly removed and disposed of in accordance with federal and state law, including South Coast Air Quality Management District Rule 1403 (Asbestos Emissions from Renovation/Demolition Activities). The removal and disposal of hazardous building materials shall be the responsibility of a California Division of Occupational Safety and Health-certified contractor. Following completion of removal activities, the Project shall submit documentation to the relevant oversight agency verifying that all hazardous materials were properly removed and disposed of.*

Impacts After Mitigation

Implementation of MM HAZ-1 through MM HAZ-5 would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling hazardous materials, and would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials such as ACM, LBP, or PCBs during demolition activities; thus, impacts would be reduced to less than significant.

7.2.9 Land Use and Development

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-22.

Table 7-22. Alternative 4: Land Use and Development Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Land Use and Development Construction Impacts		
Impact LUP-1: Would the project physically divide an established community?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4
	Impacts After Mitigation	LTS
Impact LUP-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025h

LTS = less than significant
LUP = Land Use and Planning
MM = mitigation measure
NA = not applicable
PS = potentially significant
TRA = transportation

7.2.9.1 Impact LUP-1: Would the project physically divide an established community?

Construction activities for Alternative 4 would not result in permanent physical divisions of established communities. Temporary street detours would be required to accommodate proposed aerial and underground guideway and stations, and I-405 on- and off-ramp construction. A majority of the aerial guideway would be constructed within the roadway along Sepulveda Boulevard and the LOSSAN rail corridor ROWs, and the underground segment would be constructed below the public ROW along Sepulveda Boulevard and the Westwood, Bel-Air, Beverly Crest, and Sherman Oaks communities located within the Santa Monica Mountains. Without mitigation, the temporary street detours and access restrictions during construction could represent a significant impact due to potential access disruptions.

Construction of Alternative 4 would require a raised median along Sepulveda Boulevard in the San Fernando Valley (Valley) to accommodate aerial guideway columns, resulting in the removal of left turns along Sepulveda Boulevard to and from La Maida Street, Valleyheart Drive South, Hesby Street, Hartsook Street, Archwood Street, Hart Street, Leadwell Street, Covello Street, and several driveways. Street and sidewalk closures during construction would temporarily limit property access between established communities. Without mitigation, these temporary closures could still result in significant impacts on community access.

Construction of Alternative 4 would require partial and full construction easements on properties designated as public facilities, heavy manufacturing, residential, industrial, open space, and commercial uses. In Sherman Oaks, construction easements would also be required for multi-family and single-family properties located east of I-405 on Del Gado Drive to support the underground tunnel transition structure and proposed Ventura Station. South of Sherman Oaks, construction easements and encroachment permits would be needed aerial guideway installation, straddle bents, street reconstruction, demolition, and utility relocation. While the properties under these easements and permits would retain their original land use designation and zoning classifications, the temporary use of these properties for construction activities could cause access disruptions that represent a significant impact without mitigation.

The removal of the Willis Avenue Pedestrian Overhead during construction would temporarily affect pedestrian connectivity across the LOSSAN corridor. However, alternative roadways, including Van Nuys Boulevard, Sepulveda Boulevard, and Saticoy Street, would maintain access during this period. Surrounding land uses would remain accessible to vehicle and non-vehicle users via the surrounding roadway, bicycle, and sidewalk network at signalized intersections. Without mitigation, these temporary changes could still result in significant impacts related to access to and from established communities.

To address these potential impacts, Alternative 4 would be required to implement MM TRA-4. which would require preparation and implementation of a TMP to reduce the impacts of construction work zones, provide wayfinding signage to inform the public of reroutes due to closed pedestrian areas and roadways, and require Metro and the contractor to notify and coordinate with surrounding communities regarding the construction schedule. With implementation of MM TRA-4, the potential significant impacts would be reduced to less than significant.

Maintenance and Storage Facilities

Construction activities for the proposed MSF would not create any permanent physical divisions within the surrounding community. Street and sidewalk closures during construction would result in temporary limitations on movement for pedestrians, bicyclists, and vehicles within and between local communities. Without mitigation, these closures could result in significant impacts related to community access.

The *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a) further analyzes the potential impacts on circulation and pedestrian access to adjoining or nearby properties. As discussed in that report, street and sidewalk closures may be required during construction of the proposed MSF that would temporarily limit property access between established communities. These closures would be temporary and periodic. However, without mitigation, these temporary closures could still result in significant impacts related to community access and connectivity.

To address these impacts, the proposed MSF would implement MM TRA-4, which would require preparation and implementation of a construction TMP to minimize disruptions from construction work zones, provide wayfinding signage to inform the public of reroutes, and require Metro and the contractor notify and coordinate with surrounding communities regarding the construction schedule. With implementation of MM TRA-4, the potential significant impacts would be reduced to less than significant.

7.2.9.2 Impact LUP-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Construction of Alternative 4 would require construction easements and encroachment permits for construction, including aerial and underground guideway and station installation, street reconstruction, demolition, construction staging, cut-and-cover construction for the proposed stations, and utility relocation. Construction easements and encroachment permits would vary along the Alternative 4 guideway alignment and proposed stations, depending on the type of construction and adjacent land use.

The properties under construction easements and encroachment permits would retain their original land use designation and zoning classifications. Construction easements and encroachment permits would consist of properties with land use designated as commercial, public facilities, general office, residential, mixed residential and commercial, industrial, vacant, transportation/communications/utilities, and open space and recreation (SCAG, 2024a).

Alternative 4 would require construction easements and encroachment permits for properties located east of the I-405 corridor along Sepulveda Boulevard in the Sherman Oaks neighborhood consisting of single-family and multi-family residential properties. Construction activities include viaducts transversing over the I-405 on- and off-ramps located at Greenleaf Street associated with the Ventura Boulevard Station, aerial structure, and straddle bents.

Construction easements for the tunnel footprint, aerial structure, and straddle bents to support the proposed Ventura Boulevard Station would not conflict with Objective 5-1 of the *Van Nuys-North Sherman Oaks Community Plan,* which sets forth an objective "*to preserve existing open space resources…*", and the *Santa Monica Mountains Comprehensive Plan* Conservation Area (Santa Monica Mountains Comprehensive Commission, 1979).

The priority for the Resource protection Policy within the Conservation Element of the *Santa Monica Mountains Comprehensive Plan* sets forth that: *"the natural resources of the Santa Monica Mountains should be protected. To the extent possible, all development should be compatible with this goal. Conflicts between development and natural resource values should be resolved by giving priority to protecting the resource unless benefits of overriding regional importance would otherwise be lost."* In accordance with the *Santa Monica Mountains Comprehensive Plan* preference for recreational land

uses, Alternative 4 would undergo design review regulation for all major grading projects to be consistent with the *Santa Monica Mountains Comprehensive Plan*.

Construction easements for construction of the tunnel footprint south of Del Gado Drive, and the aerial alignment and stations for the proposed Ventura Boulevard Station in Sherman Oaks under Alternative 4 would not conflict with applicable land use plans, policies, or regulations of the Van Nuys-North Sherman Oaks Community Plan and Santa Monica Mountains Comprehensive Plan. Impacts would be temporary, and properties under construction easements would retain their original land use designation and zoning classifications. As such, construction activities associated with Alternative 4 would not conflict with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the construction of Alternative 4 would result in a less than significant impact.

Maintenance and Storage Facilities

The proposed MSF would require construction easements and acquisition of properties with industrial uses. The parcels within the proposed MSF and in the vicinity are zoned as Light Industrial (City of Los Angeles, 2023a). A significant portion of the proposed MSF is occupied by industrial uses owned by the Copart auto auctions. The construction easements would be temporary, and the properties would retain their original land use designation and zoning classifications. Given the existing industrial uses of the parcels to be acquired and of the parcels in the surrounding area, construction of the proposed MSF would not be considered a change in land use type and would not conflict with adjacent land uses.

The proposed MSF would not create any new land uses that could generate conflicts with land uses adjacent to the alignment, or that would conflict with local land use plans, policies, or regulations; therefore, impacts would be less than significant during construction.

7.2.9.3 Impact AFR-1: Would the project convert Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

There are no land uses for agricultural purposes within the RSA for Alternative 4. Implementation of Alternative 4 during construction activities would not involve changes that could result in conversion of farmland to non-agricultural uses because there are no agricultural uses or farmland within the RSA Alternative 4. Therefore, Alternative 4 would not involve conversion of Prime Farmland, Unique Farmland, or Farmlands of Statewide importance to non-agricultural use, and no impact would occur during construction.

Maintenance and Storage Facilities

The parcels that are part of the proposed MSF are not zoned for agricultural uses. Therefore, the proposed MSF would not involve conversion of Prime Farmland, Unique Farmland, or Farmlands of Statewide Importance to non-agricultural use, and no impact would occur during construction.

7.2.9.4 Impact AFR-2: Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Alternative 4 and surrounding areas within the RSA are neither zoned for agricultural use nor a part of a Williamson Act contract. Implementation of Alternative 4 would not conflict with existing zoning for agricultural use or affect land under a Williamson Act Contract. Therefore, the Alternative 4 would have no impact on agricultural zoning during construction.

Maintenance and Storage Facilities

The parcels that are part of the proposed MSF are not zoned for agricultural uses. Therefore, the proposed MSF would not conflict with existing zoning for agricultural use or affect land under a Williamson Act Contract, and no impact would occur during construction.

7.2.9.5 Impact AFR-3: Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

There are no land uses for agricultural purposes within the RSA for Alternative 4. Implementation of Alternative 4 during construction activities would not involve changes that could result in conversion of farmland to non-agricultural uses because there are no agricultural uses or farmland within the RSA Alternative 4. Therefore, Alternative 4 would not involve conversion of Prime Farmland, Unique Farmland, or Farmlands of Statewide importance to non-agricultural use, and no impact would occur during construction.

Maintenance and Storage Facilities

The parcels that are part of the proposed MSF are not zoned for agricultural uses. Therefore, the proposed MSF would not involve conversion of Prime Farmland, Unique Farmland, or Farmlands of Statewide Importance to non-agricultural use, and no impact would occur during construction.

7.2.9.6 Impact AFR-4: Would the project result in the loss of forest land or conversion of forest land to non-forest land use?

Alternative 4 and the surrounding areas within the RSA are characterized by features typical of the urban landscape. There are no properties zoned as forest land or timberland within the RSA for Alternative 4. According to the USDA Forest Services, the closest designated forest land is the Angeles National Forest located approximately 12.06 miles east of the northern portion of Alternative 4 (USDA, 2023). Implementation of Alternative 4 would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as timberland production, and no impact would occur during construction.

Maintenance and Storage Facilities

The parcels that are part of the proposed MSF are not zoned as forest lands or timberland. Therefore, the proposed MSF would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

7.2.9.7 Impact AFR-5: Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Alternative 4 and surrounding areas within the RSA are characterized by features typical of the urban landscape. Implementation of Alternative 4 would not involve changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use. There are no agricultural uses, farmland, or forest land within or in close proximity to the RSA for Alternative 4. Therefore, there would be no impact associated with conversion of farmland or forest land during construction.

Maintenance and Storage Facilities

The parcels that are part of the proposed MSF are not zoned as agricultural land, forest lands, or timberland. Therefore, the proposed MSF would not result in conversion of farmland or forest land, and no impact would occur during construction.

7.2.9.8 Mitigation Measures

Construction Impacts

Implementation of MM TRA-4 would ensure that construction of Alternative 4 would not divide an established community.

The following mitigation measures would be implemented for Alternative 4:

MM TRA-4 *The project contractor shall prepare a Transportation Management Plan to facilitate the flow of traffic and transit service in and around construction zones. The Transportation Management Plan shall include, at minimum, the following measures:*

- *Where feasible, schedule construction-related travel (i.e., deliveries, hauling, and worker trips) during off-peak hours and maintain two-way traffic circulation along affected roadways during peak hours. Avoid the closure of two major adjacent streets where feasible.*
- *Designated routes for project haul trucks shall primarily utilize the I-405, I-10, US-101 corridors. Throughout the construction process, these routes shall be coordinated with the City of Los Angeles and Veterans Affairs to ensure consistency with land use and mobility plans. Additionally, the routes shall be situated to minimize noise, vibration, and other possible impacts.*
- *Develop detour routes to facilitate traffic movement through construction zones without significantly increasing cut-through-traffic in adjacent residential areas.*
- *Where construction encroaches on the Los Angeles-San Diego-San Luis Obispo rail corridor right-of-way, coordinate construction activities with Union Pacific, Metrolink, and Amtrak to minimize disruptions to service and coordinate on outreach to inform passengers of service impacts. Provide temporary parking and drop-off facilities at the Van Nuys Metrolink/Amtrak Station to minimize passenger impacts.*
- *Develop and implement an outreach program and public awareness campaign in coordination with Caltrans, the City of Los Angeles, the City of Santa Monica, and the County of Los Angeles to inform the general public about the construction process and planned roadway closures, potential impacts, and mitigation measures, including temporary bus stop relocation.*
- *Where feasible, temporarily restripe roadways to maximize the vehicular capacity at locations affected by construction closures.*
- *Provide wayfinding signage, lighting, and access to specify pedestrian safety amenities (such as handrails, fences, and alternative walkways) during construction.*

- *Where construction encroaches on pedestrian facilities, special pedestrian safety measures shall be used, such as detour routes and temporary pedestrian barricades.*
- *Where construction encroaches onto the University of California, Los Angeles campus, the project contractor shall ensure that access to campus buildings is maintained through temporary decking and the construction of temporary stairs and ramps.*
- *During final design, the project contractor shall coordinate with Metro Operations to minimize construction impacts on existing Metro rail operations in and around existing stations. Where construction results in the interruption of Metro rail operations, buses shall provide temporary service between rail stations.*
- *Provide on-street bicycle detour routes and signage to address temporary effects to bicycle circulation and minimize inconvenience (e.g., lengthy detours) as to minimize users potentially choosing less safe routes if substantially rerouted.*
- *During final design, the project contractor shall coordinate with first responders and emergency service providers to minimize impacts on emergency response. Coordination efforts shall include the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing.*
- *Maintain customer and delivery access to all operating businesses near construction work areas. Access shall be maintained to allow for reasonable business operations, including clear signage for alternate routes, temporary driveways, or entry points as necessary. Coordination with businesses shall be conducted to address specific access needs and minimize disruptions, ensuring that any restrictions are communicated in advance and alternative arrangements are provided as appropriate.*

Impacts After Mitigation

Regarding Impact LUP-1, implementation of MM TRA-4 would require preparation and implementation of a TMP during construction to minimize disruptions caused by construction activities of each of the project alternatives. The TMP would facilitate the flow of traffic and transit service in and around construction zones, ensuring access to and from established communities is maintained. With implementation of MM TRA-4, construction impacts associated with Alternative 4 under Impact LUP-1 would be reduced to than significant.

7.2.10 Noise and Vibration

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-23.

Table 7-23. Alternative 4: Noise and Vibration Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Noise and Vibration Construction Impacts		
Impact NOI-1: Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established by the Federal Transit Administration?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM NOI-4.2
	Impacts After Mitigation	SU
Impact NOI-2: Would the project result in generation of excessive groundborne vibration or groundborne noise levels?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM VIB-4.2
	Impacts After Mitigation	SU
Impact NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025j

MM = mitigation measure
NA = not applicable
NOI = noise
NI = no impact
PS = potentially significant
SU = significant and unavoidable
VIB = vibration

7.2.10.1 Impact NOI-1: Would the project cause generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction of Alternative 4 would include various phases that would involve the use of construction equipment at specific locations along the proposed alignment. Construction noise levels from Alternative 4 were predicted in terms of 8-hour L_{eq} for each phase of construction based upon the number and types of off-road construction equipment to be employed during the given phase. Table 7-24 shows the results of the construction noise predictions at a reference distance of 50 feet from construction activities and at the nearest sensitive receptors.

The FTA has provided guidance for assessing construction noise associated with transit projects. The criteria are based upon an 8-hour L_{eq}. For residential uses, the threshold is 80 dBA for daytime construction and 70 dBA for nighttime construction. Commercial uses are held to an 85-dBA daytime and nighttime noise construction threshold, while industrial uses are held to a 90-dBA daytime and nighttime construction noise threshold. For the purposes of this analysis, FTA's detailed assessment construction noise limit criteria of 8-hour L_{eq} have been applied.

Table 7-24 is a summary of expected construction noise levels at locations of nearest noise-sensitive receptors to each construction activity. Additional details regarding construction equipment and noise levels by phase are included in Attachment 10 of the *Sepulveda Transit Corridor Project Noise and Vibration Technical Report* (Metro, 2025j). Construction noise would range from 8-hour L_{eq} noise levels of approximately 66 to 102 dBA at the nearest sensitive receptors. A TBM would be required for

tunneling underground segments of Alternative 4, but it would not generate aboveground noise. As shown in Table 7-24, construction activities would result in noise levels that exceed the FTA 80-dBA daytime and 70-dBA nighttime 8-hour L_{eq} thresholds for residential land uses.

The construction noise contours are depicted graphically in DEIR *Section 3.11, Noise and Vibration*, which represent the noise levels that could potentially occur along the entirety of the alignment. Construction noise contours are only included for aboveground construction activities because activities such as tunnelling would not generate noise at aboveground receptors. The noisiest phase of construction is used to depict the contours. An interval of 5 dBA is used for each contour and each contour was calculated based on the distance at which noise would decrease by 5 dBA, starting at a noise level of 90 dBA L_{eq} to 70 dBA L_{eq}. The 90 dBA L_{eq} noise level is representative of the FTA daytime and nighttime construction noise threshold for industrial uses. The 70 dBA L_{eq} contour shows the areas where construction noise levels would exceed the nighttime construction noise threshold for residential uses. The 90 dBA contour covers areas within a distance of 80 feet from the nearest construction activity. The 70 dBA L_{eq} contour extends to a maximum distance of 793 feet. The construction noise contours do not include noise reductions that may occur as a result of terrain or intervening structures. As an example of how to read the contours, the figures show that within the first contour of 80 feet (shown in dark purple), the calculated construction noise levels may be above 90 dBA L_{eq}. At the next distance of 141 feet (shown in light purple), noise levels would decrease to approximately 85 dBA L_{eq}.

Pile driving may be required for installation of retaining walls or potentially at TBM launch locations. Impact or vibratory piledrivers are the most noise intensive construction equipment that could result in elevated noise levels above typical construction methods. It is unknown at this stage of design if pile driving would be the required construction method which is dependent on soil type. Typically, where possible, piles are drilled which is a quieter method of pile installation such as CIDH. For instance, foundations for the aerial guideway are proposed to be constructed using CIDH instead of impact driven piles. Impact pile driving generates an hourly noise level of approximately 94.3 dBA L_{eq} at 50 feet, vibratory pile driving generates an hourly noise level of 93.8 dBA $L_{eq,}$ at 50 feet and CIDH generates an hourly noise level of approximately 77.4 dBA L_{eq} at 50 feet. Vibratory pile driving is approximately 0.5 dBA quieter than impact pile driving and CIDH is approximately 16.9 dBA quieter. To reduce noise levels where piles may be required, MM NOI-4.2 would require impact pile driving to be avoided where possible and to use drilled or vibratory piles where feasible. Soil improvements such as grouting injection would be required for cut-and-cover construction to stabilize soils. Soil improvement activity would typically require drilling equipment and pumping equipment to inject the grout into the soil. A noise level of 90 dBA 8-hour $L_{eq\_}$ at 50 feet reflects equipment required for cut-and-cover construction, which is shown in Table 7-24. as “Support of Excavation.”

Table 7-24. Alternative 4: Estimated Construction Noise Levels

Construction Phase	L_{eq} (dBA) at 50 feet	L_{eq} (dBA) at Nearest Receptors	Exceeds 80-dBA 8-Hour L_{eq} Daytime Threshold	Exceeds 70-dBA 8-Hour L_{eq} Nighttime Threshold
Segment 1 (Southern Terminus)				
Demolition/Site Preparation	88	86	Yes	Yes
Launch Box Support of Excavation	90	88	Yes	Yes
Launch Box Excavation	87	85	Yes	Yes
Launch Box Concrete Work	86	84	Yes	Yes
Tunnel Boring Machine Mobilization	86	84	Yes	Yes

Construction Phase	L_{eq} (dBA) at 50 feet	L_{eq} (dBA) at Nearest Receptors	Exceeds 80-dBA 8-Hour L_{eq} Daytime Threshold	Exceeds 70-dBA 8-Hour L_{eq} Nighttime Threshold
Segment 3-Aerial Guideway				
Demolition/Site Preparation	88	96	Yes	Yes
Foundation (CIDH)	94	102	Yes	Yes
Columns	87	95	Yes	Yes
Bent Caps	87	95	Yes	Yes
Assemble Gantry	85	93	Yes	Yes
Segmental Girders	87	93	Yes	Yes
Demobilize Gantry	85	93	Yes	Yes
Guideway Trackwork	87	93	Yes	Yes
Systems Installation	85	91	Yes	Yes
Paving	88	96	Yes	Yes
Ventura Station Staging Area				
Demolition/Site Preparation	88	72	No	Yes
Laydown Activity	82	66	No	No
Underground Stations				
Demolition/Site Preparation	88	90	Yes	Yes
Support of Excavation	90	92	Yes	Yes
Box Excavation	87	89	Yes	Yes
Tunnel Boring Machine Pass-Through Maintenance	80	82	Yes	Yes
Station Structural Concrete	88	90	Yes	Yes
Fit Out and Completion	85	87	Yes	Yes
Paving/Architectural Coatings	86	88	Yes	Yes
Aerial Stations				
Demolition/Site Preparation	88	80	Yes	Yes
Foundations and Columns	91	83	Yes	Yes
Bent Cap Installation	86	78	No	Yes
Girder Installation/Station Fit Out	88	80	Yes	Yes
Paving/Architectural Coatings	86	78	No	Yes
Traction Power Substation Construction				
Site Preparation-Traction Power Utilities	80	72	No	Yes
Grounding-Foundations	80	72	No	Yes
TPSS Installation	80	72	No	Yes
Site Restoration	82	74	No	Yes
Maintenance and Storage Facility Construction				
Demolition	89	93	Yes	Yes
Site Preparation	87	91	Yes	Yes
Grading	89	93	Yes	Yes
Building Construction	84	76	No	Yes
Paving	88	92	Yes	Yes
Architectural Coating	77	69	No	No
Test Track	81	85	Yes	Yes
Pre-Cast Yard				
Concrete Activity	89	93	Yes	Yes

Construction Phase	L_{eq} (dBA) at 50 feet	L_{eq} (dBA) at Nearest Receptors	Exceeds 80-dBA 8-Hour L_{eq} Daytime Threshold	Exceeds 70-dBA 8-Hour L_{eq} Nighttime Threshold
North and South Construction Work Zone Staging Area				
Staging Activity	85	85	Yes	Yes

Source: HTA, 2024

CIDH = cast-in-drilled-hole
dBA = A-weighted decibel
L_{eq} = equivalent noise level
* Variation in noise levels for this phase are due to variation in number of equipment used for different segments.

Alternative 4 would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and, where applicable, the standards established by the local noise ordinances. While MM NOI-4.2 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

Regarding health effects of noise, it is unlikely for construction noise to result in noise-induced hearing loss for persons residing or working near construction zones, as this is an occupational hazard related to working over long periods of time (years) in high noise environments. However, construction noise could increase stress at affected sensitive uses. Nighttime construction could adversely affect sleep for residents living near active construction sites. As required by MM NOI-4.2, if required by the jurisdiction a noise variance would be prepared that demonstrates the implementation of control measures to maintain noise levels below the applicable Federal Transit Administration and local standards. Nonetheless, construction noise could potentially still exceed the FTA nighttime criteria.

Maintenance and Storage Facilities Noise

Construction of the MSF would involve activities such as utility relocation, demolition, excavation, concrete work, utility installation, and paving. As shown in Table 7-24, MSF construction would result in phased noise levels of approximately 77 to 89 dBA, 8-hour L_{eq} at 50 feet. Sensitive receptors adjacent to the MSF site would be potentially exposed to noise levels that would exceed the FTA 80-dBA daytime and 70-dBA nighttime 8-hour L_{eq} thresholds for residential land uses. Construction of the MSF would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and, where applicable, the standards established by the local noise ordinances. The construction noise contours are depicted graphically in DEIR *Section 3.11, Noise and Vibration*. The 90 dBA L_{eq} contours cover areas within a distance of 50 feet from the nearest construction activity. The 70 dBA L_{eq} contours extend to a maximum distance of 500 feet. While MM NOI-4.2 under Alternative 4 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

7.2.10.2 Impact NOI-2: Would the project cause generation of excessive groundborne vibration or groundborne noise levels?

Construction Vibration Impacts on Sensitive Receptors

The primary concern related to vibration during construction is the potential to damage structures. Construction activities, such as pile driving, use of drill rigs, pavement breaking, and the use of tracked vehicles (e.g., bulldozers) and hoe rams, could result in perceptible levels of GBV at sensitive buildings located in close proximity to construction sites. These activities would typically be limited in duration and their vibration levels are likely to be well below thresholds for minor cosmetic building damage. Alternative 4 would also include the use of a TBM along the underground alignment.

Project construction would include a limited number of activities expected to generate vibration that approaches the lowest building damage limit of 0.12 in/sec PPV. Table 7-24 shows the distances at which the 0.12 in/sec PPV, 0.2 in/sec PPV, and 0.3 in/sec PPV thresholds would not be exceeded. For example, use of a drilling rig, hoe ram, or large bulldozer would be safe at distances greater than 22 feet from Category IV buildings. A vibratory roller would be safe at distances greater than 22 feet from Category IV buildings and typical impact pile driver operation would be safe at distances of 79 feet or greater. Typical building construction in an urban setting consists of buildings that are Category II engineered concrete and masonry that have a 0.3 in/sec PPV threshold or Category III non-engineered timber and masonry buildings that have a 0.2 in/sec PPV threshold. Typical construction equipment, such as a large bulldozer, would not exceed the 0.2 in/sec PPV building damage criterion at distances of 18 feet or greater and would not exceed the 0.3 in/sec PPV building damage criterion at distances of 13 feet or greater. A vibratory roller would not exceed the 0.2 in/sec PPV building damage criterion at distances of 32 feet or greater and would not exceed the 0.3 in/sec PPV building damage criterion at distances of 23 feet or greater. An impact pile driver would not exceed the 0.2 in/sec PPV building damage criterion at distances of 67 feet or greater and would not exceed the 0.3 in/sec PPV building damage criterion at distances of 47 feet or greater.

Along the underground alignment of Alternative 4, the TBM would be the main source of GBVs. However, the TBM is slow moving and causes very little vibration and related GBN to the surrounding area when operating at full tunnel depths. The Alternative 4 underground tunnel would be at depths of approximately 30 feet to over 750 feet from the aboveground buildings along the tunnel alignment. In some residential areas, GBV from the TBM may be felt for a short period (about two days) while the machine passes under the receptor locations. In residential areas in the mountain region between Sunset Boulevard and the north tunnel portal, GBV from the TBM would not be perceptible, because the tunnel would be very deep underground. Expected TBM vibration levels would be well below the strictest building damage threshold of 0.12 in/sec along the entire underground alignment. Construction of the proposed Metro E Line and Santa Monica Boulevard Stations along the underground alignment would likely be cut-and-cover construction, which could at times occur within 25 feet of structures, potentially resulting in excessive vibration. The alignment would surface in the Santa Monica Mountains near Del Gado Drive. Between Del Gado Drive and Ventura Boulevard, construction activity could occur at distances of 25 feet or less of adjacent buildings, including single-family residences, multi-family residences, and commercial buildings. Construction activity in this area could result in the exceedance of the FTA building damage or vibration annoyance criteria. North of Ventura Boulevard, construction activity would typically occur within the Sepulveda Boulevard ROW, and nearby buildings would typically be located at distances of 50 feet or greater, thus reducing the potential for vibration damage or annoyance. In some instances, construction activity may occur at closer distances to sensitive buildings or more intense vibration-generating equipment (vibratory roller) may be used, which could result in the

potential to exceed the FTA building damage or vibration annoyance criteria. East of the intersection of Sepulveda Boulevard and Raymer Street, construction activity would primarily occur in the LOSSAN rail corridor that is surrounded by industrial buildings, which would have limited potential for vibration damage and annoyance.

While MM VIB-4.2 would be implemented, which would include vibration-reducing measures, there may still be temporary or periodic increases in vibration levels that exceed FTA construction vibration impact criteria. There are no additional feasible mitigation measures to reduce construction vibration levels. Therefore, impacts related to construction vibration would be significant and unavoidable.

Construction Vibration Impacts on Historic Resources

Construction under Alternative 4 would have the potential to damage historic buildings in close proximity to vibration-intensive construction activities. Using the reference levels in the FTA *Transit Noise and Vibration Impact Assessment Manual* (FTA, 2018), vibration levels from project construction activities were estimated at historic buildings or structures eligible for the National Register of Historic Places along the Alternative 4 alignment. Such buildings are generally classified as extremely susceptible to vibration damage (Building Type IV).

Findings of the construction vibration assessment at historic structures are as follows:

- The following historic buildings are very close to the proposed project construction areas. Most vibration-intensive construction activities at these locations would likely result in levels exceeding the damage criterion of 0.12 in/sec PPV. Special consideration should be made for these buildings in MM VIB-4.2 (Vibration Control Plan).
  - Gayley Center located at 1101 Gayley Avenue, Los Angeles adjoining the proposed Wilshire Boulevard/Metro D Line Station
  - Linde Medical Building located at 10921 Wilshire Boulevard, Los Angeles adjacent to the proposed Wilshire Boulevard/Metro D Line Station
  - Tishman Building located at 10950 Wilshire Boulevard, Los Angeles adjacent to the proposed Wilshire Boulevard/Metro D Line Station
  - Historic building located at 4511 Sepulveda Boulevard, Los Angeles, next to the proposed aerial structure
  - UCLA Ackerman Hall, 308 Westwood Plaza, Los Angeles
- Pile driving at locations along the alignment in the vicinity of the following historic properties would potentially result in GBV levels exceeding the damage criterion of 0.12 in/sec PPV. Therefore, these locations must be addressed in the Vibration Control Plan if pile driving is to occur within 150 feet of the buildings:
  - Historic buildings located at 15300 and 15233 Ventura Boulevard, Sherman Oaks
  - Historic building located at 4700 Sepulveda Boulevard, Sherman Oaks
  - Lt. Patrick H. Daniels United States Army Reserve Center located at 5161 Sepulveda Boulevard, Sherman Oaks
  - Starlight Cottage located at 5450 Sepulveda Boulevard, Sherman Oaks
  - Cathedral of St. Mary Church located at 5335 Sepulveda Boulevard, Sherman Oaks

- Historic building located at 5724 Sepulveda Boulevard, Van Nuys
- Cabana Motel located at 5764 Sepulveda Boulevard, Van Nuys
- El Cortez Motel located at 5746 Sepulveda Boulevard, Van Nuys
- Historic building located at 6160 Sepulveda Boulevard, Van Nuys
- Historic building located at 6833 Sepulveda Boulevard, Van Nuys
- Lancer Lion II Apartments located at 7657 Sepulveda Boulevard, Van Nuys
- Historic building located at 7721 Sepulveda Boulevard, Van Nuys
- The Performing Arts Center located at 7735 Sepulveda Boulevard, Van Nuys
- Historic building located at 6833 Sepulveda Boulevard, Van Nuys
- Historic building located at 14746 Raymer Street, Van Nuys
- Air Raid Siren No. 110 located at the northeast corner of Covello Street and Sepulveda Boulevard
- Air Raid Siren No. 117 on the north side of Oxnard Street just west of Sepulveda Boulevard in Van Nuys

Implementation of MM VIB-4.2 would reduce the potential for damage to occur at historic resources. Vibration levels would be monitored at historic resources to determine if the vibration damage criterion of 0.12 in/sec PPV would be exceeded. A pre-construction and post construction survey would be prepared, and any damage noted and restored per the requirements of SOI's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. Therefore, impacts related to construction vibration at historic resources would be less than significant with mitigation.

Maintenance and Storage Facilities

The nearest existing buildings to the construction of the proposed MSF are buildings within the residential properties along Cohasset Street south of the MSF site which would have a vibration damage risk criterion of 0.2 in/sec PPV (Building Type III). The closest structures within the residential properties are as close as 17 feet from the proposed construction activities. Estimated vibration levels from ballast tamper and caisson drilling would be less than the applicable vibration damage risk criterion for the building type in this area is 0.2 in/sec PPV. The highest vibration levels from construction of the MSF at the closest off-site building would be 0.375 in/sec PPV from the use of a vibratory roller during paving and 0.16 in/sec PPV from a large bulldozer during the grading phase which would exceed the applicable vibration damage risk criterion of 0.2 in/sec. The minimum distance from the south property line of the MSF site at which large vibratory rollers must operate is 26 feet during the construction of the proposed MSF. While MM VIB-4.2 under Alternative 4 would be implemented, which would include vibration-reducing measures, there may still be temporary or periodic increases in vibration levels that exceed FTA construction vibration impact criteria. There are no additional feasible mitigation measures to reduce construction vibration levels. Therefore, impacts related to construction vibration would be significant and unavoidable.

7.2.10.3 Impact NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The Santa Monica Airport and Van Nuys Airport are located within 2 miles of Alternative 4. However, Alternative 4 is a transit project that is not sensitive to noise. Transit riders would not dwell at one location for an extended period of time that would result in exposure to excessive airport noise. Construction workers working on Alternative 4 would utilize ear protection as required while working on the Project. Therefore, no impacts related to airport noise would occur.

7.2.10.4 Mitigation Measures

Construction Impacts

The following mitigation measures would be needed to reduce construction noise and vibration levels to below the applicable limits:

MM NOI-4.2: **Noise *Control Plan:***

- *Prior to the initiation of localized construction activities, the Project contractor shall develop a Noise Control Plan demonstrating how the Federal Transit Administration 8-hour $L_{eq.equip}$ (equivalent noise level of equipment) noise criteria would be achieved during construction. The Noise Control Plan shall be prepared by a board-certified acoustical engineer. The Federal Transit Administration 8-hour $L_{eq.equip}$ construction noise standards are as follows: Residential daytime standard of 80 dBA $L_{eq.equip}$ and nighttime standard of 70 dBA $L_{eq.equip}$, Commercial daytime and nighttime standard of 85 dBA $L_{eq.equip}$, and Industrial daytime and nighttime standard of 90 dBA $L_{eq.equip}$. The Noise Control Plan shall be designed to follow Metro requirements, and shall include measurements of existing noise, a list of the major pieces of construction equipment that would be used, predictions of the noise levels at the closest noise-sensitive receptors (residences, hotels, schools, religious facilities, and similar facilities), and noise mitigation measures to be implemented to achieve compliance with the Federal Transit Administration 8-hour $L_{eq.equip}$ construction noise standards to the degree feasible. The Noise Control Plan must be approved by Metro prior to initiating noise-generating construction activities. The Project contractor shall conduct continuous noise monitoring to demonstrate compliance with the Federal Transit Administration 8-hour $L_{eq.equip}$ noise limits. If the Federal Transit Administration 8-hour $L_{eq.equip}$ criteria are exceeded, the Project contractor shall implement measures to reduce construction noise as much as feasible. The Project contractor shall establish a public information and complaint system. The Project contractor shall respond to and provide corrective action for complaints within 24-hours. In addition, the Project shall comply with local noise ordinances when applicable, including by obtaining a variance(s) from the applicable local jurisdiction when nighttime work is required. Noise reducing methods that may be implemented by the Project contractor include:*
  - *If nighttime construction is planned, a noise variance may be prepared by the Project contractor, if required by the jurisdiction, that demonstrates the*

implementation of control measures to maintain noise levels below the applicable Federal Transit Administration and local standards.

- *Where feasible, minimize nighttime construction.*
- *Utilize specialty equipment equipped with enclosed engines and/or high performance mufflers as feasible. The Project contractor shall locate equipment and staging areas as far from noise-sensitive receptors as possible.*
- *Limit unnecessary idling of equipment.*
- *Install temporary noise barriers as needed where feasible.*
- *Reroute construction related truck traffic away from residential streets to the extent permitted by the relevant municipality.*
- *Avoid impact pile driving where possible. Drilled piles or vibratory pile drivers would be required where feasible.*
- *Where Project construction cannot be performed in accordance with the requirements of the applicable noise limits, the Project contractor shall be required to investigate alternative construction methods that would result in lower sound levels.*

MM VIB-4.2: ***Vibration Control Plan:***

- *Prior to construction, the Project contractor shall prepare a Vibration Control Plan demonstrating how the Federal Transit Administration building damage risk criteria and the Federal Transit Administration vibration annoyance criteria would be achieved. The Vibration Control Plan must be approved by Metro prior to initiating vibration-generating construction activities. The Vibration Control Plan shall include a list of the major pieces of construction equipment that will be used, and the predictions of the vibration levels at the closest sensitive receivers. The Project contractor shall conduct vibration monitoring to demonstrate compliance with the vibration limits during construction activity. Where the construction cannot be performed to meet the vibration criteria, the Project contractor shall implement alternative means and methods of construction measures to reduce vibration levels as much as feasible. Vibration reducing methods that may be implemented by the Project contractor include:*
  - *When feasible, less vibration intensive equipment or techniques near vibration sensitive locations.*
  - *Use as small an impact device (i.e., hoe ram, pile driver) as possible to accomplish necessary tasks.*
  - *Avoid impact pile driving where possible. Drilled piles or vibratory pile drivers will be required where feasible.*
  - *When feasible, in construction areas close to sensitive buildings, select non-impact demolition and construction methods such as saw or torch cutting*

and removal for off-site demolition, and use chemical splitting, or hydraulic jack splitting, instead of high impact methods.

- *The Project contractor shall monitor construction vibration levels at structures identified as a "historic" resource within the meaning of California Environmental Quality Act Guidelines Section 15064.5(a)to ensure the vibration damage threshold of 0.12 in/sec peak particle velocity shall not be exceeded. The vibration monitoring shall be conducted by a qualified professional for real-time vibration monitoring for construction work at the Project construction site requiring heavy equipment or ground compaction devices. A pre-construction and post-construction survey of these buildings shall be conducted by a qualified structural engineer. Any damage shall be noted. All vibration monitors used for these measurements shall be equipped with an "alarm" feature to provide advanced notification that vibration impact criteria have been approached. Documented damage in the post-construction survey shall be repaired as required by the Secretary of the Interior's (SOI's) Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. The following historic resources shall be included in the Vibration Control Plan.*
  - *Gayley Center located at 1101 Gayley Avenue, adjoining the proposed Wilshire Boulevard/Metro D Line Station, Los Angeles*
  - *Linde Medical Building located at 10921 Wilshire Boulevard, Los Angeles adjacent to the proposed Wilshire Boulevard/Metro D Line Station*
  - *Tishman Building located at 10950 Wilshire Boulevard, Los Angeles adjacent to the proposed Wilshire Boulevard/Metro D Line Station*
  - *Historic building located at 4511 Sepulveda Boulevard, Los Angeles, next to the proposed aerial structure*
  - *UCLA Ackerman Hall, 308 Westwood Plaza, Los Angeles*
  - *Historic buildings located at 15300 and 15233 Ventura Boulevard, Sherman Oaks*
  - *Historic building located at 4700 Sepulveda Boulevard, Sherman Oaks*
  - *Lt. Patrick H. Daniels United States Army Reserve Center located at 5161 Sepulveda Boulevard, Sherman Oaks*
  - *Starlight Cottage located at 5450 Sepulveda Boulevard, Sherman Oaks*
  - *Cathedral of St. Mary Church located at 5335 Sepulveda Boulevard, Sherman Oaks*
  - *Historic building located at 5724 Sepulveda Boulevard, Van Nuys*
  - *Cabana Motel located at 5764 Sepulveda Boulevard, Van Nuys*
  - *El Cortez Motel located at 5746 Sepulveda Boulevard, Van Nuys*
  - *Historic building located at 6160 Sepulveda Boulevard, Van Nuys*

- *Historic building located at 6833 Sepulveda Boulevard, Van Nuys*
- *Lancer Lion II Apartments located at 7657 Sepulveda Boulevard, Van Nuys*
- *Historic building located at 7721 Sepulveda Boulevard, Van Nuys*
- *The Performing Arts Center located at 7735 Sepulveda Boulevard, Van Nuys*
- *Historic building located at 6833 Sepulveda Boulevard, Van Nuys*
- *Historic building located at 14746 Raymer Street, Van Nuys*
- *Air Raid Siren No. 110 located at the northeast corner of Covello Street and Sepulveda Boulevard in Van Nuys, and*
- *Air Raid Siren No. 117 on the north side of Oxnard Street just west of Sepulveda Boulevard in Van Nuys*

Impacts After Mitigation

Construction Noise

Project construction would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and where applicable, the standards established by the local noise ordinances. While MM NOI 4.2 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

Construction Vibration

Significant GBV could exceed the FTA vibration damage and vibration annoyance criteria when certain construction activities would occur at close distances to sensitive receptors. While MM VIB-4.2 would be implemented, which would include vibration-reducing measures, there may still be temporary or periodic increases in vibration levels that exceed FTA construction vibration impact criteria. There are no additional feasible mitigation measures to reduce construction vibration levels. Therefore, impacts related to construction vibration would be significant and unavoidable.

7.2.11 Parklands

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-25.

Table 7-25. Alternative 4: Parklands Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Recreation Construction Impacts		
Impact REC-1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? OR	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternative 4
Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?		
Impact REC-2: Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025q

LTS = less than significant
NA = not applicable
NI = no impact
REC = recreation

7.2.11.1 Impact REC-1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Or

Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?

Construction of Alternative 4 would be temporary and would not generate permanent residences that would increase the use of existing parks and recreational facilities resulting in accelerated physical deterioration of the facilities or require the expansion of existing recreational facilities. While construction workers may utilize nearby parks and recreational facilities during lunchtime breaks, such use would be temporary and nominal.

Construction of Alternative 4 would require temporary street detours at proposed underground stations during cut-and-cover activities and during the construction of the aerial viaduct on Sepulveda Boulevard. Although bike lane reductions and street closures would inhibit the flow of bicycle traffic and may require detours, bicycle movements would be maintained during construction. At the underground segments of the Alternative 4 alignment, street detours would be concentrated at areas surrounding proposed underground station boxes and would disrupt bicycle circulation. See *Section 3.15, Transportation*, of this DEIR for discussion related to construction traffic and access. The underground guideway would be constructed using a tunnel boring machine, and therefore, would not disrupt bicycle facilities. Therefore, construction-related impacts to parks and recreational facilities would be less than significant.

Maintenance and Storage Facilities

MSF construction activities would be temporary and would not create new residential populations that would directly increase the use of existing parks, recreational facilities, and bike facilities in the surrounding communities. Therefore, impacts to parklands associated with the MSF site would be less than significant.

7.2.11.2 Impact REC-2: Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Construction of Alternative 4 would be temporary and would not include the construction of recreational facilities or require the expansion of existing recreational facilities. Therefore, no impacts would occur.

Maintenance and Storage Facilities

The proposed MSF site is currently developed as a materials storage site owned by LADWP and an auto storage lot. MSF site construction activities would not include construction of recreational facilities or require the expansion of existing recreational facilities.

No parkland or bicycle facilities are located on or adjacent to the proposed site nor are recreational facilities proposed as part of the MSF. The MSF would not affect on-site, or street parking used by visitors to Andres and Maria Cardenas Recreation Center. The Raymer/Cabrito Pedestrian Bridge would be removed to accommodate the proposed aerial guideway. The MSF construction would not require removal of the Raymer/Cabrito Pedestrian Bridge. Therefore, impacts to park and recreational facilities associated with the MSF would be less than significant.

7.2.11.3 Mitigation Measures

Construction Impacts

Alternative4 would have a less than significant impact; therefore, no mitigation measures would be required.

Impacts After Mitigation

Impacts are less than significant.

7.2.12 Real Estate and Acquisitions

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-26.

Table 7-26. Alternative 4: Real Estate and Acquisitions Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Population, Housing, and Growth Construction Impacts		
Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025i

LTS = less than significant
NA = not applicable
POP = population, housing, and growth

7.2.12.1 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Temporary acquisitions would be required for parcels that would only be used as TCEs. These TCEs would only occupy portions of the affected residential properties as required to support construction vehicle access and would not substantially interfere with the habitability of the impacted residential properties. Therefore, construction activities associated with Alternative 4 would not result in the displacement of any residential dwelling units. Therefore, no impacts related to the displacement of residential units and residents that would necessitate the construction of replacement units would occur as a result of construction.

Construction of Alternative 4 would not displace any residential units. Therefore, no impact would occur during construction.

Maintenance and Storage Facilities

The MSF would not require the acquisition or displacement of any residential property. Therefore, the MSF would have no potential to displace existing people or housing nor necessitate the construction of replacement housing elsewhere. The MSF would have no impact.

7.2.12.2 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; no impacts would occur.

7.2.13 Safety and Security

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-27.

Table 7-27. Alternative 4: Safety and Security Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Safety and Security Construction Impacts		
Impact PUB-1: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered fire protection and emergency response facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the fire protection and emergency response?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact PUB-2: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the police protection?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternative 4
Impact WFR-1: Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4
	Impacts After Mitigation	LTS
Impact WFR-2: Would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM SAF-1, MM SAF-2
	Impacts After Mitigation	LTS
Impact WFR-3: Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM SAF-1, MM SAF-2
	Impacts After Mitigation	LTS
Impact WFR-4: Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025o

LTS = less than significant
MM = mitigation measure
NA = not applicable
PS = potentially significant
PUB = public services
SAF = safety and security
TRA = transportation
WFR = wildfire

7.2.13.1 Impact PUB-1: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered fire protection and emergency response facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the fire protection and emergency response?

Construction of Alternative 4 would potentially temporarily increase demands on fire protection response times as a result of new workers, construction equipment, and construction materials in the RSA as well as periodic construction-related street closures or detours. Temporary lane closures on adjacent streets would occur for construction of the proposed alignment, stations, TPSS sites, and construction staging areas.

Alternative 4 would require partial property acquisition at LAFD Fire Station Number 88 to widen the back of the sidewalk by 4 feet to accommodate the aerial guideway's columns and foundations. Construction of the aerial guideway would require roadway detours on Sepulveda Boulevard to support drilling of the cast-in-drilled-hole foundations, forming and pouring bent columns and bent caps, and placing the precast guideway elements. Additionally, Alternative 4 would install three columns within the existing LAFD Fire Station Number 88 property currently dedicated for landscaping. While the station building would not be physically altered, the sidewalk would be widened and require improvements of two existing driveways serving LAFD Fire Station Number 88. Such construction work

has the potential to be disruptive to the operations of LAFD Fire Station Number 88 and can result in an increase in response times. However, construction work would be temporary and intermittent and would not necessitate the construction of new or physically altered governmental facilities. As discussed in DEIR *Section 3.15.6, Transportation*, under MM TRA-4, a TMP would be prepared and approved in coordination with local fire departments prior to construction, including the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control measures in the TMP during construction to coordinate emergency response routing. Therefore, Metro and the contractor would coordinate with LAFD Fire Station Number 88 when working in proximity.

As outlined in the regulatory framework described in Section 2.2 of the *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Metro, 2025o), Alternative 4 would comply with the provisions set forth under the CCR Title 8 (California Department of Industrial Relations, 2024) and Cal/OSHA (California Department of Industrial Relations, 2023) regulations. Under the Cal/OSHA regulations, the contractor would be required to create a fire prevention plan that identifies potential fire hazards and their proper handling and storage procedures, potential ignition sources (such as welding, smoking and others) and their control procedures, and the type of fire protection equipment or systems that can control a fire involving them. A training program would inform employees of the fire hazards of the materials and processes to which they are exposed. The contractor would review with each worker upon initial assignment those parts of the fire prevention plan that the employee must know to protect the worker in the event of an emergency. The written plan would be kept in the workplace and made available for employee review.

For these reasons, the demand for fire protection during the construction period is anticipated to remain at acceptable levels and would not require new or physically altered fire protection facilities. Therefore, impacts associated with fire protection services would be less than significant during construction activities

Maintenance and Storage Facilities

The construction of the MSF would increase the exposure of occupational hazards to the contractor and MSF employees and therefore increase demand for fire and life safety services when and if emergency circumstances would occur. As outlined in the regulatory framework described in Section 2.2 of the *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Metro, 2025o), Alternative 4 would comply with the provisions set forth under the CCR Title 8 (California Department of Industrial Relations, 2024) and Cal/OSHA (California Department of Industrial Relations, 2023) regulations. However, in any emergency situation, fire department personnel from LAFD Station 81 and Metro Transit Service Bureau officers would respond. Under the provisions of the NFPA 130, the *Emergency Procedure Plan* would be followed in the event of a fire, and Metro would coordinate with local fire protection service providers in advance of any construction activities to preserve emergency access. This includes compliance with the California Fire Code that specifies minimum access requirements for fire apparatus. The risk of fire-related injury would be minimized within the MSF locations through adherence to the requirements of NFPA 101, the CBC, and the Los Angeles City Fire Code. Therefore, impacts associated with fire protection services would be less than significant during construction activities.

7.2.13.2 Impact PUB-2: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the police protection?

Construction of Alternative 4 would increase daytime and nighttime worker populations, which has the potential to increase the need for police services.

Police service agencies in the area — including the LAPD, LASD, UCLA PD, and CHP — allocate funding from tax revenues to maintain adequate staffing levels and response times.

During construction, relevant police service agencies would review Health and Safety Plans for Alternative 4, which include safety measures such as nighttime lighting, clear signage, and pedestrian detour routes. Agencies may also assess fees to support police protection services as needed. Additionally, as discussed in DEIR *Section 3.15.6, Transportation*, Metro standard practices require that lane and roadway closures be scheduled to minimize disruptions, with a TMP prepared and approved in coordination with local police departments prior to construction. The contractor would coordinate with first responders and emergency service providers to minimize any impacts on emergency response. For these reasons, construction of Alternative 4 would not require the construction or expansion of police facilities to maintain service ratios, response times, or other performance objectives. Therefore, the impact would be less than significant.

Maintenance and Storage Facilities

During construction, police services would be provided by LAPD under Metro's existing service agreements with the agency. Metro has contracted the LASD and LAPD Transit Services Division to provide policing services on the Metro system within the City of Los Angeles. Potential impacts would occur if the MSF were to result in unacceptable emergency response times that necessitate the construction or expansion of facilities, where such construction could cause significant environmental impact. The MSF would not require modifications to the adjacent roadways during construction or operations to the degree that would impart delays or affect police protection standards. Therefore, the MSF would not require the need for new or physically altered police protection services.

During construction of the MSF, there would be low potential increase in the demand for police protection services from incidents or emergencies, which could result in an increase in overall response calls within the local jurisdictions. Metro MSFs are typically fenced off and access is restricted. In addition, security cameras and nighttime lighting would be provided. Metro has an established service agreement with the LAPD. Additionally, during construction, relevant police service agencies would review Health and Safety Plans for the MSF. For these reasons, construction of the MSF would not require the construction or expansion of police facilities to maintain service ratios, response times, or other performance objectives. Therefore, the impact would be less than significant.

7.2.13.3 Impact WFR-1: Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

As required by existing regulations, Alternative 4 would be required to provide adequate access for emergency vehicles and equipment during construction activities. The County of Los Angeles identifies Sepulveda Boulevard south of US-101 as a disaster route. Temporary short-term construction impacts on street traffic adjacent to and along Sepulveda Boulevard would occur for Alternative 4 due to

roadway improvements that would provide sufficient space for the proposed guideway, stations, TPPS sites, and construction staging yards. Roadway improvements and the installation of the aerial guideway on Sepulveda Boulevard would result in a reduced number of lanes or temporary closure of roadways. Temporary lane and/or roadway closures, increased truck traffic, and other roadway effects that could slow emergency vehicles or require detours could temporarily increase response times and impede existing services. For specialized construction tasks, it may be necessary to work during nighttime hours to minimize traffic disruptions, and temporary lane or roadway closures impacts would be limited to the construction period of Alternative 4 and would affect only adjacent streets or intersections along Sepulveda Boulevard in the San Fernando Valley.

Construction near LAFD Station 88 would potentially impact emergency response operations times. During construction of the aerial guideway, the contractor would require a traffic detour on Sepulveda Boulevard to drill CIDH foundations, form and pour bent columns and bent caps, place the precast guideway elements, and install raised medians. Such activities in proximity to LAFD Station 88 would be temporary and intermittent. Additionally, as shown in the *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Metro, 2025o), Sepulveda Boulevard is not an established disaster route where LAFD Station 88 is located.

As discussed in the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), under MM TRA-4, a TMP shall be prepared in coordination with local fire and police departments prior to construction, including the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing.

Additionally, as outlined in the regulatory framework described in Section 2.2 of the *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Metro, 2025o), Alternative 4 would comply with the provisions set forth under the CCR Title 8 and Cal/OSHA regulations. Under Cal/OSHA (California Department of Industrial Relations, 2023), the contractor would create an Emergency Action Plan that would cover designated actions that employers and employees must take to ensure employee safety from fire and other emergencies. The following elements, at a minimum, would be included in the plan:

- Procedures for emergency evacuation, including type of evacuation and exit route assignments
- Procedures to be followed by employees who remain to operate critical plant operations before they evacuate
- Procedures to account for all employees after emergency evacuation has been completed
- Procedures to be followed by employees performing rescue or medical duties
- The preferred means of reporting fires and other emergencies
- Names or regular job titles of persons or departments who can be contacted for further information or explanation of duties under the plan.

Adherence to existing regulations and implementation of MM TRA-4 would ensure that the Project would provide adequate access for emergency vehicles and not impede with an adopted emergency response plan or emergency evacuation plan (City of Los Angeles, 2023b). Therefore, construction of Alternative 4 would not impair implementation of or physically interfere with any adopted emergency response or evacuation plans, and this impact would be less than significant.

Maintenance and Storage Facilities

As required by existing regulations, the proposed MSF would be required to provide adequate access for emergency vehicles during construction activities. Temporary short-term construction impacts on street traffic adjacent to the proposed MSF because of roadway and infrastructure improvements could result in a reduced number of lanes or temporary closure of segments of adjacent roadways and result in a potentially significant impact. Any such impacts would be limited to the construction period of the proposed MSF and would affect only adjacent streets. Furthermore, MM TRA-4 would ensure that emergency response teams for the City of Los Angeles, including the fire departments and police departments, would be notified of any lane closures during construction activities.

As discussed in the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), a TMP and notification procedures would be implemented to ensure safe and efficient traffic flow in the area during the proposed MSF construction. The TMP would address short-term traffic circulation and access effects during the proposed MSF construction. Specifically, the TMP shall include elements to reduce traveler and emergency responder delays and enhance safety during project construction.

Adherence to existing regulations and implementation of the TMP (refer to the *Sepulveda Transit Corridor Project Transportation Technical Report* [Metro, 2025a]) would ensure that the proposed MSF would provide adequate access for emergency vehicles, and the impact would be less than significant during operational and construction periods with mitigation)

7.2.13.4 Impact WFR-2: Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?

The discussions on exposure of people or structures to flooding as a result of runoff or drainage changes are in the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g). The discussion on exposure of people or structures to landslides is in the *Sepulveda Transit Corridor Project Geotechnical, Subsurface, Seismic, and Paleontological Resources Technical Report* (Metro, 2025l).

Construction activities associated with the implementation of Alternative 4 would occur within the Wildfire Hazard Zone, which CAL FIRE has designated as VHFHSZ (refer to Figure 7-11). A majority of the proposed alignment would be located underground at the depth of the tunnel underneath vegetated areas east of I-405. However, the transition structure and aerial alignment between Del Gado Drive and Valley Vista Boulevard would be in a Wildfire Hazard Zone. Fire incidents have not occurred in this location in recent history (CAL FIRE, 2017, 2019, 2025a, 2025b); therefore, post-fire slope instability would be less than significant.

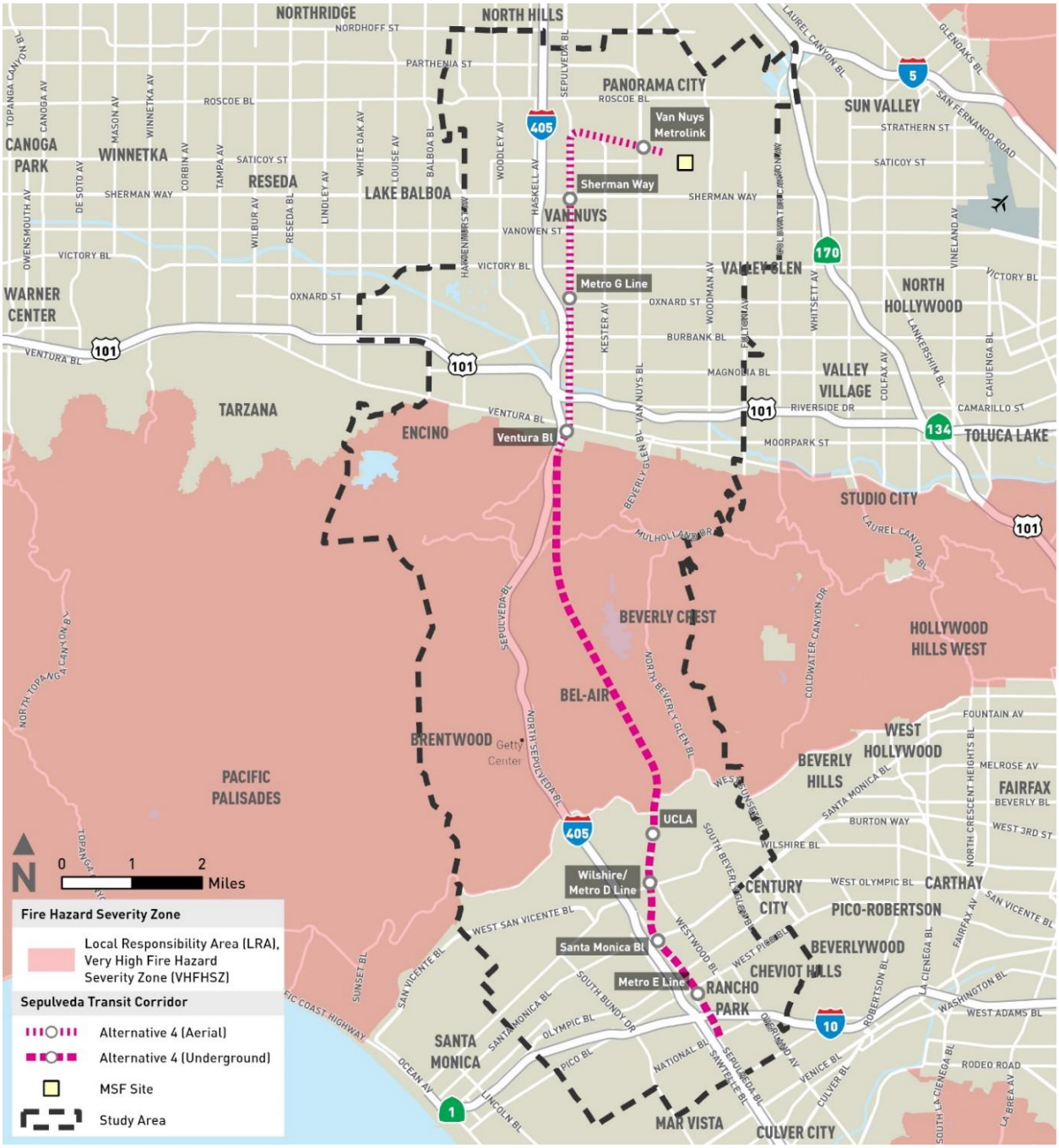
Additionally, during construction, the Project would implement project design features and would implement an SWPPP. As described in further detail in the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g), regulatory framework set forth by the SWRCB would require Alternative 4 to prepare and submit a construction SWPPP to comply with the NPDES Construction General Permit. A construction SWPPP must be submitted to the SWRCB prior to construction and adhered to during construction. The construction SWPPP would identify the BMPs that would be in place prior to the start of construction activities and during construction. BMPs are identified in the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g) with categories that would include erosion control, sediment control, non-stormwater management, and materials management BMPs.

The construction of Alternative 4 would include adherence to existing regulations and proper the implementation of BMPs and would not create additional runoff, post-fire slope instability, or drainage changes within the Wildfire Hazard Zone. Alternative 4 would not expose people or structures to significant risks, including downslope or downstream flooding or landslides. Therefore, impacts would be less than significant.

Maintenance and Storage Facilities

The proposed MSF would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires (refer to Figure 7-11). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4.2 miles south of the proposed MSF. The construction of the MSF would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impact would occur.

Figure 7-11. Alternative 4: Wildfire Hazard Zones



Source: CAL FIRE, 2011; Metro, 2025o

7.2.13.5 Impact WFR-3: Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Construction of Alternative 4 would require the installation of roads, fuel breaks, emergency water sources, and other utilities associated with infrastructure to support project elements including the proposed alignment, stations, and TPSS sites. Potential ignition sources during construction of Alternative 4 include hot exhaust from a vehicle parked on dry grass or welding during high winds, which could send sparks traveling through the air and land and ignite dry grass. Construction activities would comply with existing regulations that restrict periods of activity to times that are not a high fire risk. In addition, the implementation of MM SAF-1 and MM SAF-2 would ensure that the impacts associated with fire risks would be less than significant during construction activities.

Maintenance and Storage Facilities

The proposed MSF would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires (refer to Figure 7-11). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4.2 miles south of the MSF. Therefore, the construction of the MSF would not require the installation or maintenance of associated infrastructure that would exacerbate wildfire risks or that may result in temporary or ongoing impacts to the environment, and no impact would occur.

7.2.13.6 Impact WFR-4: Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes

The discussions on exposure of people or structures to flooding as a result of runoff or drainage changes are in the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g). The discussion on exposure of people or structures to landslides is in the *Sepulveda Transit Corridor Project Geotechnical, Subsurface, Seismic, and Paleontological Resources Technical Report* (Metro, 2025l).

Construction activities associated with the implementation of Alternative 4 would occur within the Wildfire Hazard Zone, which CAL FIRE has designated as VHFHSZ (refer to Figure 7-11). A majority of the proposed alignment would be located underground at the depth of the tunnel underneath vegetated areas east of I-405. However, the transition structure and aerial alignment between Del Gado Drive and Valley Vista Boulevard would be in a Wildfire Hazard Zone. Fire incidents have not occurred in this location in recent history (CAL FIRE, 2017, 2019, 2025a, 2025b); therefore, post-fire slope instability would be less than significant.

Additionally, during construction, the Project would implement project design features and would implement a SWPPP. As described in further detail in *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g), regulatory framework set forth by the SWRCB would require Alternative 4 to prepare and submit a construction SWPPP to comply with the NPDES CGP. A construction SWPPP must be submitted to the SWRCB prior to construction and adhered to during construction. The construction SWPPP would identify the BMPs that would be in place prior to the start of construction activities and during construction. BMPs are identified in the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g) with categories that would include, but not be limited to, erosion control, sediment control, non-stormwater management, and materials management BMPs.

The construction of Alternative 4 would include adherence to existing regulations and proper the implementation of BMPs and would not create additional runoff, post-fire slope instability, or drainage changes within the Wildfire Hazard Zone. Alternative 4 would not expose people or structures to significant risks, including downslope or downstream flooding or landslides. Therefore, impacts would be less than significant.

Maintenance and Storage Facilities

The proposed MSF would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires as shown on Figure 7-11 of the *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Metro, 2025o). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4.2 miles south of the proposed MSF. The MSF would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impact would occur.

7.2.13.7 Mitigation Measures

Construction Impacts

Alternative 4 would implement the following mitigation measures to ensure that impacts to wildfire and fire risks remain less than significant during construction activities.

MM SAF-1: *Curtail above ground construction and maintenance activities requiring spark-producing equipment during high-risk wildfire periods in applicable areas. Applicable areas would be areas in the Santa Monica Mountain Range that the California Department of Forestry and Fire Protection designates as a wildfire zone and is populated with dried vegetation or other material that could ignite. Construction and maintenance activities utilizing motorized equipment shall be curtailed during red-flag warning days and other high-risk periods characterized by relative humidity of 15 percent or less combined with windy conditions consisting of frequent gusts at 25 miles per hour or greater for at least 3 hours in a 12 hour period.*

MM SAF-2: *During construction of the Project, all staging areas, welding areas, or areas slated for development that use spark-producing equipment shall be cleared of dried vegetation or other material that could ignite. Any construction equipment that includes a spark arrestor shall be monitored to ensure the spark arrestor is in good working order. All vehicles and crews working on the project site shall have access to functional fire extinguishers at all times.*

Impacts After Mitigation

Implementation of PM SAF-1 would ensure that impacts associated with response times for fire and police protection would be less than significant during operation activities.

Compliance with all state laws, plans, policies, and regulations regarding wildfire prevention and suppression, as well as implementation of PM SAF-1, would ensure that impacts associated with wildfire and fire risks would be less than significant during operation activities.

Implementation of MM SAF-1 and MM SAF 2 would ensure that the impacts associated with wildfire and fire risks would be less than significant during construction activities.

7.2.14 Transportation

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-28.

Table 7-28. Alternative 4: Transportation Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Transportation Construction Impacts		
Impact TRA-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4, MM TRA-5, MM TRA-8
	Impacts After Mitigation	LTS
Impact TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact TRA-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact TRA-4: Would the project result in inadequate emergency access?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025a.

LTS = less than significant
MM = mitigation measure
NA = not applicable
PS = potentially significant
TRA = transportation

7.2.14.1 Impact TRA-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities?

Given the temporary nature of construction, it is not expected that construction of Alternative 4 would preclude or conflict with any programs, plan ordinances, or policies addressing the circulation system. The following sections describe construction impacts on transit facilities, roadways, and active transportation.

Transit

Temporary full or partial closures of some intersections, lanes, or sidewalks may be necessary during construction, which may result in disruptions to bus service. Temporary re-routing and relocation of bus stops may be needed for the following transit lines:

- Metro 4, 20, 155, 162, 169, 233, 234, 240, 602, and 761
- BBB 1, 2, 7, R7, R12, 17, and 18
- CCB 6 and R6
- LADOT 431, 534, 549 and DASH PC/VN

- Amtrak Thruway
- BruinBus U1, U2, U3, U5

In addition to impacts to on-street bus service, construction at existing fixed guideway stations would temporarily impact rail and BRT service operations. Construction of the Alternative 4 Metro G Line Sepulveda Station and connecting walkways would temporarily impact service on the Metro G Line. Temporary impacts to Amtrak and Metrolink rail operations would occur as a result of demolishing the existing Willis Avenue Pedestrian Bridge. The construction of the aerial Van Nuys Metrolink Station would temporarily impact Amtrak and Metrolink rail operations and passenger experience at the Van Nuys Metrolink/Amtrak Station. Construction activities would occur within the vicinity of the ESFV LRT Van Nuys Metrolink Station for the construction of the aerial alignment and Alternative 4 Van Nuys Metrolink Station which may temporarily affect passenger experience; however, disruptions to rail service or MSF operations are not anticipated.

Construction of a mezzanine extension over the Metro D Line tracks and platform at the Metro D Line Westwood/UCLA Station would result in temporary impacts to Metro D Line rail operations and passenger experience. Metro D Line trains would operate between Union Station and the Metro D Line Century City Station while temporary falsework is constructed over the Metro D Line tracks. The Metro D Line Westwood/UCLA Station would then be temporarily closed to passengers during the construction of the mezzanine extension. However, Metro D Line trains would be able to pass through the station to the Westwood/VA Hospital Station.

Although temporary, the potential disruptions to the transit network under Alternative 4 is considered a potentially significant impact to transit facilities due to temporary road or lane closures, rail service interruptions during station improvements, and sidewalk closures. Implementation of MM TRA-4, to provide a TMP that specifies measures to limit disruption during construction, and MM TRA-5, to provide temporary bus service at rail stations taken out of passenger service, would reduce impacts to less than significant during construction of Alternative 4.

Roadways

Construction vehicles would primarily use major arterials and freeways to comply with Policy 1.8 from *Mobility Plan 2035* that “truck movement should be limited to the arterial street network as much as possible since these streets have the lanes and wider turning radii to accommodate these heavy large vehicles” (DCP, 2016). Table 7-29 identifies construction staging locations and roadway facilities that would be used for construction haul routes.

Table 7-29. Alternative 4: Construction Staging Locations and Haul Routes

No.	Construction Staging Location Description	Haul Route
On-Site Construction Staging Areas		
1	Commercial properties on southeast corner of Sepulveda Boulevard and National Boulevard	National Boulevard and I-405 or I-10
2	North side of Wilshire Boulevard between Veteran Avenue and Gayley Avenue	Wilshire Boulevard, I-405
3	UCLA Gateway Plaza	Westwood Boulevard, Wilshire Boulevard, I-405
4	Residential properties on both sides of Del Gado Drive and south side of Sepulveda Boulevard adjacent to I-405	Sepulveda Boulevard, I-405
5	West of Sepulveda Boulevard between Valley Vista Boulevard and Sutton Street	Sepulveda Boulevard, I-405

No.	Construction Staging Location Description	Haul Route
6	West of Sepulveda Boulevard between US-101 and the Los Angeles River	Sepulveda Boulevard, I-405
7	Lot behind Los Angeles Fire Department Station 88	Sepulveda Boulevard and US-101 or I-405
8	Commercial property on southeast corner of Sepulveda Boulevard and Raymer Street	Sepulveda Boulevard, Roscoe Boulevard, I-405
9	South of the LOSSAN rail corridor east of Van Nuys Metrolink Station, west of Woodman Avenue	Woodman Avenue, Sherman Way, and I-405 or SR-170
Off-Site Construction Staging Areas		
S1	East of Santa Monica Airport Runway	Bundy Drive, I-10, I-405
S2	Ralphs Parking Lot in Westwood Village	Le Conte Avenue, Westwood Boulevard, Wilshire Boulevard, I-405
N1	West of Sepulveda Basin Sports Complex, south of the Los Angeles River	Orange Line Busway, White Oak Avenue, US-101
N2	West of Sepulveda Basin Sports Complex, north of the Los Angeles River	Orange Line Busway, Balboa Boulevard, Victory Boulevard, I-405
N3	Metro G Line Sepulveda Station Park and Ride Lot	Erwin Street, Sepulveda Boulevard, Victory Boulevard, Haskell Avenue, I-405
N4	North of Roscoe Boulevard and Hayvenhurst Avenue	Hayvenhurst Avenue, Roscoe Boulevard, I-405
N5	LADWP Property south of the LOSSAN rail corridor, east of Van Nuys Metrolink Station	Hazeltine Avenue, Sherman Way, and I-405 or SR-170

Source: STCP, 2024; HTA, 2024

Truck movement near Staging Area No. 6 has the potential to temporarily impact pick-up and drop-off at the nearby Ivy Bound Sherman Oaks Charter School, which is expected to remain open during project construction. Although temporary, the potential disruptions to the Ivy Bound Sherman Oaks Charter School under Alternative 4 is considered a potentially significant impact due to construction vehicle operations near pick-up and drop-off areas. Implementation of MM TRA-8 — to prohibit trucks or other construction vehicles from operating or parking on Morrison Street during school pick-up and drop-off times — would reduce impacts to less than significant during construction of Alternative 4.

For the aerial guideway, foundation and column construction would require the establishment of temporary longitudinal work zones along Sepulveda Boulevard in the San Fernando Valley via the use of temporary lateral lane shifts, supplemented with additional short-term lane closures to allow construction of multiple foundations in one work zone. At aerial stations — including Ventura Boulevard, Sherman Way, Metro G Line, and Van Nuys Metrolink — construction would be executed in stages to allow for maintenance of traffic on Sepulveda Boulevard or Van Nuys Boulevard. Full road closures at aerial stations would be utilized on select weekend and night-shift operations to erect portions of the structure, including outrigger bents and superstructure elements. Traffic control measures necessary to complete construction of Alternative 4 would be temporary in nature and are considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction (such as establishing detour routes, informing the traveling public, and coordinating with local business owners to maintain customer and delivery access) — would further reduce temporary impacts due traffic control measures. Therefore, construction of Alternative 4 is considered a less than significant impact related to a conflict with a program, plan, ordinance, for policy on roadway facilities.

Underground station construction at Santa Monica Boulevard and Metro D Line Stations would result in temporary lane closures to through traffic on Gayley Avenue for the duration of station box excavation

and other construction activities. Deliveries to businesses along Santa Monica Boulevard near South Bentley Avenue would be affected during construction if access is unable to be maintained during construction. Therefore, potential disruption of delivery access to these properties is considered a potentially significant impact. Implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction (such as establishing detour routes and coordinating with local business owners to maintain customer and delivery access) — would minimize temporary impacts to delivery access. Therefore, construction of Alternative 4 is considered a less than significant impact related to a conflict with a program, plan, ordinance, for policy on roadway facilities.

Bicycle and Pedestrian Circulation

Alternative 4 would require temporary roadway and sidewalk detours at proposed underground stations during cut-and-cover construction activities. Additionally, construction of the aerial guideway in the San Fernando Valley would require roadway detours that would limit sidewalk access. Pedestrian through-access and access to adjacent properties and businesses along this segment would need to be maintained during construction. Bicycle traffic movements would be maintained during construction, but lane reductions and road closures would inhibit the flow of bicycle traffic and may require detours. At the underground segments of the Alternative 4 alignment, roadway detours would be concentrated at areas surrounding proposed underground station boxes, which would require cut-and-cover construction. Street detours associated with cut-and-cover activities within the active roadway would disrupt bicycle and pedestrian circulation.

Although temporary, the potential disruptions to bicycle and pedestrian circulation would result in a potentially significant impact during project construction. In addition to compliance with all local, state, and federal standards on construction, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction (such as establishing detour routes, informing the traveling public, and coordinating with local business owners to maintain customer and delivery access) — would minimize temporary impacts due to traffic control measures. Alternative 4 detour routes would be identified in the TMP, and bicyclists and pedestrians would be informed of such closures and detours through signage and online postings that would be consistent with Policy 1.6 from *Mobility Plan 2035* that states, “Design detour facilities to provide safe passage for all modes of travel during construction” (DCP, 2016). Therefore, implementation of MM TRA-4 would reduce impacts to less than significant during construction of Alternative 4.

Maintenance and Storage Facilities

The MSF for Alternative 4 would be located on a contiguous parcel east of the Van Nuys Metrolink/Amtrak Station and bounded by the LOSSAN rail corridor to the north, Woodman Place to the south, the property lines extending north of Hazeltine Avenue to the east, and Woodman Avenue to the west. Construction of the MSF would not conflict with a program, plan, ordinance, or policy addressing the circulation system; therefore, no impacts would occur.

7.2.14.2 Impact TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Construction of Alternative 4 would temporarily generate additional VMT related to construction workers commuting to the construction site, construction work activities, construction labor trips, and the transport of excavated materials, construction equipment, and supplies. This additional VMT would terminate upon completion of construction and would not be in effect during operation of Alternative 4. The temporary nature of construction-related VMT and construction-related traffic circulation changes

(e.g., detours) would generally be localized to the work areas and construction staging locations listed in Table 7-29.

In addition, there would be minor impacts to traffic operations associated with construction staging areas and haul routes. Vehicles and trucks related to construction activities entering and exiting these areas would increase traffic and VMT on local streets. All construction trucks would use designated haul routes, as listed in Table 7-29, to access the regional freeway system. The construction-related traffic volumes would be minimal compared to overall background traffic volumes, and generally would occur during the off-peak periods when volumes and congestion are lower. Increased traffic generated by construction-related vehicle operations would be temporary in nature. As a result, construction would not result in a substantial or long-term change in regional travel patterns related to VMT and is considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic. Therefore, construction of Alternative 4 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and is considered a less than significant impact.

Maintenance and Storage Facilities

Construction of the MSF would result in a minor increase in traffic volumes as construction vehicles enter and exit the site. Construction vehicles entering and exiting the construction site would temporarily increase VMT on local streets. The construction-related traffic volumes would be minimal compared to overall background traffic volumes, and generally would occur during the off-peak periods when volumes and congestion are lower. Increased traffic generated by construction-related vehicle operations would be temporary in nature. As a result, construction-related traffic would not result in a substantial or long-term change in regional travel patterns related to VMT and is considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic. Therefore, construction of the MSF for Alternative 4 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and is considered a less than significant impact.

7.2.14.3 Impact TRA-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?

Temporary modifications of existing transportation facilities under Alternative 4 would include full or partial road closures, lane reductions or modifications, and detour routes. Construction of Alternative 4 would include temporary modifications to segments of Bentley Avenue, Wilshire Boulevard, Gayley Avenue, Lindbrook Drive, and Westwood Plaza in the Westside, and Del Gado Drive, Sepulveda Boulevard, Dickens Street, Metro G Line Busway, Raymer Street, and Van Nuys Boulevard in the San Fernando Valley. Construction worksites would be fenced, and lane closures and associated lane tapers, temporary advance warning signs, and detour signs would be implemented in accordance with OSHA, Cal/OSHA, and CA MUTCD (Caltrans, 2024) standards to ensure that no significant geometric design hazards or incompatible uses would be introduced during construction. Safety for pedestrians, bicyclists, and motorists would be maintained during construction using signage, partial lane closures, construction barriers, and supervision by safety and security personnel at access points and throughout construction sites. Traffic control measures necessary to complete construction of Alternative 4 would be temporary in nature and are considered a less than significant impact. In accordance with Metro

standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic control measures and would ensure hazards are not introduced during construction. Therefore, construction of Alternative 4 would not substantially increase hazards due to a geometric design feature or incompatible use and is considered a less than significant impact.

Maintenance and Storage Facilities

Construction of the MSF may include construction staging, materials stockpiling, hauling of dirt and materials, temporary lane reductions, and use of temporary easements. Construction activities would meet all relevant and applicable safety standards, including OSHA, Cal/OSHA, and CA MUTCD (Caltrans, 2024) standards to ensure that no significant geometric design hazards or incompatible uses are introduced during construction. Thus, construction of the MSF would not result in an increase in hazards or incompatible uses due to a design feature. Therefore, construction of the MSF for Alternative 4 and would result in no impact.

7.2.14.4 Impact TRA-4: Would the project result in inadequate emergency access?

Service improvements to Metro Line 761 would be the only reasonably foreseeable transit improvement under the No Project Alternative. Metro Line 761 would continue serving as the primary transit option through the Sepulveda Pass. Additional bus stops for Metro Line 761 may be constructed to facilitate route changes under the No Project Alternative. Construction activities associated with Metro Line 761 improvements would be temporary and may include construction staging, materials stockpiling, hauling of dirt and materials, temporary lane reductions, and use of temporary easements. Construction activities would maintain adequate emergency access in accordance with relevant Metro, ADA, OSHA, and Cal/OSHA standards. Therefore, construction of Metro Line 761 under the No Project Alternative would result in no impact.

Maintenance and Storage Facilities

Construction of the MSF would result in temporary impacts to traffic operations due to a minor increase in traffic volumes as construction vehicles enter and exit the site. Traffic control measures necessary to complete construction of the MSF would be temporary in nature and are considered a less than significant impact. In accordance with standard Metro practice, implementation of MM TRA-4 would ensure adequate emergency access is maintained within and surrounding the site during construction to further reduce temporary impacts. Therefore, construction of the MSF for Alternative 4 is considered a less than significant impact.

7.2.14.5 Mitigation Measures

Construction Impacts

MM TRA-4: *The project contractor shall prepare a Transportation Management Plan to facilitate the flow of traffic and transit service in and around construction zones. The Transportation Management Plan shall include, at a minimum, the following measures:*

- *Where feasible, schedule construction-related travel (i.e., deliveries, hauling, and worker trips) during off-peak hours and maintain two-way traffic circulation along affected roadways during peak hours. Avoid the closure of two major adjacent streets where feasible.*

- *Designated routes for project haul trucks shall primarily utilize the I-405, I-10, and US-101 corridors. Throughout the construction process, these routes shall be coordinated with the City of Los Angeles and U.S. Department of Veterans Affairs to ensure consistency with land use and mobility plans. Additionally, the routes shall be situated to minimize noise, vibration, and other possible impacts.*
- *Develop detour routes to facilitate traffic movement through construction zones without significantly increasing cut-through traffic in adjacent residential areas.*
- *Where construction encroaches on the Los Angeles-San Diego-San Luis Obispo rail corridor right-of-way, coordinate construction activities with Union Pacific, Metrolink, and Amtrak to limit disruptions to service and coordinate on outreach to inform passengers of service impacts. Provide temporary parking and drop-off facilities at the Van Nuys Metrolink/Amtrak Station to minimize passenger impacts.*
- *Develop and implement an outreach program and public awareness campaign in coordination with Caltrans, the City of Los Angeles, the City of Santa Monica, and the County of Los Angeles to inform the general public about the construction process and planned roadway closures, potential impacts, and mitigation measures, including temporary bus stop relocation.*
- *Where feasible, temporarily restripe roadways to maximize the vehicular capacity at locations affected by construction closures.*
- *Provide wayfinding signage, lighting, and access to specify pedestrian safety amenities (such as handrails, fences, and alternative walkways) during construction.*
- *Where construction encroaches on pedestrian facilities, special pedestrian safety measures shall be used, such as detour routes and temporary pedestrian barricades.*
- *Where construction encroaches onto the University of California, Los Angeles campus, the project contractor shall ensure that access to campus buildings is maintained through temporary decking and the construction of temporary stairs and ramps.*
- *During final design, the project contractor shall coordinate with Metro Operations to minimize construction impacts on existing Metro rail operations in and around existing stations. Where construction results in the interruption of Metro rail operations, buses shall provide temporary service between rail stations.*
- *Provide on-street bicycle detour routes and signage to address temporary effects to bicycle circulation and minimize inconvenience (e.g., lengthy detours) as to minimize users potentially choosing less safe routes if substantially rerouted.*

- *During final design, the project contractor shall coordinate with first responders and emergency service providers to minimize impacts on emergency response. Coordination efforts shall include the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing.*
- *Maintain customer and delivery access to all operating businesses near construction work areas. Access shall be maintained to allow for reasonable business operations, including clear signage for alternate routes, temporary driveways, or entry points as necessary. Coordination with businesses shall be conducted to address specific access needs and limit disruptions, ensuring that any restrictions are communicated in advance and alternative arrangements are provided as appropriate.*

MM TRA-5: *Where construction results in the interruption of Metro rail operations, the Project shall provide temporary bus service at rail stations taken out of passenger service. Temporary bus service may consist of either dedicated bus shuttles or extensions of other Metro bus service. Temporary bus service during closures of the Metro D Line Westwood/UCLA Station and/or Metro D Line Westwood/VA Hospital Station shall operate on Bonsall Avenue, Wilshire Boulevard, Santa Monica Boulevard, Century Park East, Avenue of the Stars, Century Park West, and/or Constellation Drive.*

MM TRA-8: *To maintain safe and convenient access to the Ivy Bound Sherman Oaks Charter School, the project contractor shall not operate or park large trucks or other construction vehicles on Morrison Street between 6:30am and 9:00am or 1:30pm and 4:00pm on school days, or at such other times that the school informs the contractor that a large amount of student pick-up or drop-off activity will occur.*

Impacts After Mitigation

Construction of Alternative 4 would result in a potentially significant impact under Impact TRA-1 due to temporary traffic control measures, rail service interruptions during station improvements, and sidewalk closures. Implementation of MM TRA-4 would reduce impacts to less than significant by requiring a TMP to minimize temporary disruptions associated with construction activities. Implementation of MM TRA-5 would reduce this impact to less than significant by providing temporary bus service at rail stations taken out of passenger service during construction.

Construction of Alternative 4 would result in a potentially significant impact under Impact TRA-1 due to truck movement near Staging Area No. 6. Construction truck movement surrounding Staging Area No. 6 has the potential to temporarily impact pick-up and drop-off at the nearby Ivy Bound Sherman Oaks Charter School, which is expected to remain open during project construction. The potential disruptions to the Ivy Bound Sherman Oaks Charter School under Alternative 4 is considered a potentially significant impact due to construction vehicle operations near pick-up and drop-off areas. Implementation of MM TRA-8 — to prohibit trucks or other construction vehicles from operating or parking on Morrison Street during school pick-up and drop-off times — would reduce impacts to less than significant during construction of Alternative 4.

7.2.15 Cultural Resources and Tribal Cultural Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-30.

Table 7-30. Alternative 4: Cultural Resources and Tribal Cultural Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Cultural Resources and Tribal Cultural Resources Construction Impacts		
Impact CUL-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM CUL-1 MM CUL-4 MM CUL-5
	Impacts After Mitigation	SU
Impact CUL-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM CUL-1 MM CUL-6 MM CUL-7
	Impacts After Mitigation	LTS
Impact CUL-3: Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM CUL-8
	Impacts After Mitigation	LTS
Impact TCR-1: Would the project cause a substantial adverse change in the significance of a TCR, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TCR-1, MM TCR-2
	Impacts After Mitigation	LTS

Source: Metro, 2025n

MM = mitigation measure
LTS = less than significant
PS = potentially significant
TCR = tribal cultural resources

7.2.15.1 Impact CUL-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Project Alternative 4 activities during construction of the alignment would include property acquisitions and new construction of permanent project features. Potential construction impacts on historical resources would be direct and indirect (i.e., visual, audible, or atmospheric intrusions) and related to the construction of new infrastructure that would demolish and/or alter historical resources and/or their immediate surroundings. Historical resources are identified by Map Reference numbers corresponding to the maps included in an appendix to the *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n).

Alternative 4 Historical Resources – Less than Significant Impacts

Construction of Alternative 4 would result in less than significant impact to 9 resources (Table 7-31) with further discussion on their analysis in the *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n).

Table 7-31. Alternative 4: Historical Resources – Less Than Significant Impacts

Map Reference #	Resource Name	Location
1	13912 Saticoy Street	13912 Saticoy Street
2	13914 Saticoy Street	13914 Saticoy Street
3	13938 Saticoy Street	13938 Saticoy Street
4	13942 Saticoy Street	13942 Saticoy Street
5	Southern Pacific Railroad Warehouse	7766 Van Nuys Boulevard
6	14704 Raymer Street	14704 Raymer Street
34	15250 Ventura Boulevard	15250 Ventura Boulevard
37	15224 Dickens Street	15224 Dickens Street
73	UCLA Ackerman Hall	308 Westwood Plaza

Source: Metro, 2025n

Alternative 4 Historical Resources – No Impact

Construction of Alternative 4 would result in no impact to 40 resources (Table 7-32). These historical resources would not be physically demolished, destroyed, relocated, or altered. Due to the underground nature of the improvements, no permanent visual impacts on these historical resources or their setting is anticipated from the addition of the underground alignment. These historical resources are either located within the underground portions of the alignment and are located a considerable distance from station locations, construction staging area, or TBM launch and extraction sites.

Table 7-32. Alternative 4: Historical Resources – No Impact

Map Reference #	Resource Name	Location
14	Van Nuys Boulevard Street Trees	Sherman Way and Van Nuys Boulevard, south to Van Nuys Boulevard and Hamlin Street
22	Kauai Surf	15232 Martha Street
28	4737 Orion Avenue	4737 Orion Avenue
29	4714 Orion Avenue	4714 Orion Avenue
35	Dai Siani Ristorante (Sherwood Coiffeurs)	4511 Sepulveda Boulevard
36	Desmond's	1001 Westwood Boulevard
39	15573 Briarwood Drive	15573 Briarwood Drive
40	3754 North Scadlock	3754 North Scadlock
41	3700 North Scadlock Lane	3700 North Scadlock Lane
42	3666 North Scadlock	3666 North Scadlock
60	Deauville House	2212 North Linda Flora Drive
61	1711 North Stone Canyon Road	1711 North Stone Canyon Road
62	1780 North Stone Canyon Road	1780 North Stone Canyon Road
63	661 North Stone Canyon Road	661 North Stone Canyon Road
64	Miller Residence	10615 West Bellagio Road
65	Ethel Guiberson/Hannah Carter Japanese Garden	10619 West Bellagio Road
69	121 North Udine Way	121 North Udine Way
70	120 North Udine Way	120 North Udine Way
71	Marymount High School (Main Administration Building, including Chapel and Auditorium)	10643-10685 Sunset Boulevard and 101-121 Marymount Place
72	UCLA Historic District	encompasses the east-west axis of the campus and is bounded by Westwood Boulevard and Circle Drive

Map Reference #	Resource Name	Location
87	UCLA Veterans Rehabilitation Services	1000 Veteran Avenue
89	Campbell's Book Store	10918 Le Conte Avenue
90	Holmby Building	921 Westwood Boulevard
91	924 Westwood Boulevard	924 Westwood Boulevard
93	10940 Weyburn Avenue	10940 Weyburn Avenue
94	Chatam Restaurant	10930 Weyburn Avenue
95	Desmond's	1001 Westwood Boulevard
96	Bullock's Department Store	1000 South Westwood Boulevard
97	Kelly Music Building/Alice's Restaurant	1041 Westwood Boulevard
98	Penney's	1056 Westwood Boulevard
99	Janss Investment Company Building	1081 Westwood Boulevard
100	Glendale Federal Savings and Loan Association	1090 Westwood Boulevard
101	Westwood Village Streetlight	Westwood and Kinross, northwest corner, adjacent to Janss Investment Company Building
102	Bratskeller Egyptian Theater (Ralphs Grocery Store)	1142 Westwood Boulevard
129	2435 Military Avenue	2435 Military Avenue

Source: Metro, 2025n

Maintenance and Storage Facilities

The Alternative 4 MSF has the potential to impact Map References #1, #2, #3, and #4 (four industrial buildings on Saticoy Street). However, the MSF would not physically demolish, destroy, relocate, or alter any historical resources. The existing viewshed of these historical resources is commercial with modern development and this alteration of setting would not materially impair their significance. There would be no construction impacts to these historical resources associated with the MSF. Therefore, the MSF would result in a less than significant impact. No mitigation is required.

7.2.15.2 Impact CUL-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

An assessment of archaeological sensitivity for the Archaeological RSA indicates construction activities associated with the Alternative 4 alignment would have low to moderate potential to encounter previously unidentified archaeological resources below ground surface. No portion of the Archaeological RSA was determined to have high potential because no intact significant archaeological resources have been identified within or directly adjacent to the Archaeological RSA. No prehistoric archaeological sites and only one historic-age archaeological site has been identified within the Archaeological RSA for Alternative 4. However, the sediments present across the alignment consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits.

Locations considered to have low potential to encounter archaeological resources are those in older geologic deposits, such as where project components would be constructed at great depth, and those in areas with high levels of well-documented, previous subsurface ground disturbance. Locations considered to have moderate potential to encounter archaeological deposits are those in younger soils, such as project components constructed in shallower depths, and with low or unknown levels of previous disturbance. Proximity to previously recorded archaeological resources, important prehistoric resource areas, and water sources also increase sensitivity.

Archival research and field survey determined that one recorded historic-age resource (P-19-003803) was previously recorded in the Archaeological RSA but has likely been removed or heavily disturbed as a result of prior construction activity in the area. Archaeological resources of prehistoric and historic age have been documented in the Built Environment RSA and within the Project Study Area between 0.75 and 1.45 miles from the Alternative 4 Archaeological RSA. Such resources are often encountered in the context of subsurface construction activity, indicating there is potential in the area to encounter additional resources in a similar manner. Project activities during construction of the Alternative 4 alignment would include property acquisitions, demolition of historical resources, and new construction of permanent project features.

Buried archaeological resources may exist within the Alternative 4 Archaeological RSA, and it is possible these resources could be unearthed during project excavation activities. The proposed alignment for Alternative 4 is largely within the public ROW that has already been disturbed with utility and street construction, but those disturbances were relatively shallow. Because of those prior disturbances, shallow construction work associated with the 4 Alternative 4 alignment would have lower potential to encounter intact archaeological resources. Other proposed construction activities, such as mass excavation required for new stations, HRT footings, at-grade alignment segments, TBM launch and extraction sites, and ancillary facilities with excavation depths greater than 5 feet have the potential to encounter intact archaeological deposits below the shallow previous ground disturbance and are considered to have moderate archaeological sensitivity.

Based on this analysis, construction of Alternative 4 has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to archaeological resources related to construction of the Alternative 4 alignment would be significant, and mitigation is required.

Maintenance and Storage Facilities

An assessment of archaeological sensitivity for the Archaeological RSA indicates construction activities associated with the Alternative 4 MSF would have moderate potential to encounter previously unidentified archaeological resources below ground surface. No prehistoric or historic-age archaeological sites have been identified within or adjacent the Alternative 4 MSF; however, the sediments present in the area consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits. Construction activities with excavation depths greater than 5 feet have the potential to encounter intact archaeological deposits below the previous ground disturbance and are considered to have moderate archaeological sensitivity.

Construction of the Alternative 4 MSF has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to archaeological resources related to construction of the MSF would be significant, and mitigation is required.

7.2.15.3 Impact CUL-3: Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Potential construction impacts on human remains, including those interred outside of dedicated cemeteries, would be related to ground disturbing activities. It is possible these burials could be unearthed during excavation activities.

One known cemetery, the Los Angeles National Cemetery, is located adjacent to the Alternative 4 Built Environment RSA. However, the probability of encountering human remains during construction is low

because the Los Angeles National Cemetery is located outside of the proposed project alignment and no construction activities would occur within the cemetery grounds. While unlikely, because of the age of the cemetery and the documentation of at least one interment in the area prior to the official founding of the cemetery, there is potential for unmarked and forgotten graves to lie outside of the existing cemetery footprint.

At least two indigenous burials have been encountered within the previously recorded site of P-19-000382, an ethnohistoric village site located approximately 0.8 mile west of the Alternative 4 Archaeological RSA. The village site is not near the Alternative 4 Archaeological RSA, but it provides evidence that there is potential to encounter Native American human remains in the vicinity. While no evidence of human remains has been previously identified within the Alternative 4 alignment, unknown human burials may exist within the Alternative 4 Archaeological RSA, and it is possible these burials could be unearthed during excavation activities. Therefore, construction of Alternative 4 has the potential to cause a substantial adverse change to an unknown burial. Disturbance of unknown burial sites would result in a significant impact, and mitigation is required Maintenance and Storage Facilities

While no evidence of human remains has been previously identified within the Alternative 4 MSF, burials have been identified in proximity to the Alternative 4 Archaeological RSA. Unknown human burials may exist within the MSF construction footprint, and it is possible these burials could be unearthed during project excavation activities. Therefore, construction of the Alternative 4 MSF has the potential to cause a substantial adverse change to an unknown burial. Disturbance of unknown burial sites would result in a significant impact, and mitigation is required.

Maintenance and Storage Facility

While no evidence of human remains has been previously identified within the Alternative 4 MSF, burials have been identified in proximity to the Alternative 4 Archaeological RSA. Unknown human burials may exist within the MSF Project area, and it is possible these burials could be unearthed during excavation activities. Therefore, construction of the Alternative 4 MSF has the potential to cause a substantial adverse change to an unknown burial. Disturbance of unknown burial sites would result in a significant impact, and mitigation is required.

7.2.15.4 Impact TCR-1: Would the Project cause a substantial adverse change in the significance of a TCR, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe?

Confidential information shared by tribal representatives and review of cultural resource management gray literature suggest that sacred locations may be located less than 0.5 mile from the alignment. Additionally, during the AB 52 consultation and literature review, two landscape features, the Sepulveda Pass and the Los Angeles River, have been identified as significant places important to tribal cultural heritage. As such, for the purposes of this analysis, the Sepulveda Pass and the Los Angeles River are being treated in a manner consistent with a TCR. Further, the presence of previously recorded archaeological sites with Native American components within 0.8 mile of the RSA, and the presence of indigenous trails and important water resources in the vicinity, suggest that buried TCRs may exist within the Alternative 4 Tribal Cultural RSA. One of these archaeological sites, P-19-000382, is an ethnographic village where at least two indigenous burials have been encountered. It is possible that significant unknown TCRs could be unearthed during project excavation activities.

The proposed alignment for Alternative 4 is largely within the public ROW that has already been disturbed with utility and street construction, but those disturbances were relatively shallow. Locations considered to have low potential to encounter TCRs are those in older geologic deposits, such as tunnel locations where project components would be constructed at great depth. Shallow construction work, such as for the at-grade portions of the alignment, would have limited potential to encounter intact TCR archaeological deposits or human remains due to prior disturbance. However, other proposed construction activities, such as mass excavation required for new stations, HRT footings, at-grade alignment segments, TBM launch and extraction sites, and ancillary facilities, would have the potential to encounter deeper, intact archaeological deposits. Furthermore, while an archaeologist may place greater importance on the intact nature of archaeological deposits, tribes may be concerned with the potential to identify and protect prehistoric resources, regardless of scientific value. Therefore, construction of the Alternative 4 alignment has the potential to cause a substantial adverse change in the significance of a TCR listed or eligible for listing in the CRHR or in a local register of historical resources. Impacts would be potentially significant.

Section 7.2.15.5 discusses the proposed mitigation measures, which require Native American monitoring during ground disturbance, work stoppage and consultation if Tribal Cultural Resources or human remains are encountered, and the implementation of protective measures to ensure culturally appropriate treatment and compliance with legal requirements. Additionally, MM CUL-1, MM-CUL-6, MM CUL-7, and MM CUL-8, described in Section 3.4.6, would be implemented, which require construction personnel training on identifying and responding to cultural and Tribal Cultural Resources, archaeological monitoring in sensitive areas, work stoppage and treatment protocols for discovered artifacts, and procedures for the respectful handling of human remains in accordance with legal and tribal requirements. With implementation of MM TCR-1 and MM TCR-2, as well as MM CUL-1, MM CUL-6, MM CUL-7, and MM CUL-8, impacts on TCRs would be reduced to less than significant for Alternative 4.

Maintenance and Storage Facilities

An assessment of TCR sensitivity for the Tribal Cultural RSA indicates construction activities associated with the Alternative 4 MSF would have moderate potential to encounter previously unidentified TCRs below ground surface. No TCRs have been identified within the MSF construction footprint; however, the sediments present in the area consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits and TCRs that could be impacted by ground disturbing activities.

Construction of the Alternative 4 MSF has the potential to cause a substantial adverse change in the significance of an TCR listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to TCRs related to construction of the alignment alternative would be significant, and mitigation is required.

7.2.15.5 Mitigation Measures

Construction Impacts

Under Alternative 4, there could be construction impacts to historical resources, archaeological resources, human remains, or TCRs during construction. Therefore, the following mitigation measures were developed. AB 52 consultation is ongoing, and any final mitigation measures for TCRs will be determined through consultation with tribes prior to the public review of the Draft Environmental Impact Report.

MM CUL-1: Cultural Resources Monitoring and Mitigation Plan

- *A project wide Cultural Resources Monitoring and Mitigation Plan shall be developed and implemented by Metro. The purpose of the Cultural Resources Monitoring and Mitigation Plan is to document the actions and procedures to be followed to ensure avoidance or minimization of impacts to cultural resources and to provide a detailed program of mitigation for direct and indirect impacts on cultural resources during Project construction. Preparation of the Cultural Resources Monitoring and Mitigation Plan shall necessitate the completion of a pedestrian survey of the private property parcels within the Resource Study Areas that were not accessible during the preparation of this EIR and the Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report; this shall occur only on parcels slated for acquisition and construction activities. Proposed ground disturbance for the Project shall be reviewed to make any necessary adjustments to archaeological sensitivity assessments as a result of ongoing project design.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include a detailed prehistoric and historic context that clearly demonstrates the themes under which any identified subsurface deposits would be determined significant. Should significant deposits be identified during earth moving activities, the Cultural Resources Monitoring and Mitigation Plan shall address methods for evaluation, treatment, artifact analysis for anticipated artifact types, report writing, repatriation of human remains and associated grave goods, and curation.*
- *The Cultural Resources Monitoring and Mitigation Plan will be a guide for archaeological and tribal monitoring activities as defined in MM CUL 7 and MM TCR 1. The Cultural Resources Monitoring and Mitigation Plan shall require that a Secretary of the Interior-qualified archaeologist in prehistoric and historical archaeology (36 Code of Federal Regulations Part 61) be retained prior to ground disturbing activities.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include recommended treatment measures. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include that, in the event, as a result of the resource evaluation and tribal consultation process, a resource is considered to be eligible for inclusion in the California Register of Historical Resources and/or a local register of historical resources or is determined to be a Tribal Cultural Resources through eligibility listing or determination of significance by the California Environmental Quality Act lead agency (Metro), an archaeological monitor and Native American monitor shall monitor all remaining ground disturbing activities in the area of the resource. If, during cultural resources monitoring, the Secretary of the Interior-qualified archaeologist determines that the sediments being excavated are previously disturbed or unlikely to contain significant cultural materials, the Secretary of the*

Interior qualified archaeologist can specify that monitoring be reduced or eliminated.

- *The Cultural Resources Monitoring and Mitigation Plan shall outline the content and process for implementing pre-construction Cultural Resource training, as discussed in MM CUL 6.*
- *The Cultural Resources Monitoring and Mitigation Plan shall require a pre-construction baseline survey to identify building protection measures for historical resources in relation to tunnel boring machine launch/tunnel boring machine extraction, construction staging, and construction vibration and cut and cover activities adjacent to historical resources. The Project shall conduct a pre-construction survey to establish baseline, pre-construction conditions and to assess the potential for damage related to improvements adjacent to these historical resources.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include building protection measures such as fencing, sensitive construction techniques based on final project design, dust control measures, underpinning, soil grouting, or other forms of ground improvement, as well as lower vibration equipment and/or construction techniques. (Refer to vibration mitigation measures in the Sepulveda Transit Corridor Project Noise and Vibration Technical Report for more information.) In scenarios where a historical resource would be impacted by differential settlement caused by tunnel boring machine construction method, the Project shall require the use of an earth pressure balance or slurry shield tunnel boring machine, as deemed appropriate in consultation with Metro's tunneling panel. An architectural historian or historic architect who meets the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61) shall review proposed protection measures.*
- *The Cultural Resources Monitoring and Mitigation Plan shall require that a post construction survey be undertaken to ensure that no significant impacts had occurred to historical resources. An architectural historian or historic architect who meets the Secretary of Interior Professional Qualification Standards (36 CFR Part 61) shall prepare an assessment of the implementation of the mitigation measures.*
- *MM CUL-1 applies to the following historical resources:*
  - *Performing Arts Center*
  - *Valley Animal Hospital*
  - *6833 Sepulveda Boulevard*
  - *6160 Sepulveda Boulevard*
  - *Air Raid Sire No. 110*
  - *Air Raid Siren No. 117*
  - *Cabana Motel*
  - *El Cortez Motel*
  - *5724 Sepulveda Boulevard*
  - *5450 Sepulveda Boulevard*

- *Cathedral of St. Mary Church*
- *Lt. Patrick H. Daniels United States Army Reserve Center*
- *4700 Sepulveda Boulevard*
- *UCLA Ackerman Hall*
- *Linde Medical Building*
- *Tishman Building*
- *14746 Raymer Street*
- *Lancer Lion II Apartments*
- *15233 Ventura Boulevard*
- *Da Siani Ristorante (Sherwood Coiffeurs)*
- *Gayley Center*

MM CUL-4: Historical Resource Archival Documentation

- *The Project shall complete historical resource archival documentation of historical resources that will be demolished or substantially altered. The archival documentation shall follow the guidelines of the National Park Service's Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey program to create Historic American Building Survey-like documentation. At a minimum, the documentation shall consist of the following:*
  - *Large-format photographs including negatives and archival prints*
  - *Written narrative following the Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey short format*
  - *Site plan*
- *The Project shall provide copies of the documentation to the City of Los Angeles for archival purposes. Large-format photographs shall be completed prior to any demolition activities that would affect the parking garage at 15300 Ventura Boulevard. The documentation shall be prepared so that the original archival-quality documentation could be donated for inclusion in the Los Angeles Public Library. Copies of documentation shall be offered to the Los Angeles Public Library and local historical societies upon request.*
- *MM CUL-4 applies to the following historical resources:*
  - *15300 Ventura Boulevard*

MM CUL-5: Interpretive Program

- *The Project shall prepare interpretive programs for the commercial building and parking garage at 15300 Ventura Boulevard. The Project shall provide interpretive materials in the form of a pamphlet, website, or similar, that describes and/or illustrates the historic significance of these properties. Interpretive materials shall be provided to the City of Los Angeles for public education purposes. Copies of interpretive materials shall be offered to the Los Angeles Public Library and local historical societies.*
- *MM CUL-5 applies to the following historical resources:*

- *15300 Ventura Boulevard*

MM CUL-6: Cultural Resource Training

- *Prior to any ground disturbing activities, all construction personnel involved in ground disturbing activities shall be provided with appropriate cultural and Tribal Cultural Resources training in accordance with the Cultural Resources Monitoring and Mitigation Plan detailed in MM CUL 1.*
- *The training shall be prepared by an Secretary of the Interior qualified archaeologist to instruct the personnel regarding the legal framework protecting cultural resources and Tribal Cultural Resources, typical kinds of cultural resources and Tribal Cultural Resources that may be found during construction, artifacts that would be considered potentially significant, and proper procedures and notifications if cultural resources and/or Tribal Cultural Resources are discovered. The training shall be presented by, or under the supervision of, an Secretary of the Interior qualified archaeologist, who shall review types of cultural resources and artifacts that would be considered potentially significant to support operator recognition of these materials during construction. Contingent upon the results of Assembly Bill (AB) 52 consultation, Native American representatives shall be solicited to attend the Worker Environmental Awareness Program training and contribute to the course material to provide guidance on tribal perspectives on working in areas sensitive for Tribal Cultural Resources.*

MM CUL-7: Archaeological Monitoring

- *Project related ground disturbing activities conducted in locations determined to have moderate to high archaeological sensitivity, or other locations determined appropriate through Assembly Bill 52 consultation, shall be monitored by, or under the supervision of, a Secretary of the Interior qualified archaeologist, in accordance with the Cultural Resources Monitoring and Mitigation Plan detailed in MM CUL 1. If monitoring does not reveal any archaeological artifacts, then there would be no impact to archaeological resources. If archaeological artifacts are discovered, then work shall be halted in the immediate vicinity of the find, and a Secretary of the Interior-qualified archaeologist shall assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation.*

MM CUL-8: Unanticipated Discovery of Human Remains

- *If human remains are discovered, work in the immediate vicinity of the discovery shall be suspended and the Los Angeles County Coroner shall be contacted immediately. If the remains are deemed Native American in origin, the coroner shall contact the State of California Native American Heritage Commission and identify a Most Likely Descendant pursuant to Public Resource Code Section 5097.98 and California Code of Regulations Section 15064.5. The Most Likely Descendants may inspect the site within 48 hours of being notified and may issue*

recommendations for scientific removal and nondestructive analysis. If the Most Likely Descendant fails to make recommendations, then Metro and/or the landowner may rebury the remains in a location not subject to further disturbance, at their discretion. Work may be resumed at Metro's discretion but shall commence only after consultation and treatment have been concluded. Work may continue on other parts of the Project while consultation and treatment are conducted.

MM TCR-1: Native American Monitoring

- *Project-related ground-disturbing activities conducted in locations determined to have moderate to high archaeological sensitivity, or other locations determined appropriate through Assembly Bill 52 consultation, shall be monitored by a Native American representative from a consulting tribe, in accordance with the Cultural Resources Monitoring and Mitigation Plan detailed in MM CUL-1. The tribal monitor shall be qualified by his or her tribe to monitor Tribal Cultural Resources.*
- *In the event that an archaeological resource discovered during project construction is determined to be potentially of Native American origin based on the initial assessment of the find by a Secretary of the Interior-qualified archaeologist pursuant to California Public Resource Code Section 21083.2(i), the Native American tribes that consulted on the Project pursuant to Assembly Bill 52 shall be notified. Those tribes shall also be provided information about the find to allow for early input from the tribal representatives with regard to the potential significance and treatment of the resource. Resources shall be treated with culturally appropriate dignity, taking into consideration the tribal cultural values and meaning of the resource.*
- *If, as a result of the resource evaluation and tribal consultation process, the resource is considered to be a Tribal Cultural Resource and determined, in accordance with California Public Resource Code Section 21074, to be eligible for inclusion in the California Register of Historical Resources or a local register of historical resources or is determined to be significant by the California Environmental Quality Act lead agency (Metro), the qualified archaeologist and Native American monitor shall monitor all remaining ground-disturbing activities in the area of the resource. The input of all consulting tribes shall be considered in the preparation of any required treatment plan activities prepared by the qualified archaeologist for any Tribal Cultural Resources identified during the project construction as required in the Cultural Resources Monitoring and Mitigation Plan (MM CUL-1).*
- *Work in the area of the discovery may not resume until evaluation and treatment of the resource is completed and/or the resource is recovered and removed from the site. Construction activities may continue on other parts of the construction site while evaluation and treatment of the resource takes place.*

MM TCR-2: Unanticipated Discovery of Human Remains

- *If human remains are discovered, work in the immediate vicinity of the discovery shall be suspended and the Los Angeles County Coroner shall be contacted immediately. If the remains are deemed Native American in origin, the coroner shall contact the State of California Native American Heritage Commission and identify a Most Likely Descendant pursuant to Public Resource Code Section 5097.98 and California Code of Regulations Section 15064.5. The Most Likely Descendants (MLDs) may inspect the site within 48 hours of being notified and may issue recommendations for scientific removal and nondestructive analysis. If the Most Likely Descendant fails to make recommendations, then Metro and/or the landowner may rebury the remains in a location not subject to further disturbance, at their discretion. Work may be resumed at Metro's discretion but shall commence only after consultation and treatment have been concluded. Work may continue on other parts of the Project while consultation and treatment are conducted.*

Impacts After Mitigation

After implementation of mitigation measures, Alternative 4 would result in less than significant impacts with mitigation on the following historical resources:

- Sherman Way Street Trees
- Van Nuys Boulevard Street Trees
- Air Raid Siren No. 117
- UCLA Ackerman Hall
- Linde Medical Building
- Cathedral of St. Mary Church
- 4700 Sepulveda Boulevard
- Lt. Patrick H. Daniels United States Army Reserve Center
- 5450 Sepulveda Boulevard
- 5724 Sepulveda Boulevard
- El Cortez Motel
- Cabana Motel
- 6160 Sepulveda Boulevard
- 6833 Sepulveda Boulevard
- Valley Animal Hospital
- The Performing Arts Center

Alternative 4 would result in a significant and unavoidable impacts on the commercial building and parking garage at 15300 Ventura Boulevard. Mitigation measures in Section 7.2.15.5 address the potential significant impacts to this historical resource. Mitigation would reduce impacts but cannot reduce impacts related to demolition to a less than significant level.

With implementation of MM CUL-1, MM CUL-4, MM CUL-5, MM CUL-6, MM CUL-7, MM CUL-8, MM TCR-1, and MM TCR-2, impacts related to archaeological resources, disturbance of human remains, and TCRs would be reduced to less than significant for Alternative 4 (Including HRT MSF). Alternative 4 exhibits low to moderate sensitivity for archaeological resources and, there is limited potential to impact human remains. The Alternative 4 alignment exhibits low to high sensitivity for TCRs. Potential impacts from construction of all Alternative 4 include disturbing previously unknown archaeological resources, human remains, or TCRs that may be buried below the surface. Due to the highly developed setting of

the Project area, conducting subsurface testing in sensitive areas of the alignment to identify evidence of intact soils or subsurface deposits is not feasible and would be unlikely to provide information that could reduce the sensitivity assessments. Providing training to construction personnel on how to identify cultural resources and appropriate steps in the event cultural resources, TCRs, and human remains are encountered would reduce the likelihood of a significant impact in the event unanticipated discoveries may be encountered during Project activities. Additionally, having archaeological and Native American monitors on-site during ground disturbing construction activities in sensitive areas would ensure the appropriate identification and treatment of inadvertent discoveries, which would further reduce any impacts to archaeological and tribal cultural resources to less than significant.

7.2.16 Visual Quality and Aesthetics

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-33.

Table 7-33. Alternative 4: Visual Quality and Aesthetics Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Aesthetics Construction Impacts		
Impact AES-1: Would the project have a substantial adverse effect on a scenic vista?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact AES-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM AES-1 MM BIO-12
	Impacts After Mitigation	LTS
Impact AES-3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vintage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM AES-1
	Impacts After Mitigation	LTS
Impact AES-4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025c

AES = aesthetics
BIO = biological resources
LTS = less than significant
MM = mitigation measure
NA = not applicable

7.2.16.1 Impact AES-1: Would the project have a substantial adverse effect on a scenic vista?

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in a community. Construction of Alternative 4 would introduce visually disruptive elements in each LU, including:

- Light and heavy excavation
- Tunneling
- Roadway/bridge demolition and reconstruction
- Structural falsework
- Tree removal
- Soil removal/displacement
- Security fencing
- Stockpiled soil
- Stockpiled building materials
- Safety and directional signage
- Station platforms and plazas
- Ancillary facilities
- Large, heavy equipment may include cranes, bulldozers, scrapers, and trucks

Construction activities could be visible to pedestrians and motorists on adjacent streets, as well as to viewers within nearby buildings. However, construction activities — while a visual nuisance — would not substantially obstruct views of the Santa Monica Mountains or San Gabriel Mountains because activities would be temporary and intermittent and limited to the immediate area. Therefore, construction of Alternative 4 would not alter views or sightlines from scenic vistas, and impacts would be less than significant.

Maintenance and Storage Facilities

Maintenance of HRT vehicles and equipment would occur at the MSF. Several buildings would be constructed, including a maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, and traction power substation structures. A grade separated access road and a parking area for employees would also be included. These structures would be the primary visual elements of the MSF. The MSF site would be located within a heavily industrialized area bordered by a residential area, and operation of this MSF would generally fit within the context of the existing industrial character. While the MSF site would represent a visual change, it would not substantially obstruct views of the San Gabriel Mountains to the north because the built-out urban landscape already prevents clear views of the mountains. As such, views of scenic vistas as a whole would not be substantially affected.

Construction activities could be visible to pedestrians and motorists on adjacent streets, as well as to viewers within nearby buildings. However, construction activities, while a visual nuisance, would not substantially obstruct views of the Santa Monica Mountains or San Gabriel Mountains because activities would be temporary and intermittent and limited to the immediate area. Therefore, the vertical elements proposed under the MSF would not substantially alter views or sightlines from scenic vistas and operation of the MSF would result in a less than significant impact to scenic vistas.

7.2.16.2 Impact AES-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in a community. Construction of Alternative 4 would introduce visually disruptive elements in each LU, including the following:

- Light and heavy excavation

- Tunneling, roadway/bridge demolition and reconstruction
- Building demolition
- Structural falsework
- Security fencing
- Soil removal/stockpile
- Stockpiled building materials
- Safety and directional signage
- Station platforms and plazas
- Ancillary facilities
- Large, heavy equipment may include cranes, bulldozers, scrapers, and trucks

No California-designated scenic highways, scenic parkways, or proposed state scenic highways or parkways are located within the Project Study Area. Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. For Alternative 4, these activities would introduce visually disruptive elements in each LU, including light and heavy excavation, tunneling, roadway and bridge demolition and reconstruction, building demolition, structural falsework, security fencing, stockpiled building materials, safety and directional signage, station platforms and plazas, and ancillary facilities. The use of large, heavy equipment, such as cranes, bulldozers, scrapers, and trucks, would further contribute to the visual disruption. Furthermore, tree removal during construction would also create noticeable changes in certain areas, exposing previously screened views of infrastructure and construction activities. However, these changes would be temporary and would not be located within a state scenic highway.

No California-designated scenic highways or scenic parkways (or proposed state scenic highways or parkways) are located within the Project Study Area. Construction of Alternative 4 would not substantially damage any scenic resources within SR-1 or SR-27, the nearest state scenic highways, neither of which is within the Project Study Area. Therefore, construction of Alternative 4 would not damage any scenic resources within the viewshed of a state scenic highway, and impacts would be less than significant.

Maintenance and Storage Facilities

No California-designated scenic highways or scenic parkways (or proposed state scenic highways or parkways) are located within the MSF area. Additionally, no State-designated scenic highways or City of Los Angeles-designated scenic highways are located in proximity to the MSF. Therefore, operation of the MSF would not substantially damage any scenic resources within a state scenic highway, and none of the six scenic highways designated by the City of Los Angeles would be impacted by the MSF.

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in a community. However, as discussed previously, Metro projects are not required to adhere to local zoning ordinances. Any elements that would be located on properties outside of the public ROW (e.g., station plazas and TPSS) would comply with applicable zoning and design requirements, including undergoing mandated design review where applicable and coordinating with local jurisdictions and/or other public entities during preliminary and final designs. In addition, while Alternative 4 would add new visible structures, it is expected that visual change associated with the MSF would not be readily noticeable given the existing structures associated with the LOSSAN rail corridor

and background conditions. Therefore, the MSF would not damage any scenic resources within the viewshed of a state scenic highway, and impacts would be less than significant.

7.2.16.3 Impact AES-3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vintage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

During the construction phase, the visual character of the alignment would change temporarily from existing conditions. Construction of the aerial guideway, underground tunnels, and stations would require equipment such as construction barriers and sound walls, cranes, and other appurtenances that would be visible during much of the approximately 99-month substantial completion construction period.

Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings and other aerial transportation infrastructure. Certain areas may be fenced off with construction barriers and sound walls, resulting in a temporary change and contrast in visual character from the existing conditions. Although temporary and short-term in nature, construction activities would be a visual nuisance. MM AES-1 would include temporary privacy screens to minimize impacts from construction barriers and sound walls. In addition, the designated construction areas along the alignment would experience additional truck traffic compared to existing conditions, with trucks moving materials on- and off-site, and work crews and construction equipment moving around the alignment and between Alternative 4 components.

In addition, the designated construction areas along the alignment would experience additional truck traffic compared to existing conditions, with trucks moving materials on- and off-site, and work crews and construction equipment moving around the alignment and between the project components.

Some residents may have private views of Alternative 4 construction from their windows. While residents would be highly sensitive to visual changes and would have a higher degree of personal investment in Alternative 4, visual impacts are assessed based on changes to public views.

Motorists would primarily experience views of construction activities while driving along the roadways along and adjacent to Alternative 4. In addition, drivers would have prolonged views while idling at the various traffic signals surrounding the proposed station areas and aerial guideway. Passing drivers would notice the change in the visual character during the construction phase. However, drivers are considered to have a low sensitivity to any visual changes because they would likely be passing through the Project Study Area to reach their destinations and would not necessarily have a personal investment in the visual character or quality of the Project Study Area.

In addition, pedestrians would primarily experience views of construction activities while walking along public sidewalks, within transit stations, and near businesses that are to the proposed station areas and aerial guideway. The change in the visual character of the alignment during the construction phase would be noticeable by these viewers. In addition, pedestrians are considered to have a moderate sensitivity to visual changes because they may be engaged in observing their surroundings.

Overall, construction would represent a temporary change in the visual quality and character. Project components would potentially stand out as memorable or remarkable features in the landscape due to their scale, which would have a temporary impact on visual character and quality of the Project Study

Area and its surroundings compared to existing conditions. Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings in urbanized areas. Impacts from construction activities would be temporary and post-construction views of Alternative 4-related construction activities, equipment, stockpiles, and fencing would be removed once construction is completed. In addition, Alternative 4 would comply with the best management practices noted in 7.1.3, as well as the city's development standards related to scenic quality during construction, which would be verified during the permitting process. Therefore, construction of Alternative 4 would not conflict with applicable regulations governing scenic quality and would result in less than significant impacts.

Maintenance and Storage Facilities

Maintenance of HRT vehicles and equipment would occur at the MSF. Multiple buildings would be constructed, including a multi-level maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, and traction power substation structure. A grade separated access road and a parking area for employees would also be included. These structures would be the primary visual elements of the MSF. The MSF site within the northern portion of LU-6 would be located within a heavily industrialized area, and operation of this MSF would generally fit within the context of the existing industrial character.

During the construction phase, the visual character of the alignment would change temporarily from existing conditions. Construction of the MSF would require equipment such as construction barriers and sound walls, cranes, and other appurtenances that would be visible during much of the construction period.

Construction of the MSF would comply with applicable regulations governing scenic quality, including South Coast Air Quality Management District Rule 403, and would occur in an urbanized area. Rule 403 does not permit track-out dust to extend 25 feet or more beyond the active construction area and requires all track-out dirt to be removed at the end of each workday or evening shift. Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings and other aerial transportation infrastructure.

Although temporary and short-term in nature, construction activities would be a visual nuisance. However, certain areas may be fenced off with construction barriers and sound walls, resulting in a temporary change and contrast in visual character from the existing conditions. MM AES-1 would include temporary privacy screens to minimize impacts from construction barriers and sound walls. In addition, the designated construction areas along the alignment would experience additional truck traffic compared to existing conditions, with trucks moving materials on- and off-site, and work crews and construction equipment moving around the sites and between the project components.

Some residents may have private views of Alternative 4 construction from their windows. While residents would be highly sensitive to visual changes and would have a higher degree of personal investment in Alternative 4, as previously mentioned, visual impacts are assessed based on changes to public views.

Motorists would primarily experience views of construction activities while driving along the roadways along and adjacent to the MSF. In addition, drivers would have prolonged views while idling at the various traffic signals surrounding the proposed station areas and aerial guideway. Passing drivers would notice the change in the visual character during the construction phase. However, drivers are considered to have a low sensitivity to any visual changes because they would likely be passing through

the Project Study Area to reach their destinations and would not necessarily have a personal investment in the visual character or quality of the MSF area.

In addition, pedestrians would primarily experience views of construction activities while walking along public sidewalks, within transit stations, and near businesses that are to the proposed station areas, aerial guideway, and MSF. The change in the visual character during the construction phase would be noticeable by these viewers. In addition, pedestrians are considered to have a moderate sensitivity to visual changes because they may be engaged in observing their surroundings.

Construction would represent a temporary change in the visual quality and character. Project components would potentially stand out as memorable or remarkable features in the landscape due to their scale, which would have a temporary impact on visual character and quality of the MSF area and its surroundings compared to existing conditions. Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings in urbanized areas. Impacts from construction activities would be temporary and post-construction views of Alternative 4-related construction activities, equipment, stockpiles, and fencing would be removed once construction is completed. In addition, the MSF would comply with the best management practices noted in Section 7.1.2, as well as the city's development standards related to scenic quality during construction, which would be verified during the permitting process. Therefore, the MSF would not conflict with applicable regulations governing scenic quality, or substantially degrade the existing visual character or quality of public views of the site and its surroundings, and the impact would be less than significant.

7.2.16.4 Impact AES-4: Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Construction of Alternative 4 would occur during daytime hours. Additionally, some work would be conducted throughout 24-hour periods, seven days a week when appropriate, such as work within the tunnel station box. Nighttime and weekend construction, if any, would comply with local ordinance restrictions. Such activities may include, but would not be limited to, tunneling, columns and trackwork, and stockpiling materials. Construction lighting would be directed toward the construction areas and/or shielded with temporary screening to minimize light spillover and glare onto adjacent areas. In addition, construction-related illumination would be temporary and limited to safety and security purposes. The implementation of best management practices would reduce temporary impacts to adjacent uses, such as the residential properties. Therefore, construction of Alternative 4 would have less than significant impacts related to light and glare.

Maintenance and Storage Facilities

Construction of the MSF would primarily occur during daytime hours. Nighttime and weekend construction, if any, would comply with local ordinance restrictions. Construction lighting would be directed toward the construction areas and/or shielded with temporary screening to minimize light spillover and glare onto adjacent areas. In addition, construction-related illumination would be temporary and limited to safety and security purposes. Construction of the MSF would not be a substantial source of light and glare because several nighttime lighting sources already exist around the construction areas (e.g., streetlights, building illumination). Therefore, the MSF would have less than significant impacts related to light and glare.

7.2.16.5 Mitigation Measures

The following mitigation measures would be implemented:

MM AES-1: *Privacy screens, as applicable and appropriate, shall be placed in high visibility areas that have construction related structures or activities. Privacy screens shall be used in areas requiring tree removal activities adjacent visually sensitive areas, including but not limited to residential areas.*

MM BIO-12: ***Avoid and Minimize Construction-Related Impacts to Protected Trees and Shrubs (Applicable to Alternatives 4 and 5).*** *Impacts to protected trees and shrubs shall be avoided, minimized, and/or mitigated by incorporation of the following:*

- *A Tree Expert, as defined under the City of Los Angeles Protected Tree and Shrub Ordinance, shall complete a detailed tree survey report prior to construction and once access is obtained to properties within the alignment. The report shall build upon the Initial Protected Tree and Shrub Inventory Memorandum (Attachment 2 of the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report]) and include detailed field methods and data for each protected tree or shrub, such as species, height, diameter, canopy spread, physical condition, and precise location. The City of Los Angeles Protected Tree and Shrub Ordinance has jurisdiction in the Project; therefore, a Tree Expert shall be required to conduct the detailed survey and procure permits for protected tree/shrub removal from the Los Angeles Board of Public Works. The Tree Expert's follow-up report shall expand upon the initial assessment to provide a comprehensive dataset with verification of tree/shrub species, height, canopy width, and tree/shrub health for the Ground Disturbance Area. This follow-up report shall be used to procure the required permit prior to commencement of tree impacts within the City of Los Angeles.*
- *Impacts to protected trees and shrubs shall be minimized to the maximum extent feasible. For the purposes of this measure, "feasible" is defined as the ability to avoid or minimize impacts while meeting project design, safety, and operational requirements, as determined by the Tree Expert and project engineers. When trimming and/or encroachment into the tree/shrub protection zone (defined as the dripline or canopy) is needed, the following measures shall be required.*
- *Trimming of protected trees/shrubs must comply with the pruning standards set forth by the Western Chapter of the International Society of Arboriculture and conducted in a manner that does not cause permanent damage or adversely affect the health of the trees or shrubs. Trimming shall require coordination and permitting with the appropriate entities as follows:*
  - *Species protected under the Los Angeles Protected Tree and Shrub Ordinance shall coordinate with the City of Los Angeles Board of Public Works, Urban Forestry Division.*
  - *Trees protected under the City of Los Angeles Street Tree Policy shall require coordination with the City of Los Angeles Department of Public Works, Urban Forestry Division.*
  - *Trees protected under the City of Santa Monica Tree Ordinance shall require coordination with the Director of Community and Cultural Services for pruning, maintenance, removal, and care for all affected trees*

  - *Trees covered by the Metro Tree Policy shall require the Project to prepare a tree protection plan identifying Tree Protection Zones for all trees designated for retention and to prepare a mitigation plan for damaged and removed trees.*

- *For impacts to protected trees and shrubs beyond trimming, the required tree removal permits shall be obtained, and replacement shall occur at the below rates. Mitigation locations of replacement trees shall be determined through the permitting process.*

  - ***City of Los Angeles Protected Tree and Shrub Ordinance:*** *Protected trees and shrubs included trees of the oak genus (indigenous to California), western sycamore, southern California black walnut and California bay, and two shrub species (Mexican elderberry and toyon). Individual trees and shrubs shall be replaced at a 4:1 ratio by plants that are the same species of protected plant.*

  - ***City of Santa Monica Tree Code****: Trees protected under the City of Santa Monica Tree Code shall require coordination with the Director of Community and Cultural Services for pruning, maintenance, removal, and care for all affected trees.*

  - ***Policy-Protected Trees:*** *All policy-protected trees, which fall under the purview of the Los Angeles Street Tree Policy or the Metro Tree Policy, shall be replaced at a ratio of 2:1. The Los Angeles Street Tree Policy allows for an in-lieu fee to be made with approval of the Board of Public Works following verification that replacement trees cannot be feasibly planted onsite. Trees under the Metro Tree Policy that are designated as heritage trees in a local ordinance shall be replaced at a 4:1 ratio with trees of the same variety.*

- *All trees occurring on private property, or Caltrans right-of-way, shall not require permitting, but shall require coordination and negotiation with property owners. Mitigation implementation shall follow Metro Tree Policy's replacement ratio of 2:1.*

- *For protected trees and shrubs that are not anticipated to be impacted, a Tree Protection Zone shall be established around each tree/shrub or cluster of trees/shrubs prior to the commencement of work. The Tree Protection Zone shall be erected using temporary fencing in an environmentally sensitive manner and remain in place until all site work has been completed. Specific installation timeframe may vary but the Tree Protection Zone must be inspected and approved by a Qualified Arborist prior to construction work occurring including staging of equipment. Work can commence directly following arborist inspection and approval. No construction-related materials shall be stored or staged within the Tree Protection Zone (fenced areas*).

- *The LA Street Tree Policy would require coordination with the City of Los Angeles Department of Public Works for removal or maintenance of protected trees; this policy does not apply to trees within private property, UCLA, or within the Caltrans right-of-way. Metro Tree Policy would not require permitting but would*

require coordination with the landowners (e.g., private landowners, UCLA, Caltrans) when a tree must be removed. Additionally, Metro Tree Policy states a mitigation plan would be required to be developed in consultation with a Certified Arborist if construction impacts damaged or removed a tree; decisions would be made in accordance with local ordinances identifying protected trees.

Impacts After Mitigation

It has been concluded that there are no feasible mitigation measures available to reduce impacts related to visual quality and character during operations. As such, a significant and unavoidable impact remains.

During construction MM AES-1 would reduce the temporary visual nuisance of construction activities. MM BIO-12 from the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k) would reduce impacts related to tree removal during construction. To the greatest extent practicable protected trees and shrubs would not be removed. When removal is unavoidable, mitigation would be implemented. The implementation of these mitigation measures would result in less than significant impacts related to construction.

7.2.17 Water Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 7-34.

Table 7-34. Alternative 4: Water Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 4
Hydrology and Water Quality Operational Impacts		
Impact HWQ-1: Would the project violate any water quality standards or Waste Discharge Requirements or otherwise substantially degrade surface or groundwater quality?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would: i. result in substantial erosion or siltation on- or off-site; ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv. impede or redirect flood flows??	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-4: Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
	Impacts Before Mitigation	LTS

CEQA Impact Topic		Alternative 4
Impact HWQ-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025g

HWQ = hydrology and water quality
LTS = less than significant
NA = not applicable

7.2.17.1 Impact HWQ-1: Would the project violate any water quality standards or Waste Discharge Requirements or otherwise substantially degrade surface or groundwater quality?

Construction of Alternative 4 would involve underground, at-grade, and aerial activities. Underground activities would include relocation of existing utilities, tunnel guideway construction, and station construction. At-grade activities would involve site clearing and excavation, utility relocation, foundation construction, installation of support columns and beams for aerial guideway, erection of stations, towers, and junctions, as well as construction of MSFs, replacement or restoration of paving, sidewalks, parking, and landscaping. Temporary components of Alternative 4 would include construction staging areas, office areas, and work zones at permanent facilities.

Alternative 4 traverses three primary segments: South Westside Basin (south), Central-Santa Monica Mountains (central), and North-San Fernando Valley (north). The construction activities within the north segment of Alternative 4 would be conducted exclusively at grade in the dense urban area along Sepulveda Boulevard. This includes building an elevated guideway structure for the aerial portion of Alternative 4 and four aerial stations, and at-grade MSF. Aerial stations located in the segment include the Ventura Boulevard Station, Metro G Line Station, Sherman Way Station, and the Van Nuys Metrolink Station.

Construction activities such as demolition, excavation, and grading would temporarily expose bare soil, increasing the risk of erosion. Uncontrolled erosion and discharge of sediments and other potential pollutants, including the discharge of fill material, would affect water quality in Alternative 4 receiving waters (e.g., the Pacoima Wash, Tujunga Wash, and Los Angeles River) if not appropriately managed by proper implementation of the construction SWPPP.

In addition to sediments, other pollutants including trash, concrete waste, and petroleum products, such as fuels, solvents, and lubricants, would degrade water quality and contribute to water pollution if not appropriately managed. The use of construction equipment and vehicles during Alternative 4 construction would result in spills of vehicle-related fluids that would contribute to water pollution. Improper handling, storage, or disposal of these materials or improper cleaning and maintenance of equipment would result in accidental spills and discharges that would contribute to water pollution.

Alternative 4 would be located within the Los Angeles Watershed and the Santa Monica Bay Watershed in the Ballona Creek subwatershed. The vast majority of land in the Los Angeles Watershed (approximately 80 percent) is developed with urban uses. Most of the Ballona Creek subwatershed drainage network has been modified into storm drains, underground culverts, and open concrete channels. A few natural channels remain in the Santa Monica Mountains. Construction activities such as excavation near Santa Monica Mountains would have the potential to temporarily impact these natural channels by contributing increased sediment/pollutants if not appropriately managed.

Construction activities associated with elevated guideway foundations involve general earthwork and concrete work to prepare the foundations. Excavations for foundations would occur between 6 and 12 feet bgs and piles would be installed up to a maximum of approximately 140 feet bgs. Groundwater levels in this segment of Alternative 4 generally range from depths of approximately 50 to 80 feet bgs, with deeper groundwater close to the Van Nuys Metrolink Station and shallower groundwater close to the Ventura Boulevard Station.

Since the average proposed excavation depth for the foundations at the aerial stations would be lower than the depth of groundwater in the vicinity of the four aerial stations, removal of nuisance water that seeps into boreholes during construction would be required for foundation excavations.

The construction activities within the south segment of Alternative 4 would be mainly conducted underground in the dense urban area from west of Los Angeles to the southern base of Santa Monica Mountains. This includes constructing an underground track guideway/tunnel and four underground stations. Underground stations located in the segment include the Metro E Line Station, Santa Monica Boulevard Station, Wilshire Boulevard/Metro D Line Station, and the UCLA Gateway Plaza Station. The stations would be constructed using the cut-and-cover method. At the Metro E Line Station, the depth of excavation would be up to approximately 100 feet bgs, with the groundwater table in the vicinity of the station approximately 40 feet bgs. At the Santa Monica Boulevard Station, the depth of excavation would be approximately 100 feet bgs and the groundwater table would be 30 feet below the ground surface. The excavation depth of the Wilshire Boulevard/Metro D Line Station would be approximately 150 feet, and groundwater would be encountered approximately 25 bgs in the vicinity of the station. The excavation depth of the UCLA Gateway Plaza Station would be approximately 130 feet, and groundwater would be encountered around 45 feet bgs. Since there is potential for groundwater to be encountered during excavation activities for all of these stations, dewatering would be required.

If dewatering is required, dewatering activities would be conducted in compliance with the Los Angeles Regional Water Quality Control Board's NPDES dewatering permits, *Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* (Order R4-2018-0125) and *Waste Discharge Requirements for Specified Discharges to Groundwater in the Santa Clara River and Los Angeles River Basins* (Order No. 93-010), as applicable. The watertight systems (e.g., secant pile, slurry wall) to be employed during station construction would minimize groundwater intrusion, and any residual impacts would be managed under the established regulatory framework. In such cases, temporary pumps and filtration systems would be used in compliance with the applicable NPDES permits. The temporary system would be required to comply with all relevant NPDES requirements related to construction and discharges from dewatering operations. Water removed from the boreholes would be containerized and analyzed to determine the proper disposal method or possible treatment and re-use on-site. The treatment and disposal of the dewatered water would occur in accordance with the requirements of NPDES Order R4-2018-0125 and Order No. 93-010, as applicable. The WDRs require that waste be analyzed prior to being discharged in order to determine if it contains pollutants in excess of the applicable Basin Plan water quality objectives. Or if possible, the dewatered water would potentially be treated and reused on-site (e.g., for dust control or cleaning equipment) rather than being disposed.

The construction activities within the central segment of Alternative 4 would be mainly conducted underground to construct a track guideway/tunnel, with the exception of the tunnel north portal at the northern base of the Santa Monica Mountains and an LADWP substation, which may need to be constructed at the southern base of the mountains. There is no station at this segment.

Alternative 4 would include a tunnel running from the southern terminus of the project to the north base of the Santa Monica Mountains. The depth of cover for the tunnel through the southern segment of Alternative 4 would vary from approximately 40 feet to 90 feet bgs. The depth of cover for the central segment of Alternative 4 would vary from approximately 470 feet as it passes under the Santa Monica Mountains to 70 feet near UCLA. The groundwater depth along the proposed tunnel varies from 40 to 320 feet bgs. There is potential for groundwater to be encountered during tunnel boring activities in areas where the tunnel invert is below groundwater level; however, proposed tunnel boring activities would not be expected to require dewatering because tunnel boring would involve a closed mode machine that would operate under the water table, and a precast concrete tunnel liner (designed for full hydrostatic pressure) would be installed post-excavation. Both of these features would substantially reduce (if not eliminate) groundwater ingress during construction.

Volatile organic compounds such as TCE, PCE, petroleum compounds, chloroform, nitrate, sulfate, and heavy metals have been detected in groundwater of the San Fernando Valley Groundwater Basin (northern segment of Alternative 4). Although the groundwater quality in the remainder of the Project Study Area is not specifically known, it may contain elevated levels of constituents such as petroleum hydrocarbons and solvents resulting from commercial and industrial discharges, in addition to potentially elevated TDS and metals related to natural conditions. Uncontrolled discharge of groundwater carrying these potential pollutants would result in degradation of groundwater and surface water if it is not properly managed during construction activities. If groundwater containing contaminants such as VOCs, heavy metals, or petroleum hydrocarbons is encountered during dewatering activities, additional treatment or special disposal methods would be required to comply with applicable regulatory requirements and prevent contamination of receiving waters.

Alternative 4 would be required to comply with all applicable water quality protection laws and regulations at the federal, state, regional, and local levels, as well as commonly used industry standards. These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Policies, NPDES CGP, the MS4 Permit, Caltrans NPDES Statewide Stormwater Permit, and the City of Los Angeles and County of Los Angeles LID Ordinance.

Alternative 4 would be required to comply with the CGP in effect at the time of construction. In accordance with the CGP, Alternative 4 would be required to prepare and submit a construction SWPPP, which must be submitted to the SWRCB prior to construction and adhered to during construction. Proper implementation of the construction SWPPP would avoid potential impacts to water quality. The construction SWPPP would identify the BMPs that would be in place to protect water quality prior to the start of construction activities and during construction. BMP categories would include erosion control, sediment control, tracking control, wind erosion, stormwater and non-stormwater management, and materials management with regular monitoring. Although specific temporary construction-related BMPs would be selected at the time of SWPPP preparation, potential BMPs would likely include fiber rolls, bonded-fiber matrix hydroseeding, soil furrowing, water bars, and check dams for erosion control, inlet protection (sand/gravel bags and geotextiles), silt fencing, sediment traps/basins for sediment controls, soil berming around disturbed areas, and phasing of soil disturbance during the wet season (i.e., limiting widespread grading) for effectively managing erosion and pollutant discharge during significant rainfall events.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or WDRs or substantial degradation of surface or groundwater quality during construction activities of Alternative 4 would be less than significant.

Maintenance and Storage Facilities

Maintenance of vehicles and equipment would occur at the MSF, which would include multiple buildings, including a multi-level maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, and TPSS structures. The MSF would be constructed on parcels containing existing impervious surfaces. Therefore, the MSF would not increase the existing impervious surface area.

The MSF for Alternatives 4 would comply with the same regulatory requirements previously described for the MSF Base Design for Alternatives 1 and 3, and applicable regulatory requirements are presented in that discussion.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or WDRs or substantial degradation of surface or groundwater quality during construction of the MSF would be less than significant.

7.2.17.2 Impact HWQ-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

Construction activities associated with foundations would include excavation and concrete work, installation of drilled piles, aerial guideway, and tunneling. As previously discussed, excavations for stations, piles, and other underground structures would be performed up to depths of 6 to 140 feet bgs, and the tunnel depth would range from 40 to 470 feet bgs.

The Alternative 4 alignment may encounter groundwater in shallower areas and would require the removal of nuisance water that seeps into boreholes during construction. Nuisance water and seepage encountered during construction would be removed from the boreholes, containerized, and analyzed consistent with existing applicable regulations to determine the proper disposal method or possible treatment and reuse on-site.

Alternative 4 would include two tunnel segments running from the southern terminus of the Alternative 4 alignment to the north base of the Santa Monica Mountains. The depth of cover for the tunnel through the southern segment of the Alternative 4 alignment would vary from approximately 40 feet to 90 feet bgs. The depth of cover for the central segment of the Alternative 4 alignment would vary from approximately 470 feet as it passes under the Santa Monica Mountains to 70 feet near UCLA. The groundwater depth along both segments of the tunnel varies from 40 to 320 feet bgs. There is potential for groundwater to be encountered during tunnel boring activities in areas where the tunnel invert is below groundwater level; however, proposed tunnel boring activities would not be expected to require dewatering because tunnel boring would involve a closed mode machine, which would operate under the water table, and a precast concrete tunnel liner (designed for full hydrostatic pressure) would be installed post-excavation. Both of these features would substantially reduce (if not eliminate) groundwater ingress during construction. Any dewatering would be limited to the construction phase only. The volume of groundwater extracted during construction would not be expected to decrease groundwater supplies. The volume of groundwater removed during construction would be monitored and documented.

Alternative 4 would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, as well as commonly used industry standards. These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Policies,

NPDES CGP, the MS4 Permit, Caltrans NPDES Statewide Stormwater Permit, and the City of Los Angeles and County of Los Angeles LID Ordinance.

Due to the limited amount of nuisance seepage water anticipated to be encountered and because most of the existing surfaces at the Alternative 4 component sites are currently covered with impervious surfaces, construction activities are not anticipated to interfere substantially with groundwater recharge or groundwater resource supplies. Construction activities, including construction of underground structures, are not anticipated to decrease groundwater supplies such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts to groundwater supply and recharge during construction of Alternative 4 would be less than significant.

Maintenance and Storage Facilities

Extracting large volumes of groundwater that would decrease groundwater supplies would not be expected during construction. Therefore, the MSF would not be expected to result in a decrease in groundwater supplies or interfere substantially with groundwater recharge to the extent that the proposed MSF may impede sustainable groundwater management of the basin.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts to groundwater supply and recharge during construction of the MSF would be less than significant.

7.2.17.3 Impact HWQ-3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on- or off-site;

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv) impede or redirect flood flows?

The Construction activities such as demolition of existing site structures and excavation for foundations would temporarily expose bare soil, which would be at increased risk for erosion. Exposed or stockpiled soils would also be at increased risk for erosion. Sediments resulting from erosion might accumulate, blocking storm drain inlets and causing downstream sedimentation. Uncontrolled erosion and discharge of sediments and other potential pollutants would affect water quality in the Alternative 4 receiving waters if not appropriately managed by proper implementation of the construction SWPPP.

The construction of new impervious surfaces would increase the rate of runoff, pollutant concentrations, and pollutant loading from these new impervious surfaces. Construction activities would temporarily increase the potential for stormwater to contact other construction-related contaminants creating additional sources of pollutant runoff. Additionally, placement of construction equipment and materials may temporarily impact localized drainage patterns. To address these temporary impacts, Alternative 4 would implement runoff control measures and pollution prevention practices in

compliance with the construction SWPPP to control runoff rates/amounts and the discharge of potential pollutants. Existing drainage systems would be modified where applicable and the existing drainage patterns would be maintained as much as possible and monitored throughout construction.

Construction activities associated with Alternative 4, such as excavation near the Santa Monica Mountains and Baldwin Hills, and tunneling through the Eastern Santa Monica Mountains, would temporarily impact the drainage course of these natural channels. However, any impacts to channels would be temporary and would be minimized with implementation of a SWPPP, which would help to maintain existing drainage patterns and control stormwater runoff from construction areas.

Alternative 4 would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, as well as commonly used industry standards. These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Polices, NPDES CGP regulations, Caltrans NPDES Statewide Stormwater Permit, Basin Plan, City of Los Angeles Municipal Code, the City of Los Angeles and County of Los Angeles LID Ordinance, and all other applicable regulations for all construction activities.

In accordance with the CGP, Alternative 4 would be required to prepare and submit a construction SWPPP, which must be submitted to the SWRCB prior to construction and adhered to during construction. Proper implementation of the construction SWPPP would avoid potential impacts to water quality. The construction SWPPP would identify the BMPs that would be in place to protect water quality prior to the start of construction activities and during construction. BMP categories would include erosion control, sediment control, non-stormwater management, and materials management BMPs. Although specific temporary construction-related BMPs would be selected at the time of SWPPP preparation, potential BMPs would likely include fiber rolls, bonded-fiber matrix hydroseeding, soil furrowing, water bars, and check dams for erosion control, inlet protection (sand/gravel bags and geotextiles), silt fencing, sediment traps/basins for sediment controls, soil berming around disturbed areas, and phasing of soil disturbance during the wet season (i.e., limiting widespread grading) for effectively managing erosion and pollutant discharge during significant rainfall events.

Construction activities would temporarily impact localized drainage patterns; however, these impacts would not substantially increase the rate or volume of stormwater flows. Construction activities would comply with all applicable federal and local floodplain regulations, including the *Los Angeles County Comprehensive Floodplain Management Plan*. Furthermore, implementation of runoff control measures and pollution prevention practices would control stormwater runoff from the Alternative 4 construction areas and would minimize construction-related flooding impacts, erosion, and pollutant discharge.

With adherence to existing laws and regulations and proper implementation of stormwater compliance requirements, potential impacts related to substantial erosion or siltation, a substantial increase in the rate or amount of surface runoff resulting in flooding, creation of runoff that would exceed drainage system capacity or provide additional sources of polluted runoff, or impede or redirect flood flows during construction of Alternative 4 would be less than significant.

Maintenance and Storage Facilities

The MSF would comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, as well as commonly used industry standards. Construction activities would comply with all applicable federal and local floodplain regulations. Any impacts to existing drainage patterns would be temporary. Implementation of runoff control measures and pollution prevention practices in compliance with the construction SWPPP would control stormwater runoff from

the MSF construction areas to minimize construction-related flooding impacts, erosion, and the discharge of potential pollutants, including sedimentation/siltation.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to substantial erosion or siltation, a substantial increase in the rate or amount of surface runoff that would cause flooding, creation of runoff that would exceed drainage system capacity or provide additional sources of polluted runoff, or impede or redirect flood flows during construction of the MSF would be less than significant.

7.2.17.4 Impact HWQ-4: Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The majority of the Alternative 4 alignment would be constructed outside of the FEMA-designated 100-year floodplain and would be in an inland area that is not in proximity to the ocean; therefore, the risk of inundation by a tsunami is considered low.

Given the distance of Alternative 4 from the Encino Reservoir and Stone Canyon Reservoir, any oscillation and subsequent release of water in the reservoirs as part of a seiche would not inundate Alternative 4. Therefore, there would be low potential for risk of release of pollutants due to inundation by seiche.

Potential impacts during construction would be less than significant.

Maintenance and Storage Facilities

The MSF would be located outside of the FEMA-designated 100-year floodplain and would be in an inland area that is not in proximity to the ocean; therefore, the risk of inundation by a tsunami is considered low.

Given the distance of the MSF construction site from the Encino Reservoir and Stone Canyon Reservoir, any oscillation and subsequent release of water in the reservoirs as part of a seiche would not inundate the MSF. Therefore, there would be low potential for risk of release of pollutants due to inundation by seiche.

The Los Angeles River and Ballona Creek are the major flood control measures for draining stormwater from the Project Study Area and directing it safely to the San Pedro Bay and Santa Monica Bay, respectively. The risk related to flooding would be considered low as the MSF is within a well-developed area that maintains storm drainage and water runoff control.

Construction of the MSF would not result in impacts to the hydrology, hydraulics, and connectivity of natural watercourses, including floodways.

The MSF would have no impacts related to risk of release of pollutants due to inundation by flood, tsunami, or seiche, and potential impacts during construction of the MSF would be less than significant.

7.2.17.5 Impact HWQ-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Construction of the Alternative 4 components would be conducted in several phases, including site preparation and installation of foundations and columns; erection of stations, construction of tunnels; and construction of ancillary components, including replacement or restoration of paving, sidewalk, and landscaping.

Construction of Alternative 4 has the potential to impact water quality of downstream receiving waters if applicable and appropriate BMPs are not implemented. Construction activities such as demolition of existing site structures and excavation for foundations would temporarily expose bare soil and would temporarily increase erosion. Exposed or stockpiled soils would also be at increased risk for erosion. Uncontrolled erosion and discharge of sediments and other potential pollutants would affect water quality in Alternative 4 receiving waters (e.g., the Pacoima Wash, Tujunga Wash, and Los Angeles River) if not appropriately managed by proper implementation of the construction SWPPP.

In addition to sediments, other pollutants including trash, concrete waste, and petroleum products (e.g., heavy equipment fuels, solvents, and lubricants) would contribute to stormwater pollution if not appropriately managed. The use of construction equipment and other vehicles during Alternative 4 construction would result in spills of oil, brake fluid, grease, antifreeze, or other vehicle-related fluids, which would contribute to water quality impacts. Improper handling, storage, or disposal of fuels and vehicle-related fluids or improper cleaning and maintenance of equipment would result in accidental spills and discharges that would contribute to water pollution.

Nuisance groundwater may be encountered during installation of piles for each of the components, which may result in degradation of groundwater quality if not addressed properly. Additionally, potentially impacted groundwater may result in degradation of surface water if it is not properly managed during construction activities. Although construction activities are not anticipated to interfere substantially with groundwater recharge, groundwater resource supplies, or groundwater quality, any accidental interference would be handled in accordance with applicable federal, state, regional, and local laws and regulations, groundwater management plans, and WDRs for groundwater discharge.

As discussed previously, Alternative 4 would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, and water quality control and/or sustainable groundwater management plans, including the Basin Plan, as well as commonly used industry standards. Alternative 4 would comply with the Caltrans NPDES Statewide Stormwater Permit; the NPDES CGP; the MS4 Permit; the City of Los Angeles and County of Los Angeles LID Ordinance; the City of Los Angeles Municipal Code, and all other applicable regulations for all construction activities.

In accordance with the CGP, Alternative 4 would be required to implement a construction SWPPP, which must be submitted to the SWRCB prior to construction and adhered to during construction. Proper implementation of the construction SWPPP would avoid potential impacts to water quality. The construction SWPPP would identify the BMPs that would be in place to protect water quality prior to the start of construction activities and during construction. The BMP categories would include erosion control, sediment control, non-stormwater management, and materials management BMPs. Although specific temporary construction-related BMPs would be selected at the time of SWPPP preparation, potential BMPs would likely include fiber rolls, bonded-fiber matrix hydroseeding, soil furrowing, water bars, and check dams for erosion control, inlet protection (sand/gravel bags and geotextiles), silt fencing, sediment traps/basins for sediment controls, soil berming around disturbed areas, and phasing of soil disturbance during the wet season (i.e., limiting widespread grading) for effectively managing erosion and pollutant discharge during significant rainfall events.

With adherence to existing laws and regulations and with proper implementation of stormwater compliance requirements, potential impacts related to conflict with implementation of a water quality control plan or sustainable groundwater management plan during construction of Alternative 4 would be less than significant.

Maintenance and Storage Facilities

The MSF would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, and water quality control and/or sustainable groundwater management plans. Dewatering would be limited to the construction phase only. Extracting large volumes of groundwater that would decrease groundwater supplies would not be expected during construction.

With adherence to existing regulations and with proper implementation of stormwater compliance requirements, potential impacts related to conflict with implementation of a water quality control plan or sustainable groundwater management plan during construction of the MSF would be less than significant.

7.2.17.6 Mitigation Measures

Construction Impacts

No mitigation measures are required with adherence to all existing local, regional, and federal regulations, guidelines, and standards. As such, all water-related impacts are less than significant.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

8 ALTERNATIVE 5

8.1 Alternative Description

Alternative 5 consists of a heavy rail transit (HRT) system with a primarily underground guideway track configuration, including seven underground stations and one aerial station. This alternative would include five transfers to high-frequency fixed guideway transit and commuter rail lines, including the Los Angeles County Metropolitan Transportation Authority's (Metro) E, Metro D, and Metro G Lines, East San Fernando Valley Light Rail Transit Line, and the Metrolink Ventura County Line. The length of the alignment between the terminus stations would be approximately 13.8 miles, with 0.7 miles of aerial guideway and 13.1 miles of underground configuration.

The seven underground and one aerial HRT stations would be as follows:

1. Metro E Line Expo/Sepulveda Station (underground)
2. Santa Monica Boulevard Station (underground)
3. Wilshire Boulevard/Metro D Line Station (underground)
4. UCLA Gateway Plaza Station (underground)
5. Ventura Boulevard/Sepulveda Boulevard Station (underground)
6. Metro G Line Sepulveda Station (underground)
7. Sherman Way Station (underground)
8. Van Nuys Metrolink Station (aerial)

8.1.1 Operating Characteristics

8.1.1.1 Alignment

As shown on Figure 8-1, from its southern terminus station at the Metro E Line Expo/Sepulveda Station, the alignment of Alternative 5 would run underground north through the Westside of Los Angeles (Westside), the Santa Monica Mountains, and the San Fernando Valley (Valley) to a tunnel portal east of Sepulveda Boulevard and south of Raymer Street. As it approaches the tunnel portal, the alignment would curve eastward and begin to transition to an aerial guideway along the south side of the Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor that would continue to the northern terminus station adjacent to the Van Nuys Metrolink/Amtrak Station.

The proposed southern terminus station would be located underground east of Sepulveda Boulevard between the existing elevated Metro E Line tracks and Pico Boulevard. Tail tracks for vehicle storage would extend underground south of National Boulevard east of Sepulveda Boulevard. The alignment would continue north beneath Bentley Avenue before curving northwest to an underground station at the southeast corner of Santa Monica Boulevard and Sepulveda Boulevard. From the Santa Monica Boulevard Station, the alignment would continue and curve eastward to the Wilshire Boulevard/Metro D Line Station beneath the Metro D Line Westwood/UCLA Station, which is currently under construction as part of the Metro D Line Extension Project. From there, the underground alignment would curve slightly to the northeast and continue beneath Westwood Boulevard before reaching the UCLA Gateway Plaza Station.

Figure 8-1. Alternative 5: Alignment

Source: STCP, 2024; HTA, 2024

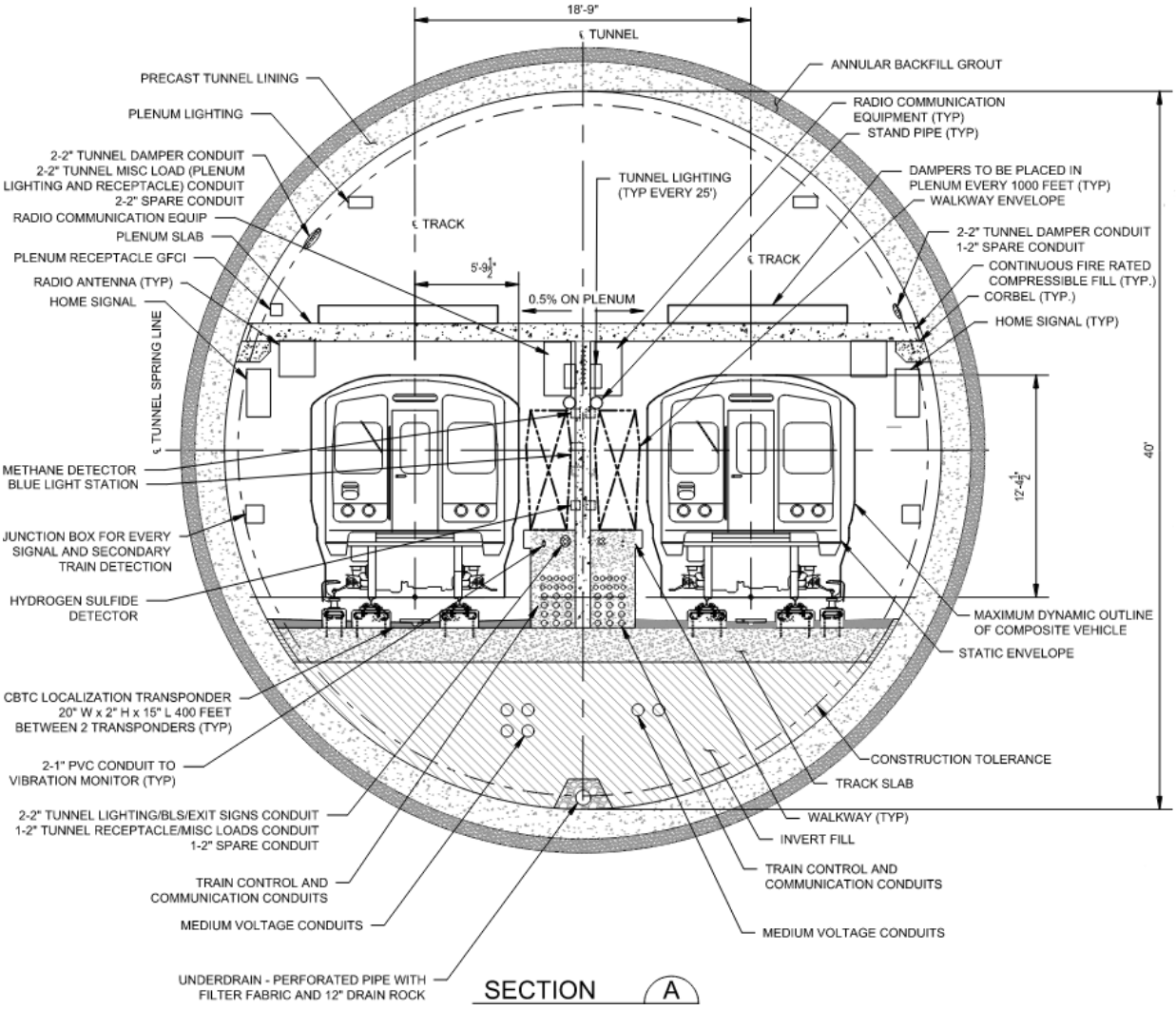
From the UCLA Gateway Plaza Station, the alignment would turn to the northwest beneath the Santa Monica Mountains to the east of Interstate 405 (I-405). South of Mulholland Drive, the alignment would curve to the north, aligning with Saugus Avenue south of Valley Vista Boulevard. The Ventura Boulevard Station would be located under Saugus Avenue between Greenleaf Street and Dickens Street. The alignment would then continue north beneath Sepulveda Boulevard to the Metro G Line Sepulveda Station immediately south of the Metro G Line Busway. After leaving the Metro G Line Sepulveda Station, the alignment would continue beneath Sepulveda Boulevard to reach the Sherman Way Station,

the final underground station along the alignment, immediately south of Sherman Way. From the Sherman Way Station, the alignment would continue north before curving slightly to the northeast to the tunnel portal south of Raymer Street. The alignment would then transition from an underground configuration to an aerial guideway structure after exiting the tunnel portal. East of the tunnel portal, the alignment would transition to a cut-and-cover U-structure segment followed by a trench segment before transitioning to an aerial guideway that would run east along the south side of the LOSSAN rail corridor. Parallel to the LOSSAN rail corridor, the guideway would conflict with the existing Willis Avenue Pedestrian Bridge which would be demolished. The alignment would follow the LOSSAN rail corridor before reaching the proposed northern terminus Van Nuys Metrolink Station located adjacent to the existing Metrolink/Amtrak Station. The tail tracks and yard lead tracks would descend to the proposed at-grade maintenance and storage facility (MSF) east of the proposed northern terminus station. Modifications to the existing pedestrian underpass to the Metrolink platforms to accommodate these tracks would result in reconfiguration of an existing rail spur serving City of Los Angeles Department of Water and Power (LADWP) property.

8.1.1.2 Guideway Characteristics

For underground sections, Alternative 5 would utilize a single-bore tunnel configuration with an outside diameter of approximately 43.5 feet. The tunnel would include two railways at 18.75-foot spacing separated by a continuous central dividing wall throughout the tunnel. Inner walkways would be constructed adjacent to the two railways. Inner and outer walkways would be constructed within tunnel sections near the track crossovers. At the crown of tunnel, a dedicated air plenum would be provided by constructing a concrete slab above the railway corridor. The air plenum would allow for ventilation throughout the underground portion of the alignment. Figure 8-2 illustrates these components at a typical cross-section of the underground guideway.

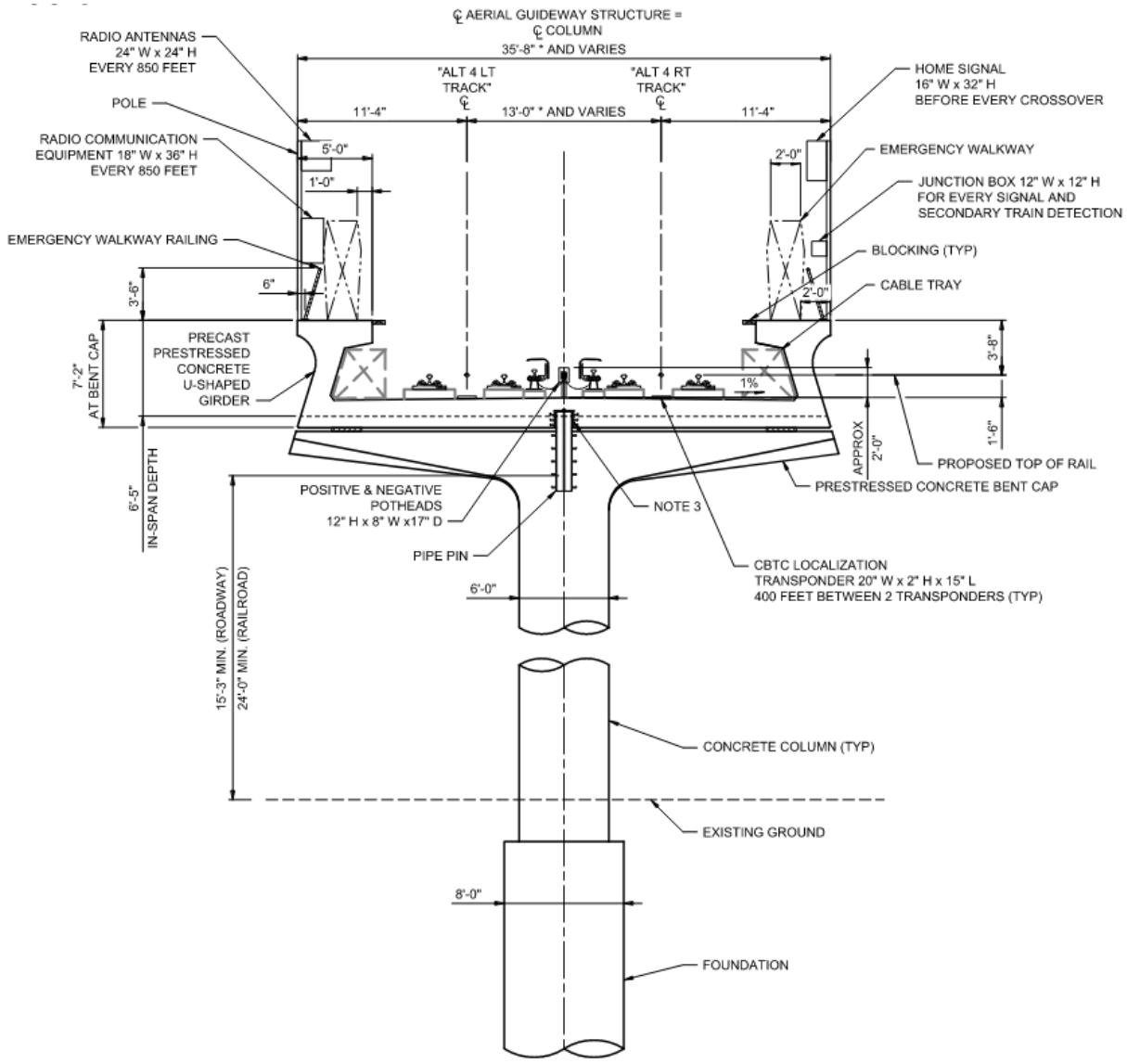
Figure 8-2. Typical Underground Guideway Cross-Section



Source: STCP, 2023

In aerial sections adjacent to Raymer Street and the LOSSAN rail corridor, the guideway would consist of single-column piers. The single-column piers would support a U-shaped concrete girder and the HRT track. The aerial guideway would be approximately 36 feet wide. The track would be constructed on the concrete girders with direct fixation and would maintain a minimum of 13 feet between the centerlines of the two tracks. On the outer side of the tracks, emergency walkways would be constructed with a minimum width of 2 feet. Figure 8-3 shows a typical cross-section of the single-column aerial guideway.

Figure 8-3. Typical Aerial Guideway Cross-Section



Source: STCP, 2023

8.1.1.3 Vehicle Technology

Alternative 5 would utilize steel-wheel HRT trains, with automated train operations and planned peak-period headways of 2.5 minutes and off-peak-period headways ranging from 4 to 6 minutes. Each train could consist of three or four cars with open gangways between cars. The HRT vehicle would have a maximum operating speed of 70 miles per hour; actual operating speeds would depend on the design of the guideway and distance between stations. Train cars would be approximately 10 feet wide with three double doors on each side. Each car would be approximately 72 feet long with capacity for 170 passengers. Trains would be powered by a third rail.

8.1.1.4 Stations

Alternative 5 would include seven underground stations and one aerial station with station platforms measuring 280 feet long for both station configurations. The aerial station would be constructed a minimum of 15.25 feet above ground level, supported by five rows of dual columns with 8-foot diameters. The southern terminus station would be adjacent to the Metro E Line Expo/Sepulveda Station, and the northern terminus station would be adjacent to the Van Nuys Metrolink/Amtrak Station.

All stations would be side-platform stations where passengers would select and travel up to station platforms depending on their direction of travel. All stations would include 20-foot-wide side platforms separated by 30 feet for side-by-side trains. Each underground station would include an upper and lower concourse level prior to reaching the train platforms. The Van Nuys Metrolink Station would include a mezzanine level prior to reaching the station platforms. Each station would have a minimum of two elevators, two escalators, and one stairway from ground level to the concourse or mezzanine.

Stations would include automatic, bi-parting fixed doors on all station platforms. These platform screen doors would be integrated into the automatic train control system and would not open unless a train is stopped at the platform.

The following information describes each station, with relevant entrance, walkway, and transfer information. Bicycle parking would be provided at each station.

Metro E Line Expo/Sepulveda Station

- This underground station would be located just north of the existing Metro E Line Expo/Sepulveda Station, on the east side of Sepulveda Boulevard.
- A station entrance would be located on the east side of Sepulveda Boulevard north of the Metro E Line.
- A direct internal transfer to the Metro E Line would be provided at street level within the fare paid zone.
- A 126-space parking lot would be located immediately north of the station entrance, east of Sepulveda Boulevard. Passengers would also be able to park at the existing Metro E Line Expo/Sepulveda Station parking facility, which provides 260 parking spaces.

Santa Monica Boulevard Station

- This underground station would be located under the southeast corner of Santa Monica Boulevard and Sepulveda Boulevard.
- The station entrance would be located on the south side of Santa Monica Boulevard between Sepulveda Boulevard and Bentley Avenue.
- No dedicated station parking would be provided at this station.

Wilshire Boulevard/Metro D Line Station

- This underground station would be located under Gayley Avenue between Wilshire Boulevard and Lindbrook Drive.
- Station entrances would be provided on the northeast corner of Wilshire Boulevard and Gayley Avenue and on the northeast corner of Lindbrook Drive and Gayley Avenue. Passengers would also be able to use the Metro D Line Westwood/UCLA Station entrances to access the station platform.

- A direct internal station transfer to the Metro D Line would be provided at the south end of the station.
- No dedicated station parking would be provided at this station.

UCLA Gateway Plaza Station

- This underground station would be located underneath Gateway Plaza on the University of California, Los Angeles (UCLA) campus.
- Station entrances would be provided on the north side of Gateway Plaza and on the east side of Westwood Boulevard across from Strathmore Place.
- No dedicated station parking would be provided at this station.

Ventura Boulevard/Sepulveda Boulevard Station

- This underground station would be located under Saugus Avenue between Greenleaf Street and Dickens Street.
- A station entrance would be located on the southeast corner of Saugus Avenue and Dickens Street.
- Approximately 92 parking spaces would be supplied at this station.

Metro G Line Sepulveda Station

- This underground station would be located under Sepulveda Boulevard immediately south of the Metro G Line Busway.
- A station entrance would be provided on the west side of Sepulveda Boulevard south of the Metro G Line Busway.
- Passengers would be able to park at the existing Metro G Line Sepulveda Station parking facility, which has a capacity of 1,205 parking spaces. Currently, only 260 parking spaces are currently used for transit parking. No new parking would be constructed.

Sherman Way Station

- This underground station would be located below Sepulveda Boulevard between Sherman Way and Gault Street.
- The station entrance would be located near the southwest corner of Sepulveda Boulevard and Sherman Way.
- Approximately 122 parking spaces would be supplied at this station on the west side of Sepulveda Boulevard with vehicle access from Sherman Way.

Van Nuys Metrolink Station

- This aerial station would span Van Nuys Boulevard, just south of the LOSSAN rail corridor.
- A station entrance would be located on the east side of Van Nuys Boulevard just south of the LOSSAN rail corridor.
- Existing Metrolink Station parking would be reconfigured. Metrolink parking would not be available to Metro transit riders.

8.1.1.5 Station-to-Station Travel Times

Table 8-1 presents the station-to-station distance and travel times at peak period for Alternative 5. The travel times include both run time and dwell time. Dwell time is 30 seconds for transfer stations and 20 seconds for other stations. Northbound and southbound travel times vary slightly because of grade differentials and operational considerations at end-of-line stations.

Table 8-1. Alternative 5: Station-to-Station Travel Times and Station Dwell Times

From Station	To Station	Distance (miles)	Northbound Station-to-Station Travel Time (seconds)	Southbound Station-to-Station Travel Time (seconds)	Dwell Time (seconds)
Metro E Line Station					*30*
Metro E Line	Santa Monica Boulevard	0.9	89	86	—
Santa Monica Boulevard Station					*20*
Santa Monica Boulevard	Wilshire/Metro D Line	0.9	91	92	—
Wilshire/Metro D Line Station					*30*
Wilshire/Metro D Line	UCLA Gateway Plaza	0.7	75	69	—
UCLA Gateway Plaza Station					*20*
UCLA Gateway Plaza	Ventura Boulevard	6.0	368	359	—
Ventura Boulevard Station					*20*
Ventura Boulevard	Metro G Line	2.0	137	138	—
Metro G Line Station					*30*
Metro G Line	Sherman Way	1.4	113	109	—
Sherman Way Station					*20*
Sherman Way	Van Nuys Metrolink	1.9	166	162	—
Van Nuys Metrolink Station					*30*

Source: STCP, 2024

— = no data

8.1.1.6 Special Trackwork

Alternative 5 would include 10 double crossovers throughout the alignment enabling trains to cross over to the parallel track. Each terminus station would include a double crossover immediately north and south of the station. Except for the Santa Monica Boulevard Station, each station would have a double crossover immediately south of the station. The remaining crossover would be located along the alignment midway between the UCLA Gateway Plaza Station and the Ventura Boulevard Station.

8.1.1.7 Maintenance and Storage Facility

The MSF for Alternative 5 would be located east of the Van Nuys Metrolink Station and would encompass approximately 46 acres. The MSF would be designed to accommodate 184 rail cars and would be bounded by single-family residences to the south, the LOSSAN rail corridor to the north, Woodman Avenue on the east, and Hazeltine Avenue and industrial manufacturing enterprises to the west. Trains would access the site from the fixed guideway's tail tracks at the northwest corner of the site. Trains would then travel southeast to maintenance facilities and storage tracks.

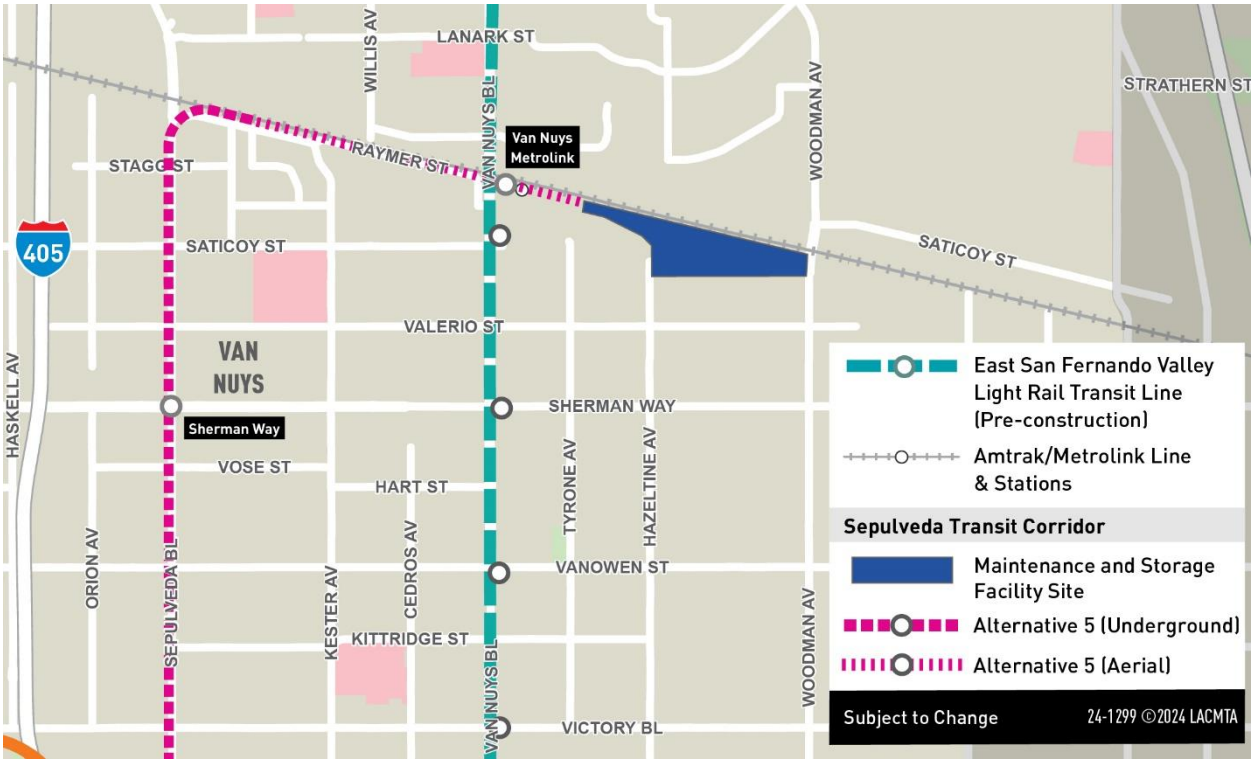
The site would include the following facilities:

- Two entrance gates with guard shacks
- Main shop building

- Maintenance-of-way building
- Storage tracks
- Carwash building
- Cleaning and inspections platforms
- Material storage building
- Hazmat storage locker
- Traction power substation (TPSS) located on the west end of the MSF to serve the mainline
- TPSS located on the east end of the MSF to serve the yard and shops
- Parking area for employees
- Grade separated access roadway (over the HRT tracks at the east end of the facility) and necessary drainage

Figure 8-4 shows the location of the MSF site for Alternative 5.

Figure 8-4. Alternative 5: Maintenance and Storage Facility Site



Source: STCP, 2024; HTA, 2024

8.1.1.8 Traction Power Substations

TPSSs transform and convert high voltage alternating current supplied from power utility feeders into direct current suitable for transit operation. Twelve TPSS facilities would be located along the alignment and would be spaced approximately 0.5 to 2.5 miles apart. All TPSS facilities would be located within the stations, adjacent to the tunnel through the Santa Monica Mountains, or within the MSF. Table 8-2-2 lists the TPSS locations for Alternative 5. Figure 8-5-5 shows the TPSS locations along the Alternative 5 alignment.

Table 8-2. Alternative 5: Traction Power Substation Locations

TPSS No.	TPSS Location Description	Configuration
1	TPSS 1 would be located east of Sepulveda Boulevard and north of the Metro E Line.	Underground (within station)
2	TPSS 2 would be located south of Santa Monica Boulevard between Sepulveda Boulevard and Bentley Avenue.	Underground (within station)
3	TPSS 3 would be located at the southeast corner of UCLA Gateway Plaza.	Underground (within station)
4	TPSS 4 would be located south of Bellagio Road and west of Stone Canyon Road.	Underground (adjacent to tunnel)
5	TPSS 5 would be located west of Roscomare Road between Donella Circle and Linda Flora Drive.	Underground (adjacent to tunnel)
6	TPSS 6 would be located east of Loom Pl between Longbow Drive and Vista Haven Road.	Underground (adjacent to tunnel)
7	TPSS 7 would be located west of Sepulveda Boulevard between the I-405 Northbound On-Ramp and Dickens Street.	Underground (within station)
8	TPSS 8 would be located west of Sepulveda Boulevard between the Metro G Line Busway and Oxnard Street.	Underground (within station)
9	TPSS 9 would be located at the southwest corner of Sepulveda Boulevard and Sherman Way.	Underground (within station)
10	TPSS 10 would be located south of the Los Angeles-San Diego-San Luis Obispo rail corridor and north of Raymer Street and Kester Avenue.	At-grade
11	TPSS 11 would be located south of the Los Angeles-San Diego-San Luis Obispo rail corridor and east of the Van Nuys Metrolink Station.	At-grade (within MSF)
12	TPSS 12 would be located south of the Los Angeles-San Diego-San Luis Obispo rail corridor and east of Hazeltine Avenue.	At-grade (within MSF)

Source: STCP, 2024; HTA, 2024

Note: Sepulveda Transit Corridor Partners (STCP) has stated that Alternative 5 TPSS locations are derived from and assumed to be similar to the Alternative 4 TPSS locations.

Figure 8-5. Alternative 5: Traction Power Substation Locations

Source: STCP, 2024; HTA, 2024

8.1.1.9 Roadway Configuration Changes

Table 8-3 lists the roadway changes necessary to accommodate the guideway of Alternative 5. Figure 8-6 shows the location of the roadway changes within the Sepulveda Transit Corridor Project (Project) Study Area.

In addition to the changes made to accommodate the guideway, as listed in Table 8-3, roadways and sidewalks near stations would be reconstructed, resulting in modifications to curb ramps and driveways.

Table 8-3. Alternative 5: Roadway Changes

Location	From	To	Description of Change
Raymer Street	Kester Avenue	Keswick Street	Reconstruction resulting in narrowing of width and removal of parking on the westbound side of the street to accommodate aerial guideway columns.
Cabrito Road	Raymer Street	Marson Street	Closure of Cabrito Road at the LOSSAN rail corridor at-grade crossing. A new segment of Cabrito Road would be constructed from Noble Avenue and Marson Street to provide access to extra space storage from the north.

Source: STCP, 2024; HTA, 2024

Figure 8-6. Alternative 5: Roadway Changes

Source: STCP, 2024; HTA, 2024

8.1.1.10 Ventilation Facilities

For ventilation, a plenum within the crown of the tunnel would provide a separate compartment for air circulation and allow multiple trains to operate between stations. Alternative 5 would include a ventilation facility at the tunnel portal on the northern end of the tunnel segment, located east of Sepulveda Boulevard and south of Raymer Street. Within this facility, ventilation fan rooms would provide both emergency ventilation, in case of a tunnel fire, and regular ventilation, during non-revenue

hours. The facility would also house sump pump rooms to collect water from various sources, including storm water; wash-water (from tunnel cleaning); and water from a fire-fighting incident, system testing, or pipe leaks.

8.1.1.11 Fire/Life Safety – Emergency Egress

Within the tunnel segment, emergency walkways would be provided between the center dividing wall and each track. Sliding doors would be located in the central dividing wall at required intervals to connect the two sides of the railway with a continuous walkway to allow for safe egress to a point of safety (typically at a station) during an emergency. Similarly, the aerial guideway near the LOSSAN rail corridor would include two emergency walkways with safety railing located on the outer side of the tracks. Access to tunnel segments for first responders would be through stations and the portal.

8.1.2 Construction Activities

Temporary construction activities for Alternative 5 would include project work zones at permanent facility locations, construction staging and laydown areas, and construction office areas. Construction of the transit facilities through substantial completion is expected to have a duration of 8¼ years. Early works, such as site preparation, demolition, and utility relocation, could start in advance of construction of the transit facilities.

For the guideway, Alternative 5 would consist of a single-bore tunnel through the Westside, Valley, and Santa Monica Mountains. The tunnel would comprise three separate segments, one running north from the southern terminus to the UCLA Gateway Plaza Station (Westside segment), one running south from the Ventura Boulevard Station to the UCLA Gateway Plaza Station (Santa Monica Mountains segment), and one running south from the portal near Raymer Street to the Ventura Boulevard Station (Valley segment). Tunnel boring machines (TBM) with approximately 45-foot-diameter cutting faces would be used to construct the tunnel segments underground. For the Westside segment, the TBM would be launched from Staging Area No. 1 in Table 8-4 at Sepulveda Boulevard and National Boulevard. For the Santa Monica Mountains segment, the TBMs would be launched from the Ventura Boulevard Station. Both TBMs would be extracted from the UCLA Gateway Plaza Station Staging Area No. 3 in Table 8-4. For the Valley segment, the TBM would be launched from the Ventura Boulevard Station and extracted from Staging Area No. 7 in Table 8-4. Figure 8-7 shows the location of construction staging locations along the Alternative 5 alignment.

Table 8-4. Alternative 5: Construction Staging Locations

No.	Location Description
1	Commercial properties on southeast corner of Sepulveda Boulevard and National Boulevard
2	North side of Wilshire Boulevard between Veteran Avenue and Gayley Avenue
3	UCLA Gateway Plaza
4	Commercial property on southwest corner of Sepulveda Boulevard and Dickens Street
5	West of Sepulveda Boulevard between US-101 and the Los Angeles River
6	Property on the west side of Sepulveda Boulevard between Sherman Way and Gault Street
7	Industrial property on both sides of Raymer Street, west of Burnet Avenue
8	South of the LOSSAN rail corridor east of Van Nuys Metrolink Station, west of Woodman Avenue

Source: STCP, 2024; HTA, 2024

Figure 8-7. Alternative 5: Construction Staging Locations

Source: STCP, 2024; HTA, 2024

The distance from the surface to the top of the tunnel for the Westside tunnel would vary from approximately 40 feet to 90 feet depending on the depth needed to construct the underground stations. The depth for the Santa Monica Mountains tunnel segment varies greatly from approximately 470 feet as it passes under the Santa Monica Mountains to 50 feet near UCLA. The depth for the Valley segment would vary from approximately 40 feet near the Ventura Boulevard/Sepulveda Station and north of the Metro G Line Sepulveda Station to 150 feet near Weddington Street. The tunnel segments through the Westside and Valley would be excavated in soft ground while the tunnel through the Santa Monica

Mountains would be excavated primarily in hard ground or rock as geotechnical conditions transition from soft to hard ground near the UCLA Gateway Plaza Station.

Construction work zones would also be co-located with future MSF and station locations. All work zones would comprise the permanent facility footprint with additional temporary construction easements from adjoining properties.

All underground stations would be constructed using a "cut-and-cover" method whereby the underground station structure would be constructed within a trench excavated from the surface with a portion or all being covered by a temporary deck and backfilled during the later stages of station construction. Traffic and pedestrian detours would be necessary during underground station excavation until decking is in place and the appropriate safety measures are taken to resume cross traffic.

In addition to work zones, Alternative 5 would include construction staging and laydown areas at multiple locations along the alignment as well as off-site staging areas. Construction staging areas would provide the necessary space for the following activities:

- Contractors' equipment
- Receiving deliveries
- Testing of soils for minerals or hazards
- Storing materials
- Site offices
- Work zone for excavation
- Other construction activities (including parking and change facilities for workers, location of construction office trailers, storage, staging and delivery of construction materials and permanent plant equipment, and maintenance of construction equipment).

A larger, off-site staging area would be used for temporary storage of excavated material from both tunneling and station cut-and-cover excavation activities. Table 8-4 and Figure 8-7 present the potential construction staging areas along the alignment for Alternative 5. Table 8-5 and Figure 8-8 present candidate sites for off-site staging and laydown areas.

Table 8-5. Alternative 5: Potential Off-Site Construction Staging Locations

No.	Location Description
S1	East of Santa Monica Airport Runway
S2	Ralph's Parking Lot in Westwood Village
N1	West of Sepulveda Basin Sports Complex, south of the Los Angeles River
N2	West of Sepulveda Basin Sports Complex, north of the Los Angeles River
N3	Metro G Line Sepulveda Station Park & Ride Lot
N4	North of Roscoe Boulevard and Hayvenhurst Avenue
N5	LADWP property south of the LOSSAN rail corridor, east of Van Nuys Metrolink Station

Source: STCP, 2024; HTA, 2024

Figure 8-8. Alternative 5: Potential Off-Site Construction Staging Locations

Source: STCP, 2024; HTA, 2024

Construction of the HRT guideway between the Van Nuys Metrolink Station and the MSF would require reconfiguration of an existing rail spur serving the Los Angeles Department of Water and Power (LADWP) property. The new location of the rail spur would require modification to the existing pedestrian undercrossing at the Van Nuys Metrolink Station.

The site of the MSF would initially be used for a casting yard that would produce precast concrete tunnel lining segments. The construction of MSF permanent facilities would include the construction of surface

buildings such as maintenance shops, administrative offices, train control, traction power, and systems facilities. Yard storage tracks would potentially be constructed before building construction to allow delivery and inspection of passenger vehicles that would be fabricated elsewhere. Additional activities occurring at the MSF during this final phase of construction would include staging of trackwork and weld-up of guideway rail.

8.2 Impacts Evaluation

8.2.1 Air Quality

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-6.

Table 8-6. Alternative 5: Air Quality Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 5
Air Quality Construction Impacts		
Impact AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact AQ-2: Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under and applicable federal or state ambient air quality standard?	Impacts Before Mitigation	SU
	Applicable Mitigation	MM AQ-1 through MM AQ-3
	Impacts After Mitigation	SU
Impact AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations?	Impacts Before Mitigation	SU
	Applicable Mitigation	MM AQ-1 through MM AQ-3
	Impacts After Mitigation	SU
Impact AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025f.

AQ = air quality
LTS = less than significant
MM = mitigation measure
NA = not applicable
SU = significant and unavoidable

8.2.1.1 Impact AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

The impacts related to Alternative 5 is the same as Alternative 4. See Section 7.2.1.1.

8.2.1.2 Impact AQ-2: Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under and applicable federal or state ambient air quality standard?

Alternative 5 construction activities would generate criteria pollutant emissions from off-road equipment, mobile sources including workers, vendor trucks, and haul trucks traveling to and from

construction sites, demolition, soil handling activities, paving, application of architectural coatings, and operation of temporary concrete batch plants. These emissions sources would be related to constructing the HRT system alignment, TPSSs, stations, and the MSF.

Construction emissions would vary substantially from day to day, depending on the level of activity and the specific type of construction activity. The peak daily construction emissions for Alternative 5 were estimated for each construction year. Based on the construction schedule for Alternative 5, construction phases for components could potentially overlap; therefore, the estimates of peak daily emissions included these potential overlaps by combining the relevant construction phase daily emissions. The peak daily emissions are predicted values for the worst-case day and do not represent the emissions that would occur for every day of construction. Table 8-7 summarizes the peak daily regional emissions for each construction year.

Table 8-7. Alternative 5: Unmitigated Peak Daily Regional Construction Criteria Pollutant Emissions

Construction Year	Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM_{10}[a]	$PM_{2.5}$[a]
2026	3	21	81	<1	2	<1
2027	7	68	215	<1	11	3
2028	17	153	465	1	42	11
2029	25	339	707	3	102	25
2030	31	442	890	3	135	33
2031	32	424	872	3	120	29
2032	34	436	841	3	124	33
2033	30	289	545	2	69	17
2034	21	172	305	<1	21	7
2035	16	101	191	<1	13	4
2036	4	37	77	<1	4	1
2037	1	14	41	<0.1	2	<1
Peak Daily Emissions	**34**	**442**	**890**	**3**	**135**	**33**
SCAQMD Regional Significance Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	**Yes**	**Yes**	No	No	No

Source: HTA, 2024

[a]PM_{10} and $PM_{2.5}$ emissions include exhaust and fugitive dust emissions.

CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
PM_{10} = respirable particulate matter of 10 microns or less
$PM_{2.5}$ = fine particulate matter of 2.5 microns or less
SCAQMD = South Coast Air Quality Management District
SO_2 = sulfur dioxide
VOC = volatile organic compounds

As shown in Table 8-7, Alternative 5 construction emissions would exceed the SCAQMD regional significance thresholds for NO_X and CO emissions. SCAQMD's cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. Because Alternative 5

construction emissions would exceed the applicable SCAQMD's regional construction significance thresholds for NO_X and CO, Alternative 5 construction emissions would be cumulatively considerable. Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the NAAQS and CAAQS, which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, Alternative 5's contribution of pollutant emissions during short-term construction activities may result in appreciable human health impacts on a regional scale.

NO_x emissions can have various regional health and environmental impacts. Exposure to NO_x may cause eye and respiratory tract irritation and contribute to broader environmental issues such as acid rain and nitrate contamination in stormwater. Additionally, NO_x is a precursor to O_3 formation, which poses significant health and ecological risks. High concentrations of O_3 can irritate the lungs, and prolonged exposure may lead to damaged lung tissue, increased cancer risk, and harm to plant materials. Long-term O_3 exposure can damage vegetation, reduce crop productivity, and disrupt ecosystems.

CO emissions primarily affect human health by reducing the blood's ability to carry oxygen, leading to symptoms such as headaches, dizziness, confusion and, in severe cases, loss of consciousness or death. These health effects are more pronounced in individuals with pre-existing cardiovascular conditions, because CO exposure can exacerbate symptoms like chest pain or arrhythmias.

As discussed in the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f), the emissions analysis incorporated Tier 4 Final engines for off-road equipment greater than or equal to 50 horsepower, trucks with model years 2007 or newer, and included dust control measures to be implemented during each phase of construction, as required by SCAQMD Rule 403. The construction analysis for Alternative 5 conservatively assumed all equipment would be diesel powered. The Metro *Green Construction Policy* contains measures that aim to reduce construction emissions through utilization of hybrid drive off-road equipment and using electric power instead of diesel power.

Mitigation measures (MM) AQ-1, MM AQ-2, and MM AQ-3 would reduce criteria pollutant emissions during construction, but mitigation measures would not reduce Alternative 5 NO_X and CO emissions below SCAQMD significance thresholds; therefore, Alternative 5 construction emissions would result in a cumulatively considerable net increase of criteria pollutants for which Alternative 5 region is non-attainment under an applicable federal or state ambient air quality standard and impacts would be significant and unavoidable

8.2.1.3 Impact AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations?

Using the conservative methodology described in the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f) to assess the potential localized air quality impacts resulting from Alternative 5 on nearby receptors during construction, the daily on-site construction emissions from the Alternative 5 components (alignment, stations, TPSSs, MSF) were compared to SCAQMD's applicable construction LSTs. Alternative 5 localized emissions included exhaust emissions from off-road equipment and trucks, and fugitive dust from demolition, earth movement activities, and truck travel. As shown in Table 8-8, Alternative 5 localized construction emissions would exceed the PM_{10} and $PM_{2.5}$ LSTs for construction activity in the Valley and exceed the PM_{10} LST in the Westside; therefore, Alternative 5 localized construction emissions would have adverse health risk implications and would be considered to be significant.

Table 8-8. Alternative 5: Unmitigated Localized Construction Criteria Pollutant Emissions

Construction Area	Daily Emissions (lb/day)[a]			
	NO_X	CO	PM_{10}[b]	$PM_{2.5}$[b]
Valley Construction Components[c]				
Segment 4-Reach 2 Tunnel (Sepulveda-Ventura Station to UCLA Gateway Plaza Station)	13.9	46.7	9.0	1.1
Segment 5-Reach 3 Tunnel (Portal to Sepulveda-Ventura Station)	23.6	46.5	9.4	0.6
Segment 6-Reach 3 Portal to MSF	28.7	91.3	1.1	0.6
TBM Access Shaft/Staging Site	—	36.1	—	—
Ventura Boulevard Station	15.3	—	1.0	0.3
Metro G Line Sepulveda Station	27.5	40.8	1.8	0.6
Sherman Way Station	12.1	53.2	0.6	0.3
Metrolink Van Nuys Station	22.6	143.6	0.7	0.4
TPSS 11-STA 1260	—	—	—	—
MSF	7.5	—	12.4	5.9
Precast Yard	16.7	48.6	13.7	2.5
Components In Proximity to Each Other				
Segment 4 + Ventura Boulevard Station	29.2	46.7	10.0	1.4
Segment 6 + Van Nuys Station + TPSS 11 + MSF + Precast Yard	75.4	283.4	27.9	9.3
Peak Daily Localized Emissions	**75.4**	**283.4**	**27.9**	**9.3**
SCAQMD Localized Significance Threshold[d]	114	786	7	4
Exceeds Threshold?	No	No	**Yes**	**Yes**
Westside Construction Components[c]				
Segment 1-Reach 1 Tunnel (Southern Terminus to UCLA Gateway Plaza Station)	13.5	53.8	8.1	1.0
Segment 4-Reach 2 Tunnel (Sepulveda-Ventura Station to UCLA Gateway Plaza Station)	—	—	—	—
Metro E Line Station	27.3	40.8	0.9	0.3
Santa Monica Station	15.4	80.4	2.6	0.4
D Line Wilshire-Westwood Station	17.8	47.1	4.6	0.8
UCLA Gateway Plaza Station	15.3	80.5	3.4	0.7
Components In Proximity to Each Other				
Not Applicable	—	—	—	—
Peak Daily Localized Emissions	27.3	80.5	8.1	1.0
SCAQMD Localized Significance Threshold[e]	147	827	6	4
Exceeds Threshold?	No	No	**Yes**	No

Source: HTA, 2024

[a]Daily emissions for each construction component represent the contribution to the maximum daily localized emissions in the Valley or Westside.

[b]PM_{10} and $PM_{2.5}$ emissions include exhaust and fugitive dust emissions.

[c]TPSSs listed in table would be located at standalone locations and not within the construction area of a station, MSF, track alignment, or tunnel. Each of these standalone TPSSs had their own construction phasing in the construction emissions analysis. For TPSSs located within the construction area of a station, MSF, track alignment, or tunnel, their construction activity was accounted for in the overall construction activity for the component.

[d]LST values are based on a 2-acre site with a 25-meter receptor distance in SRA 7 East San Fernando Valley.

[e]LST values are based on a 2-acre site with a 25-meter receptor distance in SRA 2 Northwest Coastal LA County.

SCAQMD = South Coast Air Quality Management District
SRA = source receptor area

Short-term exposure to elevated PM_{10} levels during construction can lead to significant health effects, particularly for sensitive populations such as children, the elderly, and individuals with pre-existing respiratory or cardiovascular conditions. These health impacts include respiratory irritation, which can manifest as coughing, wheezing, shortness of breath, and worsened asthma symptoms. Additionally, PM_{10} exposure can exacerbate cardiovascular conditions, increasing heart rate variability, inflammation, and the risk of cardiac events. Acute respiratory infections, such as bronchitis, may also occur, particularly affecting vulnerable groups like children and older adults.

Exposure to $PM_{2.5}$ presents more significant health risks than PM_{10}, primarily due to its smaller particle size, which enables it to penetrate deeper into the lungs and enter the bloodstream. While both PM_{10} and $PM_{2.5}$ contribute to respiratory irritation and cardiovascular issues, the smaller $PM_{2.5}$ particles can reach the alveoli (the tiny air sacs in the lungs) where they cause inflammation and long-term damage to lung tissue. In addition to respiratory impacts, $PM_{2.5}$ can enter the bloodstream, leading to systemic inflammation and an increased risk of cardiovascular diseases such as heart attacks, strokes, and arrhythmias. Long-term exposure to $PM_{2.5}$ has also been linked to cognitive decline, including Alzheimer's disease and other neurodegenerative conditions, because these particles can cross the blood-brain barrier. Moreover $PM_{2.5}$ is a significant risk factor for cancer, particularly lung cancer, due to the toxic substances it often carries, including heavy metals and polycyclic aromatic hydrocarbons (PAH). Furthermore, prolonged exposure to $PM_{2.5}$ is associated with premature mortality, making it one of the leading environmental risk factors for early death from respiratory and cardiovascular diseases. In contrast, while PM_{10} is still harmful, particularly for people with pre-existing conditions such as asthma, its impact is generally less severe because it remains in the upper respiratory tract and is not absorbed into the bloodstream. Thus, $PM_{2.5}$ poses a broader range of health risks, including more severe cardiovascular and neurological effects.

DPM, a component of PM_{10} from diesel engines, poses additional risks. It is associated with respiratory irritation, acute inflammation, and oxidative stress. Prolonged or high-level exposure can elevate the risk of lung cancer and cardiovascular issues. These impacts are particularly pronounced near construction sites, where emissions are concentrated, and receptors in close proximity are exposed.

As discussed in the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f), the emissions analysis incorporated Tier 4 Final engines for off-road equipment greater than or equal to 50 horsepower, trucks with model years 2007 or newer, and included dust control measures to be implemented during each phase of construction, as required by SCAQMD Rule 403. The construction analysis for Alternative 5 conservatively assumed all equipment would be diesel powered. The Metro Green Construction Policy contains measures that aim to reduce construction emissions through utilization of hybrid drive off-road equipment and using electric power instead of diesel power.

Although MM AQ-1, MM AQ-2, and MM AQ-3 prescribed below would reduce criteria pollutant emissions during construction, including localized PM_{10} and $PM_{2.5}$ emissions, mitigation measures would not reduce Alternative 5 PM_{10} and $PM_{2.5}$ emissions below SCAQMD localized significance thresholds; therefore, Alternative 5 construction emissions would potentially expose sensitive receptors to substantial concentrations and impacts would be significant and unavoidable.

The SCAQMD's LSTs for each SRA represent the maximum emissions a project can emit without causing or contributing to a violation of any short-term NAAQS or CAAQS. As noted previously, the NAAQS and CAAQS are health-protective standards that define the maximum amount of ambient pollution that can

be present without harming public health. Consequently, projects with emissions below the applicable LSTs would not be in violation of the NAAQS or CAAQS and, thus, EPA and CARB health-protective standards. Because Alternative 5 construction emissions would exceed the PM_{10} LST, Alternative 5 would cause or contribute to a violation of one or more health-protective CAAQS and NAAQS. Given that DPM emissions constitute a portion of localized PM_{10} emissions, impacts related to localized DPM emissions during construction are also considered to be significant and unavoidable due to the following: (1) the elevated background carcinogenic risk, (2) the duration of construction activity, and (3) the proximity of sensitive receptors to DPM emissions sources.

8.2.1.4 Impact AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

During construction of Alternative 5, exhaust from equipment, activities associated with the application of architectural coatings and other interior and exterior finishes, and paving activities may produce discernible odors typical of most construction sites. Such odors would be, at worst, a temporary source of nuisance to adjacent uses, if at all, and would not affect a substantial number of people. Alternative 5 would use architectural coatings compliant with SCAQMD Rule 1113, which would limit the odors associated with off-gassing from those coatings. Additionally, material deliveries and heavy-duty haul truck trips could occasionally produce odors from diesel exhaust. These odors would not affect a substantial number of people because construction would be temporary, and construction-generated emissions dissipate rapidly with increasing distance from the source. Overall, odors associated with Alternative 5 construction would be temporary and intermittent in nature and would not create a significant level of objectionable odors affecting a substantial number of people.

8.2.1.5 Mitigation Measures

Construction Impacts

Under Alternative 5, there would be potential construction impacts related to exceedances of South Coast Air Quality Management District regional emissions thresholds for nitrogen oxides and carbon monoxide, as well as localized emissions thresholds for respirable particulate matter of diameter less than 10 microns and (fine particulate matter of diameter less than 2.5 microns). Therefore, the following three mitigation measures were developed.

MM AQ-1: *The Project shall require zero emissions or near zero emissions on-road haul trucks such as heavy-duty trucks with natural gas engines that meet or exceed the California Air Resources Board's adopted optional nitrogen oxides emissions standard at 0.02 grams per brake horsepower hour (g/bhp-hr), if and when feasible. Operators shall maintain records of all trucks associated with project construction to document that each truck used meets these emission standards. These records shall be submitted monthly to Metro for review and shall be made available to regulatory agencies upon request. To ensure compliance, Metro or its designated representative shall conduct regular inspections of construction operations, including on-site verification of truck compliance. Inspections shall occur at least twice per month during active construction. Any contractor found to be using non-compliant trucks without prior approval from Metro shall be subject to penalties, including suspension of operations until compliance is achieved.*

MM AQ-2: *Construction contracts shall include language that compels contractors to implement all policies and emissions control measures as presented in Metro's Green Construction Policy.*

MM AQ-3: *Construction contracts shall include language that compels contractors to implement all fugitive dust control measures as detailed in South Coast Air Quality Management District.*

Impacts After Mitigation

Although construction of the Project alternatives would require implementation of MM AQ-1, it is not technically feasible at the time of document preparation to verify the commercial availability of zero emissions (ZE) and near zero emissions (NZE) trucks to the extent needed to reduce construction-period NO_X, CO, PM_{10}, and $PM_{2.5}$ emissions below SCAQMD's regional and localized emissions thresholds. MM AQ-2 and MM AQ-3 simply enforce Metro and SCAQMD policies that are already required, independent of any additional prescribed mitigation. Given the current uncertainty around the availability of sufficient ZE and NZE trucks to reduce construction period impacts, impacts regarding construction period emissions would remain significant and unavoidable. Due to this uncertainty, all of the project alternatives would result in NO_X and PM_{10} construction emissions that cannot be reduced below SCAQMD's regional and localized emissions thresholds. In addition to significant and unavoidable construction-period NO_X and PM_{10} emissions, Alternative 5 would result in significant and unavoidable construction emissions of CO and $PM_{2.5}$.

8.2.2 Communities and Neighborhoods

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-9.

Table 8-9. Alternative 5: Communities and Neighborhoods Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 5
Communities and Neighborhoods Construction Impacts		
Impact POP-1: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact PUB-3: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4
	Impacts After Mitigation	LTS
Impact US-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternative 5
Impact US-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-3: Would the project result in a determination by the wastewater treatment provider who serves, or may serve, the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-4: Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025b

LTS = less than significant
MM = mitigation measure
NA = not applicable
POP = population, housing, and growth
PS = potentially significant
PUB = public services
TRA = transportation
US = utilities and service systems

8.2.2.1 Impact POP-1: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Alternative 5 would result in temporary economic growth through the influx of construction workers to the Alternative 5 RSA. However, these workers would likely be sourced from the local labor pool, and thus the temporary employment opportunities under Alternative 5 are unlikely to directly foster the construction of permanent housing for workers in the Alternative 5 RSA. Thus, construction of Alternative 5 would result in less than significant impacts related to unplanned economic or population growth.

Maintenance and Storage Facilities

Construction of the MSF would not construct any new housing units, and therefore the MSF would not generate new or unplanned population and housing growth. Thus, construction of the MSF would result in less than significant impacts related to unplanned economic or population growth.

8.2.2.2 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Construction of Alternative 5 would involve site preparation and demolition of structures; utility relocation; tunneling and cut-and-cover activities; construction of the aerial and subsurface alignments, stations, MSF, TPSS, auxiliary facilities, and parking facilities; street widening; and street and sidewalk reconstruction. Some parcels that would be permanently acquired for the operations of Alternative 5 would also be used for construction purposes, such as for construction access, staging, and laydown.

Temporary acquisitions would be required for parcels that would only be used as TCEs. These TCEs would only occupy portions of the affected residential properties as required to support construction vehicle access and would not substantially interfere with the habitability of the impacted residential properties. Therefore, construction activities associated with Alternative 5 would not result in the displacement of any residential dwelling units. Therefore, no impacts related to the displacement of residential units and residents that would necessitate the construction of replacement units would occur as a result of construction.

Maintenance and Storage Facilities

The proposed MSF site is currently developed as a materials storage site owned by LADWP and an auto storage lot. No residential uses are located on the MSF site; therefore, while property acquisitions would be required to develop the MSF, no residential displacements would occur that would necessitate the construction of replacement unit. The MSF would result in no impact.

8.2.2.3 Impact PUB-3: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools or other public facilities?

Construction of Alternative 5 would be temporary and does not require the expansion of existing school facilities. With exception to UCLA, no educational facilities are located immediately adjacent to the proposed alignment or transit stations. Table 9-6 of the *Sepulveda Transit Corridor Project Communities and Neighborhoods Technical Report* (Metro, 2025b), lists the school facilities located within the RSA most of which would be subject to construction-related disruptions. In particular, multiple educational facilities are located within 500 feet of proposed TBM launch site at National Boulevard and Sepulveda Boulevard. Specifically, Clover Avenue Elementary, St. John's Presbyterian Nursery School, and Maple Tree Academy Preschool are all located within 500 feet of the proposed TBM launch site and have either Sepulveda Boulevard or National Boulevard as major means of vehicular access. During construction, substantial truck traffic would be experienced along Sepulveda Boulevard and National Boulevard as well as various construction-related traffic disruptions associated with equipment movement and construction personnel accessing the TBM launch site. During certain periods of construction activities at the TBM launch site would require temporary closure or lane reductions to accommodate tunnel boring operations. Closures and lane reductions along local roadways could impede the vehicle circulation network in the RSA as well as access to nearby schools.

Similarly, during construction of the UCLA Gateway Plaza Station, pedestrian movements and access through UCLA Gateway would be inhibited by the presence of construction equipment and activities affecting Westwood Plaza and adjacent pedestrian areas. All educational facilities on the UCLA campus would remain accessible and functional throughout construction and no new or physically altered education facilities would be required on the UCLA campus.

Implementation of MM TRA-4 (refer to Section 8.2.14.5) would ensure access to education facilities on UCLA campus and other educational facilities would be maintained throughout construction through the development of the Transportation Management Plan (TMP). The TMP would specify measures to lessen disruption during construction and to maintain access to schools and associated circulation patterns. The TMP would also identify detour routes, and bicyclists would be informed of such closures and detours through signage. Impacts would be less than significant with mitigation. The TMP would

include coordination with emergency service providers as well as property owners, such as UCLA, to maintain adequate access and services.

Maintenance and Storage Facilities

The proposed MSF site consists of an auto storage lot and a portion of a materials storage site owned by LADWP. MSF site construction activities do not include construction of educational facilities or require the expansion of existing educational facilities. No school facilities are located on or adjacent to the site. The nearest school is Panorama High School located approximately 0.5 miles northwest of the proposed MSF site. The MSF would not affect on-site or street parking or otherwise affect access to Panorama High School. The nearest public facility is the Panorama City Post Office located approximately 1 mile north of the proposed MSF site. Given the distance of the post office from the MSF site, there would be no potential to affect access to any community facilities. Therefore, impacts to schools and other public facilities associated with the MSF would be less than significant. Implementation of MM TRA-4 would require a TMP (refer to Section 8.2.14.5) that specifies measures to lessen disruption during construction and to maintain access to schools and associated circulation patterns.

8.2.2.4 Impact US-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Utility conflicts would primarily occur within the proposed station areas, columns and support for the aerial structure, and roadway relocations to accommodate Alternative 5's footprint. Since not all utility depth data is available and the condition of each utility is unknown, additional subsurface utility investigation is recommended to verify the assumptions and impacts. Potentially impacted utilities are shown in Table 8-10. Approximately 308 components of utility infrastructure would be potentially impacted including 108 electrical, 96 telecommunications, 43 water, 40 sewer, 11 gas, and 10 storm drainage.

These components would likely be relocated near existing facilities, typically within a few feet of existing locations. The utility relocation efforts could potentially result in environmental effects related to construction and the temporary disruption of services, including generating construction emissions, disrupting roadway circulation, and temporarily decreased capacity of the electrical, natural gas, water supply, water treatment system, and telecommunications systems. These potential impacts are included in the assessments of construction-related impact in the relevant resource sections of the Draft Environmental Impact Report. Pursuant to project feature (PF)-US-1, Utility Identification and Coordination, if relocations are required, the construction contractor would verify the locations of existing utilities potentially affected by construction activities and determine specific relocation and setback and, pursuant to PF-US-2, Service Interruption Notification, the construction contractor would develop a construction plan that minimizes interruptions to utilities services to the greatest extent feasible and notify the public if/when interruptions would occur. Therefore, construction of Alternative 5 would result in a less than significant impact related to utilities and service systems.

Table 8-10. Alternative 5: Potentially Impacted Utilities

Utility Type	Number of Potentially Impacted Utilities
Electrical	108
Gas	11
Oil	0

Utility Type	Number of Potentially Impacted Utilities
Sewer	40
Storm Drainage	10
Telecommunications	96
Water	43
Total	**308**

Source: STCP, 2023

Water Facilities

Construction of Alternative 5 would not require substantial consumption of potable water. Water use would occur primarily through water trucks required for dust control, operation of the TBM, and for the production of concrete. Although water use for construction would occur over a multi-year construction period, the water supply in the RSA has been determined to be adequate to meet demand, including construction water use, in normal, single-dry year, and multiple dry years, as discussed in Section 5.1.5.1 of the *Sepulveda Transit Corridor Project Communities and Neighborhoods Technical Report* (Metro, 2025b). Construction of Alternative 5 would therefore not require the expansion or construction of new water facilities. Therefore, construction of Alternative 5 would result in a less than significant impact related to water facilities.

Wastewater Treatment

Construction activities would generate negligible wastewater through the use of temporary worker restrooms, which would have no potential to necessitate the construction of new or expanded wastewater facilities. Wastewater treatment facilities would not be required to be relocated during construction of Alternative 5. Therefore, construction of Alternative 5 would result in a less than significant impact related to wastewater facilities.

Stormwater Drainage

Stormwater runoff would be increased in the study as a result of construction. As described in the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g) any drainage pattern impacts from construction would be minor and temporary, minimizing the potential for exceeding stormwater drainage systems. In accordance with the Construction General Permit and Municipal Separate Storm Sewer Systems Permits, Alternative 5 would be required to prepare and submit a construction Stormwater Pollution Prevention Plan (SWPPP) which must be submitted to the State Water Resources Control Board prior to construction and adhered to during construction. The construction SWPPP would identify the BMPs that would be in place prior to the start of construction activities and during construction. These measures would help reduce stormwater runoff velocity, thereby limiting its capacity to cause stormwater drainage systems exceedance. If necessary, new stormwater drainage facilities constructed at stations or along the alignment would comply with design requirements established by state and local regulations. For additional information regarding state and local regulations governing stormwater pollution prevention, refer to the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g). Compliance with these state and local regulations would reduce construction related impacts to stormwater drainage facilities. Therefore, a less than significant impact would occur related to stormwater drainage facilities.

Electric Power

Construction of Alternative 5 has no potential to require new or expanded electric power facilities. Minimal electricity would be used to power field offices for the construction contractor. Temporary lighting or some electrically powered pieces of construction equipment may temporarily consume

electricity. Electric power would also be required for powering the TBM, but would be a temporary use only required for tunnel portions of the alignment. Therefore, construction of Alternative 5 would result in a less than significant impact related to electric power facilities.

Natural gas

Construction of Alternative 5 has no potential to require new or expanded natural gas or oil facilities. Minimal natural gas would be required. Therefore, construction of Alternative 5 would result in a less than significant impact related to natural gas and oil infrastructure.

Telecommunication Facilities

Construction activities would have no potential to necessitate the construction of new or expanded telecommunication facilities. It is anticipated that existing telecommunication facilities would still be able to adequately serve construction crews and the RSA. Therefore, a less than significant impact would occur related to telecommunication facilities.

Maintenance and Storage Facilities

Part of the HRT MSF would be located on a portion of LADWP property which is currently planned for Mid-Valley Water Facility project. The Mid-Valley Water Facility project would replace outdated buildings and trailers currently situated at various locations throughout the San Fernando Valley. The proposed facility is intended to improve efficiencies across LADWP divisions, support LADWP's mainline replacement program, and ensure infrastructure resiliency. LADWP's Board of Water and Power Commissioners approved a Mitigated Negative Declaration for the project on February 11, 2020 and construction is anticipated to begin in 2027. The HRT MSF would conflict with implementation of this project. Due to the conflict with the proposed facility, the HRT MSF may result in the need to relocate or construct a new facility which may have significant environmental effects. If it is determined that a new facility in a new location is needed, environmental review of the proposal would be required to determine potential environmental effects and identify feasible mitigation measures to address those effects. Metro has been in coordination with LADWP and continued coordination is required to identify a solution to the conflict and determine if a new or relocated facility is required. Therefore, since the conflict with the proposed LADWP facility is unresolved and no solution has been identified, the HRT MSF would result in a significant and unavoidable impact related to the need to relocate or construct new water facilities.

Construction of the proposed MSF would require relocation of existing utilities. A significant portion of the proposed MSF is occupied by industrial uses. These utilities would likely be relocated near existing facilities, typically within a few feet of existing locations. The utility relocation efforts could potentially result in environmental effects related to construction and the temporary disruption of services, including generating construction emissions, disrupting roadway circulation, and temporarily decreased capacity of the electrical, natural gas, water supply, water treatment system, and telecommunications systems. Pursuant to PF US-1, Utility Identification and Coordination, if relocations are required, the construction contractor would verify the locations of existing utilities potentially affected by construction activities and determine specific relocation and setback and, pursuant to PF US-2, Service Interruption Notification, the construction contractor would develop a construction plan that minimizes interruptions to utilities services to the greatest extent feasible and notify the public if/when interruptions would occur. Therefore, construction of the proposed MSF would result in a less than significant impact related to utilities and service systems.

8.2.2.5 Impact US-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Construction of Alternative 5 would not require substantial consumption of potable water. Water use would occur primarily related to water trucks required for dust control. However, a TBM would be used during construction of Alternative 5. Slurry would be used to apply fluid (hydraulic) pressure to the tunnel face and to transport soil cuttings from the tunneling machine's pressure chamber to the surface. The slurry would require water use since water is added to the bentonite to create the fluid mixture used in the TBM. Water from the discharge slurry would be recycled for further use in preparing slurry. Water would also be required for cooling the TBM motors. Typically, cooling water is recycled and cooled using cooling towers near the access shafts. Thus, cooling water will have little impact on water use or discharge into the sanitary or storm drain system. Water use for the cooling towers would be temporary during construction and would be approved during specific construction design. The short-term use of water requires minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities. Therefore, construction of Alternative 5 would result in a less than significant impact related to water supplies.

Maintenance and Storage Facilities

Similar to construction of the transit line, the proposed MSF would not require substantial consumption of potable water. Water use would occur primarily related to water trucks required for dust control. The short-term use of water would require minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities. Therefore, construction of proposed MSF would result in a less than significant impact related to water supplies.

8.2.2.6 Impact US-3: Would the project result in a determination by the wastewater treatment provider who serves, or may serve, the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Alternative 5 would generate wastewater during construction through the use of temporary worker restrooms and limited construction uses. Any wastewater generated during construction would be transported to wastewater facilities via vacuum service trucks. The RSA is serviced by the Joint Water Pollution Control Plant, Hyperion Water Reclamation Plant, Donald C. Tillman Water Reclamation Plant, and the Los Angeles-Glendale Water Reclamation Plant, which have a combined capacity of 950 million gallons of wastewater per day. The City of Santa Monica has an additional 1 million gallons per day of wastewater treatment capacity from its sustainable Water Infrastructure Project wastewater treatment facility. Wastewater generated by temporary worker restrooms for construction of Alternative 5 would represent a negligible proportion of the daily wastewater processed by the regional water reclamation plant and the facilities are anticipated to have adequate capacity to serve Alternative 5. Therefore, construction of Alternative 5 would result in a less than significant impact related to wastewater treatment capacity.

Maintenance and Storage Facilities

Similar to construction of the transit line, the proposed MSF would generate wastewater during construction through the use of temporary worker restrooms and limited construction uses. Any wastewater generated during construction would be transported to wastewater facilities via vacuum service trucks. Wastewater generated by temporary worker restrooms for construction of the proposed

MSF would represent a negligible proportion of the daily wastewater processed by the regional water reclamation plants and the facilities are anticipated to have adequate capacity. Therefore, construction of the proposed MSF would result in a less than significant impact related to wastewater treatment capacity.

8.2.2.7 Impact US-4: Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Construction of Alternative 5 would generate solid waste related to discarded construction material. Solid waste would be hauled to regional landfills that have a remaining approximate capacity of 256,156,907 cubic yards (CY). Contaminated soils and hazardous building materials will be disposed of at permitted landfills. Landfills that accept contaminated soils include the Clean Harbors Button Willow Landfill located in Button Willow, California, the South Yuma County Landfill located in Yuma, Arizona, and the US Ecology Landfill located in Beatty, Nevada. The Clean Harbors Button Willow Landfill has a maximum permitted capacity of 10,500 tons per day and a maximum remaining capacity of 13,250,000 CY.

Based on the processing capacity of the Button Willow, California Landfill and the other two sites as a representative sample of contaminated soil processing capacity, landfills would be able to adequately process the small amount of contaminated soil anticipated to be generated by Alternative 5. Contaminated soil processing would not be limited to the identified landfills and could potentially occur at other permitted landfills. The TBM would also generate muck during the tunneling process that would be required to be disposed of at regional landfills. Alternative 5 would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Additionally, construction of Alternative 5 would be required to comply with all applicable federal, state, and local statutes and regulations pertaining to solid waste disposal. The construction contractor would comply with Assembly Bill 939, which requires a Solid Waste Diversion Program and diversion of at least 50 percent of the solid waste generated during construction activities from landfills to recycling facilities. Regional facilities have capacity for construction-related solid waste. Therefore, construction of Alternative 5 would result in a less than significant impact related to compliance with solid waste standards and capacity.

Maintenance and Storage Facilities

Construction of the proposed MSF would generate solid waste related to discarded construction material. Solid waste would be hauled to regional landfills that have a remaining approximate capacity of 256,156,907 CY. Due to the industrial nature of the existing uses, contaminated soils would also be encountered during construction. Contaminated soils would be transported to the Clean Harbors Button Willow Landfill, the South Yuma County Landfill, the US Ecology Landfill, or other permitted hazardous materials landfills. The proposed MSF would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Additionally, construction of Alternative 5 would be required to comply with all applicable federal, state, and local statutes and regulations pertaining to solid waste disposal, including AB939. Therefore, construction of the MSF would result in a less than significant impact related to compliance with solid waste standards and capacity.

8.2.2.8 Impact US-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Alternative 5 would generate typical construction waste such as wood, concrete, and asphalt. Additionally, because Alternative 5 would be constructed within an urban built out environment, Alternative 5 is anticipated to encounter contaminated soil. As described previously, regional permitted facilities are anticipated to have the capacity to process all contaminated and non-contaminated construction related solid waste. Alternative 5 would fully comply with all federal, state, and local statutes and regulations regarding proper disposal, including AB 939 and AB 1327. Additionally, California Green Building Standards requires construction projects to recycle and/or salvage for reuse a minimum 65 percent of the nonhazardous construction and demolition waste or meet a local construction and demolition waste management ordinance, whichever is more stringent. There is no element of construction activities that would be outside of compliance. Therefore, no impact would occur related to compliance with solid waste regulations.

Maintenance and Storage Facilities

Solid waste generated during construction activities associated with the proposed MSF would comply with AB 939, AB 1327 and all federal, state, and local statutes and regulations regarding proper disposal. Therefore, no impact would occur related to compliance with solid waste regulations.

8.2.2.9 Mitigation Measures

Construction Impacts

Construction of Alternative 5 would have a less than significant impact. Construction of Alternative 5 would require implementation of MM TRA-4 (refer to Section 8.2.14.5) to reduce disruption caused by construction work zones.

Impacts After Mitigation

After implementation of mitigation measures, Alternative 5 would result in less than significant impacts with mitigation.

8.2.3 Climate Change and Greenhouse Gas Emissions

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-11.

Table 8-11. Alternative 5: Climate Change and Greenhouse Gas Emissions Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 5
Climate Change and Greenhouse Gas Emissions Construction Impacts		
Impact GHG-1: Would the project result in greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025d

GHG = greenhouse gas emissions
LTS = less than significant

NA = not applicable

8.2.3.1 Impact GHG-1: Would the project result in greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction of Alternative 5 would result in greenhouse gas (GHG) emissions from off-road equipment, mobile sources including worker vehicles, vendor trucks, and haul trucks, as well as electricity consumptions from usage of TBMs and on-site portable offices. These emissions sources would be related to constructing the HRT system alignment, stations, MSF, and TPSSs.

As discussed in Section 3.1 of the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025d), construction GHG emissions are measured exclusively as cumulative impacts; therefore, the Alternative 5 construction emissions are considered part of its total GHG emissions in conjunction with operational emissions. In accordance with SCAQMD guidance (SCAQMD, 2008), the Alternative 5 construction emissions were amortized over its design lifetime of 30 years, then combined with the Alternative 5 annual operational GHG emissions. Table 8-12 summarizes the Alternative 5 GHG emissions throughout the construction period. Alternative 5 construction would generate a total of 361,458 $MTCO_2e$ and would result in 12,049 $MTCO_2e$ annually when amortized over the project lifetime of 30 years.

Table 8-12. Alternative 5: Construction Greenhouse Gas Emissions

Construction Year	GHG Emissions ($MTCO_2e$)[a,b]
2026	882
2027	5,136
2028	13,380
2029	32,784
2030	47,960
2031	46,077
2032	32,541
2033	13,580
2034	7,145
2035	4,408
2036	1,267
2037	605
TBM Electricity Consumption	155,593
Portable Office Electricity Consumption	99
Total	**361,458**
Amortized Construction Emissions (30 Years)	12,049

Source: HTA, 2024

[a]Totals may vary due to rounding.

[b]GHG emissions related to electricity consumption represent the total GHG emissions over the entire construction period.

$MTCO_2e$ = metric tons of carbon dioxide equivalents

Because construction emission sources would cease once construction is complete, they are considered short term. It should be noted that total and annual construction GHG emissions represent a conservative assessment because GHG emissions would decrease in future years as the construction industry shifts toward implementation of cleaner fuels (i.e., electrified equipment) and more efficient

technologies. Additionally, Metro's Green Construction Policy requires contractors to use renewable diesel which would reduce upstream GHG emissions related to producing the fuel, as well as reduce GHG emissions from fuel combustion in off-road equipment and trucks as compared to petroleum diesel. GHG emissions for electric powered equipment such as the TBM and portable offices would also decrease in future years as LADWP continues to increase the amount of renewable energy sources in its power mix to meet state RPS goals. Thus, the annual construction GHG emissions associated with Alternative 5 would decrease with time and are likely to be lower than estimated herein. Alternative 5 construction emissions were amortized over Alternative 5's design lifetime of 30 years, then combined with Alternative 5 annual operational GHG emissions. Annual operations of Alternative 5 compared to 2045 without Project conditions would result in a net reduction of GHG emissions; therefore, impacts from Alternative 5 construction emissions would be considered less than significant.

8.2.3.2 Impact GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Construction of Alternative 5 would generate short-term GHG emissions related to off-road equipment, mobile sources, and electricity consumption. Alternative 5 construction would comply with Metro's Green Construction Policy (GCP), which requires idling restrictions for off-road equipment and trucks, using trucks with model years 2007 or newer, and implementing BMPs, such as using electric powered equipment in lieu of diesel equipment where available. Upon completion of Alternative 5 construction, these emissions would cease. As GHG emissions are exclusively cumulative impacts, the Alternative 5 amortized construction emissions were included with the long-term operational emissions for Alternative 5. As such, construction emissions were evaluated in conjunction with annual operational emissions in the next section. Based on the following discussion, annual operational emissions, which included construction emissions, were found to not conflict with plans or policies to reduce GHG emissions, therefore impacts for construction related GHG emissions would be less than significant.

8.2.3.3 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

8.2.4 Ecosystems and Biological Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-13.

Table 8-13. Alternative 5: Biological Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alt 5
Biological Resources Construction Impacts		
Impact BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-4 through MM BIO-10, MM BIO-16 through MM BIO-20, MM BIO-22 through MM BIO-27, MM BIO-29
	Impacts After Mitigation	LTS
Impact BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-10, MM BIO-16 through MM BIO-18, MM BIO-23 through MM BIO-25
	Impacts After Mitigation	LTS
Impact BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI
Impact BIO-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-4, MM BIO-5, MM BIO-7, MM BIO-14
	Impacts After Mitigation	LTS
Impact BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-5 through MM BIO-10, MM BIO-12, MM BIO-15 through MM BIO-17, MM BIO-20, MM BIO-22, MM BIO-23, MM BIO-26
	Impacts After Mitigation	LTS
Impact BIO-6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025k

BIO = biological resources
LTS = less than significant
MM = mitigation measure
NA = not applicable
NI = no impact
PS = potentially significant

8.2.4.1 Impact BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Impacts to vegetation within the Ground Disturbance Area have potential to affect sensitive vegetation communities, as well as special-status wildlife or plant species, both directly and through modifications to their habitat. Construction activities for Alternative 5 would result in significant impacts to special-status wildlife including nesting birds, special-status plant species, and sensitive vegetation communities if mitigation measures are not implemented. These potentially significant impacts include injury to or mortality of individuals, habitat loss due to permanent vegetation removal, behavioral or health modifications from noise pollution or exposure to fugitive dust from prolonged heavy equipment operation, and behavioral modifications extended human disturbances within species habitats during construction.

Since Alternative 5 would be an underground alignment, Ground Disturbance Area is only present within station footprints, staging areas, the tunnel portal, the MSF, and the approximately 0.5-mile segment of aerial alignment from the tunnel portal into the MSF. Construction of the three tunnel segments would be underground except for launch and extraction sites located within stations or staging areas that are included in the Ground Disturbance Area. Clearing and grading of native vegetation would be required within the Ground Disturbance Area for construction of Alternative 5 components, including structural support beams for the guideway track, the tunnel portal, staging yards, the aerial HRT station, the MSF, and "cut-and-cover" construction for underground stations. While most of the vegetation that would be impacted consists of non-native and ornamental landscaping, some native vegetation is also present within the Ground Disturbance Area.

Other anticipated construction impacts related to the construction of Alternative 5 include the possibility of increased noise, dust, and vibration during at-grade impacts such as drilling of the aerial track support structures, "cut-and-cover" installation of the stations, and at the TBM launch and extraction locations for the tunnel excavation (launch sites at National Boulevard and Sepulveda Boulevard in the south, Ventura Station in the north, extraction site at the UCLA Gateway Plaza Station). While these areas are developed and therefore less likely for special-status species to be present, trees are present that provide potential habitat for special-status birds.

For construction of the underground tunnel, impacts of noise, dust, and vibration are not expected at surface levels due to tunnel depth except at the tunnel portal near the Metrolink ROW. Excessive noise generated from the drilling and heavy equipment operation would significantly disturb avian species and/or other special-status species who are dependent on auditory signals during essential daily activities. Vibration-related disturbance from drilling could also disrupt their normal behavioral patterns near the TBM launch and extraction sites; impacts through the Santa Monica Mountains are not anticipated due to tunnel depth. Construction-related dust (associated with construction of stations, vegetation clearing, grading, etc.) would significantly impact habitat quality by depositing on vegetation, which may reduce photosynthesis and increase leaf temperature, making vegetation more susceptible to drought (Farmer, 1993). Evaluation of the Project's impact on wildfire risk and occurrence is discussed in the wildfire chapter of the Safety and *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Metro, 2025o).

Vegetation Communities/Land Cover Types and Sensitive Vegetation Communities

Direct impacts to vegetation communities would occur within the Ground Disturbance Area; acreages of temporary and permanent impacts to vegetation communities within Alternative 5 are detailed in in Table 8-14. Due to the sparse vegetation, lack of diversity, and continued anthropogenic disturbance, special-status species are less likely to be found in developed, agricultural, and ruderal land cover types. Approximately 86 percent (186.5 acres) of acreage for Alternative 5 planned for ground disturbing activities consists of developed, agricultural, and ruderal vegetation. Excluding these areas, construction of Alternative 5 is anticipated to result in 29.8 acres of temporary impacts are anticipated with construction of Alternative 5. Permanent impacts are anticipated to only occur in developed areas during construction of Alternative 5. Within the vegetated areas subject to impacts, approximately 10 percent (26.2 acres of temporary impacts) is California annual grassland. The only native vegetation community, coyote brush shrubland, within the Ground Disturbance Area represents just over 1 percent of the RSA, with 3.6 acres of temporary impacts. Indirect impacts to vegetation communities may also occur during construction activities. For example, fugitive dust deposition on foliage may reduce photosynthesis and increase plant vulnerability to drought. Additionally, vegetation removals may increase edge effects, including incursion of nonnative, weedy plants that compete with natives for space and resources.

There are no sensitive vegetation communities within the Alternative 5 Ground Disturbance Area. However, one vegetation community has potential to be considered sensitive (** in Table 8-14 depending on the associated codominant species present(Section 3.2.2 and Section 9.2.5.4 in the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report [Metro, 2025k]*). Up to an additional 3.6 acres of coyote brush scrubland, a potentially sensitive community, is located within potential off-site staging yard N2 at the western end of the Sepulveda Basin. For this analysis, Metro is conservatively considering impacts to these communities to be significant pending further analysis and refinement of vegetating mapping.

The removal and degradation of native and sensitive vegetation communities would constitute potentially significant impacts.

Table 8-14. Alternative 5: Impacts on Land Cover Types and Vegetation Communities

Vegetation Community/Land Cover Type [a]	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Impacts (acres) [b]	Percent of Total Project Impacts
Developed	86.9	28.1	115.0	53.1
Agricultural Land	0	65.8	65.8	30.4
Ruderal	0	5.7	5.7	2.7
Developed, Agricultural, Ruderal Total	**86.9**	**99.7**	**186.5**	**86.2**
California Annual Grassland	0	26.2	26.2	12.1
Coyote Brush Shrubland**	0	3.6	3.6	1.7
Vegetation Total	**0**	**29.8**	**29.8**	**13.8**
GRAND TOTAL	**86.9**	**129.5**	**216.3**	**100.0**

Source: HTA, 2024

[a]Vegetation communities based on the classifications provided in *A Manual of California Vegetation*, 2nd Edition (Sawyer et al., 2009).

[b]Inconsistencies in calculations due to rounding.

**Potential sensitive vegetation community based on codominant species on-site.

Special-Status Invertebrates

One special-status invertebrate, Crotch's bumble bee, has potential to be present within the Alternative 5 RSA during construction activities. Despite having a relatively narrow range, this species is known to occupy a wide variety of natural and disturbed habitat for nesting and foraging and could be present throughout the RSA in undeveloped areas where pavement is not present and the earth is not regularly maintained through grading, tilling or planting. Based on their broad range of suitable habitat and generalist foraging behavior, Crotch's bumble bee is likely to forage throughout the RSA where preferred flowering plants are present (e.g., native sage species [*Salvia* spp.], milkweeds [*Asclepias* spp.], and plants within the pea family [*Fabaceae*]) and may nest where abandoned rodent burrows are present.

Individuals in occupied burrow nests or overwintering queens in surface soils would be crushed or trapped during construction if present within the Ground Disturbance Area. Additionally, foraging Individuals also would be injured or killed if they are foraging during vegetation clearing activities. This species would also be impacted by the removal of nectar sources and nests in the Ground Disturbance Area resulting from construction of Alternative 5 features including cut-and-cover construction associated with tunnel portal transition to aerial guideway, stations, and construction staging locations. Ground-disturbing impacts from grading and vegetation clearing throughout the RSA would impact individuals and would likely result in loss of suitable habitat that would be used for nesting, breeding, sheltering, and/or foraging for Crotch's bumble bee.

The loss of individual Crotch's bumble bees and suitable habitat for this species would constitute a significant impact.

Special-Status Reptiles

Three special-status reptiles are known to occur and two have a high or moderate potential to occur within the Alternative 5 RSA; individuals of these species may be present during construction activities. Reptiles present during construction activities would be directly injured or killed due to collisions with vehicles and equipment or during vegetation clearing activities. Species that shelter in burrows or under debris would be entrapped and suffocate or be crushed during grading activities; buried nests would similarly be crushed or destroyed. Additionally, if individuals become entrapped in open trenches or excavations during construction activities, they would be subject to injury or mortality due to dehydration, opportunistic predation, inability to properly thermoregulate, starvation, or other causes associated with constrained movement. Indirect impacts would include disruption of normal feeding, basking, sheltering, and breeding behaviors due to avoidance of excessive noise and vibration, fugitive dust, and increased human presence. Normal movement patterns throughout a home range also may be disrupted temporarily by avoidance of areas adjacent to construction activities, or permanently by habitat structure modifications. During construction, special-status reptiles also may be subject to higher predation rates by opportunistic predators such as common ravens (*Corvus corax*), coyote, or skunk, that would be attracted to work areas if food debris is present.

Two of the species, southwestern pond turtle and two-striped garter snake, are most likely to occur near aquatic resources such as the ponds in the Sepulveda Basin. Since aquatic resources are limited in Alternative 5 and the alignment is underground adjacent to Sepulveda Basin, impacts to these two species are expected to be less than significant.

- Southwestern pond turtle (*Actinemys pallida,* federal candidate for listing)
- Two-striped garter snake (*Thamnophis hammondii*, SSC)

Based on habitat requirements, the remaining three species are most likely to be found in the Sepulveda Pass and Santa Monica Mountains. However, a broad range of acceptable habitats would result in potentially significant impacts in locations with ground disturbance. The clearing of vegetation would result in injury or mortality of individuals, disruptions of natural behaviors, and loss of suitable habitat that would be used for nesting, breeding, sheltering, and/or foraging for the following three special-status reptiles:

- Southern California legless lizard (*Anniella stebbinsi*, SSC)
- Coastal whiptail (*Aspidoscelis tigris stejnegeri*, SSC)
- Coast horned lizard (*Phrynosoma blainvillii*, SSC)

The loss of individuals and suitable habiting for these special-status species would constitute a significant impact.

Special-Status Birds

One special-status bird species was identified as present and eight have high potential to occur within the Alternative 5 RSA. Based on habitat requirements for these nine species, they are likely to be found throughout the RSA in transit, resting and/or foraging from the Los Angeles National Cemetery in the south to the Sepulveda Basin in the north. Birds in transit are unlikely to be affected by construction activities; adults are highly mobile and can be expected to relocate away from construction activities of their own volition. However, migratory individuals may experience temporary or permanent loss of transitory habitat. If overwintering burrowing owls are present, individuals would be entrapped and suffocate or be crushed if burrows are present in the work areas during grading and vegetation removal. Additionally, grading would result in loss of suitable wintering burrows for migratory burrowing owls. If native birds breeding within or adjacent to work areas, nests, eggs, and nestlings would be vulnerable to destruction, injury, or mortality if they are present during vegetation clearing and other construction activities. Ground nests may be vulnerable to crushing, trampling, or destruction by pedestrians and vehicles. Nests in adjacent areas also may be exposed to noise, fugitive dust, human presence, and vibration that would disrupt natural breeding behaviors including incubation of eggs and care and feeding of young; these disruptions would result in failure of a nest to successful produce young. Excessive disruption, or substantial changes in habitat during the nesting period, would also result in abandonment of nest sites, eggs, or young. Further, impacts associated with clearing and grading of vegetation adjacent to I-405 would likely result in loss of suitable habitat that would be used for nesting, breeding, shelter, and/or foraging for the following nine special-status avian species and nesting birds protected under the MBTA:

- Tricolored blackbird (*Agelaius tricolor*, state threatened and SSC)
- Burrowing owl (*Athene cunicularia*, state candidate and SSC)
- Swainson's hawk (*Buteo swainsoni*, state threatened)
- Northern harrier (*Circus hudsonius*, SSC)
- Olive-sided flycatcher (*Contopus cooperi*, SSC)
- Bald eagle (*Haliaeetus leucocephalus*, state endangered and fully protected)
- Loggerhead shrike (*Lanius ludovicianus*, SSC)
- Vermilion flycatcher (*Pyrocephalus obscurus*, SSC)
- Least Bell's vireo (*Vireo bellii pusillus*, FE and SE)

The loss of nests, eggs, or nestlings, impacts to natural breeding behaviors, eviction from wintering burrows, and loss of suitable habiting for these special-status species would constitute a significant impact.

Special-Status Mammals

Three special-status mammals were identified as present within the Alternative 5 RSA, including mountain lion, silver-haired bat, and hoary bat. Mountain lions are known to occur within the Santa Monica Mountains, while the silver-haired and hoary bat have broader habitat requirements and have potential to forage in both natural and developed habitats. Within the Sepulveda Pass and Santa Monica Mountains, special-status mammals would occur in or proximate to work areas along I-405. Impacts from roadway realignment along I-405 into existing hillsides between Sunset Boulevard and Mulholland Drive would include clearing and grading of native vegetation adjacent to the freeway. Within the developed northern and southern ends of the projects, special-status bats would be present in ornamental street trees or on existing infrastructure, such as bridges and buildings. Individuals may be subject to injury or mortality if they are present as roosting adults during vegetation clearing activities. Roosting adults also may be disturbed by construction-related noise and vibration, causing them to flee roosts during daylight hours. Maternal roosts would also be vulnerable to injury or mortality if present, as pups are unable to take flight and would be likely to be killed if present. Suitable foraging, sheltering, and roosting habitats have potential to be removed during vegetation clearing and grading, or temporarily impacts by construction noise, fugitive dust, and increased human presence. Nighttime construction lighting also may impact foraging habitat by attracting prey species, which may attract some bat species and repel others.

Individual larger mammals, including mountain lions, are unlikely to be directly impacted by construction activities as they are highly mobile and can be anticipated to relocate away from work areas of their own volition. Individuals are not likely to be vulnerable to collisions with slower moving construction equipment and vehicles. However, natural foraging, sheltering, and breeding behaviors may be disrupted by construction activities, both temporarily through avoidance of areas with construction-related noise, human presence, vibration, and fugitive dust, and permanently through changes in habitat due to vegetation clearing and grading.

The clearing of vegetation in the Sepulveda Pass and along city streets and demolition of structures with suitable roosts would also likely result in loss of suitable habitat that would be used for roosting, breeding, shelter, and/or foraging for the following three special-status mammals:

- Mountain lion (*Puma concolor*, state candidate for listing)
- Silver-haired bat (*Lasionycteris noctivagans*, WBWG Medium priority)
- Hoary bat (*Lasiurus cinereus*, WBWG Medium priority)

Specifically for mountain lion, Alternative 5 is unlikely to result in significant impacts to suitable habitat due to the small size and linear nature of the clearing and grading activities in comparison to the species large home range size. The construction of Alternative 5 is unlikely to significantly impact mountain lion movement and usage of wildlife corridors based on the underground configuration without associated ground-disturbance activities through the Santa Monica Mountains from UCLA Gateway Plaza Station in the south until the tunnel portal east of Sepulveda Boulevard and south of Raymer Street.

The loss of suitable habitat for silver-haired bats and hoary bats would constitute a significant impact.

Special-Status Plants

Six special-status plant species were identified with medium or high potential to occur within the Alternative 5 RSA; none were present. Based on habitat requirements for these six species, they are most likely to occur in chaparral and/or coastal sage scrub, which occurs on the Project in the Sepulveda Pass and would be in or proximate to work areas along I-405 in the Santa Monica Mountains. Impacts

from roadway realignment along I-405 into existing hillsides between Sunset Boulevard and Mulholland Drive would include clearing and grading of native vegetation adjacent to the freeway. Clearing and grading of vegetation would also be required for construction of the structural support beams for the guideway track, staging yards, TPSSs, and aerial MRT stations; although vegetation to be impacted is largely non-native and/or ornamental landscaping, native vegetation is also present. If individuals are present during clearing and grading activities, special status plants would be subject to trampling, crushing, and removal. Individuals present in adjacent areas may be exposed to fugitive dust, which can settle on vegetation and interrupt natural photosynthesis. Following vegetation clearing, adjacent areas also may be subject to edge effects including higher exposure to sun, dust, and wind, and incursion by nonnative, weedy species, which can increase competition for space and resources and decrease habitat value for special-status plants.

The clearing of vegetation in the Sepulveda Pass would likely result in loss of suitable habitat for the following special-status plant species:

- Braunton's milk-vetch (*Astragalus brauntonii*, federally endangered, CRPR 1B.1)
- Slender mariposa lily (*Calochortus clavatus* var. *gracilis*, CRPR 1B.2)
- Davidson's bushmallow (*Malacothamnus davidsonii*, CRPR 1B.2)
- Chaparral nolina (*Nolina cismontana*, CRPR 1B.2)
- Nuttall's scrub oak (*Quercus dumosa*, CRPR 1B.1)
- Sanford's arrowhead (*Sagittaria sanfordii*, CRPR 1B.2)

Further detail on each species' potential to occur in the Alternative 5 RSA is provided in the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k).

The loss of individuals or suitable habitat for these special-status plants would constitute a significant impact.

Mitigation Measures

As described in Section 8.2.4.7, mitigation measures would be implemented to reduce construction-related impacts to special-status plant and wildlife species and their habitats to less than significant through establishment of survey and monitoring requirements (MM BIO-4 through MM BIO-9, MM BIO-17, MM BIO-29); monitoring of bird nests and determination if no-disturbance buffers require adjustments (such as due to noise from construction activities) (MM BIO-4); education and training of personnel about Project 's biological concerns and requirements (MM BIO-18); establishment and demarcation of Environmentally Sensitive Areas (MM BIO-16); and creation of a habitat restoration plan (MM BIO-9).

General construction measures to protect special-status species include protection from wildfire (MM BIO-19), domestic pets (MM BIO-20), night lighting (MM BIO-22), invasive plants (MM BIO-23), dust (MM BIO-24), vehicular collisions (MM BIO-25), entrapment (MM BIO-26), and construction-related trash (MM BIO-27).

Maintenance and Storage Facilities

The MSF for Alternative 5 would be on developed land located east of the Van Nuys Metrolink Station and south of the LOSSAN rail corridor, bounded by Hazeltine Avenue to the west and Woodman Avenue to the east; no habitat modifications or removal would be required for the construction of the MSF. No impacts to special-status plant species would result from the construction of the MSF since suitable habitat is not present. Roosting bats and MBTA-protected nesting birds have potential to be impacted during construction of the MSF if ornamental trees and/or shrubs located within the Ground

Disturbance Area of the MSF are trimmed or removed; this would potentially be a significant impact. Impacts may include disruption of natural breeding and sheltering behaviors; injury or morality to bat pups; destruction, injury, or mortality of nests, eggs, nestlings, and individuals; loss of roosting and breeding habitat; and temporary impacts to roosting sites and nesting sites in adjacent areas due to noise, vibration, and human presence. MM BIO-4 and MM BIO-5, presented in Section 8.2.4.7, are included to reduce construction-related impacts to nesting birds and special-status bats from vegetation trimming or removal to less than significant.

8.2.4.2 Impact BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

No riparian habitat occurs within the Ground Disturbance Area of Alternative 5; 8.3 acres of undifferentiated riparian habitat are located in the RSA, specifically in the Los Angeles River at the western end of Sepulveda Basin, in the 500-foot buffer for off-site staging yards N1 and N2. Clearing of vegetation for staging locations N1 and N2 would occur approximately 100 feet from the riparian habitat; no riparian habitat is likely to be present within the staging yard footprints as the areas are previously disturbed (as indicated through vegetation mapping of agricultural and California annual grasslands). Therefore, direct impacts such as removal of riparian vegetation are unlikely.

No sensitive natural vegetation communities are known to occur within the Ground Disturbance Area or 500-foot buffer for Alternative 5. One potentially sensitive community, coyote brush shrubland, occurs within off-site staging yard N2 located adjacent to the Los Angeles River at the western end of Sepulveda Basin; 3.6 acres are present within the Alternative 5 Ground Disturbance Area. Clearing of vegetation in this area for construction activities would likely result in loss of sensitive natural communities within the Ground Disturbance Area of the Alternative 5 RSA. Vehicle tires on equipment used for construction of Alternative 5 have potential to transport invasive plant seeds into native habitat at this location during clearing and grading. Additionally, sensitive natural communities may be exposed to particulate matter and dust from active construction within the staging yard. Dust and particulate matter deposition on foliage can disrupt photosynthesis and other processes critical for plant survival (Farmer, 1993).

The Project may cause indirect impacts to riparian habitat as a result of excessive dust from construction activities within the yards following vegetation clearing; this would be a less than significant impact. The Project also has potential to cause significant impacts to sensitive vegetation communities due to clearing for N2 staging yard. MM BIO-10, MM-BIO 16 through MM BIO-18, and MM BIO-23 through MM BIO-25, described in Section 8.2.4.7, are included to reduce construction-related impacts to sensitive natural communities to less than significant through establishment of Environmentally Sensitive Areas, biological monitoring of work within these communities, environmental training to Project workers, protection from invasive weeds, and protection from dust from speeding or other sources.

Maintenance and Storage Facilities

The MSF for Alternative 5 would be on developed land located east of the Van Nuys Metrolink Station and south of the LOSSAN rail corridor, bounded by Hazeltine Avenue to the west and Woodman Avenue to the east. No riparian habitat or sensitive natural communities are present within the Ground Disturbance Area or the 500-foot buffer of the MSF. No impacts to riparian habitat or sensitive natural communities are expected from the operation or construction of the MSF.

8.2.4.3 Impact BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The Los Angeles River is concrete-lined and devoid of riparian or herbaceous wetland vegetation where Alternative 5 traverses the river; no wetlands are associated with the river at this location. There are no state or federally protected wetlands that occur within the Ground Disturbance Area for Alternative 5; consequently, no impacts to wetlands impacts are anticipated from construction of Alternative 5.

The Los Angeles River is considered WOTUS under the jurisdiction of the USACE, RWQCB, and CDFW. A total of 0.06 acres of non-wetland waters associated with the Los Angeles River is located within the Alternative 5 Ground Disturbance Area. However, because Alternative 5 is underground at the crossing of the Los Angeles River, no direct or indirect construction-related impacts to the river bed or banks is anticipated. As no other non-wetland jurisdictional waters occur within the Alternative 5 Ground Disturbance Area, tunneling under the Los Angeles River would avoid construction-related impacts to jurisdictional, non-wetland waters for Alternative 5.

Maintenance and Storage Facilities

The MSF for Alternative 4 or Alternative 5 would be located on developed land located east of the Van Nuys Metrolink Station and south of the LOSSAN rail corridor, bounded by Hazeltine Avenue to the west and Woodman Avenue to the east. Since there are no wetlands or non-wetland waters present within the Ground Disturbance Area of the MSF, no impacts to protected wetlands or jurisdictional waters are expected from the construction of the MSF.

8.2.4.4 Impact BIO-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Native Resident or Migratory Fish

There are no native resident or migratory fish with established native resident corridors or migration routes present within the Alternative 5 RSA. Thus, no construction-related impacts to the movement of resident or migratory fish is anticipated for Alternative 5.

Native Resident or Migratory Wildlife

Construction of the three underground tunnel segments and associated TPSSs for Alternative 5 would be underground except for TBM launch and extraction sites (located in staging yards or stations). The Ground Disturbance Area associated for the north-south section of the alignment, where the best quality habitat within Alternative 5 would be located, would include cut-and-cover construction of the seven underground stations and clearing and grading of construction staging areas. Construction of the aerial guideway, stations, staging areas, and MSF would potentially impact wildlife movement due to increased construction noise, lights, and air pollution. Based on the size of the station footprints and no surface impacts in the Santa Monica Mountains, construction impacts to movement of wildlife species are anticipated to be localized and temporary.

One special-status migratory bat species, the hoary bat, has potential to occur in the Alternative 5 RSA during construction of Alternative 5 as do migratory and special-status birds. Ground disturbance activities, including removal of vegetation/habitat, excavating, pile driving, topsoil removal, and grading associated with the construction of Alternative 5, would result in potential impacts to migratory bat and avian species. MM BIO-4, MM BIO-5, MM BIO-7, and MM BIO-14, described in Section 8.2.4.7, are included to reduce construction-related impacts to migratory species to less than significant through protection to nesting birds and special-status bats, protections for least Bell's vireo, vegetation restoration, and development of a monitoring plan to document changes in wildlife movement over time.

Maintenance and Storage Facilities

The MSF for Alternative 5 east of the Van Nuys Metrolink Station and south of the LOSSAN rail corridor, bounded by Hazeltine Avenue to the west and Woodman Avenue to the east. Since there is no open habitat, waterways, or native vegetation present in the MSF, no impacts to the movement of native resident or migratory fish or wildlife would be expected from the operation or construction of the MSF.

8.2.4.5 Impact BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Table 8-15 provides a summary of the protected trees and shrubs potentially affected by Alternative 5. A total of 1,162 protected trees and shrubs are mapped within the Alternative 5 Tree Survey Area of Alternative 5. Of those, 69 are protected under the purview of the City of LA Ordinance, irrespective of land ownership, and require permits for alterations made to protected trees and shrubs during construction, including trimming and encroaching into the tree/shrub protection zone in any manner that would cause a protected tree or shrub to die, such as damaging the root system with compaction or injury and changing the grade around the trunk. Seventy-six are on property owned by the City of Santa Monica that would be used during construction as a potential off-site staging yard. These are covered by the City of Santa Monica Tree Code and would require a city permit from the Santa Monica City Director before trees can be altered in any manner, including but not limited to removal, trimming, pruning, and planting. The remaining 1,017 trees are under the jurisdiction of the City of LA Policy or the Metro Tree Policy. Heritage or protected trees as determined by local ordinances or policy, may be present within the Alternative 5 Tree Survey Area; impacts to these trees are anticipated to be less than significant for Alternative 5.

Table 8-15. Alternative 5: Ordinance-Protected Trees and Shrubs within Ground Disturbance Area

Jurisdiction	Scientific Name	Common Name	Quantity	Mitigation Amount (# replacement trees)
City of Los Angeles Protected Tree and Shrub Ordinance	*Platanus racemosa*	western sycamore	9	36
	Quercus agrifolia	coast live oak	43	172
	Quercus chrysolepis	canyon live oak	13	52
	Quercus lobata	valley oak	2	8
	Sambucus mexicana	Mexican elderberry	2	8
City of Santa Monica Tree Code	Numerous native and non-native tree species[a]		76	152 to 304[b]
TOTAL			**145**	**428 to 580**
Metro/City of Los Angeles Street Tree Policy	Numerous native and non-native tree species[a]		1,017	2,034 plus additional for heritage trees

Jurisdiction	Scientific Name	Common Name	Quantity	Mitigation Amount (# replacement trees)
GRAND TOTAL			**1,162**	**2,462 to 2,614 plus heritage trees**

Source: HTA, 2024

[a]Los Angeles County Oak Tree Ordinance states "any tree of the oak genus"; therefore, non-native oak species are included in this inventory and mitigation calculations.

[b]Full list of SMMNRA and Policy-protected trees listed in the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report (Metro, 2025k), Appendix B – Attachment 1, Tree Inventory Tables.

[c]SMMNRA and City of Santa Monica Tree Code mitigation amounts presumed to be within range of ordinances and policies within the area; final mitigation would be decided through coordination with appropriate entities.

[d]Mitigation amounts would be at discretion of City of Santa Monica.

*Mitigation amount describes the number of replacement trees as per applicable tree ordinance or policy.
SMMNRA = Santa Monica Mountains National Recreation Area
TBD = to be determined

Unless mitigated, the anticipated removal and alteration of protected trees and shrubs during construction of Alternative 5 would conflict with the City and County tree ordinances and with Metro and City tree policies. This is considered a significant impact. Refer to the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k), Appendix B – Attachment 1, Tree Inventory Tables for the full list of these recorded trees.

To address this impact, Alternative would 5 would implement MM BIO-12, described in Section 8.2.4.7, which would require installation and maintenance of replacement trees or shrubs following requirements of the pertinent preservation policy or ordinance. With implementation of MM BIO-12, impacts associated with the removal of protected trees and shrubs during construction of Alternative 5 would be reduced to less than significant.

Maintenance and Storage Facilities

The MSF for Alternative 5 would be on developed land located east of the Van Nuys Metrolink Station and south of the LOSSAN rail corridor, bounded by Hazeltine Avenue to the west and Woodman Avenue to the east. Within the Alternative 5 MSF, there are 43 ornamental trees including Mexican fan palm (*Washingtonia robusta*), Canary Island pine, Chinese elm, and eucalyptus trees among others. Since the MSF would be within Los Angeles Metro property lines, Metro is responsible for trees within the MSF.

Impacts to trees at the MSF during the operations phase would conflict with the Metro Tree Policy, which applies to tree removal within Metro property lines or Metro's ROW; Trees within the MSF are anticipated to be removed during construction. Those that are not removed during construction would be subject to potentially significant impacts during operations if maintenance, such as trimming, injury that would result in death, or removal, is required during operations. With implementation of MM BIO-3, impacts to protected trees and shrubs during operations of the MSF for Alternative 5 would be reduced to less than significant.

Tree removal at the MSF during construction would conflict with the Los Angeles Street Tree and Metro Tree Policies, which would constitute a significant impact. To address this impact, the MSF for Alternative 5 would implement MM BIO-12, described in Section 8.2.4.7, which would require the installation and maintenance of replacement trees or shrubs following requirements of the pertinent

tree preservation policy or ordinance. With implementation of MM BIO-12, impacts associated with removal of protected trees and shrubs during construction of the MSF for Alternative 5 would be reduced to less than significant.

8.2.4.6 Impact BIO-6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

There are no adopted HCPs, NCCPs, or other approved regional or state HCPs that occur within the Alternative 5 RSA. Therefore, no impacts to an adopted HCP, NCCP, or other state HCP would occur.

Maintenance and Storage Facilities

There are no adopted HCPs, NCCPs, or other approved regional or state HCPs that occur within the Alternative 5 RSAs. Therefore, no impacts to an adopted HCP, NCCP, or other state HCP would occur.

8.2.4.7 Mitigation Measures

Construction Impacts

MM BIO-4: ***Avoid and Minimize Construction-Related Impacts to Nesting Birds.*** *Vegetation clearance for construction of the Project shall occur outside of the nesting bird season (generally February 15 through September 15) to the extent feasible. If vegetation removal outside this time period is not feasible, the following additional measures shall be employed to avoid and minimize impacts to special-status bird species and nesting birds protected under the Migratory Bird Treaty Act and California Fish and Game Code:*

- *A preconstruction nesting bird survey of the work area (as defined by the Ground Disturbance Area, including staging and laydown yards) plus a 300-foot buffer shall be conducted by a Qualified Biologist within three days prior to the start of ground disturbing activities (including vegetation removal activities) to determine whether active nests (defined as nests with eggs or young) are present within or adjacent to (i.e., within 100 feet for non-special status songbirds, 300 feet for raptors and special-status species) the work zone. Any active nests found shall be recorded and a nest avoidance zone shall be established where no work shall occur. If project activities are delayed beyond 72 hours, a new nesting bird survey should be completed within 72 hours prior to the resumption of ground disturbing activities.*
- *Active bird nests for species protected by the Migratory Bird Treaty Act shall have a clearly demarcated (via flagging, fencing and/or signage) no-disturbance buffer established as follows: 300-foot radius buffer for raptors and special-status birds (see MM BIO-7 for additional least Bell's vireo measures) and 100-foot-radius buffer for non-raptor and non-special status avian nests. The Qualified Biologist can adjust buffer distances to increase or decrease the radius contingent on topography, existing noise levels, planned operational activities, species specific tolerances to disturbances such as noise and vibration from construction activities, and observations specific nesting pair tolerance to disturbances. Nest monitoring by the Qualified Biologist shall be required following buffer modifications to ensure new buffer is appropriate; adjustments can be made only*

following monitoring of nesting pair to determine if buffer is adequate to protect nest from construction impacts including from noise and vibrations. Installation of temporary noise barriers between the work area and nest can also be evaluated, if installation can occur in a manner to not disturb the nesting pair based on the Qualified Biologist's recommendation. If a Qualified Biologist determines work activities may result in nest failure, project work shall cease within the recommended no-disturbance buffer until a Qualified Biologist determines nest status. Additional follow-up surveys shall be conducted as necessary to determine nest status. Once the nest is determined to be fledged or no longer active, the buffer shall be removed.

- *A Qualified Biologist shall inform maintenance personnel of any active nests, facilitate avoidance measures, and verify operational activities do not cause disturbance. Maintenance personnel shall be updated on nest status and when avoidance buffers are no longer necessary.*
- *A Qualified Biologist shall monitor each nest on a biweekly basis and project activities shall not occur within the buffer until a Qualified Biologist determines the nest is no longer active (either by fledging or failing naturally). If a nest is adjacent to an access road where no project activities are being conducted, vehicles can drive past the nest without stopping or parking. Signage stating no stopping of idling vehicles will be posted (facing outwards from the buffer) at the start and end of the nest buffer where it crosses the road.*
- *A Qualified Biologist can determine a nest to be inactive (defined as eggs and young no longer present or reliant on the nest site, including fledged young that still depend upon the nest), following no observations of activity at the nest location for 1 hour for non-raptor avian nests and 4 hours for raptors.*
- *A summary of nesting bird surveys, monitoring efforts, and any no-disturbance buffers that were installed shall be documented by the biologist at the conclusion of each nesting season and submitted to Metro. In the event that an active bird nest identified is associated with a special-status species afforded protection under the California Endangered Species Act or the federal Endangered Species Act, then the appropriate agency will be immediately informed, and additional coordination will occur, as needed.*

MM BIO-5: ***Avoid and Minimize Construction-Related Impacts to Roosting Special-Status Bat Species.*** *To reduce impacts on roosting bats resulting from construction activities, the following shall be implemented:*

- *A bat habitat assessment will be conducted during the bat maternity season (generally April 15 through August 31 for southern California, yearly timing dependent on weather conditions) at least one year prior to construction. A Qualified Bat Biologist will conduct surveys to determine the presence of bat roosting or maternity habitat within suitable areas where vegetation trimming, tree removal, bridge repair activities, structure demolition, or other construction-related activities may occur and bats may be present. A visual inspection and/or one-night emergence survey of potential bat habitat that may be impacted by activities shall be completed utilizing acoustic recognition technology to*

determine if any maternity roosts are present. Results from this survey will be used to create a Bat Habitat Mitigation and Monitoring Plan (BHMMP) by a Qualified Bat Biologist which will include site-specific minimization and avoidance measures for operations and construction of the Project that will include but not be limited to establishment of no-disturbance buffers, monitoring of roosting bats to ensure tolerance to disturbances such as noise and vibration from Project activities, mitigation for habitat impacts, and humane eviction or exclusion. If monitoring indicates established no-disturbance buffer is not adequate to prevent disturbances to roosting bats, a Qualified Bat Biologist can adjust as needed.

- *Flight pathways, i.e., line of flight into and out of the roost, shall be maintained during maintenance Project work. Modifications to ingress and egress routes are not allowed including but not limited to obstacles presented from construction equipment use and staging, location and type of lighting or reconfiguration of staged materials (vehicles, equipment, etc.) at night relative to roosting locations.*
- *If swallow nests need to be removed during construction, removal should occur in the fall (September 1 to October 31 or based on local expert bat biologist input as long as it is outside of bat maternity or hibernation season), preferably at night. Nests should be inspected for occupancy by a Qualified Bat Biologist and if empty, removed. If a bat is present, if feasible a small portion of the nest can be carefully removed to make the nest a less suitable for roosting. The following night, if the nest is empty, it can be removed entirely. If not, another small portion can be removed if feasible. If removal is not feasible or bats are still present, consultation with CDFW may be appropriate.*
- *Trees or structures to be removed as part of the Project shall be evaluated for their potential to support bat roosts. An experienced bat biologist shall conduct a one-night emergence survey during acceptable weather conditions, before the start of removal. The following measures shall apply to trees or structures to be removed that provide potential bat roost habitat; these shall be implemented by a Qualified Bat Biologist.*
  - *If roosting bats are determined present in a tree or on a structure during the maternity season (April 15 through August 31), the tree/structure shall be avoided until after the maternity season when young are self-sufficient. If other trees/structures in the immediate vicinity are slated for removal, or other work will occur in the immediate vicinity that might disturb roosting bat, a no-work buffer may be needed.*
  - *If roosting bats are determined to be present during the winter months when bats are in torpor (i.e., a state in which the bats have significantly lowered their physiological state that occurs generally October 31 through February 15), and if conditions permit, a Qualified Bat Biologist shall physically examine the roost for the presence or absence of bats before the start of project activities; equipment such as an electric lift may be utilized to conduct the inspection. If the roost is determined to be occupied during this*

time, the tree or structure shall be avoided until after the winter season when bats are once again active.

- *Trees or structures with potential colonial bat habitat can be removed outside of the maternity season and winter season (generally February 16 through April 14 and September 1 through October 30, or as determined by a Qualified Bat Biologist) using a two-step process that occurs over two consecutive days.*
  - *Day 1, Step 1: Under the supervision of a Qualified Bat Biologist, tree branches and limbs with no cavities shall be removed by hand (e.g., using handsaws) or smaller components of the structure should begin to be removed by hand (e.g., hammer, screwdriver). The associated vibrational and noise disturbance and physical alteration of the tree/structure shall likely cause bats roosting to either abandon the roost immediately or avoid returning to the roost after emergence.*
  - *Day 2, Step 2: Removal of the remainder of the tree or structure can occur the following day under the supervision of a Qualified Bat Biologist.*
- *Trees that are only to be trimmed and not removed shall also require a two-step process with these deviations from the removal process explained above: if a branch with a potential roost must be removed, all surrounding branches shall be trimmed on Day 1 under supervision of a Qualified Bat Biologist and then the limb with the potential roost shall be removed on Day 2.*
- *The results of bat surveys, evaluations, and monitoring efforts that are undertaken shall be documented in a report by the biologist and provided to CDFW in electronic format at the conclusion of all bat-related mitigation activities.*

MM BIO-6: ***Avoid and Minimize Construction-Related Impacts to Crotch's Bumble Bee.*** *To reduce impacts on Crotch's bumble bee from construction activities, the following shall be implemented:*

- *A pre-construction habitat assessment for Crotch's bumble bee shall be conducted by a Qualified Biologist within the Ground Disturbance Area and a surrounding 100-foot buffer to demarcate potentially suitable nesting and foraging habitat.*
- *Nesting surveys and foraging surveys shall be conducted during the most active flight period and peak blooming period of nectar and pollen sources (generally April 1 through July 31). The survey shall be conducted between at least 1 hour after sunrise and at least 2 hours before sunset, with ambient air temperature between 60- and 90-degrees Fahrenheit. Surveys shall not be conducted during windy periods with speeds of over 10 mph, during fog or low visibility, or precipitation heavier than drizzling rain.*
- *Foraging surveys shall focus on areas of high abundance of nectar and pollen sources with meandering transects within these areas at a rate of no more than 2.5 acres per hour.*

- *Nesting surveys shall focus on areas with existing, abandoned, rodent burrows; the biologist shall focus on detecting potential Crotch's bumble bee nest within suitable habitat.*
- *If a nest is documented, a 50-foot "no-disturbance" buffer shall be established and clearly identified in the field for avoidance. Construction activities shall avoid the nest location and surrounding buffer until the nest has senesced.*
- *Results of all survey efforts will be summarized in writing and submitted to Metro for documentation. In the event species presence is confirmed and/or a nest is located, CDFW will be informed, and additional coordination will occur as needed.*

MM BIO-7: ***Avoid and Minimize Project-Related Impacts to Least Bell's Vireo.*** *To reduce impacts on least Bell's vireo from construction activities, the following shall be implemented:*

- *Prior to initiation of construction activities, the Project shall perform one full season of protocol surveys for least Bell's vireo in suitable habitat within 500 feet of construction activities following the accepted U.S. Fish and Wildlife Service protocol. Focused surveys shall be completed prior to construction initiation and results shall be used to inform a consultation process with the U.S. Fish and Wildlife Service for project permitting. Eight surveys shall be conducted between April 10 and July 31, with each survey spaced at least 10 days apart. Reduction in the prescribed number of individual surveys may be evaluated in accordance with the U.S. Fish and Wildlife Service protocol. Surveys shall be conducted between dawn and 11:00am and outside of periods of inclement weather (excessive heat or cold, high winds, rain, etc.). Surveys shall not be conducted concurrently with other surveys. Per the U.S. Fish and Wildlife Service protocol, surveyors shall not survey more than 3 linear kilometers or more than 50 hectares in one day.*
- *Following completion of protocol surveys, pre-construction presence/absence clearance surveys shall be required if construction is planned to begin within the nesting season. Clearance surveys shall be required within 500 feet of suitable habitat and must occur 3 or fewer days prior to start of activities. Presence/absence surveys shall be conducted by a Qualified Biologist familiar with species visually and aurally who is able to differentiate similar species. The Qualified Biologist shall not be required to have an Endangered Species Act Section 10(a) recovery permit covering this species since recorded vocalizations shall not be used to illicit responses and nest monitoring (i.e., locate and monitor the nest, including removal of brown-headed cowbird (Molothrus ater) eggs and chicks from parasitized nests) and handling of individual are not proposed.*

- *If protocol and pre-construction survey results are negative, construction activities can commence, and a Qualified Biologist shall conduct presence/absence surveys weekly during the breeding season while construction is occurring within 500 feet of suitable habitat. If least Bell's vireo are detected during a survey, a Qualified Biologist shall be required to monitor construction activities within 500 feet of suitable habitat until the end of the breeding season. If construction within 500 feet of suitable habitat is paused for more than 3 days, a new survey must be conducted to verify if least Bell's vireo are present.*
- *If an active nest is documented, a no-disturbance 300-foot radius buffer shall be established and clearly identified in the field. Construction activities shall avoid the nest location and buffer until a Qualified Biologist declares the nest inactive. A Qualified Biologist shall be required to monitor construction activities within 500 feet of suitable habitat every day work is occurring while the nest is active. Noise monitoring shall be required weekly on varying days for changes in construction-related noise levels from before the nest is active to after. Monitoring shall be to ensure noise levels remain at or below 60 A-weighted decibels (dBA) or to the ambient noise level if it already exceeds 60 dBA before construction at specified monitoring locations within 100 feet of the nest. The Qualified Biologist shall either conduct the noise monitoring or escort the noise monitor if they are not a Qualified Biologist.*
- *The results of the surveys shall be used to design project features and temporary work areas to avoid direct impacts to occupied habitat for listed riparian bird species. Results of all survey efforts shall be summarized in writing and submitted to Metro for documentation. In the event species presence is confirmed, the U.S. Fish and Wildlife Service shall be informed, and additional coordination will occur as needed and in compliance with Section 7 of the Endangered Species Act.*

MM BIO-8: ***Avoid and Minimize Construction-Related Impacts to Special-Status Reptiles.*** *To reduce Impacts on special-status reptiles from construction activities, the following shall be implemented:*

- *Prior to the start of vegetation removal, the Ground Disturbance Area shall be clearly fenced (usually with silt fencing) to delineate the extent of the construction area.*
- *Once fencing is in place, a Qualified Biologist shall conduct a pre-vegetation clearance sweep to look for and remove any special-status reptile species (e.g., coast horned lizard, two-striped garter snake, southwestern pond turtle, coastal whiptail, and southern California legless lizard) that may occur within the Ground Disturbance Area. If any special-status reptile species are detected within the Ground Disturbance Area, personnel shall allow the species to escape unimpeded if possible. Alternatively, the Qualified Biologist shall move the species outside of the fencing to the closest suitable habitat pending authorization from USFWS or CDFW, if required.*

- *Trash and food items will be contained in closed containers and removed daily to reduce the attraction of opportunistic predators such as common ravens, coyotes, and feral cats and dogs that may prey on sensitive species.*
- *Any observations of special-status reptiles will be summarized in writing and submitted to Metro. In the event that an observed special-status species is afforded protection under CESA or ESA, then the appropriate agency will be immediately informed and additional coordination will occur, as needed.*

MM BIO-9: ***Avoid and Minimize Construction-Related Impacts to Special-Status Plants.*** *Impacts to special-status plants shall be avoided, minimized and/or mitigated through incorporation of the following:*

- *Prior to any Project activities that may modify vegetation, focused rare plant surveys shall be conducted following California Department of Fish and Wildlife protocols. Focused surveys shall occur during optimal blooming periods for special-status species likely to occur, which typically results in multiple visits within one growing season (e.g., early, mid- and late-season surveys). In the event species presence is confirmed, the U.S. Fish and Wildlife Service shall be informed, and additional coordination will occur as needed and in compliance with Section 7 of the Endangered Species Act.*
- *If focused rare plant data is more than 1 year old at commencement of construction, pre-construction surveys during the optimal blooming periods shall occur to demarcate special-status plant populations for avoidance (where feasible). The results of the focused surveys shall be used to design project features and temporary work areas to avoid direct impacts to federally and state-listed plant species.*
- *Any observations of special-status plants will be summarized in writing and submitted to Metro. In the event that an observed special-status species is afforded protection under CESA or ESA, then the appropriate agency will be immediately informed and additional coordination will occur, as needed. When impacts to special-status plants are unavoidable, mitigation would be required and would be implemented by the Project consistent with a Mitigation Monitoring and Reporting Program, as required under California Environmental Quality Act. Furthermore, the Project shall prepare a Habitat Restoration Plan to meet the conditions stated in the Project's Mitigation Monitoring and Reporting Program. Mitigation may include restoring impacted areas through seeding, plantings, and weed abatement if project activities result in non-native species within the Ground Disturbance Area that were not present before activities began, as described below:*
  - *If feasible, special-status plant species observed during focused surveys within or adjacent to the Ground Disturbance Area that can be transplanted, such as the slender mariposa lily (Calochortus clavatus var. gracilis), may be dug up from the Ground Disturbance Area before work begins, stored in an appropriate manner depending on species, and replanted within the Ground Disturbance Area close to its original location at project conclusion.*

- *When the location of special-status plant population is at risk from human access not related to the Project, fencing or staking may be installed to reduce or eliminate public access once construction is completed.*
- *If proposed repair and restoration efforts are not feasible or adequate to mitigate for impacted plants, additional options shall be explored, including off-site compensation, such as mitigation banking or permanent protection of an existing off-site native or introduced population. This option would require determination of appropriateness and approval from appropriate agencies to be enacted.*

MM BIO-10: ***Avoid and Minimize Construction-Related Impacts to Sensitive Vegetation Communities.*** *Impacts to sensitive vegetation communities shall be avoided, minimized, and/or mitigated as follows:*

- *The Project shall minimize impacts to sensitive vegetation communities California walnut woodland and sugar bush shrubland (and any other communities determined to be state ranked S1 to S3 by California Department of Fish and Wildlife following mapping refinement) by planning for impacts to occur in previously disturbed areas when feasible.*
- *Impacts to any natural vegetation communities designated sensitive, such as California walnut woodland and sugar bush shrubland, shall be reduced by attempting to trim vegetation instead of removing entire trees and shrubs where feasible. Where warranted, removal will be implemented such as when trimming to provide necessary clearance for the Project to be constructed and operate safely would result in permanent damage or adversely affect plant health and result in death.*
- *When feasible, temporary impact areas shall have vegetation trimmed and rootballs left intact to enable revegetation once construction is complete.*
- *In conjunction with appropriate entities with jurisdiction (i.e., Caltrans for their ROW, Santa Monica Mountains Conservancy for SMMNRA), Metro shall design and develop a 5-year restoration plan which shall include monitoring, irrigation, and native plantings/seedings to native vegetation communities that are disturbed by construction activities. If feasible, native species that can be transplanted, such as succulents, bulb species, and cactus, may be moved from the Ground Disturbance Area before work begins, stored in an appropriate manner depending on species, and replanted within the Ground Disturbance Area close to its original location at project conclusion as part of the restoration efforts. Preconstruction assessment of sensitive vegetation communities will be conducted to collect comprehensive species list, community structure data, cover assessments for native, nonnative annual, and nonnative perennial plants, and preconstruction photos for permanent photo points. Success standards to indicate restoration is complete will include native cover restored to or exceeding preconstruction conditions by the end of the five-year period, along with nonnative annual cover of 10 percent or less. Nonnative perennials shall not be present within the restoration site. If the cover success standards are not met by year five, additional measures such as replanting, remedial seeding,*

supplemental watering shall be considered. The monitoring period shall extend until success criteria are met.

MM-BIO-12: ***Avoid and Minimize Construction-Related Impacts to Protected Trees and Shrubs (Applicable to Alternatives 4 and 5).*** *Impacts to protected trees and shrubs shall be avoided, minimized, and/or mitigated by incorporation of the following:*

- *A Tree Expert, as defined in the City of Los Angeles Protected Tree and Shrub Ordinance, shall utilize the Initial Protected Tree and Shrub Inventory Memorandum (Appendix B of the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report) to complete a separate, more in-depth tree survey report prior to the start of construction and access is procured for properties within the alignment; the Tree Expert Report shall include field survey methods and details of each protected tree or shrub in height, diameter, canopy spread, physical condition, and location of each protected tree and shrub. The City of Los Angeles Protected Tree and Shrub Ordinance has jurisdiction in the Project; therefore, a Tree Expert shall be required to conduct the detailed survey and procure permits for protected tree/shrub removal from the Los Angeles Board of Public Works. The Tree Expert's follow-up report shall expand upon the initial assessment to provide a comprehensive dataset with verification of tree/shrub species, height, canopy width, and tree/shrub health for the Ground Disturbance Area. This follow-up report shall be used to procure the required permit prior to commencement of tree impacts within the City of Los Angeles.*
- *Impacts to protected trees and shrubs shall be minimized to the maximum extent feasible. When trimming and/or encroachment into the tree/shrub protection zone (defined as the dripline or canopy) is needed, the following measures shall be required.*
- *Trimming of protected trees/shrubs must comply with the pruning standards set forth by the Western Chapter of the International Society of Arboriculture in a manner that does not cause permanent damage or adversely affect the health of the trees or shrubs. Trimming shall require coordination and permitting with the appropriate entities as follows:*
    - *Species protected under the Los Angeles Protected Tree and Shrub Ordinance shall coordinate with the City of Los Angeles Board of Public Works, Urban Forestry Division.*
    - *Trees protected under the City of Los Angeles Street Tree Policy shall require coordination with the City of Los Angeles Department of Public Works, Urban Forestry Division.*
    - *Trees protected under the City of Santa Monica Tree Ordinance shall require coordination with the Director of Community and Cultural Services for pruning, maintenance, removal, and care for all affected trees*
    - *Trees covered by the Metro Tree Policy shall require the Project to prepare a tree protection plan identifying Tree Protection Zones for all trees designated for retention and to prepare a mitigation plan for damaged and removed trees.*

- *For impacts to protected trees and shrubs beyond trimming, the required tree removal permits shall be obtained, and replacement shall occur at the below rates. Mitigation locations of replacement trees shall be determined through the permitting process.*
  - ***City of Los Angeles Protected Tree and Shrub Ordinance:*** *Protected trees and shrubs included trees of the oak genus (indigenous to California), western sycamore, southern California black walnut and California bay, and two shrub species (Mexican elderberry and toyon). Individual trees and shrubs shall be replaced at a 4:1 ratio by plants that are the same species of protected plant.*
  - ***City of Santa Monica Tree Code****: Trees protected under the City of Santa Monica Tree Code shall require coordination with the Director of Community and Cultural Services for pruning, maintenance, removal, and care for all affected trees.*
  - ***Policy-Protected Trees:*** *All policy-protected trees, which fall under the purview of the Los Angeles Street Tree Policy or the Metro Tree Policy, shall be replaced at a ratio of 2:1. The Los Angeles Street Tree Policy allows for an in-lieu fee to be made with approval of the Board of Public Works following verification that replacement trees cannot be feasibly planted onsite. Trees under the Metro Tree Policy that are designated as heritage trees in a local ordinance shall be replaced at a 4:1 ratio with trees of the same variety.*
- *All trees occurring on private property, or Caltrans right-of-way, shall not require permitting, but shall require coordination and negotiation with property owners. Mitigation implementation shall follow Metro Tree Policy's replacement ratio of 2:1.*
- *For protected trees and shrubs that are not anticipated to be impacted, a Tree Protection Zone shall be established around each tree/shrub or cluster of trees/shrubs prior to the commencement of work. The Tree Protection Zone shall be erected using temporary fencing in an environmentally sensitive manner and remain in place until all site work has been completed. Specific installation timeframe may vary but the Tree Protection Zone must be inspected and approved by a Qualified Arborist prior to construction work occurring including staging of equipment. Work can commence directly following arborist inspection and approval. No construction-related materials shall be stored or staged within the Tree Protection Zone (fenced areas).*
- *The LA Street Tree Policy would require coordination with the City of Los Angeles Department of Public Works for removal or maintenance of protected trees; this policy does not apply to trees within private property, UCLA, or within the Caltrans ROW. Metro Tree Policy would not require permitting but would require coordination with the landowners (i.e., private landowners, UCLA, Caltrans) when a tree must be removed. Additionally, Metro Tree Policy states a mitigation plan would be required to be developed in consultation with a Certified Arborist if construction impacts resulted in a damaged or removed tree; decisions would be made in accordance with local ordinances identifying protected trees.*

MM BIO-15: ***Avoid and Minimize Construction-Related Impacts to Jurisdictional Aquatic Resources.*** *Potential impacts to drainages shall be avoided and/or minimized when working in or adjacent to aquatic resources as defined in the Aquatic Resources Delineation Report (Appendix A from the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report) through incorporation of the following:*

- *A Qualified Biologist/Aquatic Specialist shall monitor construction activities adjacent to jurisdictional aquatic resources during vegetation clearing and/or initial ground-disturbance activities. Additionally, they shall support impact avoidance and minimization measures detailed in permits and approvals obtained for the Project.*
- *Limits of the Ground Disturbance Areas shall be designated with lathe staking or a similar method. All equipment and workers shall remain within approved work limits.*
- *Wherever possible, construction personnel shall utilize existing access roads or previously disturbed areas to reach the project area or stage their vehicles and equipment.*
- *Maintenance personnel will also not leave any waste or debris behind which could impact natural habitats.*
- *To protect water quality:*
  - *Appropriate BMPs shall be installed to prevent erosion and guide runoff during rain events.*
  - *Equipment and materials shall be staged within the alignment and away from water drainages. Parked equipment shall have secondary containment to prevent any fluid leaks from coming into contact with the ground surface.*
  - *Water containing mud, silt, or other pollutants from construction activities shall not be allowed to enter into an aquatic resource.*
  - *Disposal or temporary placement of excess fill, brush, or other debris shall not be allowed in Waters of the United States, Waters of the State, and California Department of Fish and Wildlife streambeds or their banks.*

General Construction Measures

The following general construction measures are proposed for implementation during construction activities:

MM BIO-16: *Prior to vegetation clearing, grading, and/or construction activities that may impact habitats of special-status species, a Qualified biologist(s) shall oversee installation of appropriate temporary Environmentally Sensitive Area fencing and/or flagging to delineate the limits of construction and the approved construction staging areas for protection of identified sensitive resources outside the approved construction/staging zones. All construction access and circulation shall be limited to designated construction/staging zones. Fencing shall be of a type that will not entangle or otherwise detrimentally effect wildlife or the environment. Fencing should be checked*

weekly to ensure it is intact and functioning as intended, to look for signs of degradation that might cause harm to wildlife or the environment, and to ensure fenced construction limits are not exceeded. This fencing shall be removed upon completion of construction activities.

MM BIO-17: *A Qualified biologist(s) shall monitor project activities during vegetation clearing, grading, and/or construction within or adjacent to areas identified as sensitive habitat and/or jurisdictional aquatic resources. If special-status species and/or sensitive habitats adjacent to the project sites are inadvertently impacted by activities, then the Qualified biologist(s) shall immediately inform the on-site construction supervisor who shall temporarily halt or redirect work away from the area of impact. If unanticipated impacts occur to occupied habitat for special-status species, the Project shall consult with the appropriate regulatory agencies.*

MM BIO-18: *A Worker Environmental Awareness Plan (WEAP) shall be developed and implemented prior to the start of construction. Environmental training shall be led by the Qualified Biologist(s) and shall cover the sensitive resources found on-site, flagging/fencing of exclusion areas, permit requirements, and other environmental issues. New workers added to construction after the initial training at project start shall be required to receive WEAP training before they may begin work on the Project. Documentation of personnel who have attended WEAP training will be maintained and submitted to Metro. All information included in WEAP training should be kept on Project sites to be readily accessible to any personnel in a form deemed appropriate for the Project (e.g., wallet cards, printed flyers, etc.).*

MM BIO-19: *Wildfires shall be prevented by exercising care when driving to prevent sparks and by not parking construction vehicles where catalytic converters could ignite dry vegetation. All construction vehicles shall carry water and shovels or fire extinguishers in the field. The use of shields, protective mats, or other fire prevention equipment shall be used during grinding and welding to prevent or minimize the potential for fire. Smoking shall take place within designated areas and away from vegetated areas.*

MM BIO-20: *Construction workers shall be prohibited from bringing pets and firearms to the site.*

MM BIO-21: *To prevent unnecessary erosion, runoff, and sedimentation, all construction activities within 100 feet of drainages or wetlands shall cease during Stormwater Pollution Prevention Plan-defined rain events and shall not resume until conditions are suitable for the movement of equipment and materials. Vehicle access along unpaved access routes shall not occur during saturated soil condition to avoid rutting or other soil disturbance.*

MM BIO-22: *If night work should occur, all lighting used during night construction shall be temporary and shall be implemented to reduce lighting effects onto adjacent open space areas (i.e., downcast, away from habitat) and/or shall also be directed away from nests/roosting sites on man-made structures. Light shields shall be used to minimize light pollution adjacent to the Project.*

MM BIO-23: *Prior to entering the construction areas, equipment and personnel shall be free of mud, debris, or vegetation to prevent the introduction and spread of weeds or invasive species to the Project. If required, vehicle washing shall occur within designated areas within project construction areas where appropriate containment has been established, or at a suitable off-site facility.*

MM BIO-24: *Dust suppression measures shall be implemented during construction to minimize the creation of dust clouds and possible degradation of sensitive vegetation communities and special-status species suitable habitat. These measures shall include applying water at least once per day or as determined necessary by the Qualified biologist(s) to prevent visible dust emissions from exceeding 100 feet in length in any direction. In addition, watering frequency shall be increased to four times per day if winds exceed 25 miles per hour. Nontoxic soil stabilizers may be used on access roads to control fugitive dust, as needed.*

MM BIO-25: *Vehicle speeds shall be restricted to posted speed limits on existing paved roads and to 15 miles per hour on dirt or gravel access roads during all phases of the Project. Speed limit signs shall be posted on dirt or gravel access roads throughout the site to remind workers of travel speed restrictions.*

MM BIO-26: *Trenches and excavations located within open areas shall be backfilled with earth at the end of each workday or have one edge sloped into an escape ramp with a less than 1:1 (45 degree) slope to prevent wildlife entrapment. A non-slip material may be used (e.g., wooden ramp with traction) when an earthen escape ramp cannot be created. For instances when these methods are not feasible (e.g., deep, long-term excavations for underground segments), temporary exclusion fencing can be installed around the perimeter of the work area to prevent animal entrapment. The Qualified Biologist shall ensure the temporary exclusion fencing is sufficiently supported to maintain integrity under all conditions and shall be checked daily to ensure integrity is maintained and inspect it daily while work is occurring. Fencing will be repaired each day, as needed to ensure integrity is maintained. A Qualified biologist shall inspect all trenches and excavations for trapped animals at the beginning and end of each day, as well as before excavations are backfilled. Should wildlife become trapped in any trenches or excavations, a Qualified biologist(s) shall remove and relocate them outside the construction zone. When entrapped wildlife is a listed species with handling restrictions, relocation must be conducted by a biologist permitted to handle the species. Where trenches or excavations cannot be immediately backfilled or sloped, open excavations shall be covered and the end of each day with boards or plates. The edges of the boards shall be sealed with native spoils to prevent wildlife from entering the excavation in gaps at the board edges.*

MM BIO-27 *Spoils, trash, and any construction-generated debris will be removed to an approved off-site disposal facility. Trash and food items will be contained in closed containers and removed daily to reduce the attraction of opportunistic predators such as common ravens, coyotes, and feral cats and dogs that may prey on sensitive species.*

Impacts After Mitigation

Implementation of the mitigation measures listed in this subsection shall mitigate biological resources impacts related to project operations and construction to a level that is considered less than significant.

8.2.5 Energy

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-16.

Table 8-16. Alternative 5: Energy Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 5
Energy Construction Impacts		
Impact ENG-1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact ENG-2: Would the project conflict or obstruct a state or local plan for renewable energy or energy efficiency?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025p

ENG = energy
LTS = less than significant
NA = not applicable

8.2.5.1 Impact ENG-1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Alternative 5 would require petroleum-based transportation fuels and electricity to construct the transit system. Construction activities would comply with Metro's GCP and construction equipment would be maintained in accordance with manufacturers' specifications. Construction would result in a one-time expenditure of approximately 19,369,362 gallons of diesel fuel, 1,182,417 gallons of gasoline, and 605,367 megawatt-hours (MWh) of electricity. Table 8-17 provides a summary of the energy consumption estimated for construction of Alternative 5.

Table 8-17. Alternative 5: Construction Fuel and Electricity Consumption

Source Type	Fuel Consumption (gal)	Electricity Consumption (MWh)
Mobile Source Fuel Consumption		
Off-Road Equipment (Diesel)	9,212,396	NA
Worker Vehicles (Gasoline)	1,182,417	NA
Vendor Trucks (Diesel)	485,939	NA
Haul Trucks (Diesel)	9,671,026	NA
Electricity Consumption		
TBM	NA	604,980
Onsite Portable Offices	NA	387
Summary		
Total Gasoline (gal):	**1,182,417**	**NA**
Total Diesel (gal):	**19,369,362**	**NA**
Total Electricity (MWh):	**NA**	**605,367**

Source: HTA, 2024

gal = gallons
MWh = megawatt-hours

NA = not applicable
TBM = tunnel boring machine

All equipment and vehicles used in construction activities would comply with applicable California Air Resources Board regulations, Low Carbon Fuel Standards, and the Corporate Average Fuel Economy (CAFE) Standards. Construction would not place an undue burden on available energy resources. The one-time expenditure of energy associated with diesel fuel consumption would be offset by operations within approximately 11 years through transportation mode shift, and the one-time expenditure of energy associated with gasoline consumption would be offset by operations within 1 year. The temporary additional transportation fuels consumption does not require additional capacity provided at the local or regional level. CEC transportation energy demand forecasts indicate that gasoline and diesel fuel production is anticipated to increase between 2021 and 2035, while demand for both gasoline and diesel transportation fuels is projected to decrease over the same time period (CEC, 2021). Construction vehicles and equipment activities would not place an undue burden on available petroleum fuel resources during construction of Alternative 5.

Construction activities may include lighting for security and safety in construction zones. Nighttime construction would be limited, and lighting would be sparse and would not require additional capacity provided at the local or regional level.

The GCP requires and commits project contractors to using newer engines for off-road diesel-powered construction equipment that are more fuel efficient than older models. All equipment and vehicles would be maintained in accordance with manufacturer specifications and would be subject to idling limits. As required by the California Green Building Standards (CALGreen) Code Tier 2, at least 80 percent of the nonhazardous construction debris generated by demolition activities will be diverted from landfills. Also, CALGreen includes the mandatory requirement to reuse or recycle all clean soil that would be displaced during construction of Alternative 5, which would result in reduced energy consumption from hauling trucks. Furthermore, the Metro 2020 Moving Beyond Sustainability Strategic Plan and the Metro Design Criteria and Standards require and commit contractors to using high-efficiency lighting as opposed to less energy-efficient lighting sources in alignment with Leadership in Energy and Environmental Design (LEED) sustainability energy standards.

Based on the substantiation previously described, construction would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, Alternative 5 results in a less-than-significant impact related to construction activities.

Maintenance and Storage Facilities

Construction of the MSF would require petroleum-based transportation fuels and electricity. Construction activities would comply with Metro's GCP and adhere to Metro's policy for aligning with LEED Silver sustainable certification. The required energy demand to construct and operate the MSF would be more than offset by the energy savings in the forms of petroleum fuels and natural gas, and the consumption would support a mass transit system that would contribute to regional efforts to enhance energy efficiency and reduce reliance on nonrenewable resources. Construction of the MSF would not result in wasteful, inefficient, or unnecessary consumption of energy resources, and the MSF would result in a less than significant impact.

8.2.5.2 Impact ENG-2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Alternative 5 would require petroleum-based transportation fuels and electricity to construct the transit system. Construction would result in a one-time expenditure of approximately 19,369,362 gallons of diesel fuel, 1,182,417 gallons of gasoline, and 605,367 MWh of electricity. Alternative 5 would be consistent with state and local energy plans and policies to reduce energy consumption as activities would comply with Metro's GCP, CALGreen Code, Title 24, and LEED Version 4 Building and Design Construction (LEED v4 BD+C) Level Silver certification. The GCP requires and commits project contractors to using newer engines for off-road diesel-powered construction equipment that are more fuel efficient than older models. Compliance with GCP would limit excess petroleum fuels consumption. The CALGreen Code requires reduction, disposal, and recycling of at least 80 percent of nonhazardous construction materials and requires demolition debris to be recycled and/or salvaged, which would ultimately result in reductions of indirect energy use associated with waste disposal and storage. Alternative 5 would comply with state and local plans for energy efficiency in construction activities. Therefore, Alternative 5 would result in a less-than-significant impact related to construction activities.

Maintenance and Storage Facilities

The MSF would support Alternative 5 operations, providing energy efficient mass transit to the region and reducing auto passenger vehicle trips. The benefits of Alternative 5 are consistent with the goals, objectives, and land use and transportation planning policies of SCAG and the City of Los Angeles. The MSF would be designed to meet the LEED Version 4 Building and Design Construction (LEED v4 BD+C) Level Silver certification — and Envision Version 3 certification if LEED is not applicable — and Tier 2 of the CALGreen Code. There is no potential for construction or operations of the MSF to conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The MSF would not conflict with any adopted plan or regulation to enhance energy efficiency or reduce transportation fuels consumption and would support the initiatives of the Metro Climate Action and Adaptation Plan. In addition, the MSF would not interfere with renewable portfolio targets and would not result in a wasteful or inefficient expenditure of energy resources. The MSF would positively contribute to statewide, regional, and local efforts to create a more efficient and sustainable transportation infrastructure network. Therefore, construction of the MSF would result in a less than significant impact.

8.2.5.3 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

8.2.6 Geotechnical, Subsurface, Seismic, and Paleontological Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-18.

Table 8-18. Alternative 5: Geology, Soils, Seismicity, and Paleontological Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 5
Geology, Soils, Seismicity, and Paleontological Resources Construction Impacts		
Impact GEO-1: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-2: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking and/or seismic-related ground failure, including liquefaction?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-3: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-2
	Impacts After Mitigation	LTS
Impact GEO-4: Would the project result in substantial soil erosion or the loss of topsoil?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-5: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-1 through MM GEO-5
	Impacts After Mitigation	LTS
Impact GEO-6: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-5
	Impacts After Mitigation	LTS
Impact GEO-7: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI
Impact GEO-8: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-6 through MM GEO-9
	Impacts After Mitigation	SU

Source: Metro, 2025l

GEO = geotechnical
LTS = less than significant
MM = mitigation measure
NA = not applicable
PS = potentially significant

8.2.6.1 Impact GEO-1: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Construction of Alternative 5 would occur within the Santa Monica Fault zone, north of Santa Monica Boulevard and along I-405. Aerial guideway and station construction would involve installing CIDH piles (shafts with both precast and CIP structural elements), simple spans, and longer balanced cantilever spans within the I-405 ROW, arterials, and street crossings. A TBM would be used to construct the underground segment of the guideway. Tunneling depth would range between 40 feet to 470 feet. Underground stations would use a "cut-and-cover" construction method whereby the station structure would be constructed within a trench excavated from the surface that is covered by a temporary deck and backfilled during the later stages of station construction. These components would be constructed in compliance with applicable seismic and geotechnical regulatory requirements and using established engineering practices to minimize ground disturbance and ensure structural stability in areas near active faults. Alternative 5 construction would not directly or indirectly exacerbate rupture of a known earthquake fault causing substantial adverse effects, including the risk of loss, injury, or death because these elements, including the CIDH piles, TBM-excavated tunnels, and cut-and-cover stations, do not reach a depth or be of an intensity that would affect geological processes such as faults. Therefore, construction impacts related to the rupture of a fault are less than significant.

Maintenance and Storage Facilities

The proposed MSF would be located west of Woodman Avenue and south of the LOSSAN rail corridor ROW. The proposed MSF is not within the Alquist-Priolo Earthquake Fault Zone. The closest Alquist-Priolo Earthquake Fault Zone is the Hollywood Fault located approximately 8.3 miles southeast from the proposed MSF. Therefore, no impacts related to loss, injury, or death involving the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map during construction

8.2.6.2 Impact GEO-2: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking and/or seismic-related ground failure, including liquefaction?

Construction of Alternative 5 would occur within liquefaction zones, both within the San Fernando Valley and the Los Angeles Basin. Aerial guideway and station construction would involve installing CIDH piles (shafts with both precast and CIP structural elements), simple spans, and longer balanced cantilever spans within the I-405 ROW, arterials, and street crossings. A TBM would be used to construct the underground segment of the guideway. Tunneling depth would range between 40 feet to 470 feet. Underground stations would use a "cut-and-cover" construction method whereby the station structure would be constructed within a trench excavated from the surface that is covered by a temporary deck and backfilled during the later stages of station construction.

While construction activities for the underground alignment would involve subsurface work at depths where liquefaction could potentially occur, these activities would not directly or indirectly cause seismic ground shaking or induce liquefaction because the construction processes would not be of sufficient intensity to cause geological processes such as faults or liquefaction. Moreover, the construction of

Alternative 5 would adhere to seismic and geotechnical regulations, which would require appropriate engineering measures to ensure that liquefaction risks do not exceed unacceptable levels.

Special construction considerations to protect workers and future users of the alternative against liquefaction hazards can be found within the *Final Draft Geotechnical Design Memorandum* (Metro, 2023).

Maintenance and Storage Facilities

Construction of the proposed HRT MSF do not involve extensive excavation and do not reach a depth or be of an intensity that would affect geological processes such as faults. As such, impacts related to seismic ground shaking including liquefaction would be less than significant during construction

8.2.6.3 Impact GEO-3: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Alternative 5 traverses underground through the Santa Monica Mountains, a designated LHZ. This makes the landslide-related hazards during construction of the tunnel and surrounding infrastructure vulnerable and thus potentially significant.

However, Alternative 5 would be situated deep underground in this location and the risk of landslides would be low. Additionally, the portions of Alternative 5 that cross the LHZ would be situated deep underground in this location and the risk of landslides would be low. According to the *Final Draft Geotechnical Design Memorandum* (Metro, 2023), the north tunnel portal in Sherman Oaks would be the most impacted section of the Alternative 5 alignment in terms of landslide risk. The Modelo Formation, which consists of diatomaceous shale, is exposed in a slope in this area. The layers of this shale are angled toward the north, which is not ideal for the proposed portal excavation. To improve long-term slope stability in this area, Alternative 5 may install an anchored retaining wall or use ground anchors.

Consistent with local requirements, further investigations into the slope along I-405 would be conducted during the design phase when site-specific data and final geometry of improvements are available. The foundation types would be determined as part of the required site-specific geotechnical investigation conducted during the final design phase and would ensure that the potential for landslides would not cause potential for substantial adverse effects, including the risk of loss, injury, or death.

Construction activities for Alternative 5 would include the installation of the portal in the Sherman Oaks community. Temporary engineering would be erected to support the retaining wall during cut-and-cover excavation. These activities would be located within a designated LHZ, and potential landslides during construction could cause injury or death to construction workers.

Construction of Alternative 5 would adhere to existing regulations and the provisions listed in the CBC and equivalent design criteria as the MRDC that require site-specific geotechnical evaluation during the final design phase that would include specific structural engineering recommendations. Grading and construction activities would be carried out in compliance with the regulatory requirements, including state regulations and the equivalent design criteria such as the MRDC, to account for the portion of Alternative 5 that would be within an LHZ.

The final design of the tunnel portal's retaining walls, and its temporary engineering would abide with structural engineering standards set forth in the provisions listed in the CBC. The CBC provisions that relate to the construction and design of the retaining walls include the requirements for foundation and soil investigations, excavation, grading, and fill-allowable, load-bearing values of soils. The CBC provision

also relates to design of footings, foundations, and slope clearances, retaining walls, and pier, pile, driven, and CIP foundation support systems (Section 1810). Chapter 33 includes requirements for safeguards at work sites to ensure stable excavations and cut or fill slopes). Appendix J includes grading requirements for the design of excavations and fills (Sections J106 and J107) and for erosion control (Section J110). Construction activities are subject to occupational safety standards for excavation, shoring, and trenching as specified in Cal/OSHA regulations (CCR Title 8).

Alternative 5 would require a site-specific slope-stability design to ensure adherence to the standards contained in the CBC and County of Los Angeles and City of Los Angeles guidelines, as well as by Cal/OSHA requirements for stabilization. The proposed Alternative 5 would include manufactured slopes in the retention basins, which would mostly occur on the perimeter of the construction sites where they would also serve as a buffer to protect the tunnel and surrounding infrastructure from landslide-related hazards. Retention basins would be designed with due consideration for slope stability.

The combination of site-specific slope-stability design, compliance with applicable regulatory requirements, and the use of manufactured slopes and retention basins is anticipated to effectively manage constructed-slope instability such that impacts associated with constructed-slope instability, including landslides, are reduced, but may still be potentially significant.

This is particularly true for temporary slopes, as excavation activities for Alternative 5 within Landslide Zones could encounter unstable soils. Temporary slopes generally pose a higher risk of slope failure due to their steeper gradients compared to permanent, manufactured slopes. Similar to permanent slope construction, temporary slopes would be required to comply with Cal/OSHA requirements for shoring and stabilization. To address these potential significant impacts MM GEO-2 would be implemented so that any excavations for the construction of the underground segment of Alternative 5 shall either shore excavation walls, as required by applicable local, state, or federal laws or regulations to ensure stability of temporary slopes.

With the implementation of MM GEO-2, the impacts associated with landslides and/or slope instability during construction activities would be reduced to less than significant.

Maintenance and Storage Facilities

The proposed MSF would be located west of Woodman Avenue and south of the LOSSAN rail corridor ROW. The proposed MSF would not be located on land designated as a LHZ Area. The closest landslide zone would be located approximately 4.10 miles south from the proposed MSF. Therefore, the proposed MSF would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides, and no impact would occur

8.2.6.4 Impact GEO-4: Would the project result in substantial soil erosion or the loss of topsoil?

Ground-disturbing activities occurring during construction would temporarily expose surficial soils to wind and water erosion and have the potential to temporarily increase erosion and loss of topsoil. Construction work that would involve ground-disturbing activities would include installation of CIDH piles for the HRT aerial guideway, installation of temporary engineering for the portal, installation of TPSS sites, utility relocations, mass excavation of the underground stations, and grading relating to these activities. Retaining-wall installation at the portal would involve considerable earth-moving activities. However, construction activities would be required to comply with existing regulatory requirements, including implementation of BMPs and other erosion and sedimentation control measures that would ensure that grading, excavation, and other earth-moving activities would avoid a significant impact.

The developers of Alternative 5 would be required to prepare a site-specific SUSMP, which is part of the NPDES Municipal General Permit. Preparation of the site-specific SUSMP would describe the minimum required BMPs to be incorporated into the Alternative 5 design and ongoing operation of the facilities. Prior to the initiation of grading activities associated with the implementation of Alternative 5, a site-specific SUSMP would be submitted to reduce the discharge of pollutants to the maximum extent practical using BMPs, control techniques and systems, design and engineering methods, and other provisions that are appropriate during construction activities. All development activities associated with Alternative 5 would comply with the site-specific SUSMP.

Preparation of a site-specific SUSMP and adherence to existing regulations would ensure the maximum practicable protection available for soils excavated during the construction of buildings and associated infrastructure. Compliance with existing regulations would minimize effects from erosion and ensure consistency with the *Regional Water Quality Control Board Water Quality Control Plan*. In view of these requirements, Alternative 5 would have a less than significant impact associated with soil erosion or loss of topsoil during construction activities

Maintenance and Storage Facilities

The proposed MSF would comply with post-construction measures in applicable NPDES permits and LID standards required by Los Angeles County and the City of Los Angeles that aim to minimize erosion impacts from development projects. Therefore, the proposed MSF would result in a less than significant impact related to substantial soil erosion or the loss of topsoil during construction.

8.2.6.5 Impact GEO-5: Would the project be located on a geographic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Certain construction activities, such as CIDH drilling for the aerial guideway and excavation and erection of the temporary engineering of the tunnel portal, could affect soil stability leading to ground movements (both lateral movements and settlements) or subsidence. Additionally, the use of unsuitable materials for fill and/or foundation support would have the potential to create future heaving, subsidence, spreading, or collapse problems, leading to foundation and roadway settlement. Excavation for construction of underground structures — such as station boxes, cut-and-cover tunnels, and tunnel portals — would be reinforced by shoring systems to protect abutting buildings, utilities, and other infrastructure. Tunneling using a TBM would result in ground volume loss and potential ground movements. Dewatering, when performed to create a dry work condition for construction of the underground structures, if allowed to draw down the groundwater table beyond the limits of excavation, could result in compaction or consolidation of the subsurface soils and thus potentially result in surface settlements. These surface settlements could potentially affect the stability of nearby buildings, roads, and utilities, leading to structural damage, uneven ground surfaces, and the need for additional maintenance or repair work in the affected areas. This would be a potentially significant impact.

However, Alternative 5 would be in compliance with the regulatory requirements as defined in PM GEO-2. Under PM GEO-2, a site-specific evaluation of soil conditions shall be conducted and shall contain recommendations for ground preparation, earthwork, and compaction specification based on the geological conditions specific to the site. In addition, Alternative 5 would implement MM GEO-1 through MM GEO-5. MM GEO-3 would also ensure compliance with the recommendations of the final soils and geotechnical report for the Project. Additionally, prior to construction, MM GEO-5 specifies that the

developer shall prepare a CMP explaining how to address geologic constraints and minimize or avoid impacts to geologic hazards during construction.

Adherence to existing regulations and policies and implementation of MM GEO-1 through MM GEO-5 would ensure the maximum practicable protection available for users of buildings and infrastructure and associated trenches, slopes, and foundations. Therefore, Alternative 5 would have a less than significant impact associated with the exposure of people or structures to hazards associated with unstable geologic units or soils.

Maintenance and Storage Facilities

The proposed MSF would be located on stable soils where no liquefaction or landslide zones are present as addressed in Section 8.2.6.2 and Section 8.2.6.3. Construction would not occur on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed MSF, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. As with Alternative 4, the proposed MSF would be designed in compliance with applicable local, state, or federal laws or regulations, including recommendations on engineering and design considerations and with implementation of MM GEO-1 through MM GEO-5. Thus, construction of the proposed MSF would have less than significant impacts related to soil stability that could potentially result in landslides, lateral spreading, subsidence, liquefaction, or collapse

8.2.6.6 Impact GEO-6: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Construction activities for Alternative 5 involve building both aerial and underground sections, as well as its aerial and underground stations. The underground guideway will be constructed using a TBM whereas the aerial guideway would consist of simple spans and longer balanced cantilever spans. Foundations require CIDH shafts with both precast and CIP structural elements. Underground stations would be constructed using a “cut-and-cover” method whereby the station structure would be constructed within a trench excavated from the surface with a portion or all being covered by a temporary deck and backfilled during the later stages of station construction. Aerial stations would include construction of CIDH elevated viaduct with two parallel side platforms supported by outrigger bents.

Expansive soils can be found almost anywhere, including the Los Angeles Basin, Santa Monica Mountains, and San Fernando Valley. Expansive soils could have an impact on project elements, including the proposed stations, guideway, and TPSS sites. Construction of Alternative 5 includes excavation and surface ground disturbances, if expansive soils do exist, construction activities have the potential to create substantial direct or indirect risks to life or property. As such, impacts related to construction activities could be potentially significant.

To reduce these risks, Alternative 5 would be designed in accordance with the equivalent seismic design criteria such as the MRDC, Los Angeles County and other applicable local building codes, and the CBC. This includes compliance with equivalent MRDC Section 5 (or equivalent seismic design criteria), which requires preparation of a geotechnical investigation during final design. This design-level geotechnical investigation must include a detailed evaluation of geologic hazards, including the depths and areal extents of liquefaction, soil expansiveness, lateral spread, and seismically induced settlement. This investigation would include collecting soil samples and performing tests to assess the potential for corrosion, consolidation, expansion, and collapse. Based on the investigation and test results, specific

design recommendations, including potential remediation of expansive soils, would be developed to address any identified issues. Expansive soil remediation could include soil removal and replacement, chemical treatment, or structural enhancements.

Alternative 5 would be in compliance with the regulatory requirements as defined in PM GEO-2 which calls for a California-registered geologist and geotechnical engineer to submit to and conduct a site-specific evaluation of unstable soil conditions to confirm the existence of expansive soils. The evaluation would also provide recommendations for ground preparation and earthwork activities specific to the site and take into consideration both aerial and underground construction.

Alternative 5 would be required to comply with applicable provisions of the CBC and the MRDC or an equivalent criteria with regard to soil hazard-related design, as described by PM GEO-3. The MRDC or an equivalent criteria, the County of Los Angeles, and City of Los Angeles building codes require site-specific investigations and reports for each construction site. The reports must identify any unsuitable soil conditions and provide recommendations for foundation type and design criteria, consistent with the analysis and building code standards. Regulations exist to address weak soil issues, including expansion. As mandated by PM GEO-3, Alternative 5 would comply with applicable local, state, or federal laws or regulations to address any potential weak soil issues during construction.

Prior to construction, the Project shall implement MM GEO-5, which requires preparation of a CMP which addresses geologic hazards such as soils with shrink-swell potential (expansive soils) and outlines strategies to minimize or avoid impacts.

With compliance with the regulatory requirements as defined in PM GEO-2, PM GEO-3, and implementation of MM GEO-5, Alternative 5 would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils during construction.

Maintenance and Storage Facilities

Construction of the proposed MSF would involve grading, excavation, or other ground disturbances. If expansive soils exist at these sites, construction activities have the potential to create substantial direct or indirect risks to life or property. As such, impacts related to construction activities could be potentially significant.

The proposed MSF would be in compliance with the regulatory requirements as defined in PM GEO-2 which calls for a California-registered geologist and geotechnical engineer to submit to and conduct a site-specific evaluation of unstable soil conditions to confirm the existence of expansive soils. The evaluation would also provide recommendations for ground preparation and earthwork activities specific to the site. Moreover, the proposed MSF would be required to comply with applicable provisions of the CBC and the MRDC or equivalent criteria with regard to soil hazard-related design, as described by PM GEO-3. Finally, prior to construction, the proposed MSF shall implement MM GEO-5, which requires the preparation of a CMP which addresses geologic hazards such as soils with shrink-swell potential (expansive soils) and outlines strategies to minimize or avoid impacts.

With compliance with the regulatory requirements as defined in PM GEO-2, PM GEO-3, and implementation of MM GEO-5, the proposed MSF would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils during construction

8.2.6.7 Impact GEO-7: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No septic systems or alternative wastewater disposal systems are proposed for Alternative 5. Alternative 5 would have no impacts associated with soils incapable of adequately supporting such systems during construction activities.

Maintenance and Storage Facilities

No septic systems or alternative wastewater disposal systems are proposed for the proposed MSF. Therefore, the proposed MSF would have no impacts associated with soils incapable of adequately supporting such systems during construction.

8.2.6.8 Impact GEO-8: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Alternative 5 would involve a heavy rail system with majority of the proposed rail to be located under the ground surface. The proposed tunnel would extend the existing tunnel system from the Metro D Line north along Sepulveda Boulevard. Possible construction impacts involved with Alternative 5 would all be a result of access, staging, and lay down areas that would be required for placing the heavy rail track and excavating the tunnel. Additionally, there would also be potentially significant impacts to surrounding sediments for staging areas and access pathways for all seven of the underground stations that are proposed for Alternative 5 (Sherman Way, Metro G Line, Ventura Boulevard, UCLA Gateway Plaza, Wilshire/Metro D Line, Santa Monica Boulevard, and the Metro E Line).

Alternative 5 would have seven underground stations (Sherman Way, Metro G Line, Ventura Boulevard, UCLA Gateway Plaza, Wilshire/Metro D Line, Santa Monica Boulevard, Metro E Line) and one aerial station (Van Nuys Metrolink). Alternative 5 would mostly affect sediments that are located below the ground surface. As stated before, knowing for certain what geologic units will be affected at depth is difficult to say for certain without someone monitoring the sediments in any given working area. However, the sediments mapped at the surface where the tunnel system would be emplaced for Alternative 5 are mapped as young alluvium, unit 2 (Qya2), young alluvium fan deposits, unit 1 (Qyf1), young alluvium fan deposits, unit 2 (Qyf2), Modelo Formation undivided I, Modelo Formation sandstone (Tms), Modelo Formation diatomaceous shale (Tmd), Santa Monica Slate spotted slate (Jsms), Santa Monica Slate undivided (Jsm), and Santa Monica Slate phyllite (Jsmp). Generally, geologic units such as the Santa Monica Slate (Jsms, Jsmp) do not have any paleontological sensitivity to preserve fossil material. The Santa Monica Slate is a geologic unit that comprises metamorphic rock, which undergoes intense pressure and temperature. This metamorphic process usually destroys and deforms any fossil material that could have been located within the rock; however, because of the relatively low grade of metamorphism, enough relevant features of the fossils were preserved in portions of the Santa Monica Slate. When the Santa Monica Slate (Jsms, Jsmp) is encountered, the project paleontologist would determine whether low-grade metamorphic conditions are present. If that is the case, that portion of the unit (Jsms) may be considered “Low” paleontological sensitivity and monitored accordingly (Imlay, 1963). Additionally, the Qyf1, Qyf2, and Qya2 units have a “Low” sensitivity for preserving fossil material, because these units are too young to have preserved any significant fossil material. The geologic map unit labeled as Tm, Tms, and Tmd all have a high sensitivity for preserving fossil material due to their age, as well as the fossil localities found within the same map units nearby (SVP, 1995; Bell, 2023).

Because of the uncertainty regarding the depth of sensitive sediments and the potential for encountering unique paleontological resources during ground disturbance, the impact would be significant. To address this significant impact, MM GEO-6 through MM GEO-9 would be implemented. These measures include the use of onsite paleontological monitors who can quickly identify and protect resources until any discovered localities can be safely removed. These mitigation measures are designed to minimize impacts to paleontological resources by ensuring that any discoveries are properly documented, evaluated, and protected during construction activities. With the implementation of MM GEO-6 through MM GEO-9, impacts to paleontological resources would be reduced to less than significant for non-TBM activities.

However, for the underground tunnels of Alternative 5, which would require use of a TBM, it may not be possible to mitigate impacts paleontological resources to less than significant levels. TBMs are designed to excavate sediments to the precise dimensions of the finished tunnel, removing the excavated material through an internal conveyor belt while simultaneously erecting the tunnel's concrete walls. However, the operation of the TBM does not allow for real-time monitoring of the excavated sediments or the tunnel walls prior to the installation of the concrete lining. As a result, it is not possible to identify, document, and recover of paleontological resources that may be present within the paleontologically sensitive geologic units encountered during tunneling. Therefore, excavations for tunnel construction would result in a significant and unavoidable impact to paleontological resources when a TBM is used.

Maintenance and Storage Facilities

The impacts involved with the MSF include the construction of the administrative buildings, maintenance buildings, wash facilities, drive aisles, and storage tracks. The surface rocks in the underground portions of the proposed MSF are mapped as Qya2 but may be more paleontologically sensitive (older) than indicated, at depth. Since the depth and extent of sensitive sediments are unknown, there is a potential to impact sensitive paleontological resources during ground disturbance activities. This would constitute a significant impact.

To address these impacts, the MSF would be required to implement MM GEO-6 through MM GEO-9, which include requirements for construction monitoring and resource management. With the implementation of these measures, the impact on paleontological resources from construction of the MSF would be reduced to less than significant.

8.2.6.9 Impact GEO-9: Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or an important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Construction of Alternative 5 would require excavation (cut and cover) for underground stations and column foundations and would use a TBM for tunnel construction. However, Alternative 5 would not be located in an area with known mineral deposits. Alternative 5 is located in areas designated as MRZ-1 and MRZ-3. The California Department of Conservation, Division of Mines and Geology has classified areas of regional significance as MRZ-2 (CGS, 2021). Alternative 5 would not be located within an area designated as MRZ-2. Alternative 5 would be located within areas designated as MRZ-1 in the northern portion of Alternative 5 in the San Fernando Valley as well as the southern portion of Alternative 5 near West Los Angeles. MRZ-1-designated areas indicate that no significant mineral deposits are present or little likelihood exists for their presence. No mining operations are present within the Alternative 5 RSA, so construction of Alternative 5 would not disrupt mining operations. Therefore, Alternative 5 would

have no construction impacts related to the loss of availability of a known mineral resource or a locally important mineral resource recovery site

Maintenance and Storage Facilities

Construction of the MSF would not require excavation that may affect mineral resources. No mining operations are present within or in the vicinity of the MSF. Therefore, the MSF would have no construction impacts related to the loss of availability of a known mineral resource or a locally important mineral resource recovery site

8.2.6.10 Project and Mitigation Measures

Alternative 5 would implement the following project and mitigation measures to ensure that impacts to the geology, soils, and seismicity remain less than significant during construction activities.

PM GEO-1: *The Project shall demonstrate to the County of Los Angeles and the City of Los Angeles that the design of the Project complies with all applicable provisions of the California Building Code with respect to seismic design. Compliance shall include the following:*

- *California Building Code Seismic Zone 4 Standards as the minimum seismic-resistant design for all proposed facilities*
- *Seismic-resistant earthwork and construction design criteria (i.e., for the construction of the tunnel below ground surface, liquefaction, landslide, etc.), based on the site-specific recommendations of a California Registered Geologist in cooperation with the Project Engineers.*
- *An engineering analysis to characterize site specific performance of alluvium or fill where either forms part or all of the support.*

PM GEO-2: *A California-registered geologist and geotechnical engineer shall submit to and have approval by the Project a site specific evaluation of unstable soil conditions, including recommendations for ground preparation and earthwork activities specific to the site and in conformance with City of Los Angeles Building Code, County of Los Angeles Building Code, the California Building Code, Metro Rail Design Criteria (as applicable), and Caltrans Structure Seismic Design Criteria.*

PM GEO-3: *The Project shall demonstrate that the design of the Project complies with all applicable provisions of the County of Los Angeles Building Code and City of Los Angeles Building Code.*

MM GEO-1: *The Project's design shall include integration and installation of early warning system to detect and respond to strong ground motion associated with ground rupture. Known active fault(s) (i.e., Santa Monica Fault) shall be monitored. Linear monitoring systems such as time domain reflectometers or equivalent or more effective technology shall be installed along fixed guideway in the zone of potential ground rupture.*

MM GEO-2: *Where excavations are made for the construction of the below surface tunnel, the Project shall either shore excavation walls with shoring designed to withstand additional loads or reduce the slope of the excavation walls to a shallower gradient. Excavation spoils shall not be placed immediately adjacent to excavation walls unless the excavation wall is shored to support the added load. Spoils should be stored at a safe distance from the excavation site to prevent undue pressure on the walls.*

MM GEO-3: *The Project shall comply with the recommendations of the final soils and geotechnical report. These recommendations shall be implemented in the design of the Project, including but not limited to measures associated with site preparation, fill placement, temporary shoring and permanent dewatering, groundwater seismic design features, excavation stability, foundations, soil stabilization, establishment of deep foundations, concrete slabs and pavements, surface drainage, cement type and corrosion measures, erosion control, shoring and internal bracing, and plan review.*

MM GEO-4: *In locations where soils have a potential to be corrosive to steel and concrete, the soils shall be removed, and buried structures shall be designed for corrosive conditions, and corrosion-protected materials shall be used in infrastructure.*

MM GEO-5: *Prior to construction, the Project shall prepare a Construction Management Plan (CMP) that addresses geologic constraints and outlines strategies to minimize or avoid impacts to geologic hazards during construction. The plan shall address the following geological and geotechnical constraints/resources and incorporate standard mitigation measures (shown in parentheses):*

- *Groundwater withdrawal (using dewatering pumps and proper disposal of contaminated groundwater according to legal requirements)*
- *Risk of ground failure from unstable soils (retaining walls and inserting soil stabilizers)*
- *Subsidence (retaining walls and shoring)*
- *Erosion control methods (netting on slopes, bioswales, sediment basins, re-vegetation)*
- *Soils with shrink-swell potential (inserting soil stabilizers)*
- *Soils with corrosive potential (protective coatings and protection for metal, steel or concrete structures, soil treatment, removal of corrosive soils and proper disposal of any corrosive soils)*
- *Impact to topsoils (netting, and dust control)*
- *The recommendations of the CMP would be incorporated into the project plans and specifications.*

MM GEO-6: *The potential to avoid impacts to previously unrecorded paleontological resources shall be avoided by having a qualified Paleontologist or Archaeologist cross-trained in paleontology, meeting the Society of Vertebrate Paleontology Standards retained as the project paleontologist, with a minimum of a bachelor's degree (B.S./B.A.) in geology, or related discipline with an emphasis in paleontology and demonstrated experience and competence in paleontological research, fieldwork, reporting, and curation. A paleontological monitor, under the guidance of the project paleontologist, shall be present as required by the type of earth-moving activities in the Project, specifically in areas south of Ventura Boulevard that have been deemed areas of high sensitivity for paleontological resources. The monitor shall be a trained paleontological monitor with experience and knowledge of sediments, geologic formations, and the identification and treatment of fossil resources.*

MM GEO-7: *A Paleontological Resources Impact Mitigation Program (PRIMP) shall be prepared by a qualified paleontologist. The PRIMP shall include guidelines for developing and implementing mitigation efforts, including minimum requirements, general fieldwork, and laboratory methods, threshold for assessing paleontological resources, threshold for excavation and documentation of significant or unique paleontological resources, reporting requirements, considerations for the curation of recovered paleontological resources into a relevant institution, and process of documents to Metro and peer review entities.*

MM GEO-8: *The project paleontologist or paleontological monitor shall perform a Workers Environmental Awareness Program training session for each worker on the project site to familiarize the worker with the procedures in the event a paleontological resource is discovered. Workers hired after the initial Workers Environmental Awareness Program training conducted at the pre-grade meeting shall be required to take additional Workers Environmental Awareness Program training as part of their site orientation.*

MM GEO-9: *To prevent damage to unanticipated paleontological resources, a paleontological monitor shall observe ground-disturbing activities including but not limited to grading, trenching, drilling, etc. Paleontological monitoring shall start at full time for geological units deemed to have "High" paleontological sensitivity. Geological units deemed to have "Low" paleontological sensitivity shall be monitored by spot checks. No monitoring is required for geologic units identified as having "No" paleontological sensitivity. "Unknown" paleontological sensitivity is assigned to the less metamorphosed portions of the Santa Monica Slate, as detailed below.*

- *The monitor shall be empowered to temporarily halt or redirect construction efforts if paleontological resources are discovered. The paleontological monitor shall flag an area 50 feet around the discovery and notify the construction crew immediately. No further disturbance in the flagged area shall occur until the qualified paleontologist has cleared the area. In consultation with the qualified paleontologist, the monitor shall quickly assess the nature and significance of the find. If the specimen is not significant, it shall be quickly removed, and the area cleared. In the event paleontological resources are discovered and deemed by the project paleontologist to be scientifically important, the paleontological resources shall be recovered by excavation (i.e., salvage and bulk sediment sample) or immediate removal if the resource is small enough and can be removed safely in this fashion without damage to the paleontological resource. If the discovery is significant, the qualified paleontologist shall notify Metro immediately. In consultation with Metro, the qualified paleontologist shall develop a plan of mitigation, which will likely include salvage excavation and removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation of the find in a local qualified repository, and preparation of a report summarizing the find.*
- *Generally, geologic units that have endured metamorphic processes (i.e., extreme heat and pressure over long periods of time) do not contain paleontological resources. The Santa Monica Slate, originally a fossiliferous shale, has been subjected to various levels of metamorphism and thus, in areas of "low-grade metamorphism," paleontological resources may be discovered. Due to the rarity of paleontological resources dating to the Mesozoic (between approximately 65.5 to 252 million years ago) of Southern California, any such materials have high importance to the paleontology of the region. When encountered, the project paleontologist shall assess the levels of metamorphism that portion of the Santa Monica Slate has experienced. The Santa Monica Slate shall be monitored part time where the project paleontologist has determined lower levels of metamorphism have taken place and the preservation of paleontological resources is possible. If exposures of the Santa Monica Slate have been subjected to high levels of metamorphism (i.e., phyllite components of Jsmp), paleontological monitoring in that portion of the formation is not necessary.*
- *Recovered paleontological resources shall be prepared, identified to the lowest taxonomic level possible, and curated into a recognized repository (i.e., Natural History Museum of Los Angeles County). Bulk sediment samples, if collected, shall be "screen-washed" to recover the contained paleontological resources, which will then be identified to the lowest taxonomic level possible, and curated (as above). The report and all relevant field notes shall be accessioned along with the paleontological resources.*

Impacts After Mitigation

Adherence to existing regulations and implementation of PM GEO-1 and MM GEO-1 would ensure that Alternative 5 remains with less than significant impacts associated with exposing people or structures to seismic ground shaking, including effects related to seismic-related ground failure during construction activities.

Adherence to existing regulations and implementation of PM GEO-1 would ensure that Alternative 5 remains with less than significant impact with the exposure of people or structures to liquefaction during construction activities.

With implementation of MM GEO-2 and adherence to existing regulations, Alternative 5 would have a less than significant impact associated with landslides and/or slope instability during construction activities.

Adherence to existing regulations and policies, and implementation of PM GEO-2 and MM GEO-3 through MM GEO-5, would ensure the maximum practicable protection available for users of buildings and infrastructure and associated trenches, slopes, and foundations. Therefore, Alternative 5 would have a less than significant impact associated with the exposure of people or structures to hazards associated with unstable geologic units or soils.

With implementation of PM GEO-3 and adherence to existing regulations, Alternative 5 would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils.

Possible construction impacts involved with paleontological resources would all be a result of access, staging and lay down areas that would be required for placing the heavy rail track and excavating the tunnel. With implementation of MM GEO-6 through MM GEO-9, impacts to surrounding sediments for staging areas and access pathways for all seven of the underground stations that are planned for Alternative 5 (Metro E Line Expo/Sepulveda Station, Santa Monica Boulevard Station, Wilshire Boulevard/Metro D Line Station, UCLA Gateway Plaza Station, Ventura Boulevard/Sepulveda Boulevard Station, Metro G Line Sepulveda Station, and Sherman Way Station) would be reduced to less than significant.

8.2.7 Growth Inducing Impacts

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-19.

Table 8-19. Alternative 5: Growth Inducing Impacts Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 5
Growth Inducing Impacts		
Impact GI-1: Would the Project foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GI-2: Would the project remove obstructions to population growth … [or] encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025e

GI = growth inducing
LTS = less than significant
NA = not applicable

8.2.7.1 Impact GI-1: Would the project foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment?

Construction of Alternative 5 would result in temporary environmental impacts within the RSA due to the necessary addition of construction workers. However, these workers would likely be sourced from the local labor pool; therefore, the temporary employment opportunities for Alternative 5 would not directly foster the construction of permanent housing for workers in the Alternative 5 RSA. Thus, construction of Alternative 5 would result in less than significant impacts related to unplanned population, housing, and employment growth.

Maintenance and Storage Facilities

Construction of the MSF would not construct any new housing units; therefore, the MSF would not generate new or unplanned population and housing growth. Thus, construction of the MSF would result in less than significant impacts related to unplanned population, housing, and employment growth.

8.2.7.2 Impact GI-2: Would the project remove obstructions to population growth … [or] encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively?

Construction of Alternative 5 would result in temporary influxes of construction workers, equipment, and vehicular trips to the Alternative 5 RSA. However, because the Alternative 5 RSA would be within a densely developed region, and because construction workers would likely reside in the wider metropolitan area, construction activities would not induce growth or extend environmental impacts into previously undeveloped areas. Construction activities for Alternative 5 would not remove obstructions to population growth, nor encourage or facilitate other projects that have not already been identified in the SCAG 2024-2050 RTP/SCS, Metro's 2020 LRTP, the 2023 FTIP, or Measure M. Thus, construction of Alternative 5 would result in less than significant impacts related to the removal of obstructions to population growth or encouragement and facilitation of other activities that could significantly affect the environment, either individually or cumulatively.

Maintenance and Storage Facilities

The MSF would be located within an urbanized region and would be constructed on a previously developed area. The MSF would not construct any housing units and thus would not generate unplanned population or housing growth. Thus, construction of the MSF would result in less than significant impacts related to the removal of obstructions to population growth or encouragement and facilitation of other activities that could significantly affect the environment, either individually or cumulatively.

8.2.7.3 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

8.2.8 Hazards and Hazardous Materials

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-20.

Table 8-20. Alternative 5: Hazards and Hazardous Materials Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 5
Hazards and Hazardous Materials Construction Impacts		
Impact HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM HAZ-1 through MM HAZ-5
	Impacts After Mitigation	LTS
Impact HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025m

HAZ = hazards and hazardous materials
LTS = less than significant
MM = mitigation measure
NA = not applicable
PS = potentially significant

8.2.8.1 Impact HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction of Alternative 5 could expose the public or the environment to hazardous materials due to improper handling or use of hazardous materials or hazardous wastes particularly by untrained personnel; transportation accident; environmentally unsound disposal methods; or fire, explosion, or other emergencies. Much of the construction activities associated with Alternative 5 would be similar to Alternative 4 construction activities where the project alternatives share alignment and station components. The risks of public exposure to hazardous materials would be generally the same as those described for Alternative 4. The severity of potential effects would vary with the activity conducted, the concentration of and type of hazardous material or wastes present, and the proximity of sensitive receptors.

Regulatory requirements described for Alternative 4 would be applicable to Alternative 5. As mandated by PM HAZ-2, transportation of hazardous materials would comply with state regulations governing hazardous materials transport included in the California Vehicle Code (Title 13 of the CCR), the State Fire Marshal Regulations (Title 19 of the CCR), and Title 22 of the CCR.

Transportation of hazardous materials, such as contaminated soils; hazardous building materials, including asbestos, lead, and PCBs; and other hazardous wastes (i.e., TWW, roadway demolition debris, hazardous building materials) would utilize the same truck routes as Alternative 4 and would be disposed of at the same potential landfills as those described for Alternative 4. Similar to Alternative 4, Alternative 5 requires the use of the TBM during underground tunnel construction activities. TBM's are typically used in the construction of infrastructure projects to build deep underground tunnels by boring, or excavating, through soil, rocks, and/or other subsurface materials. After mining is completed and TBM logistics are demobilized, both ends of the tunnel would be utilized to build the invert roadway, walkways, center wall and etc. Alternative 5 is anticipated to result in some contaminated soil associated with mass excavation efforts. Restrictions on haul routes can be incorporated into the construction specifications according to local permitting requirements. Table 8-21 provides a representative list of the hazardous waste disposal landfills and potential haul routes.

Table 8-21. Alternative 5: Hazardous Waste Disposal Landfills and Potential Haul Routes

Landfill Site Name	Hazardous Waste Accepted	General Potential Haul Route
South Yuma County Landfill 19536 South Avenue 1E Yuma, AZ	Contaminated soil, PCBs, asbestos	I-405 South to SR-91 East to I-15 South to I-8 East to Yuma, Arizona
Clean Harbors Buttonwillow 2500 West Lokern Road Buttonwillow, CA	Acutely hazardous materials[a], contaminated soil, PCBs, asbestos, RCRA waste with heavy metals	I -405 North to I-5 North to SR-58 West to Lokern Road
U.S. Ecology Highway 95 South Beatty, NV	Contaminated soil, PCBs, asbestos	I-405 North to I-10 East to I-15 North to I-95 North to Beatty, Nevada

Source: HTA, 2024

[a]Acutely hazardous materials are defined as waste containing dangerous chemicals that could pose a threat to human health and the environment even when properly managed.

PCB = polychlorinated biphenyls
RCRA = Resource Conservation and Recovery Act

Adherence to federal and state regulations stipulated by PM HAZ-2 reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With compliance with existing regulations, impacts related to the creation of significant hazards to the public or the environment through the routine transport, storage, use, and disposal of hazardous materials during construction of Alternative 5 would be less than significant.

Maintenance and Storage Facilities

The types and amounts of hazardous materials would vary according to the nature of the activity. Construction of the MSF would require use of typical construction equipment (e.g., gasoline- or diesel-powered machinery) and vehicles containing fuel, oil, and grease, as well as use and transport of these

materials. Limited quantities of certain hazardous materials such as paints, solvents, and glues would be used during construction.

Adherence to federal and state regulations stipulated by PM HAZ-2 reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With compliance with existing regulations, impacts related to the creation of significant hazards to the public or the environment through the routine transport, storage, use, and disposal of hazardous materials during construction of the MSF would be less than significant.

8.2.8.2 Impact HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction activities for the proposed Project, such as grading and excavation, could result in the exposure of construction personnel and the public to previously unidentified hazardous substances in the soil. Exposure to unanticipated hazardous substances could occur from previously unidentified soil contamination caused by the contaminants originating at nearby listed sites (e.g., roadways and industrial uses). Or from construction-related soil contamination caused by spillage and/or mixing of construction trash and debris into the soil. EDR searched various regulatory databases and identified several sites in the surrounding area as being contaminated or having the potential to become contaminated from the release of hazardous substances. A summary and details of these sites are presented in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m). Exposure to hazardous materials during construction activities could occur as a result of any of the following:

- Direct dermal contact with hazardous materials
- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking)
- Inhalation of airborne dust released from dried hazardous materials

If any unidentified sources of contamination are encountered during demolition, grading, or excavation, the removal activities required could pose health and safety risks capable of resulting in various short-term or long-term adverse health effects in exposed persons. The risks are particularly heightened during tunneling activities, which would involve deeper excavation and may encounter legacy contamination or naturally occurring hazardous materials that are less likely to be present near the surface.

If tunneling is advanced through contaminated soil or groundwater, the excavated soil/slurry mix could be considered hazardous, depending on the levels of contamination encountered. Potentially affected parcels within one-quarter mile of Alternative 5 may have subsurface contamination from undocumented releases associated with current and/or historical use of the property(ies) (e.g., gas stations, dry cleaners, or industrial properties) (ICF, 2022b). During construction, there is the potential to encounter, dewater, and dispose of contaminated groundwater during ground-disturbing activities, shallow excavation, tunnel boring, excavation for the underground guideway, or relocation of utilities. During construction activities involving ground-disturbing activities, there is potential to encounter contaminated groundwater. This risk is heightened when performing shallow excavations, utilities

relocation, or construction that requires dewatering. If contaminated groundwater is encountered, it would be managed and disposed of in compliance with local, state, and federal regulations. This could include treating the contaminated groundwater on-site or offsite or transporting it to a wastewater treatment facility capable of handling hazardous materials.

The Area 4 Pollock OU could potentially extend near the northern portions of Alternative 5 north of Saticoy Street (ICF, 2022b). A historical manufacturing work in the Valley groundwater basin, dating back to World War II, contaminated the groundwater in the region with volatile organic compounds (VOCs), including trichloroethylene (TCE) and tetrachloroethylene (PCE). Use of contaminated groundwater poses the greatest risk at this site. The Valley Area 4 groundwater contamination is being addressed through the coordination of federal, state and municipal agencies including EPA, DTS, SRWQCB, and Los Angeles Regional Water Quality Control Board (LARWQCB). EPA conducted rounds of indoor sampling in the Atwater Village area (outside of the RSA) and determined that the VOCs migrating from the groundwater did not impact the area. Based on these results, it can be inferred that VOCs would not affect proposed stations under Alternative 5.

The tunnel alignment for Alternative 5would traverse the methane and methane buffer zones in the southern portion of the alignment. The Santa Monica Boulevard Station and the Wilshire/Metro D Line Station would be within the methane hazard zone. Methane gas and hydrogen sulfide are highly flammable and can pose challenges during construction, particularly when tunneling activities disturb formations where methane gas and/or hydrogen sulfide may accumulate. The use of a TBM in such areas increase the potential for encountering pockets of methane gas and/or hydrogen sulfide, which could lead to fire or explosion hazards if proper precautions are not taken. Pursuant to Section 91.7104.1 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619) and as outlined in PM HAZ-3, all construction activities within the methane hazard zone would implement the City's methane mitigation measures. These measures include subsurface testing of geological formations, compliance with Methane Mitigation Standards established by the Superintendent of Building, and installation of methane and/or hydrogen sulfide mitigation systems for all underground structures, such as stations and tunnels. During tunneling, monitoring for methane gas and/or hydrogen sulfide concentrations, maintaining ventilation systems to minimize accumulation of gas.

Several high-pressure pipelines containing crude oil traverse the RSA. A review of the PHMSA Pipeline Map Viewer (PHMSA, 2023) indicated there have been no recorded pipeline releases within the RSA. However, Project-related excavation and earthmoving activities could encounter buried pipelines resulting in accidental rupture or leaks, which could cause a human health and environmental hazard. For security reasons, the PHMSA Pipeline Map Viewer (PHMSA, 2023) cannot be used for field verification of exact high-pressure pipeline locations, and the potential presence of other pipelines is unknown. In addition, it is possible buried underground utility lines may be within the RSA (such as stormwater, sewer, electrical, or communication cables). In addition, utility relocation could result in TWW that requires disposal.

Construction would require demolition of existing structures. Demolition of structures could potentially expose construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials such as ACM, LBP, or PCBs. Both the federal OSHA and Cal/OSHA regulate worker exposure during construction activities that disturb LBP. Any ACMs, if present, would need appropriate abatement of identified asbestos prior to demolition pursuant to the SCAQMD Rule 1403 and PM HAZ-4.

Additional effects from construction activities, such as excavation, tunneling, demolition, and grading, could include potential exposure of construction workers and/or the public to chemical compounds present in soils or soil gases. These activities may also result in the localized spread of contamination if disturbed soils or materials are improperly handled, leading to the migration of contaminants to previously uncontaminated areas. In addition, airborne chemical compounds released from construction or demolition areas, such as dust containing hazardous substances, could pose inhalation risks to workers, nearby residents, and the environment. Transportation of contaminated slurry or soils off-site for disposal could also result in accidental releases, such as spills or leaks, if proper containment measures are not implemented. Therefore, construction impacts related to creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials would be potentially significant.

Alternative 5 would be required to implement MM HAZ-1 through MM HAZ-5 and PM HAZ-3, which would be implemented. MM HAZ-1 through MM HAZ-5 would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling, transporting, and disposing of hazardous materials. Implementation of MM HAZ-1 through MM HAZ-5and would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials such as ACM, LBP, or PCBs) during demolition activities. Regulations stipulated by PM HAZ-3 would ensure that the city's methane mitigation measures to reduce the potential exposure of construction workers and the public to methane gas would be implemented Therefore, with implementation of MM HAZ-1 through MM HAZ-5 and adherence to PM HAZ-3, applicable local, state, and federal regulations would reduce impacts related to the upset and accidental release of hazardous materials to a less than significant level.

Maintenance and Storage Facilities

As discussed in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m), operation of stations, guideway, and MSF would involve the use of small amounts of hazardous substances such as oil, grease, solvents, paints, and common cleaning materials. None of these substances would be acutely hazardous. No activities are proposed that would result in the use or discharge of unregulated hazardous materials. Storage and disposal of hazardous materials and waste would be conducted in accordance with all federal and state regulatory requirements as mandated by PM HAZ-1, that are intended to prevent or manage hazards, and if a spill does occur, it would be remediated accordingly.

Construction activities for the proposed Project, such as grading and excavation, could result in the exposure of construction personnel and the public to previously unidentified hazardous substances in the soil. Exposure to unanticipated hazardous substances could occur from previously unidentified soil contamination caused by the contaminants originating at nearby listed sites (e.g., roadways and industrial uses). Or from construction-related soil contamination caused by spillage and/or mixing of construction trash and debris into the soil. EDR searched various regulatory databases and identified several sites in the surrounding area as being contaminated or having the potential to become contaminated from the release of hazardous substances. A summary and details of these sites are presented in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m). Exposure to hazardous materials during construction activities could occur as a result of any of the following:

- Direct dermal contact with hazardous materials

- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking)
- Inhalation of airborne dust released from dried hazardous materials

If any unidentified sources of contamination are encountered during demolition, grading, or excavation, the removal activities required could pose health and safety risks capable of resulting in various short-term or long-term adverse health effects in exposed persons.

Construction would require demolition of existing structures. Demolition of structures could potentially expose construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials (such as ACM, LBP, or PCBs). Both the federal OSHA and Cal/OSHA regulate worker exposure during construction activities that disturb LBP. Any ACMs, if present, would need appropriate abatement of the identified asbestos before demolition begins, pursuant to the SCAQMD Rule 1403 and PM HAZ-4.

Additional effects could include the potential exposure of construction workers and/or the public to chemical compounds in soils, and soil gases; potential localized spread of contamination; potential exposure of workers, the public, and the environment to airborne chemical compounds migrating from the construction or demolition areas; and potential accidents during transportation of contaminated slurry or soils. Therefore, construction impacts related to creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials would be potentially significant.

The MSF would be required to implement MM HAZ-1 through MM HAZ-4, which would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling hazardous materials and would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials. Therefore, with implementation of MM HAZ-1 through MM HAZ-4, and adherence to applicable local, state, and federal regulations would reduce impacts related to the upset and accidental release of hazardous materials to a less than significant level.

8.2.8.3 Impact HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Construction of Alternative 5 would involve similar handling of hazardous materials and use of diesel-powered equipment within 0.25 mile of schools as described for Alternative 4. Regulatory requirements associated with the handling of hazardous materials would be the same for Alternative 5. (Refer to the Construction Impacts discussion under Alternative 4 for further detail on regulatory requirements the govern the handling of hazardous materials).

Adherence to federal and state regulations reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With incorporation of existing regulations, construction of Alternative 5 would have less than significant impacts associated with the transportation, use, storage, and handling hazardous materials within one-quarter mile of an existing school.

Maintenance and Storage Facilities

The MSF is not located within 0.25 miles of a school. Therefore, the MSF would have no impact related to emissions of hazardous materials within 0.25 miles of a school.

8.2.8.4 Impact HAZ-4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Alternative 5 includes 48 LUST sites that are identified on the Cortese List as having confirmed releases of hazardous materials, including petroleum hydrocarbons, VOCs, and metals to soil and groundwater. These sites are identified in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m). The LUST sites have been remediated and are classified as closed by the regulatory agency. Sites listed as sites are listed as "Closed" signify that they have been remediated to the satisfaction of the agency with oversight. Based on the regulatory status of case closed, these sites are not anticipated to have a negative environmental impact on the project site. Alternative 5 is located on a site that is included on one or more hazardous materials lists compiled in accordance with Government Code Section 65962.5. With adherence to existing regulations, Alternative 5 would not create or result in a significant hazard to people or the environment, and the Alternative 5 would result in a less than significant impact.

Maintenance and Storage Facilities

The hazardous site conditions for the MSF related to Government Code Section 65962.5, commonly known as the Cortese List, are associated with contaminated soils, and these sites are listed as "Closed," which signifies that they have been remediated to the satisfaction of the agency with oversight (refer to the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* [Metro, 2025m]). Based on the regulatory status of case closed, these sites are not anticipated to have a negative environmental impact on the project site. With adherence to existing regulations, MSF would not create or result in a significant hazard to people or the environment, and the MSF would result in a less than significant impact.

8.2.8.5 Impact HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

According to the Van Nuys Airport Plan for the Van Nuys Airport and the Los Angeles County ALUP for the Santa Monica Municipal Airport, staging area for Alternative 5 would be located within the Van Nuys Airport AIA. During construction of Alternative 5, a 55-acre temporary staging area would potentially be located north of the Van Nuys Airport, north of Roscoe Boulevard, and within the AIA and a 7-acre temporary staging area would potentially be located north of the Santa Monica Airport runway and within the AIA. Staging areas are used principally for the operation of contractors' equipment, receipt of deliveries and storage of materials, site offices as well as other construction activities such as maintenance, parking, and removal of spoils. There would be no other construction equipment or activities that could penetrate the Airspace Protection Zone or create or cause visual, electronic, or wildlife hazards. There are no safety compatibility policies related to temporary construction staging.

Construction of Alternative 5 would comply with CFR Title 14 Part 77.13 which requires that any construction or alterations to structures that exceed 200 feet in height above ground level must notify the FAA for project approval. Construction activities would be temporary. Adherence to existing local, state, and federal regulations would ensure that during construction of Alternative 5, impacts associated with potential aviation hazards remain less than significant.

Maintenance and Storage Facilities

The MSF would be approximately 2.6 miles from the Van Nuys Airport and outside the airport's AIA. Because the MSF would be outside of the AIA, there are no airport land use plans applicable to the MSF. Thus, construction of the MSF would have no impact with respect to safety hazards for people residing or working in the project area.

8.2.8.6 Mitigation Measures

Construction Impacts

Project Measures

The following project measures are design features, BMP, or other measures required by law and/or permit approvals. These measures are components of the Project and are applicable to Alternative 5.

PM HAZ-2: *Construction BMPs shall include but not be limited to:*

- *The Project shall be required to obtain permits before construction begins and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases in accordance with the U.S. Environmental Protection Agency, State Water Resources Control Board, Department of Toxic Substances Control, California Division of Occupational Safety and Health, and the South Coast Air Quality Management District.*
- *The Project shall develop a Stormwater Pollution Prevention Plan in accordance with the State Water Resources Control Board's Construction Clean Water Act Section 402 General Permit conditions, and subject to regular inspections by applicable jurisdiction(s) to ensure compliance. The Stormwater Pollution Prevention Plan shall include specifications for, but not be limited to, the following:*
  - *Maintain proper working conditions for vehicles and equipment to minimize potential fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials.*
  - *Conduct servicing, refueling, and staging of construction equipment only at designated areas where a spill would not flow to drainages. Conduct equipment washing, if needed, only in designated locations where water would not flow into drainage channels.*
  - *Implement drainage best management practices to protect water quality (such as oil/water separators, catch basin inserts, storm drain inserts, media filtration, and catch basin screens).*
  - *Report hazardous spills to the designated Certified Unified Program Agency (i.e., Los Angeles County Fire Department Health Hazardous Materials Division or Santa Fe Springs Department of Fire and Rescue) and implement*

clean up immediately and proper disposal of contaminated soil at a licensed facility.

- *Establish properly designed, centralized storage areas to keep hazardous materials fully contained.*
- *Keep spill cleanup materials (e.g., rags, absorbent materials, and secondary containment) properly stored and contained at the work site when handling materials.*
- *Implement monitoring program by the construction site supervisor that includes both dry and wet weather inspections.*

- *Transportation of hazardous materials by the Project shall comply with state regulations governing hazardous materials transport included in the California Vehicle Code (Title 13 of the California Code of Regulations), the State Fire Marshal Regulations (Title 19 of the California Code of Regulations), and Title 22 of the California Code of Regulations. These regulations include the following :*
  - *Require all motor carrier transporters of hazardous materials to have a Hazardous Materials Transportation license issued by the California Highway Patrol.*
  - *Require the transport of hazardous materials via routes with the least overall travel time.*
  - *Prohibit the transport of hazardous materials through residential neighborhoods.*
  - *Require transporters to take immediate action to protect human health and the environment in the event of spill, release, or mishap.*
  - *Incorporate restrictions on haul routes into the construction specifications according to local permitting requirements.*
- *Contaminated soils and hazardous building materials and wastes shall be disposed of in accordance with federal, state, and local requirements at landfills serving Los Angeles County. The removal and disposal of hazardous building materials shall be the responsibility of a California Division of Occupational Safety and Health-certified contractor in accordance with South Coast Air Quality Management District Rule 1403 (Asbestos Emissions from Renovation/Demolition Activities).*
- *Traffic control during construction shall follow local jurisdiction guidelines. For specialized construction tasks, it may be necessary to work during nighttime hours to minimize traffic disruptions.*

PM HAZ-3: *Construction best management practices for activities within methane hazard zones shall include, but not be limited to, the following:*

- *Pursuant to Section 91.7104.1 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619), site testing of subsurface geological formations shall be conducted by a Project-approved testing agency under the*

supervision of a licensed architect or registered engineer or geologist. The licensed architect or registered engineer or geologist shall indicate the testing instruments used and testing procedure followed. The testing procedure shall meet the Methane Mitigation Standards established by the Superintendent of Building.

- *All paving work and building construction within the methane zone or methane buffer zone as defined by Los Angeles Department of Building and Safety shall be required to comply with Methane Mitigation Standards established by the Superintendent of Building as well as the requirements outlined in Sections 91.7103 and 91.7104 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619).*
- *All buildings located in the methane zone shall provide a methane mitigation system as required by Los Angeles Municipal Code Table 71 in Section 91.7104.2 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619) based on the appropriate Site Design Level. The Superintendent of Building may approve an equivalent methane mitigation system designed by an architect, engineer, or geologist.*

PM HAZ-4: *Construction best management practices for demolition of existing structures shall include, but shall not be limited to, the following:*

- *Both the federal Occupational Safety and Health Administration and California Division of Occupational Safety and Health regulate worker exposure during construction activities that disturb lead-based paint. Any asbestos-containing materials, if present, shall require appropriate abatement of identified asbestos prior to demolition pursuant to South Coast Air Quality Management District Rule 1403.*
- *Polychlorinated biphenyls (PCB)-containing fluorescent light fixtures and electrical transformers that are not labeled "No PCBs" shall be assumed to contain polychlorinated biphenyls and shall be removed prior to demolition activities and shall be disposed of by a licensed and certified polychlorinated biphenyls removal contractor, in accordance with local, state, and federal regulations. The removal and disposal of the electrical transformers shall be the responsibility of the utility owner in accordance with all standards and practices.*

PM HAZ-5: *Construction best management practices for the areas with known or previously undiscovered hazardous materials shall include, but not be limited to, the following:*

- *The Project shall hire a qualified professional to sample soil suspected of contamination (obvious signs of contamination includes indicators such as odors, stains, or other suspect materials) for the purpose of classifying material and determining disposal requirements before construction begins. If excavated soil is suspected or known to be contaminated, the Project shall:*
  - *Segregate and stockpile the excavated material in a way that shall facilitate measurement of the stockpile volume.*

  - *Spray the stockpile with water or a South Coast Air Quality Management District-approved vapor suppressant and cover the stockpile with a heavy-duty plastic (i.e., Visqueen) to prevent soil volatilization in the atmosphere or exposure to nearby workers per South Coast Air Quality Management District Rule 1166.*

- *Existing groundwater monitoring wells shall remain under ongoing groundwater investigations associated with off-site sources.*

Mitigation Measures

MM HAZ-1: ***Phase II Environmental Site Assessment.*** *Prior to the issuance of a grading permit and before any substantial ground disturbance occurs on or near the properties with documented releases, the Project shall hire a qualified environmental professional to conduct a Phase II Environmental Site Assessment to determine the potential presence of petroleum hydrocarbons, metals, and volatile organic compounds in soil and/or groundwater.*

- *If the Phase I Environmental Site Assessment identifies any recognized environmental conditions or other indicators of potential contamination, a Phase II Environmental Site Assessment shall be conducted. The Phase II Environmental Site Assessment shall include sufficient soil and groundwater sampling and laboratory analysis to identify the types of chemicals and their respective concentrations. The Phase II Environmental Site Assessment shall compare soil and groundwater sampling results against applicable environmental screening levels developed by the Los Angeles Regional Water Quality Control Board and/or Department of Toxic Substances Control. If the Phase II Environmental Site Assessment identifies contaminant concentrations above the screening levels, a site-specific Soil and Groundwater Management Plan shall be prepared and implemented as described in MM HAZ-2. The Project shall consult with the Department of Toxic Substances Control, California Environmental Protection Agency, and/or other appropriate regulatory agencies to ensure sufficient minimization of risk to human health and the environment is completed.*

MM HAZ-2: ***Soil and Groundwater Management Plan.*** *Prior to the issuance of a grading permit, a site-specific Soil and Groundwater Management Plan shall be prepared by a qualified professional environmental contractor to address handling and disposal of contaminated soil and groundwater prior to demolition, excavation, and construction activities.*

- *The Project shall implement the Soil and Groundwater Management Plan during construction activities. The Soil and Groundwater Management Plan shall specify all necessary procedures to ensure the safe handling and disposing of excavated soil, groundwater, and/or dewatering effluent in a manner that is protective of human health and in accordance with federal and state hazardous waste disposal laws, and with state and local stormwater and sanitary sewer requirements. At a minimum, the plan shall include the following:*

  - *Identification and delineation of contaminated areas and procedures for limiting access to such areas to properly trained personnel.*

- *Step-by-step procedures for handling, excavating, characterizing, and managing excavated soils and dewatering effluent, including procedures for containing, handling, and disposing of hazardous waste; procedures for containing, handling, and disposing of groundwater generated from construction dewatering; the method used to analyze excavated materials and groundwater for hazardous materials likely to be encountered at specific locations; appropriate treatment and/or disposal methods. Removal of soil and materials shall be performed by a licensed engineering contractor with a Class A license and hazardous-substance removal certification.*
- *Requirements to water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, and staging.*
- *Requirements to cover or maintain at least 2 feet of free board space on haul trucks transporting soil or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.*
- *Requirements to use wet power vacuum street sweepers to remove any visible track out mud or dirt onto adjacent public roads at least once a day. Use of dry powered sweeping is prohibited.*
- *Procedures for handling volatile organic compound-contaminated soil, including, but not limited to, segregating volatile organic compound-contaminated stockpiles from non-volatile organic compound-contaminated stockpiles, spraying volatile organic compound-contaminated soil stockpiles with water and/or approved vapor suppressant and covering them with plastic sheeting for all periods of inactivity lasting more than 1 hour, conducting a daily visual inspection of all covered volatile organic compound-contaminated soil stockpiles to ensure the integrity of the plastic covered surfaces, and removing contaminated soil from an excavation or grading site within 30 days from the time of excavation to a licensed facility.*
- *Procedures for notification and reporting, including notifying and reporting to internal management and to local agencies.*
- *Minimum requirements for site-specific Health and Safety Plans to protect the general public and workers in the construction area. Prior to the issuance of grading permits, the Soil and Groundwater Management Plan and the results of environmental sampling shall be provided to contractors who shall be responsible for developing their own construction worker Health and Safety Plan and training requirements, per MM HAZ-4.*

- *The Project shall hire a qualified environmental professional to sample groundwater suspected of contamination. If any suspected groundwater contamination is encountered during construction, the contractor shall stop work in the vicinity, cordon off the area, and contact the Los Angeles County Metropolitan Transportation Authority who shall immediately notify the Regional Water Quality Control Board. In coordination with the Regional Water Quality Control Board, an investigation and remediation plan shall be developed by a qualified environmental professional in order to protect public health and the environment. Any hazardous or toxic materials shall be disposed of according to local, state, and federal regulations.*
- *Trucking operations shall comply with the California Department of Transportation and any other applicable regulations, and all trucks shall be licensed and permitted to carry the appropriate waste classification. The tracking of dirt by trucks leaving the project site shall be minimized by cleaning the wheels upon exit and cleaning the loading zone and exit area as needed.*

MM HAZ-3: ***Contractor Specifications.*** *The Project shall include in its contractor specifications the following requirement relating to hazardous materials:*

- *During all ground-disturbing activities, the contractor(s) shall inspect the exposed soil and groundwater for obvious signs of contamination, such as odors, stains, or other suspect materials. Qualified personnel shall monitor for volatile organize compounds and other subsurface gases for concentrations exceeding South Coast Air Quality Management District levels with a photoionization detector. Should signs of unanticipated contamination be encountered, work shall be suspended, and the Los Angeles County Department of Public Health shall be notified, and the area secured. Contaminated soil and/or groundwater shall be segregated and characterized, and a site-specific Soil and Groundwater Management Plan, as described under MM HAZ-2, shall be prepared and implemented.*

MM HAZ-4: ***Worker Health and Safety Plan.*** *The contractor shall prepare site-specific Worker Health and Safety Plan to protect the general public and workers in the construction area. The Health and Safety Plan shall be prepared in accordance with California and federal Occupational Safety and Health Administration regulations. Copies of the Health and Safety Plan shall be made available to construction workers for review during their orientation and/or regular health and safety meetings. The Health and Safety Plan shall identify chemicals of concern, potential hazards, worker training requirements, personal protective equipment and devices, decontamination procedures, the need for personal or area monitoring, and emergency response procedures. The Health and Safety Plan shall be amended, as necessary, if new information becomes available that could affect implementation of the plan.*

MM HAZ-5: ***Hazardous Building Survey and Abatement.*** *Prior to demolition activities of any structures, the Project shall retain a California Division of Occupational Safety and Health-certified contractor to determine the presence or absence of building materials or equipment that contains hazardous materials, including asbestos, lead-based paint, and polychlorinated biphenyl-containing equipment. If such substances are found to be present, the contractor shall prepare and submit a workplan to the relevant oversight agency to demonstrate how these hazardous materials would be properly removed and disposed of in accordance with federal and state law, including South Coast Air Quality Management District Rule 1403 (Asbestos Emissions from Renovation/Demolition Activities). The removal and disposal of hazardous building materials shall be the responsibility of a California Division of Occupational Safety and Health-certified contractor. Following completion of removal activities, the Project shall submit documentation to the relevant oversight agency verifying that all hazardous materials were properly removed and disposed of.*

Impacts After Mitigation

Implementation of MM HAZ-1 through MM HAZ-5 would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling hazardous materials, and would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials such as ACM, LBP, or PCBs during demolition activities; thus, impacts would be reduced to less than significant.

8.2.9 Land Use and Development

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-22.

Table 8-22. Alternative 5: Land Use and Development Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 5
Land Use and Development Construction Impacts		
Impact LUP-1: Would the project physically divide an established community?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4
	Impacts After Mitigation	LTS
Impact LUP-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025h

LTS = less than significant
LUP = Land Use and Planning
MM = mitigation measure
NA = not applicable
PS = potentially significant
TRA = transportation

8.2.9.1 Impact LUP-1: Would the project physically divide an established community?

Construction of Alternative 5 would not result in permanent physical divisions of established communities; however, construction easements (and encroachment permits would be needed for the underground and aerial guideway and station installations, staging areas, street reconstruction, demolition, cut-and-cover construction for the proposed stations, and utility relocation. The construction easements and encroachment permits would consist of properties designated as commercial, public facilities, residential, open space and recreation, industrial, and vacant uses. Located south of the Metrolink ROW near the intersection of Raymer Street and Burnet Avenue in the Van Nuys community, construction easements would be needed for the proposed tunnel portal footprint where the alignment would transition from an underground to an aerial configuration. While the properties under these easements and permits would retain their original land use designation and zoning classifications, the temporary use of these properties for construction activities could cause access disruptions that represent a significant impact without mitigation.

The underground alignment would be constructed via a bored tunneling machine underneath residential communities located in West Los Angeles, Westwood, and Bel Air-Beverly Crest, and within the roadway ROW along Bentley Avenue, Westwood Boulevard, and Sepulveda Boulevard. The aerial guideway would be constructed within the LOSSAN rail corridor ROW. Alternative 5 would require the closure of Cabrito Road and at-grade LOSSAN rail corridor near Extra Space Storage off of Raymer Street for the aerial guideway. Street detours would be required to accommodate aerial guideway and stations construction. Street and sidewalk closures during construction would temporarily limit property access between established communities. Without mitigation, these temporary closures could still result in significant impacts on community access.

The removal of the Willis Avenue Pedestrian Overhead during construction would temporarily affect pedestrian connectivity across the LOSSAN corridor. However, alternative roadways, including Van Nuys Boulevard, Sepulveda Boulevard, and Saticoy Street, would maintain access during this period. Surrounding land uses would remain accessible to vehicle and non-vehicle users via the surrounding roadway, bicycle, and sidewalk network at signalized intersections. Without mitigation, these temporary changes could still result in significant impacts related to access to and from established communities.

To address these impacts, Alternative 5 would be required to implement MM TRA-4, which would require preparation and implementation of a TMP to reduce the impacts of construction work zones, provide wayfinding signage to inform the public of reroutes due to closed pedestrian areas and roadways, and require Metro and the contractor to notify and coordinate with surrounding communities regarding the construction schedule. With implementation of MM TRA-4, the potential significant impacts would be reduced to less than significant.

Maintenance and Storage Facilities

Construction activities for the proposed MSF would not create any permanent physical divisions within the surrounding community. Street and sidewalk closures during construction would result in temporary limitations on movement for pedestrians, bicyclists, and vehicles within and between local communities. Without mitigation, these closures could result in significant impacts related to community access.

The *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a) further analyzes the potential impacts on circulation and pedestrian access to adjoining or nearby properties. As discussed in that report, street and sidewalk closures may be required during construction of the proposed MSF that would temporarily limit property access between established communities. These

closures would be temporary and periodic. However, without mitigation, these temporary closures could still result in significant impacts related to community access and connectivity.

To address these impacts, the proposed MSF would implement MM TRA-4, which would require preparation and implementation of a construction TMP to minimize disruptions from construction work zones, provide wayfinding signage to inform the public of reroutes, and require Metro and the contractor notify and coordinate with surrounding communities regarding the construction schedule. With implementation of MM TRA-4, the potential significant impacts would be reduced to less than significant.

8.2.9.2 Impact LUP-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Construction of Alternative 5 would require construction easements and encroachment permits for construction activities, including underground and aerial guideway and station installation, street reconstruction, demolition, construction staging, and utility relocation. The construction easements would vary along the Alternative 5 guideway alignment and proposed stations, depending on the type of construction and adjacent land use. The properties under construction easements and encroachment permits would retain their original land use designation and zoning classifications.

Alternative 5 would require construction easements for properties consisting of multi-family residential properties along Bentley Avenue in the West Los Angeles community to accommodate the proposed Santa Monica Boulevard Stations, and properties located on land uses designated as industrial and public facility near the intersection of Raymer Street and Burnet Avenue in the Van Nuys Community to accommodate the proposed tunnel portal footprint where the alignment would transition from an underground to an aerial configuration. However, the construction easements would be temporary and the properties would retain their original land use designation and zoning classifications.

Construction activities include modifications to the existing roadway and sidewalks, construction staging, and cut-and-cover construction. However, construction activities would be temporary and intermittent and limited to the immediate area and would not conflict with applicable land use plans, policies, or regulations. Furthermore, Alternative 5 would support the *West Los Angeles Community Plan* (DCP, 1999), specifically Goal 11, which states, "*encourage alternative modes of transportation over the use of single occupant vehicles to reduce vehicular trips";* Objective 11-1 to "*pursue transportation management strategies that can reduce the number of vehicle trips,*" and Policy 11-1.4, to "*further the promotion of the development of transportation facilities and services that encourage transit ridership and improve pedestrian and bicycle access.*"

In summary, construction activities associated with Alternative 5 would result in construction easements and encroachment permits that would be required under applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Adherence to existing policies, regulation, and permitting requirements in the construction of Alternative 5 would result in a less than significant impact.

Maintenance and Storage Facilities

The proposed MSF would require construction easements and acquisition of properties with industrial uses. The parcels within the proposed MSF and in the vicinity are zoned as Light Industrial (City of Los Angeles, 2023a). A significant portion of the proposed MSF is occupied by industrial uses owned by the Copart car auctions. The construction easements would be temporary, and the properties would retain

their original land use designation and zoning classifications. Given the existing industrial uses of the parcels to be acquired and of the parcels in the surrounding area, construction of the proposed MSF would not be considered a change in land use type and would not conflict with adjacent land uses.

The proposed MSF would not create any new land uses that could generate conflicts with land uses adjacent to the alignment, or conflict with local land use plans, policies, or regulations; therefore, impacts would be less than significant during construction.

8.2.9.3 Impact AFR-1: Would the project convert Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

There are no land uses for agricultural purposes within the RSA for Alternative 5. Implementation of Alternative 5 during construction activities would not involve changes that could result in conversion of farmland to non-agricultural uses because there are no agricultural uses or farmland within the RSA for Alternative 5. Therefore, Alternative 5 would not involve conversion of Prime Farmland, Unique Farmland, or Farmlands of Statewide Importance to non-agricultural use, and no impact would occur during construction.

Maintenance and Storage Facilities

The parcels that are part of the proposed MSF are not zoned for agricultural uses. Therefore, the proposed MSF would not involve conversion of Prime Farmland, Unique Farmland, or Farmlands of Statewide Importance to non-agricultural use, and no impact would occur during construction.

8.2.9.4 Impact AFR-2: Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Alternative 5 and surrounding areas within the RSA are neither zoned for agricultural use nor a part of a Williamson Act contract. Implementation of Alternative 5 would not conflict with existing zoning for agricultural use or affect land under a Williamson Act Contract. Therefore, the Alternative 5 would have no impact on agricultural zoning during construction.

Maintenance and Storage Facilities

The parcels that are part of the proposed MSF are not zoned for agricultural uses. Therefore, the proposed MSF would not conflict with existing zoning for agricultural use or affect land under a Williamson Act Contract, and no impact would occur during construction.

8.2.9.5 Impact AFR-3: Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

Alternative 5 and surrounding areas within the RSA are characterized by features typical of the urban landscape. There are no properties zoned as forest land or timberland within the RSA for Alternative 5. According to the USDA Forest Services, the closest designated forest land is the Angeles National Forest located approximately 12.06 miles east of the northern portion of Alternative 5 (USDA, 2023). Implementation of Alternative 5 would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as timberland production, and no impact would occur during construction.

Maintenance and Storage Facilities

The parcels that are part of the proposed MSF are not zoned as forest lands or timberland. Therefore, the proposed MSF would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

8.2.9.6 Impact AFR-4: Would the project result in the loss of forest land or conversion of forest land to non-forest land use?

Alternative 5 and surrounding areas within the RSA are characterized by features typical of the urban landscape. There are no properties zoned as forest land or timberland within the RSA for Alternative 5. According to the USDA Forest Services, the closest designated forest land is the Angeles National Forest located approximately 12.06 miles east of the northern portion of Alternative 5 (USDA, 2023). Implementation of Alternative 5 would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as timberland production, and no impact would occur during construction.

Maintenance and Storage Facilities

The parcels that are part of the proposed MSF are not zoned as forest lands or timberland. Therefore, the proposed MSF would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

8.2.9.7 Impact AFR-5: Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Alternative 5 and surrounding areas within the RSA are characterized by features typical of the urban landscape. Implementation of Alternative 5 would not involve changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use. There are no agricultural uses, farmland, or forest land within or in close proximity to the RSA for Alternative 5. Therefore, there would be no impact associated with conversion of farmland or forest land during construction.

Maintenance and Storage Facilities

The parcels that are part of the proposed MSF are not zoned as agricultural land, forest lands, or timberland. Therefore, the proposed MSF would not result in conversion of farmland or forest land, and no impact would occur during construction.

8.2.9.8 Mitigation Measures

Construction Impacts

Implementation of MM TRA-4 would ensure that construction of Alternative 5 would not divide an established community.

The following mitigation measures would be implemented for Alternative 5:

MM TRA-4 *The project contractor shall prepare a Transportation Management Plan to facilitate the flow of traffic and transit service in and around construction zones. The Transportation Management Plan shall include, at minimum, the following measures:*

- *Where feasible, schedule construction-related travel (i.e., deliveries, hauling, and worker trips) during off-peak hours and maintain two-way traffic circulation along affected roadways during peak hours. Avoid the closure of two major adjacent streets where feasible.*
- *Designated routes for project haul trucks shall primarily utilize the I-405, I-10, US-101 corridors. Throughout the construction process, these routes shall be coordinated with the City of Los Angeles and Veterans Affairs to ensure consistency with land use and mobility plans. Additionally, the routes shall be situated to minimize noise, vibration, and other possible impacts.*
- *Develop detour routes to facilitate traffic movement through construction zones without significantly increasing cut-through-traffic in adjacent residential areas.*
- *Where construction encroaches on the Los Angeles-San Diego-San Luis Obispo rail corridor right-of-way, coordinate construction activities with Union Pacific, Metrolink, and Amtrak to minimize disruptions to service and coordinate on outreach to inform passengers of service impacts. Provide temporary parking and drop-off facilities at the Van Nuys Metrolink/Amtrak Station to minimize passenger impacts.*
- *Develop and implement an outreach program and public awareness campaign in coordination with Caltrans, the City of Los Angeles, the City of Santa Monica, and the County of Los Angeles to inform the general public about the construction process and planned roadway closures, potential impacts, and mitigation measures, including temporary bus stop relocation.*
- *Where feasible, temporarily restripe roadways to maximize the vehicular capacity at locations affected by construction closures.*
- *Provide wayfinding signage, lighting, and access to specify pedestrian safety amenities (such as handrails, fences, and alternative walkways) during construction.*
- *Where construction encroaches on pedestrian facilities, special pedestrian safety measures shall be used, such as detour routes and temporary pedestrian barricades.*
- *Where construction encroaches onto the University of California, Los Angeles campus, the project contractor shall ensure that access to campus buildings is maintained through temporary decking and the construction of temporary stairs and ramps.*
- *During final design, the project contractor shall coordinate with Metro Operations to minimize construction impacts on existing Metro rail operations in and around existing stations. Where construction results in the interruption of*

Metro rail operations, buses shall provide temporary service between rail stations.

- *Provide on-street bicycle detour routes and signage to address temporary effects to bicycle circulation and minimize inconvenience (e.g., lengthy detours) as to minimize users potentially choosing less safe routes if substantially rerouted.*
- *During final design, the project contractor shall coordinate with first responders and emergency service providers to minimize impacts on emergency response. Coordination efforts shall include the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing.*
- *Maintain customer and delivery access to all operating businesses near construction work areas. Access shall be maintained to allow for reasonable business operations, including clear signage for alternate routes, temporary driveways, or entry points as necessary. Coordination with businesses shall be conducted to address specific access needs and minimize disruptions, ensuring that any restrictions are communicated in advance and alternative arrangements are provided as appropriate.*

Impacts After Mitigation

Regarding Impact LUP-1, implementation of MM TRA-4 would require preparation and implementation of a TMP during construction to minimize disruptions caused by construction activities of each of the project alternatives. The TMP would facilitate the flow of traffic and transit service in and around construction zones, ensuring access to and from established communities is maintained. With implementation of MM TRA-4, construction impacts associated with Alternative 5 under Impact LUP-1 would be reduced to than significant.

8.2.10 Noise and Vibration

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-23.

Table 8-23. Alternative 5: Noise and Vibration Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 5
Noise and Vibration Construction Impacts		
Impact NOI-1: Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established by the Federal Transit Administration?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact NOI-2: Would the project result in generation of excessive groundborne vibration or groundborne noise levels?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM VIB-5.1
	Impacts After Mitigation	SU

CEQA Impact Topic		Alternative 5
Impact NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025j

LTS = less than significant
MM = mitigation measure
NA = not applicable
NI = no impact
NOI = noise
PS = potentially significant
SU = significant and unavoidable
VIB = vibration

8.2.10.1 Impact NOI-1: Would the project cause generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction of Alternative 5 would include various phases that would involve the use of construction equipment at specific locations along the proposed alignment. Construction noise levels from Alternative 5 were predicted in terms of an 8-hour L_{eq} for each phase of construction based upon the number and types of off-road construction equipment to be employed during the given phase. Table 8-24 shows the results of the construction noise predictions at a reference distance of 50 feet from construction activities and at the nearest sensitive receptors.

The FTA has provided guidance for assessing construction noise associated with transit projects. The criteria are based upon an 8-hour L_{eq}. For residential uses, the threshold is 80 dBA for daytime construction and 70 dBA for nighttime construction. Commercial uses are held to an 85-dBA daytime and nighttime noise construction threshold, while industrial uses are held to a 90-dBA daytime and nighttime construction noise threshold. For the purposes of this analysis, FTA's detailed assessment construction noise limit criteria of an 8-hour L_{eq} have been applied.

Table 8-24 is a summary of expected construction noise levels at locations of nearest noise-sensitive receptors to each construction activity. Additional details regarding construction equipment and noise levels by phase are included in Attachment 12 of the *Sepulveda Transit Corridor Project Noise and Vibration Technical Report* (Metro, 2025j). Construction noise would range from 8-hour L_{eq} noise levels of approximately 57 to 93 dBA at the nearest sensitive receptors. A TBM would be required for tunneling underground segments of Alternative 5, but it would not generate aboveground noise. As shown in Table 8-13, construction activities would result in noise levels that exceed the FTA 80-dBA daytime and 70-dBA nighttime 8-hour L_{eq} thresholds for residential land uses.

The construction noise contours are depicted graphically in DEIR *Section 3.11, Noise and Vibration*, which represent the noise levels that could potentially occur along the entirety of the alignment. Construction noise contours are only included for aboveground construction activities because activities such as tunnelling would not generate noise at aboveground receptors. The noisiest phase of construction is used to depict the contours. An interval of 5 dBA is used for each contour and each

contour was calculated based on the distance at which noise would decrease by 5 dBA, starting at a noise level of 90 dBA L_{eq} to 70 dBA L_{eq}. The 90 dBA L_{eq} noise level is representative of the FTA daytime and nighttime construction noise threshold for industrial uses. The 70 dBA L_{eq} contour shows the areas where construction noise levels would exceed the nighttime construction noise threshold for residential uses. The 90 dBA L_{eq} contour covers areas within a distance of 45 feet from the nearest construction activity. The 70 dBA L_{eq} contour extends to a maximum distance of 562 feet. The construction noise contours do not include noise reductions that may occur as a result of terrain or intervening structures. As an example of how to read the contours, the figures show that within the first contour of 45 feet (shown in dark purple), the calculated construction noise levels may be above 90 dBA L_{eq}. At the next distance of 100 feet (shown in light purple), noise levels would decrease to approximately 85 dBA L_{eq}.

Pile driving may be required for installation of retaining walls or potentially at TBM launch locations. Impact or vibratory piledrivers are the most noise intensive construction equipment that could result in elevated noise levels above typical construction methods. It is unknown at this stage of design if pile driving would be the required construction method which is dependent on soil type. Typically, where possible, piles are drilled which is a quieter method of pile installation such as CIDH. For instance, foundations for the aerial guideway are proposed to be constructed using CIDH instead of impact driven piles. Impact pile driving generates an hourly noise level of approximately 94.3 dBA L_{eq} at 50 feet, vibratory pile driving generates an hourly noise level of 93.8 dBA $L_{eq,}$ at 50 feet and CIDH generates an hourly noise level of approximately 77.4 dBA L_{eq} at 50 feet. Vibratory pile driving is approximately 0.5 dBA quieter than impact pile driving and CIDH is approximately 16.9 dBA quieter. To reduce noise levels where piles may be required, MM NOI-5.1 would require impact pile driving to be avoided where possible and to use drilled or vibratory piles where feasible. Soil improvements such as grouting injection would be required for cut-and-cover construction to stabilize soils. Soil improvement activity would typically require drilling equipment and pumping equipment to inject the grout into the soil. A noise level of 90 dBA 8-hour $L_{eq\_}$ at 50 feet reflects equipment required for cut-and-cover construction, which is shown in Table 8-24 as “Support of Excavation.”

Table 8-24. Alternative 5: Estimated Construction Noise Levels

Construction Phase	8-hour L_{eq} (dBA) at 50 feet	8-hour L_{eq} (dBA) at Nearest Receptors	Exceeds 80-dBA 8-Hour L_{eq} Daytime Threshold	Exceeds 70-dBA 8-Hour L_{eq} Nighttime Threshold
Segment 1 to Segment 5 Tunnel Construction				
Demolition/Site Preparation	88	86	Yes	Yes
Launch Box Support of Excavation	90	88	Yes	Yes
Launch Box Excavation	87	85	Yes	Yes
Launch Box Concrete Work	86	84	Yes	Yes
Tunnel Boring Machine Mobilization	86	84	Yes	Yes
Tunnel Boring Machine Tunneling/Precast Liners	84	82	Yes	Yes
Tunnel Boring Machine Demobilization	86	84	Yes	Yes
Invert Fill	81	79	No	Yes
Segment 6-Reach 3 Portal to Maintenance and Storage Facility Cut-and-Cover Box				
Demolition/Site Preparation	88	73	No	Yes
Support of Excavation	90	75	No	Yes
Excavation	87	72	No	Yes
Concrete Work	86	71	No	Yes
Trackwork/Systems Installation	83	68	No	No

Construction Phase	8-hour L_{eq} (dBA) at 50 feet	8-hour L_{eq} (dBA) at Nearest Receptors	Exceeds 80-dBA 8-Hour L_{eq} Daytime Threshold	Exceeds 70-dBA 8-Hour L_{eq} Nighttime Threshold
Aerial Guideway Foundation (CIDH)	91	76	No	Yes
Columns	84	69	No	No
Bent Caps	84	69	No	No
Assemble Gantry	85	70	No	Yes
Segmental Girders	87	72	No	Yes
Demobilize Gantry	85	70	No	Yes
Guideway Trackwork	86	71	No	Yes
Systems Installation	85	70	No	Yes
Paving	85	70	No	Yes
Tunnel Boring Machine Access Shaft Staging Site				
Demolition/Site Preparation	88	77	No	Yes
Shaft Support of Excavation	91	80	Yes	Yes
Shaft Excavation	87	76	No	Yes
Shaft Concrete Work	84	73	No	Yes
Staging Area TBM Support Activities	86	75	No	Yes
Underground Stations				
Demolition/Site Preparation	88	90	Yes	Yes
Support of Excavation	90	92	Yes	Yes
Box Excavation	87	89	Yes	Yes
Tunnel Boring Machine Pass-Through Maintenance	80	82	Yes	Yes
Station Structural Concrete	88	90	Yes	Yes
Fit Out and Completion	85	87	Yes	Yes
Paving/Arch Coatings	86	88	Yes	Yes
Aerial Stations				
Demolition/Site Preparation	88	59	No	No
Foundations and Columns	91	62	No	No
Bent Cap Installation	86	57	No	No
Girder Installation/Station Fit Out	88	59	No	No
Paving/Arch Coatings	86	57	No	No
Traction Power Substation Construction				
Site Preparation-Traction Power Utilities	80	72	No	Yes
Grounding-Foundations	80	72	No	Yes
Traction Power Substation Installation	80	72	No	Yes
Site Restoration	82	74	No	Yes
Maintenance and Storage Facility Construction				
Demolition	89	93	Yes	Yes
Site Preparation	87	91	Yes	Yes
Grading	89	93	Yes	Yes
Building Construction	84	76	No	Yes
Paving	88	92	Yes	Yes
Architectural Coating	77	69	No	No
Test Track	81	85	No	Yes

Construction Phase	8-hour L_{eq} (dBA) at 50 feet	8-hour L_{eq} (dBA) at Nearest Receptors	Exceeds 80-dBA 8-Hour L_{eq} Daytime Threshold	Exceeds 70-dBA 8-Hour L_{eq} Nighttime Threshold
Pre-Cast Yard				
Concrete Activity	89	93	Yes	Yes
North and South Construction Work Zone Staging Area				
Staging Activity	85	85	Yes	Yes

Source: HTA, 2024

CIDH = cast-in-drilled-hole
dBA = A-weighted decibel
L_{eq} = equivalent noise level
* Variation in noise levels for this phase are due to variation in number of equipment used for different segments.

SOE = support of excavation

Alternative 5 would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and, where applicable, the standards established by the local noise ordinances. While MM NOI-5.1 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

Regarding health effects of noise, it is unlikely for construction noise to result in noise-induced hearing loss for persons residing or working near construction zones, as this is an occupational hazard related to working over long periods of time (years) in high noise environments. However, construction noise could increase stress at affected sensitive uses. Nighttime construction could adversely affect sleep for residents living near active construction sites. As required by MM NOI-5.1, if required by the jurisdiction a noise variance would be prepared that demonstrates the implementation of control measures to maintain noise levels below the applicable Federal Transit Administration and local standards. Nonetheless, construction noise could potentially still exceed the FTA nighttime criteria.

Maintenance and Storage Facilities

Construction of the MSF would involve activities such as utility relocation, demolition, excavation, concrete work, utility installation, and paving. MSF construction would result in phased noise levels of approximately 77 to 89 dBA, 8-hour L_{eq} at 50 feet. Sensitive receptors adjacent to the MSF site would be potentially exposed to noise levels that would exceed the FTA 80-dBA daytime and 70-dBA nighttime 8-hour L_{eq} thresholds for residential land uses. Construction of the MSF would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and, where applicable, the standards established by the local noise ordinances. The construction noise contours are depicted graphically in DEIR *Section 3.11, Noise and Vibration*. The 90 dBA L_{eq} contours cover areas within a distance of 50 feet from the nearest construction activity. The 70 dBA L_{eq} contours extend to a maximum distance of 500 feet. While MM NOI-5.1 under Alternative 5 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

8.2.10.2 Impact NOI-2: Would the project cause generation of excessive groundborne vibration or groundborne noise levels?

Construction Vibration Impacts on Sensitive Receptors

The primary concern related to vibration during construction is the potential to damage structures. Construction activities, such as pile driving, use of drill rigs, pavement breaking, and the use of tracked vehicles (e.g., bulldozers) and hoe rams, could result in perceptible levels of GBV at sensitive buildings located in close proximity to construction sites. These activities would typically be limited in duration and their vibration levels are likely to be well below thresholds for minor cosmetic building damage. Alternative 5 would also include the use of a TBM along the underground alignment.

Project construction would include a limited number of activities expected to generate vibration that approaches the lowest building damage limit of 0.12 in/sec PPV. Table 8-24 shows the distances at which the 0.12 in/sec PPV, 0.2 in/sec PPV, and 0.3 in/sec PPV thresholds would not be exceeded. For example, use of a drilling rig, hoe ram, or large bulldozer would be safe at distances greater than 22 feet from Category IV buildings. A vibratory roller would be safe at distances greater than 22 feet from Category IV buildings and typical impact pile driver operation would be safe at distances of 79 feet or greater. Typical building construction in an urban setting consists of buildings that are Category II engineered concrete and masonry that have a 0.3 in/sec PPV threshold or Category III non-engineered timber and masonry buildings that have a 0.2 in/sec PPV threshold. Typical construction equipment, such as a large bulldozer, would not exceed the 0.2 in/sec PPV building damage criterion at distances of 18 feet or greater and would not exceed the 0.3 in/sec PPV building damage criterion at distances of 13 feet or greater. A vibratory roller would not exceed the 0.2 in/sec PPV building damage criterion at distances of 32 feet or greater and would not exceed the 0.3 in/sec PPV building damage criterion at distances of 23 feet or greater. An impact pile driver would not exceed the 0.2 in/sec PPV building damage criterion at distances of 67 feet or greater and would not exceed the 0.3 in/sec PPV building damage criterion at distances of 47 feet or greater.

Vibration annoyance is another concern during construction. In rare instances, when vibration-intensive construction activities occur close to sensitive structures (within 25 feet), such as residential buildings, or special use buildings like laboratories or recording studios, Vibration could exceed the FTA vibration annoyance criteria. Significant GBV could exceed the FTA vibration damage and vibration annoyance criteria when certain construction activities would occur at close distances to sensitive receptors.

Along the underground alignment of Alternative 5, the TBM would be the main source of GBVs. However, the TBM is slow moving and causes very little vibration and related GBN to the surrounding area when operating at full tunnel depths. The Alternative 5 underground tunnel would be at depths of approximately 30 feet to over 750 feet from the aboveground buildings along the tunnel alignment. In some residential areas, GBV from the TBM may be felt for a short period (about two days) while the machine passes under the receptor locations. In residential areas in the mountain region between Sunset Boulevard and Valley View Boulevard, GBV from the TBM would not be perceptible because the tunnel would be very deep underground. Expected TBM vibration levels would be well below the strictest building damage threshold of 0.12 in/sec along the entire underground alignment. Construction of the proposed Metro E Line, Santa Monica Boulevard, Wilshire/Metro D Line, UCLA Gateway Plaza, Ventura Boulevard, Metro G Line, and Sherman Way Stations along the underground alignment would likely be cut-and-cover construction, which could at times occur within 25 feet of structures, potentially resulting in excessive vibration. The alignment would surface near the intersection of Raymer Street and Burnett Avenue. Nearby structures are primarily industrial and would be most similar to engineered and

concrete masonry buildings with a 0.3 in/sec PPV vibration damage threshold. Vibration annoyance impacts are unlikely to occur in this area, as the uses are not vibration sensitive. However, due to the proximity of nearby buildings, there is potential for vibration damage to occur. East of the tunnel portal, construction activity would primarily occur in the LOSSAN rail corridor surrounded by industrial buildings, which would have limited potential for vibration damage and annoyance.

While MM VIB-5.2 would be implemented, which would include vibration-reducing measures, there may still be temporary or periodic increases in vibration levels that exceed FTA construction vibration impact criteria. There are no additional feasible mitigation measures to reduce construction vibration levels. Therefore, impacts related to construction vibration would be significant and unavoidable.

Construction Vibration Impacts on Historic Resources

Construction under Alternative 5 would have the potential to damage historic buildings in close proximity to vibration-intensive construction activities. Using the reference levels in the FTA *Transit Noise and Vibration Impact Assessment Manual* (FTA, 2018), vibration levels from project construction activities were estimated at historic buildings or structures eligible for the National Register of Historic Places along the Alternative 5 alignment. Such buildings are generally classified as extremely susceptible to vibration damage (Building Type IV).

Findings of the construction vibration assessment at historic structures are as follows:

- The following historic buildings are very close to the proposed project construction areas. Most vibration-intensive construction activities at these locations would likely result in levels exceeding the damage criterion of 0.12 in/sec PPV. Special consideration should be made for these buildings in MM VIB-5.2 (Vibration Control Plan).
  - Gayley Center located at 1101 Gayley Avenue, Los Angeles adjoining the proposed Wilshire Boulevard/Metro D Line Station
  - Linde Medical Building located at 10921 Wilshire Boulevard, Los Angeles adjacent to the proposed Wilshire Boulevard/Metro D Line Station
  - Tishman Building located at 10950 Wilshire Boulevard, Los Angeles adjacent to the proposed Wilshire Boulevard/Metro D Line Station
  - UCLA Ackerman Hall, 308 Westwood Plaza, Los Angeles
- Pile driving at locations along the alignment in the vicinity of the following historic properties would potentially result in GBV levels exceeding the damage criterion of 0.12 in/sec PPV. Therefore, these locations must be addressed in the Vibration Control Plan if pile driving is to occur within 150 feet of the buildings:
  - Historic building located at 4506 Saugus Street, Sherman Oaks
  - Historic building located at 14746 Raymer Street, Van Nuys

Implementation of MM VIB-5.2 would reduce the potential for damage to occur at historic resources. Vibration levels would be monitored at historic resources to determine if the vibration damage criterion of 0.12 in/sec PPV would be exceeded. A pre-construction and post construction survey would be prepared, and any damage noted and restored per the requirements of SOI's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. Therefore, impacts related to construction vibration at historic resources would be less than significant with mitigation.

Maintenance and Storage Facilities

The nearest existing buildings to the construction of the proposed MSF are buildings within the residential properties along Cohasset Street south of the MSF site which would have a vibration damage risk criterion of 0.2 in/sec PPV (Building Type III). The closest structures within the residential properties are as close as 17 feet from the proposed construction activities. Estimated vibration levels from ballast tamper and caisson drilling would be less than the applicable vibration damage risk criterion for the building type in this area is 0.2 in/sec PPV. The highest vibration levels from construction of the MSF at the closest off-site building would be 0.375 in/sec PPV from the use of a vibratory roller during paving and 0.16 in/sec PPV from a large bulldozer during the grading phase which would exceed the applicable vibration damage risk criterion of 0.2 in/sec. The minimum distance from the south property line of the MSF site at which large vibratory rollers must operate is 26 feet during the construction of the proposed MSF. While MM VIB-5.2 under Alternative 5 would be implemented, which would include vibration-reducing measures, there may still be temporary or periodic increases in vibration levels that exceed FTA construction vibration impact criteria. There are no additional feasible mitigation measures to reduce construction vibration levels. Therefore, impacts related to construction vibration would be significant and unavoidable.

8.2.10.3 Impact NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The Santa Monica Airport and Van Nuys Airport are located within 2 miles of Alternative 5. However, Alternative 5 is a transit project that is not sensitive to noise. Transit riders would not dwell at one location for an extended period of time that would result in exposure to excessive airport noise. Construction workers working on Alternative 5 would utilize ear protection as required while working on the Project. Therefore, no impacts related to airport noise would occur.

8.2.10.4 Mitigation Measures

Construction Impacts

The following mitigation measures would be needed to reduce construction noise and vibration levels to below the applicable limits:

MM NOI-5.1: **Noise Control Plan:**

- *Prior to the initiation of localized construction activities, the Project contractor shall develop a Noise Control Plan demonstrating how the Federal Transit Administration 8-hour $L_{eq.equip}$ (equivalent noise level of equipment) noise criteria would be achieved during construction. The Noise Control Plan shall be prepared by a board-certified acoustical engineer. The Federal Transit Administration 8-hour $L_{eq.equip}$ construction noise standards are as follows: Residential daytime standard of 80 dBA $L_{eq.equip}$ and nighttime standard of 70 dBA $L_{eq.equip}$, Commercial daytime and nighttime standard of 85 dBA $L_{eq.equip}$, and Industrial daytime and nighttime standard of 90 dBA $L_{eq.equip}$. The Noise Control Plan shall be designed to follow Metro requirements, and shall include measurements of existing noise, a list of the major pieces of construction equipment that would be used, predictions of the noise levels at the closest noise-sensitive receptors (residences, hotels, schools, religious facilities, and similar facilities), and noise mitigation measures*

to be implemented to achieve compliance with the Federal Transit Administration 8-hour $L_{eq.equip}$ construction noise standards to the degree feasible. The Noise Control Plan must be approved by Metro prior to initiating noise-generating construction activities. The Project contractor shall conduct continuous noise monitoring to demonstrate compliance with the Federal Transit Administration 8-hour $L_{eq.equip}$ noise limits. If the Federal Transit Administration 8-hour $L_{eq.equip}$ criteria are exceeded, the Project contractor shall implement measures to reduce construction noise as much as feasible. The Project contractor shall establish a public information and complaint system. The Project contractor shall respond to and provide corrective action for complaints within 24-hours. In addition, the Project shall comply with local noise ordinances when applicable, including by obtaining a variance(s) from the applicable local jurisdiction when nighttime work is required. Noise reducing methods that may be implemented by the Project contractor include:

- *If nighttime construction is planned, a noise variance may be prepared by the Project contractor, if required by the jurisdiction, that demonstrates the implementation of control measures to maintain noise levels below the applicable Federal Transit Administration and local standards.*
- *Where feasible, minimize nighttime construction.*
- *Utilize specialty equipment equipped with enclosed engines and/or high performance mufflers as feasible. The Project contractor shall locate equipment and staging areas as far from noise-sensitive receptors as possible.*
- *Limit unnecessary idling of equipment.*
- *Install temporary noise barriers as needed where feasible.*
- *Reroute construction related truck traffic away from residential streets to the extent permitted by the relevant municipality.*
- *Avoid impact pile driving where possible. Drilled piles or vibratory pile drivers would be required where feasible.*
- *Where Project construction cannot be performed in accordance with the requirements of the applicable noise limits, the Project contractor shall be required to investigate alternative construction methods that would result in lower sound levels.*

MM VIB-5.1: Trackwork Isolation Methods:

- *The Project shall implement trackwork isolation to reduce groundborne vibration levels to below the Federal Transit Administration groundborne vibration impact criteria for frequent events at the locations where exceedance of the groundborne vibration impact criteria are anticipated to occur. The Project shall isolate trackwork using one of the following four methods:*
  - *High Resilience Direct Fixation Rail Fasteners (HRDF): HRDF attaches the rail directly to the fastener body. HRDF is used to attach the rails to the first*

concrete pour and then the space around the tacks is filled with precast concrete panels. There are several models of highly resilient direct fixation fasteners available that can be effective at controlling vibration.

- *Low-Impact or Spring Frogs: Wheel impacts at crossovers could increase vibration levels up to 10 VdB at sensitive buildings near the crossovers. Where vibration impact occurs at the crossovers along the project alignment, the impact vibration can be reduced through the use of low-impact frogs.*
- *Floating Slab Track: This approach typically provides the highest reduction in GBV levels and is employed near Category 1 buildings where thresholds of impact are more stringent. Under this method, the track is constructed on a concrete slab that is supported by either resilient pads or a continuous resilient mat.*

  Resiliently Supported Ties: The resiliently supported tie system consists of concrete ties supported by rubber pads resting on top of a slab track or subway invert. The rails are fastened directly to the concrete ties using standard rail clips. This type of system has been shown to reduce GBV levels by up to 10 VdB.

MM VIB-5.2: Vibration Control Plan:

- *Prior to construction, the Project contractor shall prepare a Vibration Control Plan demonstrating how the Federal Transit Administration building damage risk criteria and the Federal Transit Administration vibration annoyance criteria would be achieved. The Vibration Control Plan must be approved by Metro prior to initiating vibration-generating construction activities. The Vibration Control Plan would include a list of the major pieces of construction equipment that would be used, and the predictions of the vibration levels at the closest sensitive receivers. The Project contractor would conduct vibration monitoring to demonstrate compliance with the vibration limits during construction activity. Where the construction cannot be performed to meet the vibration criteria, the Project contractor shall implement alternative means and methods of construction measures to reduce vibration levels as much as feasible. Vibration reducing methods that may be implemented by the Project contractor include:*
  - *When feasible, use construction equipment or less vibration intensive techniques near vibration sensitive locations.*
  - *Use as small an impact device (i.e., hoe ram, pile driver) as possible to accomplish necessary tasks.*
  - *Avoid impact pile driving where possible. Drilled piles or vibratory pile drivers would be required where feasible.*
  - *When feasible, in construction areas close to sensitive buildings, select non-impact demolition and construction methods such as saw or torch cutting and removal for off-site demolition, and use chemical splitting, or hydraulic jack splitting, instead of high impact methods.*

- *The Project contractor shall monitor construction vibration levels at structures identified as a "historic" resource within the meaning of CEQA Guidelines Section 15064.5(a)to ensure the vibration damage threshold of 0.12 in/sec PPV shall not be exceeded. The vibration monitoring shall be conducted by a qualified professional for real-time vibration monitoring for construction work at the Project construction site requiring heavy equipment or ground compaction devices. A pre-construction and post-construction survey of these buildings shall be conducted by a qualified structural engineer. Any damage shall be noted. All vibration monitors used for these measurements shall be equipped with an "alarm" feature to provide advanced notification that vibration impact criteria have been approached. Documented damage in the post-construction survey shall be repaired as required by the Secretary of the Interior's (SOI's) Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. The following historic resources shall be included in the Vibration Control Plan.*
  - *Gayley Center located at 1101 Gayley Avenue, adjoining the proposed Wilshire Boulevard/Metro D Line Station*
  - *Linde Medical Building located at 10921 Wilshire Boulevard, adjacent to the proposed Wilshire Boulevard/Metro D Line Station*
  - *Tishman Building located at 10950 Wilshire Boulevard, adjacent to the proposed Wilshire Boulevard/Metro D Line Station*
  - *UCLA Ackerman Hall, 308 Westwood Plaza, Los Angeles*
  - *Historic buildings located at 4506 Saugus Street, Sherman Oaks*
  - *Historic building located at 14746 Raymer Street, Van Nuys*

Impacts After Mitigation

Construction Noise

Project construction would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and where applicable, the standards established by the local noise ordinances. While MM NOI-5.1 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

Construction Vibration

Significant GBV could exceed the FTA vibration damage and vibration annoyance criteria when certain construction activities would occur at close distances to sensitive receptors. While MM VIB-5.2 would be implemented, which would include vibration-reducing measures, there may still be temporary or periodic increases in vibration levels that exceed FTA construction vibration impact criteria. There are no additional feasible mitigation measures to reduce construction vibration levels. Therefore, impacts related to construction vibration would be significant and unavoidable.

8.2.11 Parklands

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-25.

Table 8-25. Alternative 5: Parklands Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 5
Recreation Construction Impacts		
Impact REC-1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? OR Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact REC-2: Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025q

LTS = less than significant
NA = not applicable
NI = no impact

8.2.11.1 Impact REC-1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Or

Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?

Alternative 5 construction activities would be similar to Alternative 4 and would require temporary street detours at proposed underground stations during cut-and-cover activities. Street detours would be concentrated at areas surrounding proposed underground station boxes, which would require cut-and-cover construction, and may disrupt bicycle and pedestrian circulation. See *Section 3.15, Transportation*, of this DEIR for discussion related to construction traffic and access. The underground guideway would be constructed using a tunnel boring machine, and therefore, would not disrupt bicycle facilities. Therefore, construction-related impacts to parks and recreational facilities would be less than significant.

Maintenance and Storage Facilities

MSF construction activities would be temporary and would not create new residential populations that would directly increase the use of existing parks, recreational facilities, and bike facilities in the

surrounding communities. Therefore, impacts to parklands associated with the MSF site would be less than significant.

8.2.11.2 Impact REC-2: Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Construction of Alternative 5 would be temporary and would not include the construction of recreational facilities or require the expansion of existing recreational facilities. Therefore, no impacts would occur.

Maintenance and Storage Facilities

MSF site construction activities would be temporary and would not include construction of recreational facilities or require the expansion of existing recreational facilities. The MSF would not affect on-site or street parking used by visitors to the Andres and Maria Cardenas Recreation Center. Therefore, impacts to parklands associated with the MSF site would be less than significant.

8.2.11.3 Mitigation Measures

Construction Impacts

Alternative 5 would have a less than significant impact; therefore, no mitigation measures would be required.

Impacts After Mitigation

Impacts would be less than significant.

8.2.12 Real Estate and Acquisitions

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-26.

Table 8-26. Alternative 5: Real Estate and Acquisitions Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 5
Population, Housing, and Growth Construction Impacts		
Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025i

LTS = less than significant
NA = not applicable
POP = population, housing, and growth

8.2.12.1 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Temporary acquisitions would be required for parcels that would only be used as TCEs.

Construction of Alternative 5 would not displace any residential units. Therefore, no impact would occur during construction.

Maintenance and Storage Facilities

The MSF would not require the acquisition or displacement of any residential property. Therefore, the MSF would have no potential to displace existing people or housing nor necessitate the construction of replacement housing elsewhere. The MSF would have no impact.

8.2.12.2 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; no impacts would occur.

8.2.13 Safety and Security

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-27.

Table 8-27. Alternative 5: Safety and Security Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 5
Safety and Security Construction Impacts		
Impact PUB-1: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered fire protection and emergency response facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the fire protection and emergency response?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact PUB-2: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the police protection?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact WFR-1: Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4
	Impacts After Mitigation	LTS
Impact WFR-2: Would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact WFR-3: Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI
	Impacts Before Mitigation	NI

CEQA Impact Topic		Alternative 5
Impact WFR-4: Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Applicable Mitigation	NA
	Impacts After Mitigation	PS

Source: Metro, 2025o

LTS = less than significant
MM = mitigation measure
NA = not applicable
NI = no impact
PS = potentially significant
PUB = public services
TRA = transportation
WFR = wildfire

8.2.13.1 Impact PUB-1: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered fire protection and emergency response facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the fire protection and emergency response?

Construction of Alternative 5 would have similar impacts on fire protection and emergency services Alternative 5 would have the same potential as Alternative 4 to increase the need for police services during construction. Such needs would be focused primarily in and around proposed station construction sites as a majority of the above-ground construction work, including access to the Alternative 5 tunnel, would take place within the station boxes. Similar to Alternative 4, it is anticipated that all construction health and safety plans for Alternative 5 for workers and visitors to active construction sites would also be subject to evaluation by the relevant police service agency to ensure inclusion of safety measures. As discussed for Alternative 4, Metro standard practices require that lane and/or roadway closures are scheduled to minimize disruptions and that a TMP would be prepared and approved in coordination with local police departments prior to construction. For these reasons, construction of Alternative 5 would not require the construction or expansion of police facilities to maintain service ratios, response times, or other performance objectives. Therefore, the impact would be less than significant.

Maintenance and Storage Facilities

The construction of the MSF would increase the exposure of occupational hazards to the contractor and MSF employees and therefore increase demand for fire and life safety services when and if emergency circumstances would occur. As outlined in the regulatory framework described in Section 2.2 of the *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Metro, 2025o) Alternative 4 would comply with the provisions set forth under the CCR Title 8 (California Department of Industrial Relations, 2024) and Cal/OSHA (California Department of Industrial Relations, 2023) regulations. However, in any emergency situation, fire department personnel from LAFD Station 81 and Metro Transit Service Bureau officers would respond. Under the provisions of the NFPA 130, the *Emergency Procedure Plan* would be followed in the event of a fire, and Metro would coordinate with local fire protection service providers in advance of any construction activities to preserve emergency access. This includes compliance with the California Fire Code that specifies minimum access requirements for fire

apparatus. The risk of fire-related injury would be minimized within the MSF locations through adherence to the requirements of NFPA 101, the CBC, and the Los Angeles City Fire Code. Therefore, impacts associated with fire protection services would be less than significant during construction activities.

8.2.13.2 Impact PUB-2: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the police protection?

Construction of Alternative 5 would increase daytime and nighttime worker populations, which has the potential to increase the need for police services.

Police service agencies in the area, including the Los Angeles Police Department (LAPD), Los Angeles County Sheriff's Department, UCLA Police Department, and CHP, commit sufficient funding from tax revenues to provide adequate staffing levels such that the police response times can be maintained. It is anticipated that all construction health and safety plans for Alternative 5 for workers and visitors to active construction sites would also be subject to evaluation by the relevant police service agency to ensure inclusion of safety measures, including nighttime lighting, clear signage, and pedestrian detour routes. This evaluation may include assessing fees to support police protection services. As discussed in the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), under MM TRA-4 a TMP shall be prepared and approved in coordination with local fire and police departments prior to construction, including the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. Upon compliance with evaluation by the relevant police service agencies of health and safety plans and coordination with first responders and emergency service providers, Alternative 5 would have less than significant construction impacts related to new demands on police services with impacts to service ratios, response times, or other performance objectives.

Maintenance and Storage Facilities

During construction, police services would be provided by LAPD under Metro's existing service agreements with the agency. Metro has contracted the LASD and LAPD Transit Services Division to provide policing services on the Metro system within the City of Los Angeles. Potential impacts would occur if the MSF were to result in unacceptable emergency response times that necessitate the construction or expansion of facilities, where such construction could cause significant environmental impact. The MSF would not require modifications to the adjacent roadways during construction or operations to the degree that would impart delays or affect police protection standards. Therefore, the MSF would not require the need for new or physically altered police protection services.

During construction of the MSF, there would be low potential increase in the demand for police protection services from incidents or emergencies, which could result in an increase in overall response calls within the local jurisdictions. Metro MSFs are typically fenced off and access is restricted. In addition, security cameras and nighttime lighting would be provided. Metro has an established service agreement with the LAPD. Additionally, during construction, relevant police service agencies would review Health and Safety Plans for the MSF. For these reasons, construction of the MSF would not require the construction or expansion of police facilities to maintain service ratios, response times, or other performance objectives. Therefore, the impact would be less than significant.

8.2.13.3 Impact WFR-1: Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

As required by existing regulations, Alternative 5 would be required to provide adequate access for emergency vehicles and equipment during construction activities. Sepulveda Boulevard is identified by the County of Los Angeles as a disaster route south of US-101. Temporary short-term construction impacts on street traffic adjacent to and along Sepulveda Boulevard would occur for Alternative 5 due to roadway improvements and construction of the underground stations, and construction staging yards. Underground station construction and roadway improvements would result in a reduced number of lanes or temporary closure of roadways. Temporary lane and/or roadway closures, increased truck traffic, and other roadway effects that could slow emergency vehicles or require detours could temporarily increase response times and impede existing services. For specialized construction tasks, it may be necessary to work during nighttime hours to minimize traffic disruptions, and temporary lane or roadway closures impacts would be limited to the construction period of Alternative 5 and would affect only adjacent streets or intersections along Sepulveda Boulevard in the San Fernando Valley.

As discussed in the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), under MM TRA-4 a TMP shall be prepared in coordination with local fire and police departments prior to construction, including the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing. Additionally, as outlined in the regulatory framework described in Section 2.2 of the *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Metro, 2025o), Alternative 5 would comply with the provisions set forth under the CCR Title 8 and Cal/OSHA regulations. Under Cal/OSHA (California Department of Industrial Relations, 2023), the contractor would create an Emergency Action Plan that would cover designated actions that employers and employees must take to ensure employee safety from fire and other emergencies. The following elements, at a minimum, would be included in the plan:

- Procedures for emergency evacuation, including type of evacuation and exit route assignments
- Procedures to be followed by employees who remain to operate critical plant operations before they evacuate
- Procedures to account for all employees after emergency evacuation has been completed
- Procedures to be followed by employees performing rescue or medical duties
- The preferred means of reporting fires and other emergencies
- Names or regular job titles of persons or departments who can be contacted for further information or explanation of duties under the plan.

Adherence to existing regulations and implementation of MM TRA-4 would ensure that the Project would provide adequate access for emergency vehicles and not impede with an adopted emergency response plan or emergency evacuation plan (City of Los Angeles, 2023b). Therefore, construction of Alternative 5 would not impair implementation of or physically interfere with any adopted emergency response or evacuation plans, and this impact would be less than significant.

Maintenance and Storage Facilities

As required by existing regulations, the proposed MSF would be required to provide adequate access for emergency vehicles during construction activities. Temporary short-term construction impacts on street

traffic adjacent to the proposed MSF because of roadway and infrastructure improvements could result in a reduced number of lanes or temporary closure of segments of adjacent roadways and result in a potentially significant impact. Any such impacts would be limited to the construction period of the proposed MSF and would affect only adjacent streets. Furthermore, MM TRA-4 would ensure that emergency response teams for the City of Los Angeles, including the fire departments and police departments, would be notified of any lane closures during construction activities.

As discussed in the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), a TMP and notification procedures would be implemented to ensure safe and efficient traffic flow in the area during the proposed MSF construction. The TMP would address short-term traffic circulation and access effects during the proposed MSF construction. Specifically, the TMP shall include elements to reduce traveler and emergency responder delays and enhance safety during project construction.

Adherence to existing regulations and implementation of the TMP (refer to the *Sepulveda Transit Corridor Project Transportation Technical Report* [Metro, 2025a]) would ensure that the proposed MSF would provide adequate access for emergency vehicles, and the impact would be less than significant during operational and construction periods with mitigation.

8.2.13.4 Impact WFR-2: Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?

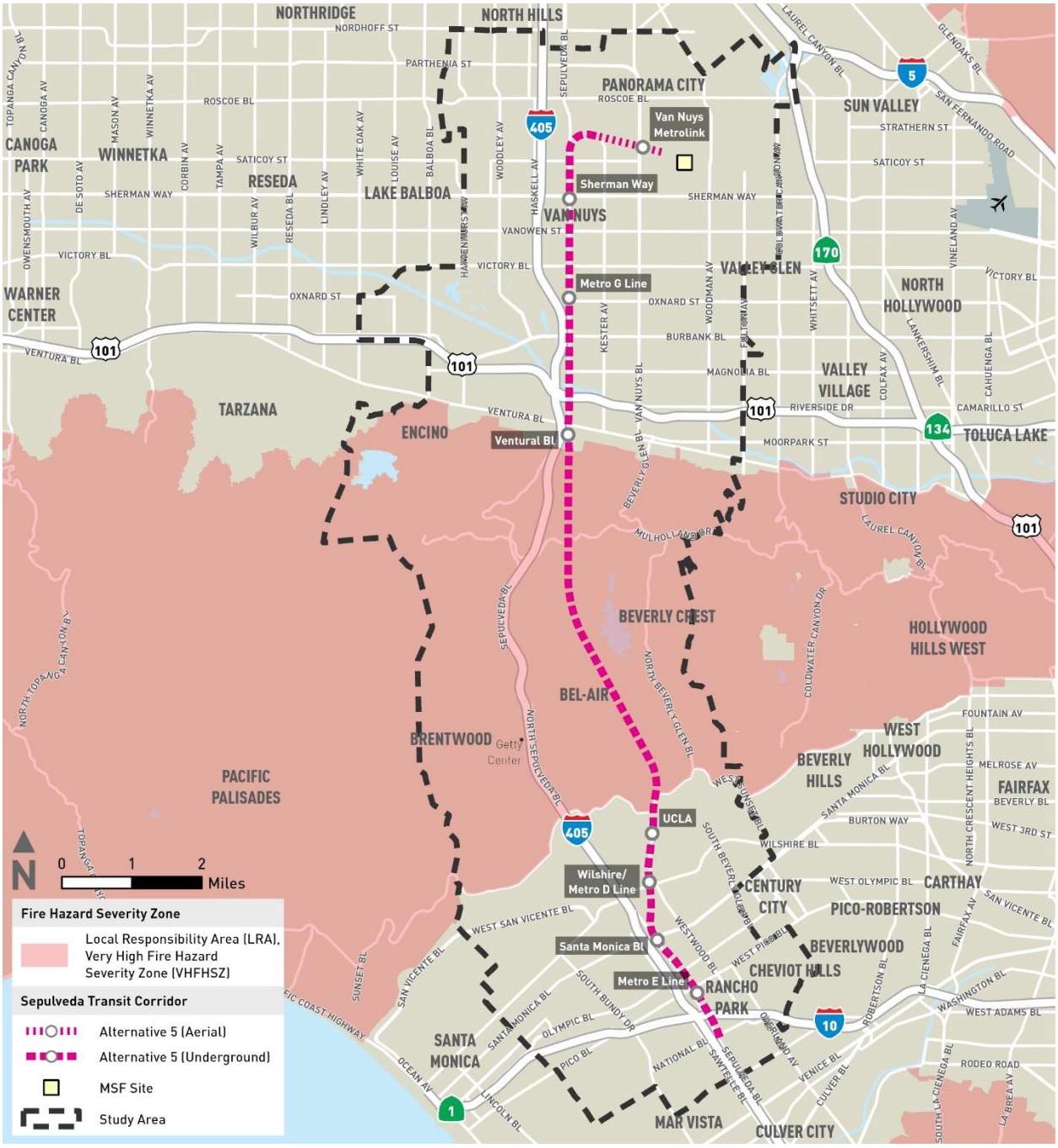
Construction activities associated with the implementation of Alternative 5 would be located within the Wildfire Hazard Zone and have the potential for wildfires. Construction activities associated with project elements for the proposed alignment and TPSS locations would be underground and would have minimal direct health impacts related to smoke and fire, as well as the destruction of property. The TBM would bore the Alternative 5 alignment underground in areas that consist of undeveloped land that has natural habitats (e.g., grasslands, sage scrub), as well as developed land consisting of residential land uses that experience extended droughts — combined with the characteristic of the region's Mediterranean climate — that result in large areas of dry vegetation and provide fuel for wildland fires. Additionally, low humidity levels would allow the fuels surrounding the construction of the proposed alignment and TPSS sites to become dry and more prone to catching fire and to burn more quickly than when humidity levels are high (NPS, 2017).

Construction activities must also comply with existing regulations that restrict periods of activity to times that are not a high fire risk. The implementation of MM SAF-1 and MM SAF-2 would ensure that the impacts associated with exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire risks due to slope, prevailing winds, and other factors that exacerbate a wildfire would be less than significant.

Maintenance and Storage Facilities

The proposed MSF would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires (refer to Figure 8-9). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4.2 miles south of the proposed MSF. The construction of the MSF would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impact would occur.

Figure 8-9. Alternative 5: Wildfire Hazard Zone



Source: CAL FIRE, 2011; Metro, 2025o

8.2.13.5 Impact WFR-3: Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The Alternative 5 alignment and associated infrastructure within the VHFHSZ would be underground at the depth of the tunnel where no impacts related to the exacerbation of wildfires are anticipated. Alternative 5 would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk in a VHFHSZ. Therefore, there would be no impact during construction.

Maintenance and Storage Facilities

The proposed MSF would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires (refer to Figure 8-9). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4.2 miles south of the MSF. The proposed MSF would wash and maintain heavy rail transit (HRT) vehicles and require installation of associated infrastructure. Therefore, the construction of the MSF would not require the installation or maintenance of associated infrastructure that would exacerbate wildfire risks or that may result in temporary or ongoing impacts to the environment, and no impact would occur.

8.2.13.6 Impact WFR-4: Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Construction activities associated with the implementation of Alternative 5 would occur within the Wildfire Hazard Zone, which the California Department of Forestry and Fire Protection (CAL FIRE) has designated as VHFHSZ. However, the proposed alignment would be located underground at the depth of the tunnel underneath landscaped areas east of I-405. Due to its underground configuration, the construction of Alternative 5 would not create additional runoff, post-fire slope instability, or drainage changes within the Wildfire Hazard Zone. Alternative 5 would not expose people or structures to significant risks, including downslope or downstream flooding or landslides. Therefore, there would be no impact.

Maintenance and Storage Facilities

The proposed MSF would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires as shown on Figure 8-10 of the *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Metro, 2025o). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4.2 miles south of the proposed MSF. The MSF would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, there would be no impact.

8.2.13.7 Mitigation Measures

Construction Impacts

Alternative 5 would implement the following mitigation measures to ensure that impacts to wildfire and fire risks remain less than significant during construction activities.

MM SAF-1: *Curtail above ground construction and maintenance activities requiring spark-producing equipment during high-risk wildfire periods in applicable areas. Applicable areas would be areas in the Santa Monica Mountain Range that the California Department of Forestry and Fire Protection designates as a wildfire zone and is populated with dried vegetation or other material that could ignite. Construction and maintenance activities utilizing motorized equipment shall be curtailed during red-flag warning days and other high-risk periods characterized by relative humidity of 15 percent or less combined with windy conditions consisting of frequent gusts at 25 miles per hour or greater for at least 3 hours in a 12 hour period.*

MM SAF-2: *During construction of the Project, all staging areas, welding areas, or areas slated for development that use spark-producing equipment shall be cleared of dried vegetation or other material that could ignite. Any construction equipment that includes a spark arrestor shall be monitored to ensure the spark arrestor is in good working order. All vehicles and crews working on the project site shall have access to functional fire extinguishers at all times.*

Impacts After Mitigation

Compliance with all state laws, plans, policies, and regulations regarding wildfire prevention and suppression, as well as implementation of PM SAF-1, would ensure that impacts associated with wildfire and fire risks would be less than significant during operation activities.

Implementation of MM SAF-1 and MM SAF-2 would ensure that the impacts associated with wildfire and fire risks would be less than significant during construction activities.

8.2.14 Transportation

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-28.

Table 8-28. Alternative 5: Transportation Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 5
Transportation Construction Impacts		
Impact TRA-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4, MM TRA-5, MM TRA-8
	Impacts After Mitigation	LTS
Impact TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternative 5
Impact TRA-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact TRA-4: Would the project result in inadequate emergency access?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025a.

LTS = less than significant
MM = mitigation measure
NA = not applicable
PS = potentially significant
TRA = transportation

8.2.14.1 Impact TRA-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities?

Given the temporary nature of construction, it is not expected that construction of Alternative 5 would preclude or conflict with any programs, plan ordinances, or policies addressing the circulation system. The following sections describe construction impacts on transit facilities, roadways, and active transportation.

Transit

Temporary full or partial closures of some intersections, lanes, or sidewalks may be necessary during construction, which may result in disruptions to bus service. Temporary re-routing and relocation of bus stops may be needed for the following transit lines:

- Metro 4, 20, 155, 162, 169, 233, 234, 240, 602, and 761
- BBB 1, 2, 7, R7, R12, 17, and 18
- CCB 6 and R6
- LADOT 431, 534, 549 and DASH PC/VN
- Amtrak Thruway
- BruinBus U1, U2, U3, U5

In addition to impacts to on-street bus service, construction at existing fixed guideway stations would temporarily impact rail operations. Temporary impacts to Amtrak and Metrolink rail operations would occur as a result of demolishing the existing Willis Avenue Pedestrian Bridge. The construction of the aerial Van Nuys Metrolink Station would temporarily impact Amtrak and Metrolink rail operations and passenger experience at the Van Nuys Metrolink/Amtrak Station. Construction activities would occur within the vicinity of the ESFV LRT Van Nuys Metrolink Station for the construction of the aerial alignment and Alternative 5 Van Nuys Metrolink Station which may temporarily affect passenger experience; however, disruptions to rail service or MSF operations are not anticipated.

Construction of a mezzanine extension over the Metro D Line tracks and platform at the Metro D Line Westwood/UCLA Station would result in temporary impacts to Metro D Line rail operations and passenger experience. Metro D Line trains would operate between Union Station and the Metro D Line Century City Station while temporary falsework is constructed over the Metro D Line tracks. The Metro

D Line Westwood/UCLA Station would then be temporarily closed to passengers during construction of the mezzanine extension. However, Metro D Line trains would be able to pass through the station to the Westwood/VA Hospital Station.

Although temporary, the potential disruptions to the transit network under Alternative 5 is considered a potentially significant impact to transit facilities due to temporary road or lane closures, rail service interruptions during station improvements, and sidewalk closures. Implementation of MM TRA-4, to provide a TMP that specifies measures to limit disruption during construction, and MM TRA-5, to provide temporary bus service at rail stations taken out of passenger service, would reduce impacts to less than significant during construction of Alternative 5.

Roadways

Construction vehicles would primarily use major arterials and freeways to comply with Policy 1.8 from *Mobility Plan 2035* that "truck movement should be limited to the arterial street network as much as possible since these streets have the lanes and wider turning radii to accommodate these heavy large vehicles" (DCP, 2016). Table 8-29 identifies construction staging locations and roadway facilities that would be used for construction haul routes.

Table 8-29. Alternative 5: Construction Staging Locations and Haul Routes

No.	Construction Staging Location Description	Haul Route
On-Site Construction Staging Areas		
1	Commercial properties on southeast corner of Sepulveda Boulevard and National Boulevard	National Boulevard and I-405 or I-10
2	North side of Wilshire Boulevard between Veteran Avenue and Gayley Avenue	Wilshire Boulevard, I-405
3	UCLA Gateway Plaza	Westwood Boulevard. Wilshire Boulevard, I-405
4	Commercial property on southwest corner of Sepulveda Boulevard and Dickens Street	Dickens Street, Sepulveda Boulevard, I-405
5	West of Sepulveda Boulevard between US-101 and the Los Angeles River	Sepulveda Boulevard, I-405
6	Property on the west side of Sepulveda Boulevard between Sherman Way and Gault Street	Sepulveda Boulevard, Sherman Way, I-405
7	Industrial property on both sides of Raymer Street, west of Burnet Avenue	Raymer Street, Sepulveda Boulevard, Roscoe Boulevard, I-405
8	South of the LOSSAN rail corridor east of Van Nuys Metrolink Station, west of Woodman Avenue	Woodman Avenue, Sherman Way, and I-405 or SR-170
Off-Site Construction Staging Areas		
S1	East of Santa Monica Airport Runway	Bundy Drive, I-10, I-405
S2	Ralphs Parking Lot in Westwood Village	Le Conte Avenue, Westwood Boulevard, Wilshire Boulevard, I-405
N1	West of Sepulveda Basin Sports Complex, south of the Los Angeles River	Orange Line Busway, White Oak Avenue, US-101
N2	West of Sepulveda Basin Sports Complex, north of the Los Angeles River	Orange Line Busway, Balboa Boulevard, Victory Boulevard, I-405
N3	Metro G Line Sepulveda Station Park and Ride Lot	Erwin Street, Sepulveda Boulevard, Victory Boulevard, Haskell Avenue, I-405
N4	North of Roscoe Boulevard and Hayvenhurst Avenue	Hayvenhurst Avenue, Roscoe Boulevard, I-405
N5	LADWP Property south of the LOSSAN rail corridor, east of Van Nuys Metrolink Station	Hazeltine Avenue, Sherman Way, and I-405 or SR-170

Source: STCP, 2024; HTA, 2024

Truck movement near Staging Area No. 5 has the potential to temporarily impact pick-up and drop-off at the nearby Ivy Bound Sherman Oaks Charter School, which is expected to remain open during project construction. Although temporary, the potential disruptions to the Ivy Bound Sherman Oaks Charter School under Alternative 5 is considered a potentially significant impact due to construction vehicle operations near pick-up and drop-off areas. Implementation of MM TRA-8 — to prohibit trucks or other construction vehicles from operating or parking on Morrison Street during school pick-up and drop-off times — would reduce impacts to less than significant during construction of Alternative 5.

Underground station construction at Santa Monica Boulevard and Metro D Line Stations would result in temporary lane closures to through traffic on Gayley Avenue for the duration of station box excavation and other construction activities. Deliveries to businesses along Santa Monica Boulevard near South Bentley Avenue would be affected during project construction if access is unable to be maintained during construction. Therefore, potential disruption of delivery access to these properties is considered a potentially significant impact. Implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction (such as establishing detour routes and coordinating with local business owners to maintain customer and delivery access) — would minimize temporary impacts to delivery access. Therefore, construction of Alternative 5 is considered a less than significant impact related to a conflict with a program, plan, ordinance, for policy on roadway facilities.

Bicycle and Pedestrian Circulation

Alternative 5 would require temporary roadway detours at proposed underground stations during cut-and-cover activities. Street detours would be concentrated at areas surrounding proposed underground station boxes that would require cut-and-cover construction. Street detours would disrupt bicycle and pedestrian circulation. The underground guideway would be constructed using a tunnel boring machine (TBM); therefore, construction of the guideway would not disrupt bicycle or pedestrian circulation.

Although temporary, the potential disruptions to bicycle and pedestrian circulation would result in a potentially significant impact during project construction. In addition to compliance with all local, state, and federal standards on construction, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction (such as establishing detour routes, informing the traveling public, and coordinating with local business owners to maintain customer and delivery access) — would minimize temporary impacts due to traffic control measures. Alternative 5 detour routes would be identified in the TMP, and bicyclists and pedestrians would be informed of such closures and detours through signage and online postings that would be consistent with Policy 1.6 from *Mobility Plan 2035* that states, “Design detour facilities to provide safe passage for all modes of travel during construction” (DCP, 2016). Therefore, implementation of MM TRA-4 would reduce impacts to less than significant during construction of Alternative 5.

Maintenance and Storage Facilities

The MSF for Alternative 5 would be located on a contiguous parcel east of the Van Nuys Metrolink/Amtrak Station and bounded by the LOSSAN rail corridor to the north, Woodman Place to the south, the property lines extending north of Hazeltine Avenue to the east, and Woodman Avenue to the west. Construction of the MSF would not conflict with a program, plan, ordinance, or policy addressing the circulation system; therefore, no impacts would occur.

8.2.14.2 Impact TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Construction of Alternative 5 would temporarily generate additional VMT related to construction workers commuting to the construction site, construction work activities, construction labor trips, and the transport of excavated materials, construction equipment, and supplies. This additional VMT would terminate upon completion of construction and would not be in effect during operation of Alternative 5. The temporary nature of construction-related VMT and construction-related traffic circulation changes (e.g., detours) would generally be localized to the work areas and construction staging locations listed in Table 8-29.

In addition, there would be minor impacts to traffic operations associated with construction staging areas and haul routes. Vehicles and trucks related to construction activities entering and exiting these areas would increase traffic and VMT on local streets. All construction trucks would use designated haul routes, as listed in Table 8-15, to access the regional freeway system. The construction-related traffic volumes would be minimal compared to overall background traffic volumes, and generally would occur during the off-peak periods when volumes and congestion are lower. Increased traffic generated by construction-related vehicle operations would be temporary in nature. As a result, construction would not result in a substantial or long-term change in regional travel patterns related to VMT and is considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic. Therefore, construction of Alternative 5 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and is considered a less than significant impact

Maintenance and Storage Facilities

Construction of the MSF would result in a minor increase in traffic volumes as construction vehicles enter and exit the site. Construction vehicles entering and exiting the construction site would temporarily increase VMT on local streets. The construction-related traffic volumes would be minimal compared to overall background traffic volumes, and generally would occur during the off-peak periods when volumes and congestion are lower. Increased traffic generated by construction-related vehicle operations would be temporary in nature. As a result, construction-related traffic would not result in a substantial or long-term change in regional travel patterns related to VMT and is considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic. Therefore, construction of the MSF for Alternative 5 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and is considered a less than significant impact.

8.2.14.3 Impact TRA-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?

Temporary modifications of existing transportation facilities under Alternative 5 would include full or partial road closures, lane reductions or modifications, and detour routes. Construction of Alternative 5 would include temporary modifications to segments of Bentley Avenue, Wilshire Boulevard, Gayley Avenue, Lindbrook Drive, and Westwood Plaza on the Westside, and Saugus Avenue, Dickens Street, Sepulveda Boulevard, G Line Busway, Raymer Street, and Van Nuys Boulevard in the San Fernando Valley. Construction worksites would be fenced, and lane closures and associated lane tapers,

temporary advance warning signs, detour signs, etc., would be implemented in accordance with OSHA, Cal/OSHA, and the CA MUTCD standards to ensure that no significant geometric design hazards or incompatible uses are introduced during construction. Safety for pedestrians, bicyclists, and motorists would be maintained during construction using signage, partial lane closures, construction barriers, and supervision by safety and security personnel at access points and throughout construction sites. Traffic control measures necessary to complete construction of Alternative 5 would be temporary in nature and are considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic control measures and would ensure hazards are not introduced during construction. Therefore, construction of Alternative 5 would not substantially increase hazards due to a geometric design feature or incompatible use and is considered a less than significant impact.

Maintenance and Storage Facilities

Construction of the MSF may include construction staging, materials stockpiling, hauling of dirt and materials, temporary lane reductions, and use of temporary easements. Construction activities would meet all relevant and applicable safety standards, including OSHA, Cal/OSHA, and CA MUTCD (Caltrans, 2024) standards to ensure that no significant geometric design hazards or incompatible uses are introduced during construction. Thus, construction of the MSF would not result in an increase in hazards or incompatible uses due to a design feature. Therefore, construction of the MSF for Alternative 5 would result in no impact.

8.2.14.4 Impact TRA-4: Would the project result in inadequate emergency access?

Project construction would include temporary lane reductions, road closures, and detours that would affect local roadways. As a result, traffic congestion associated with temporary traffic control measures could result in delayed emergency response times or limited access by emergency services. Traffic control measures necessary to complete construction of Alternative 5 would be temporary in nature and are considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 would require coordination with first responders during final design to further reduce temporary impacts on emergency access. Therefore, construction of Alternative 5 is considered to have a less than significant impact on emergency access.

Maintenance and Storage Facilities

Construction of the MSF would result in temporary impacts to traffic operations due to a minor increase in traffic volumes as construction vehicles enter and exit the site. Traffic control measures necessary to complete construction of the MSF would be temporary in nature and are considered a less than significant impact. In accordance with standard Metro practice, implementation of MM TRA-4 would ensure adequate emergency access is maintained within and surrounding the site during construction to further reduce temporary impacts. Therefore, construction of the MSF for Alternative 5 is considered a less than significant impact.

8.2.14.5 Mitigation Measures

Construction Impacts

MM TRA-4: *The project contractor shall prepare a Transportation Management Plan to facilitate the flow of traffic and transit service in and around construction zones. The Transportation Management Plan shall include, at a minimum, the following measures:*

- *Where feasible, schedule construction-related travel (i.e., deliveries, hauling, and worker trips) during off-peak hours and maintain two-way traffic circulation along affected roadways during peak hours. Avoid the closure of two major adjacent streets where feasible.*
- *Designated routes for project haul trucks shall primarily utilize the I-405, I-10, and US-101 corridors. Throughout the construction process, these routes shall be coordinated with the City of Los Angeles and U.S. Department of Veterans Affairs to ensure consistency with land use and mobility plans. Additionally, the routes shall be situated to minimize noise, vibration, and other possible impacts.*
- *Develop detour routes to facilitate traffic movement through construction zones without significantly increasing cut-through traffic in adjacent residential areas.*
- *Where construction encroaches on the Los Angeles-San Diego-San Luis Obispo rail corridor right-of-way, coordinate construction activities with Union Pacific, Metrolink, and Amtrak to limit disruptions to service and coordinate on outreach to inform passengers of service impacts. Provide temporary parking and drop-off facilities at the Van Nuys Metrolink/Amtrak Station to minimize passenger impacts.*
- *Develop and implement an outreach program and public awareness campaign in coordination with Caltrans, the City of Los Angeles, the City of Santa Monica, and the County of Los Angeles to inform the general public about the construction process and planned roadway closures, potential impacts, and mitigation measures, including temporary bus stop relocation.*
- *Where feasible, temporarily restripe roadways to maximize the vehicular capacity at locations affected by construction closures.*
- *Provide wayfinding signage, lighting, and access to specify pedestrian safety amenities (such as handrails, fences, and alternative walkways) during construction.*
- *Where construction encroaches on pedestrian facilities, special pedestrian safety measures shall be used, such as detour routes and temporary pedestrian barricades.*
- *Where construction encroaches onto the University of California, Los Angeles campus, the project contractor shall ensure that access to campus buildings is maintained through temporary decking and the construction of temporary stairs and ramps.*
- *During final design, the project contractor shall coordinate with Metro Operations to minimize construction impacts on existing Metro rail operations in and around existing stations. Where construction results in the interruption of Metro rail operations, buses shall provide temporary service between rail stations.*
- *Provide on-street bicycle detour routes and signage to address temporary effects to bicycle circulation and minimize inconvenience (e.g., lengthy detours) as to minimize users potentially choosing less safe routes if substantially rerouted.*

- *During final design, the project contractor shall coordinate with first responders and emergency service providers to minimize impacts on emergency response. Coordination efforts shall include the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing.*
- *Maintain customer and delivery access to all operating businesses near construction work areas. Access shall be maintained to allow for reasonable business operations, including clear signage for alternate routes, temporary driveways, or entry points as necessary. Coordination with businesses shall be conducted to address specific access needs and limit disruptions, ensuring that any restrictions are communicated in advance and alternative arrangements are provided as appropriate.*

MM TRA-5: *Where construction results in the interruption of Metro rail operations, the Project shall provide temporary bus service at rail stations taken out of passenger service. Temporary bus service may consist of either dedicated bus shuttles or extensions of other Metro bus service. Temporary bus service during closures of the Metro D Line Westwood/UCLA Station and/or Metro D Line Westwood/VA Hospital Station shall operate on Bonsall Avenue, Wilshire Boulevard, Santa Monica Boulevard, Century Park East, Avenue of the Stars, Century Park West, and/or Constellation Drive.*

MM TRA-8: *To maintain safe and convenient access to the Ivy Bound Sherman Oaks Charter School, the project contractor shall not operate or park large trucks or other construction vehicles on Morrison Street between 6:30am and 9:00am or 1:30pm and 4:00pm on school days, or at such other times that the school informs the contractor that a large amount of student pick-up or drop-off activity will occur.*

Impacts After Mitigation

Construction of Alternative 5 would result in a potentially significant impact under Impact TRA-1 due to temporary traffic control measures, rail service interruptions during station improvements, and sidewalk closures. Implementation of MM TRA-4 would reduce impacts to less than significant by requiring a TMP to minimize temporary disruptions associated with construction activities. Implementation of MM TRA-5 would reduce this impact to less than significant by providing temporary bus service at rail stations taken out of passenger service during construction.

Construction of Alternative 5 would result in a potentially significant impact under Impact TRA-1 due to truck movement near Staging Area No. 5. Construction truck movement surrounding Staging Area No. 5 has the potential to temporarily impact pick-up and drop-off at the nearby Ivy Bound Sherman Oaks Charter School, which is expected to remain open during project construction. The potential disruptions to the Ivy Bound Sherman Oaks Charter School under Alternative 5 is considered a potentially significant impact due to construction vehicle operations near pick-up and drop-off areas. Implementation of MM TRA-8 — to prohibit trucks or other construction vehicles from operating or parking on Morrison Street during school pick-up and drop-off times — would reduce impacts to less than significant during construction of Alternative 5.

8.2.15 Cultural Resources and Tribal Cultural Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-30.

Table 8-30. Alternative 5: Cultural Resources and Tribal Cultural Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 5
Cultural Resources and Tribal Cultural Resources Construction Impacts		
Impact CUL-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM CUL-1 MM CUL-4 MM CUL-5
	Impacts After Mitigation	LTS
Impact CUL-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM CUL-1 MM CUL-6 MM CUL-7
	Impacts After Mitigation	LTS
Impact CUL-3: Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM CUL-8
	Impacts After Mitigation	LTS
Impact TCR-1: Would the project cause a substantial adverse change in the significance of a TCR, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TCR-1, MM TCR-2
	Impacts After Mitigation	LTS

Source: Metro, 2025n

CUL = cultural resources
LTS = less than significant
MM = mitigation measure
PS = potentially significant
TCR = tribal cultural resources

8.2.15.1 Impact CUL-1: Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Project activities during construction of the alignment would include property acquisitions and new construction of permanent project features. Potential construction impacts on historical resources would be direct and indirect (i.e., visual, audible, or atmospheric intrusions) and related to the construction of new infrastructure that would demolish and/or alter historical resources and/or their immediate surroundings. Historical resources are identified by Map Reference numbers corresponding to the maps included in an appendix to the *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n).

Alternative 5 Historical Resources – Significant and Less than Significant Impacts

Construction of Alternative 5 would result in less than significant impact to 9 resources (Table 8-31) with further discussion on their analysis in the *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n).

Table 8-31. Alternative 5: Historical Resources – Less Than Significant Impacts

Map Reference #	Resource Name	Location
1	13912 Saticoy Street	13912 Saticoy Street
2	13914 Saticoy Street	13914 Saticoy Street
3	13938 Saticoy Street	13938 Saticoy Street
4	13942 Saticoy Street	13942 Saticoy Street
5	Southern Pacific Railroad Warehouse	7766 Van Nyus Boulevard
6	14704 Raymer Street	14704 Raymer Street
34	15250 Ventura Boulevard	15250 Ventura Boulevard
37	15224 Dickens Street	15224 Dickens Street
73	UCLA Ackerman Hall	308 Westwood Plaza

Source: Metro, 2025n

Alternative 5 Historical Resources – Significant Impacts

14746 Raymer Street (Map Reference #7)

The property at 14746 Raymer Street is a large industrial building constructed in 1967. It is significant for its Modern design.

Under Alternative 5, the proposed aerial guideway would be constructed approximately 40 feet from the north elevation of the building. The aerial structure would cross Raymer Street, and the building itself would not be physically demolished, destroyed, relocated, or altered. The historical resource's setting is industrial, and the north elevation's current viewshed includes Raymer Street and the existing SPRR alignment. The proposed aerial structure would generally follow existing transportation corridors and would not limit views of the resource. The proposed aerial structure would introduce a new visual element but would not change the historic character of the building. The alteration of the setting with the new visual element of the aerial structure would not materially impair its significance.

However, construction of the guideway and roadway improvements, as well as the use of pile driving at this location, has the potential to cause construction vibration adjacent to the building that could impact the historical resource. The construction activities adjacent to the resource also has the potential to inadvertently impact character defining features (e.g., design elements, fenestration, architectural details) and landscape elements if protection measures are not put in place. This would be a significant impact.

Implementation of MM CUL-1 would reduce this potentially significant impact to a less than significant level by establishing protective measures, requiring pre-construction assessments, implementing vibration-reducing construction techniques, and ensuring continuous monitoring to prevent damage to character-defining features of the historical resource.

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Sherman Way Street Trees (Map Reference #12)

The Sherman Way Street Trees are a linear historical resource. They are significant for their association with the street planting plan for Sherman Way, which was paved between 1911 and 1913. Sherman Way was a major streetcar and automobile route that was the main corridor from central Los Angeles to Van Nuys.

Under Alternative 5, the proposed underground Sherman Way Station would be constructed within the boundary of the linear historical resource. The proposed underground station with an aboveground station portal would introduce a new visual element but would not change the defining characteristics of this resource, such as its linear alignment, continuity, or the presence of the street trees along the corridor. The overall historic character and visual aesthetic of the linear resource would be preserved and its ability to convey its historical significance would not be materially impaired.

However, excavation of the station box and construction staging areas has the potential to alter or destroy existing contributing street trees associated with the historical resource at this location if protection measures are not put in place. This would be a significant impact. Implementation of MM CUL-1 would reduce this potentially significant impact to a less than significant level by ensuring the protection of contributing street trees through pre-construction assessments, monitoring, and protective measures that preserve the historical integrity of the resource.

Van Nuys Boulevard Street Trees (Map Reference #14)

The Van Nuys Boulevard Street Trees are a linear historical resource. They are significant for their association with the street planting plan for Sherman Way, which was paved between 1911 and 1913. Sherman Way, parts of which were renamed Van Nuys Boulevard and Chandler Boulevard, was the main automobile and streetcar corridor from central Los Angeles to Van Nuys.

Under Alternative 5, the proposed aerial Van Nuys Metrolink Station would be constructed within the boundary of the linear historical resource. The proposed aerial station would introduce a new visual element into the resource's setting. However, the linear resource's key defining characteristics, including its alignment, continuity, and relationship to its surroundings would remain intact. The resource's visual presence as a continuous linear corridor would remain discernible, and its historical association with transportation infrastructure would not be materially impaired.

However, construction of the alignment, station, and construction staging areas has the potential to alter or destroy existing contributing street trees associated with the historical resource at this location if protection measures are not put in place. This would be a significant impact. Implementation of MM CUL-1 would reduce this potentially significant impact to a less than significant level by ensuring the protection of contributing street trees through pre-construction assessments, monitoring, and protective measures that preserve the historical integrity of the resource.

Lt. Patrick H. Daniels United States Army Reserve Center (Map Reference #25)

The Lt. Patrick H. Daniels United States Army Reserve Center at 5161 Sepulveda Boulevard is a governmental property constructed in 1959. It is significant for its association with the Army Reserves in Los Angeles during the Vietnam War and for its Modern design.

Under Alternative 5, the building would not be physically demolished, destroyed, relocated, or altered. However, construction of the alignment and roadway improvements, as well as the potential use of pile driving at this location, has the potential to cause construction vibration adjacent that could impact the historical resource. The construction activities adjacent to the resource also have the potential to inadvertently impact character-defining features (e.g., design elements, fenestration, architectural

details) and landscape elements if protection measures are not put in place. This would be a significant impact. Implementation of MM CUL-1 would reduce this potentially significant impact to a less than significant level by establishing protective measures, requiring pre-construction assessments, implementing vibration-reducing construction techniques, and ensuring continuous monitoring to prevent damage to character-defining features of the historical resource.

4506 Saugus Avenue (Map Reference #36)

The multiple family building at 4506 Saugus Avenue is eligible for listing in the NRHP and CRHR under Criterion C/3 for its Contemporary design.

Under Alternative 5, the proposed underground Ventura Boulevard/Sepulveda Boulevard Station would be constructed approximately 35 to 40 feet from the west elevation of the building. The proposed underground station and entrances would introduce a new visual element but would not change the historic character of the resource. The alteration of the setting with the new visual element of the underground structure would not materially impair its ability to convey its significance. The proposed station adjacent to the building would introduce new visual, audible, and atmospheric elements within the building's immediate surroundings. Although the proposed elements would introduce permanent visual elements to the west of the building, these elements would not block significant views of the historical resource. The existing setting would be left largely intact. Because the setting of the building is already compromised by modern development and activities, the significance of the historical resource would not be materially impaired.

However, construction of the station and roadway improvements, as well as the use of pile driving at this location, has the potential to cause construction vibration adjacent to the building that could impact the historical resource. The construction activities adjacent to the resource also has the potential to inadvertently impact character-defining features (e.g., design elements, fenestration, architectural details) and landscape elements if protection measures are not put in place. This would be a significant impact. Implementation of MM CUL-1 would reduce this potentially significant impact to a less than significant level by establishing protective measures, requiring pre-construction assessments, implementing vibration-reducing construction techniques, and ensuring continuous monitoring to prevent damage to character-defining features of the historical resource.

UCLA Ackerman Hall (Map Reference #73)

The UCLA Ackerman Hall building is a multiple-story education property that is significant for its association with the history of UCLA and for its 1961 Modern design.

Under Alternative 5, the proposed underground UCLA Gateway Plaza Station and roadway improvements would be constructed approximately 30 feet west of the resource. The construction would include excavation of the station box, building construction, roadway restriping, curb-and-gutter/sidewalk reconstruction, roadway improvements, and lighting and traffic signal modifications. The building would not be physically demolished, destroyed, relocated, or altered. The proposed station portal adjacent to the building would introduce new visual, audible, and atmospheric elements within the building's immediate surroundings. Although the proposed elements would introduce permanent visual elements adjacent to the building, they would not block significant views of the historical resource, would be smaller scale in nature compared to the proposed station, and the building would not be obscured from view. Further, existing trees and vegetation between the proposed station and the building itself would be left intact and the building's key vantage points would be preserved. The existing setting would be left largely intact. Because the setting of the building is already

compromised by modern development and activities, the significance of the historical resource would not be materially impaired.

However, construction of the station and roadway improvements has the potential to cause construction vibration that could impact the historical resource. The construction activities adjacent to this resource also has the potential to inadvertently impact character-defining features (e.g., design elements, fenestration, architectural details) and landscape elements if protection measures are not put in place. This would be a significant impact. Implementation of MM CUL-1 would reduce this potentially significant impact to a less than significant level by establishing protective measures, requiring pre-construction assessments, implementing vibration-reducing construction techniques, and ensuring continuous monitoring to prevent damage to character-defining features of the historical resource.

Gayley Center (Map Reference #103)

The Gayley Center located at 1101 Gayley Avenue is a larger commercial property. It is significant for its Late Modern commercial architecture and as work of noted architects Krisel Shapiro & Associates.

Under Alternative 5, the proposed Wilshire Boulevard/Metro D Line Station would be constructed approximately 50 feet east from the west elevation of the building. The station would be underground, and the Gayley Center would not be physically demolished, destroyed, relocated, or altered. The historical resource's setting is commercial, and the west elevation's current viewshed includes the commercial corridors along Gayley Avenue. Due to the underground nature of the proposed improvements, no permanent visual impacts on this historical resource or its setting are anticipated from the addition of the station or the underground alignment.

However, construction of the station and construction staging areas have the potential to cause construction vibration that could impact the historical resource. The construction activities adjacent to the resource also has the potential to inadvertently impact character defining features (e.g., design elements, fenestration, architectural details) and landscape elements if protection measures are not put in place. This would be a significant impact. Implementation of MM CUL-1 would reduce this potentially significant impact to a less than significant level by establishing protective measures, requiring pre-construction assessments, implementing vibration-reducing construction techniques, and ensuring continuous monitoring to prevent damage to character-defining features of the historical resource.

Linde Medical Building (Map Reference #104/105)

The Linde Medical Building located at 10921 Wilshire Boulevard is a large commercial property. It is significant for its 1962 International style design.

As designed, affected portions of the property entrance will be restored in accordance with the California Historical Building Code and all applicable requirements. Under Alternative 5, the proposed Wilshire Boulevard/Metro D Line Station would be constructed adjacent to the west elevation of the building. The station would be underground, and the Linde Medical Building tower would not be physically demolished, destroyed, relocated, or altered. The historical resource's setting is commercial, and the west elevation's current viewshed includes the commercial corridors along Gayley Avenue and Wilshire Boulevard. Due to the underground nature of the proposed improvements, no permanent visual impacts on this historical resource or its setting are anticipated from the addition of the station or the underground alignment.

However, construction of the station and construction staging areas have the potential to cause construction vibration that could impact the historical resource. The construction adjacent to the resource also has the potential to inadvertently impact character defining features (e.g., design

elements, fenestration, architectural details) and landscape elements if protection measures are not put in place. This would be a significant impact. Implementation of MM CUL-1 would reduce this potentially significant impact to a less than significant level by establishing protective measures, requiring pre-construction assessments, implementing vibration-reducing construction techniques, and ensuring continuous monitoring to prevent damage to character-defining features of the historical resource.

Tishman Building (Map Reference #106)

The Tishman Building located at 10950 West Wilshire Boulevard is a large commercial property. It is significant for its Corporate Modern high-rise architecture and as the work of master architect Welton Becket.

Under Alternative 5, the proposed Wilshire Boulevard/Metro D Line Station would be constructed approximately 60 feet north from the north elevation of the building. The station would be underground, and the Tishman Building would not be physically demolished, destroyed, relocated, or altered. The historical resource's setting is commercial, and the west elevation's current viewshed includes the commercial corridors along Wilshire Boulevard. Due to the underground nature of the proposed improvements, no permanent visual impacts on this historical resource or its setting are anticipated from the addition of the station or the underground alignment.

However, construction of the station and construction staging areas have the potential to cause construction vibration that could impact the historical resource. The construction activities adjacent to the resource also has the potential to inadvertently impact character-defining features (e.g., design elements, fenestration, architectural details) and landscape elements if protection measures are not put in place. This would be a significant impact. Implementation of MM CUL-1 would reduce this potentially significant impact to a less than significant level by establishing protective measures, requiring pre-construction assessments, implementing vibration-reducing construction techniques, and ensuring continuous monitoring to prevent damage to character-defining features of the historical resource.

Alternative 5 Historical Resources – No Impact

Construction of Alternative 5 would result in no impact to 32 resources (Table 8-32). These historical resources would not be physically demolished, destroyed, relocated, or altered. Due to the underground nature of the improvements, no permanent visual impacts on these historical resources or their setting is anticipated from the addition of the underground alignment. These historical resources are either located within the underground portions of the alignment and are located a considerable distance from station locations, construction staging area, or TBM launch and extraction sites.

Table 8-32. Alternative 5: Historical Resources – No Impact

Map Reference #	Resource Name	Location
11	Air Raid Siren No. 110	Northeast corner of Covello Street and Sepulveda Boulevard
18	Air Raid Siren No. 117	South side of Oxnard Street, west of Sepulveda Boulevard
31/33	15300 Ventura Boulevard	15300 Ventura Boulevard
34	15250 Ventura Boulevard	15250 Ventura Boulevard
35	Da Siani Ristorante (Sherwood Coiffeurs)	4511 Sepulveda Boulevard
61	1711 North Stone Canyon Road	1711 North Stone Canyon Road
62	1780 North Stone Canyon Road	1780 North Stone Canyon Road
63	661 North Stone Canyon Road	661 North Stone Canyon Road
64	Miller Residence	10615 West Bellagio Road

Map Reference #	Resource Name	Location
65	Ethel Guiberson/Hannah Carter Japanese Garden	10619 West Bellagio Road
69	121 North Udine Way	121 North Udine Way
70	120 North Udine Way	120 North Udine Way
71	Marymount High School (Main Administration Building, including Chapel and Auditorium	10643-10685 Sunset Boulevard and 101-121 Marymount Place
72	UCLA Historic District	Encompasses the east-west axis of the campus and is bounded by Westwood Boulevard and Circle Drive
87	UCLA Veterans Rehabilitation Services	1000 Veteran Avenue
89	Campbell's Book Store	10918 Le Conte Avenue
90	Holmby Building	921 Westwood Boulevard
91	924 Westwood Boulevard	924 Westwood Boulevard
93	10940 Weyburn Avenue	10940 Weyburn Avenue
94	Chatam Restaurant	10930 Weyburn Avenue
95	Desmond's	1001 Westwood Boulevard
96	Bullock's Department Store	1000 S Westwood Boulevard
97	Kelly Music Building/Alice's Restaurant	1041 Westwood Boulevard
98	Penney's	1056 Westwood Boulevard
99	Janss Investment Company Building	1081 Westwood Boulevard
100	Glendale Federal Savings and Loan Association	1090 Westwood Boulevard
101	Westwood Village Streetlight	Westwood and Kinross, northwest corner, adjacent to Janss Investment Company Building
102	Bratskeller Egyptian Theater (Ralph's Grocery Store)	1142 Westwood Boulevard
109	LADWP Westwood Distribution Headquarters	1400 S Sepulveda Boulevard
110	1400 Greenfield Avenue	1400 Greenfield Avenue
112	1410 Camden Avenue	1410 Camden Avenue
129	2435 Military Avenue	2435 Military Avenue

Source: HTA, 2024

Maintenance and Storage Facilities

The Alternative 5 MSF has the potential to impact Map References #1, #2, #3, and #4 (industrial buildings on Saticoy Street). However, the MSF would not physically demolish, destroy, relocate, or alter any historical resources. The existing viewshed of these historical resources is commercial with modern development and this alteration of setting would not materially impair their significance. There would be no construction impacts to these historical resources associated with the MSF. Therefore, the MSF would result in a less than significant impact. No mitigation is required.

8.2.15.2 Impact CUL-2: Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

An assessment of archaeological sensitivity for the Archaeological RSA, as described in Section 10.2.4.2 of the *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical*

Report (Metro, 2025n), indicates construction activities associated with the Alternative 5 alignment would have low to moderate potential to encounter previously unidentified archaeological resources below ground surface. No portion of the Archaeological RSA was determined to have high potential because no intact significant archaeological resources have been identified within or directly adjacent to the Archaeological RSA. No prehistoric archaeological sites and only one historic-age archaeological site has been identified within or directly adjacent to the Archaeological RSA for Alternative 5. The one resource documented within the Archaeological RSA (P-19-003803) has been determined to no longer be present within the alignment and does not have potential to be impacted by construction of Alternative 5. However, the sediments present across the alignment consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits.

Locations considered to have low potential to encounter archaeological resources are those in older geologic deposits, such as where Alternative 5 components would be constructed at great depth, and those in areas with high levels of well-documented, previous subsurface ground disturbance. Locations considered to have moderate potential to encounter archaeological deposits are those in younger soils, such as Alternative 5 components constructed in shallower depths, and with low or unknown levels of previous disturbance. Proximity to previously recorded archaeological resources, important prehistoric resource areas, and water sources also increases sensitivity.

Archival research and field survey determined that one recorded historic-age resource (P-19-003803) was previously recorded in the Archaeological RSA but has likely been removed as a result of prior construction activity in the area. Archaeological resources of prehistoric and historic age have been documented in the Built Environment RSA and within a 0.5-mile radius of the Alternative 5 Archaeological RSA. They have often been encountered in the context of subsurface construction activity, indicating there is potential in the area to encounter additional resources in a similar manner. Activities during construction of the Alternative 5 alignment would include property acquisitions and new construction of permanent features.

Buried archaeological resources may exist within the Alternative 5 Archaeological RSA, and it is possible these resources could be unearthed during excavation activities. The proposed alignment for Alternative 5 is largely within the public ROW that has already been disturbed with utility and street construction, but those disturbances were relatively shallow. Locations considered to have low potential to encounter archaeological resources are those in older geologic deposits, such as tunnel locations where project components would be constructed at great depth. Shallow construction work associated with the Alternative 5 alignment would have limited potential to encounter intact archaeological resources. Other proposed construction activities, such as mass excavation required for new stations, HRT footings, at-grade alignment segments, TBM launch and extraction sites, and ancillary facilities with excavation depths greater than 5 feet, have the potential to encounter intact archaeological deposits below the shallow previous ground disturbance and are considered to have moderate archaeological sensitivity (see *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n).

Based on this analysis, construction of Alternative 5 has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to archaeological resources related to construction of the alignment alternative would be significant, and mitigation is required.

Maintenance and Storage Facilities

An assessment of archaeological sensitivity for the Archaeological RSA indicates construction activities associated with the Alternative 5 MSF would have moderate potential to encounter previously unidentified archaeological resources below ground surface. No prehistoric or historic-age archaeological sites have been identified within or adjacent to the Alternative 5 MSF; however, the sediments present in the area consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits. Construction activities with excavation depths greater than 5 feet have the potential to encounter intact archaeological deposits below the previous ground disturbance and are considered to have moderate archaeological sensitivity.

Construction of the Alternative 5 MSF has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to archaeological resources related to construction of the MSF would be significant, and mitigation is required.

8.2.15.3 Impact CUL-3: Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?

Potential construction impacts on human remains, including those interred outside of dedicated cemeteries, would be related to ground disturbing activities.

One known cemetery, the Los Angeles National Cemetery, is adjacent to the Alternative 5 Built Environment RSA. However, the probability of encountering human remains during construction is low because the Los Angeles National Cemetery is located outside of the proposed project alignment and no construction activities would occur within the cemetery grounds. While unlikely, because of the age of the cemetery and the documentation of at least one interment in the area prior to the official founding of the cemetery, there is potential for unmarked and forgotten graves to lie outside of the existing cemetery footprint.

At least two indigenous burials have been encountered within the previously recorded site of P-19-000382, an ethnohistoric village site located approximately 0.8 mile west of the Alternative 5 Archaeological RSA. The village site is not near the Alternative 5 Archaeological RSA but provides evidence that there is potential to encounter Native American human remains in the vicinity. While no evidence of human remains has been previously identified within the Alternative 5 alignment, unknown human burials may exist within the Alternative 5 Archaeological RSA, and it is possible these burials could be unearthed during excavation activities. Therefore, construction of Alternative 5 has the potential to cause a substantial adverse change to an unknown burial. Disturbance of unknown burial sites would result in a significant impact, and mitigation is required.

Maintenance and Storage Facilities

While no evidence of human remains has been previously identified within the construction area for the Alternative 5 MSF, burials have been identified in proximity to the Alternative 5 Archaeological RSA. Unknown human burials may exist within the MSF Project area, and it is possible these burials could be unearthed during project excavation activities. Therefore, construction of the Alternative 5 MSF has the potential to cause a substantial adverse change to an unknown burial. Disturbance of unknown burial sites would result in a significant impact, and mitigation is required.

8.2.15.4 Impact TCR-1: Would the Project cause a substantial adverse change in the significance of a TCR, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe?

Confidential information shared by tribal representatives and review of cultural resource management gray literature suggest a portion of the Alternative 5 Built Environment RSA may encompass a sacred location. Additionally, during AB 52 consultation and literature review, two landscape features, the Sepulveda Pass and the Los Angeles River, were identified as significant places important to tribal cultural heritage. As such, for the purposes of this analysis, the Sepulveda Pass and the Los Angeles River are being treated in a manner consistent with a TCR. Further, the presence of previously recorded archaeological sites with Native American components within 0.5 mile of the Tribal Cultural RSA and the presence of indigenous trails and important water resources in the vicinity suggest that buried TCRs may exist within the Alternative 5 Tribal Cultural RSA. One of these archaeological sites, P-19-000382d, is an ethnographic village where at least two indigenous burials have been encountered. It is possible that significant unknown TCRs could be unearthed during project excavation activities.

The proposed alignment for Alternative 5 is largely within the public ROW that has already been disturbed with utility and street construction, but those disturbances were relatively shallow. Locations considered to have low potential to encounter TCRs are those in older geologic deposits, such as tunnel locations where project components would be constructed at great depth. Shallow construction work, such as for the at-grade portions of the alignment, have limited potential to encounter intact TCR archaeological deposits or human remains due to prior disturbance, but other proposed construction activities, such as mass excavation required for new stations, HRT footings, TBM launch and extraction sites, at-grade alignment segments and ancillary facilities, have the potential to encounter deeper, intact archaeological deposits. Further, while an archaeologist may place greater importance on the intact nature of archaeological deposits, tribes may be concerned with the potential to identify and protect prehistoric resources, regardless of scientific value. Therefore, construction of the Alternative 5 alignment has the potential to cause a substantial adverse change in the significance of a TCR listed or eligible for listing in the CRHR or in a local register of historical resources. Impacts would be potentially significant.

Section 8.2.15.5 discusses the proposed mitigation measures, which require Native American monitoring during ground disturbance, work stoppage and consultation if Tribal Cultural Resources or human remains are encountered, and the implementation of protective measures to ensure culturally appropriate treatment and compliance with legal requirements. Additionally, MM CUL-1, MM-CUL-6, MM CUL-7, and MM CUL-8 would be implemented, which require construction personnel training on identifying and responding to cultural and Tribal Cultural Resources, archaeological monitoring in sensitive areas, work stoppage and treatment protocols for discovered artifacts, and procedures for the respectful handling of human remains in accordance with legal and tribal requirements. With implementation of MM TCR-1 and MM TCR-2, as well as MM CUL-1, MM CUL-6, MM CUL-7, and MM CUL-8, impacts on TCRs would be reduced to less than significant for Alternative 5.

Maintenance and Storage Facilities

An assessment of TCR sensitivity for the Tribal Cultural RSA indicates construction activities associated with the Alternative 5 MSF would have moderate potential to encounter previously unidentified TCRs below ground surface. No TCRs have been identified within the MSF Project area; however, the

sediments present in the area consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits and TCRs that could be impacted by ground disturbing activities.

Construction of the Alternative 5 MSF has the potential to cause a substantial adverse change in the significance of an TCR listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to TCRs related to construction of the alignment alternative would be significant, and mitigation is required. Section 8.2.15.5 discusses the proposed mitigation measures, which require Native American monitoring during ground disturbance, work stoppage and consultation if Tribal Cultural Resources or human remains are encountered, and the implementation of protective measures to ensure culturally appropriate treatment and compliance with legal requirements. Additionally, MM CUL-1, MM-CUL-6, MM CUL-7, and MM CUL-8 would be implemented, which require construction personnel training on identifying and responding to cultural and Tribal Cultural Resources, archaeological monitoring in sensitive areas, work stoppage and treatment protocols for discovered artifacts, and procedures for the respectful handling of human remains in accordance with legal and tribal requirements. With implementation of MM TCR-1 and MM TCR-2, as well as MM CUL-1, MM CUL-6, MM CUL-7, and MM CUL-8, impacts on TCRs would be reduced to less than significant for the Alternative 5 MSF.

8.2.15.5 Mitigation Measures

Construction Impacts

Under Alternative 5, there could be construction impacts to historical resources, archaeological resources, human remains, or TCRs during construction. Therefore, the following mitigation measures were developed. AB 52 Consultation is ongoing and any final mitigation measures for TCRs will be determined through consultation with tribes prior to the public review of the Draft Environmental Impact Report.

MM CUL-1: ***Cultural Resources Monitoring and Mitigation Plan.***

- *A project wide Cultural Resources Monitoring and Mitigation Plan shall be developed and implemented by Metro. The purpose of the Cultural Resources Monitoring and Mitigation Plan is to document the actions and procedures to be followed to ensure avoidance or minimization of impacts to cultural resources and to provide a detailed program of mitigation for direct and indirect impacts on cultural resources during Project construction. Preparation of the Cultural Resources Monitoring and Mitigation Plan shall necessitate the completion of a pedestrian survey of the private property parcels within the Resource Study Areas that were not accessible during the preparation of this EIR and the Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report; this shall occur only on parcels slated for acquisition and construction activities. Proposed ground disturbance for the Project shall be reviewed to make any necessary adjustments to archaeological sensitivity assessments as a result of ongoing project design.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include a detailed prehistoric and historic context that clearly demonstrates the themes under which any identified subsurface deposits would be determined significant. Should significant deposits be identified during earth moving activities, the Cultural Resources Monitoring and Mitigation Plan shall address methods for evaluation,*

treatment, artifact analysis for anticipated artifact types, report writing, repatriation of human remains and associated grave goods, and curation.

- *The Cultural Resources Monitoring and Mitigation Plan will be a guide for archaeological and tribal monitoring activities as defined in MM CUL 7 and MM TCR 1. The Cultural Resources Monitoring and Mitigation Plan shall require that a Secretary of the Interior-qualified archaeologist in prehistoric and historical archaeology (36 Code of Federal Regulations Part 61) be retained prior to ground disturbing activities.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include recommended treatment measures. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include that, in the event, as a result of the resource evaluation and tribal consultation process, a resource is considered to be eligible for inclusion in the California Register of Historical Resources and/or a local register of historical resources or is determined to be a Tribal Cultural Resources through eligibility listing or determination of significance by the California Environmental Quality Act lead agency (Metro), an archaeological monitor and Native American monitor shall monitor all remaining ground disturbing activities in the area of the resource. If, during cultural resources monitoring, the Secretary of the Interior-qualified archaeologist determines that the sediments being excavated are previously disturbed or unlikely to contain significant cultural materials, the Secretary of the Interior qualified archaeologist can specify that monitoring be reduced or eliminated.*
- *The Cultural Resources Monitoring and Mitigation Plan shall outline the content and process for implementing pre-construction Cultural Resource training, as discussed in MM CUL 6.*
- *The Cultural Resources Monitoring and Mitigation Plan shall require a pre-construction baseline survey to identify building protection measures for historical resources in relation to tunnel boring machine launch/tunnel boring machine extraction, construction staging, and construction vibration and cut and cover activities adjacent to historical resources. The Project shall conduct a pre-construction survey to establish baseline, pre-construction conditions and to assess the potential for damage related to improvements adjacent to these historical resources.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include building protection measures such as fencing, sensitive construction techniques based on final project design, dust control measures, underpinning, soil grouting, or other forms of ground improvement, as well as lower vibration equipment and/or construction techniques. (Refer to vibration mitigation measures in the Sepulveda Transit Corridor Project Noise and Vibration Technical Report for more information.) In scenarios where a historical resource would be impacted by*

differential settlement caused by tunnel boring machine construction method, the Project shall require the use of an earth pressure balance or slurry shield tunnel boring machine, as deemed appropriate in consultation with Metro's tunneling panel. An architectural historian or historic architect who meets the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61) shall review proposed protection measures.

- *The Cultural Resources Monitoring and Mitigation Plan shall require that a post construction survey be undertaken to ensure that no significant impacts had occurred to historical resources. An architectural historian or historic architect who meets the Secretary of Interior Professional Qualification Standards (36 CFR Part 61) shall prepare an assessment of the implementation of the mitigation measures.*
- *MM CUL-1 applies to the following historical resources:*
  - *Sherman Way Street Trees*
  - *Van Nuys Boulevard Street Trees*
  - *Air Raid Siren No. 110*
  - *Air Raid Siren No. 117*
  - *Lt. Patrick H. Daniels United States Army Reserve Center*
  - *4506 Saugus Avenue*
  - *UCLA Ackerman Hall*
  - *Linde Medical Building*
  - *Tishman Building*
  - *14746 Raymer Street*
  - *Gayley Center*

MM CUL-6: Cultural Resource Training

- *Prior to any ground disturbing activities, all construction personnel involved in ground disturbing activities shall be provided with appropriate cultural and Tribal Cultural Resources training in accordance with the Cultural Resources Monitoring and Mitigation Plan detailed in MM CUL 1.*
- *The training shall be prepared by an Secretary of the Interior qualified archaeologist to instruct the personnel regarding the legal framework protecting cultural resources and Tribal Cultural Resources, typical kinds of cultural resources and Tribal Cultural Resources that may be found during construction, artifacts that would be considered potentially significant, and proper procedures and notifications if cultural resources and/or Tribal Cultural Resources are discovered. The training shall be presented by, or under the supervision of, an Secretary of the Interior qualified archaeologist, who shall review types of cultural resources and artifacts that would be considered potentially significant to support operator recognition of these materials during construction. Contingent upon the results of Assembly Bill (AB) 52 consultation, Native American representatives shall be solicited to attend the Worker Environmental Awareness Program training and contribute to the course material to provide*

guidance on tribal perspectives on working in areas sensitive for Tribal Cultural Resources.

MM CUL-7: Archaeological Monitoring

- *Project related ground disturbing activities conducted in locations determined to have moderate to high archaeological sensitivity, or other locations determined appropriate through Assembly Bill 52 consultation, shall be monitored by, or under the supervision of, a Secretary of the Interior qualified archaeologist, in accordance with the Cultural Resources Monitoring and Mitigation Plan detailed in MM CUL 1. If monitoring does not reveal any archaeological artifacts, then there would be no impact to archaeological resources. If archaeological artifacts are discovered, then work shall be halted in the immediate vicinity of the find, and a Secretary of the Interior-qualified archaeologist shall assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation.*

MM CUL-8: Unanticipated Discovery of Human Remains

- *If human remains are discovered, work in the immediate vicinity of the discovery shall be suspended and the Los Angeles County Coroner shall be contacted immediately. If the remains are deemed Native American in origin, the coroner shall contact the State of California Native American Heritage Commission and identify a Most Likely Descendant pursuant to Public Resource Code Section 5097.98 and California Code of Regulations Section 15064.5. The Most Likely Descendants (MLDs) may inspect the site within 48 hours of being notified and may issue recommendations for scientific removal and nondestructive analysis. If the Most Likely Descendant fails to make recommendations, then Metro and/or the landowner may rebury the remains in a location not subject to further disturbance, at their discretion. Work may be resumed at Metro's discretion but shall commence only after consultation and treatment have been concluded. Work may continue on other parts of the Project while consultation and treatment are conducted.*

MM TCR-1: Native American Monitoring

- *Project-related ground-disturbing activities conducted in locations determined to have moderate to high archaeological sensitivity, or other locations determined appropriate through Assembly Bill 52 consultation, shall be monitored by a Native American representative from a consulting tribe, in accordance with the Cultural Resources Monitoring and Mitigation Plan detailed in MM CUL-1. The tribal monitor shall be qualified by his or her tribe to monitor Tribal Cultural Resources.*
- *In the event that an archaeological resource discovered during project construction is determined to be potentially of Native American origin based on the initial assessment of the find by a Secretary of the Interior-qualified archaeologist pursuant to California Public Resource Code Section 21083.2(i), the*

Native American tribes that consulted on the Project pursuant to Assembly Bill 52 shall be notified. Those tribes shall also be provided information about the find to allow for early input from the tribal representatives with regard to the potential significance and treatment of the resource. Resources shall be treated with culturally appropriate dignity, taking into consideration the tribal cultural values and meaning of the resource.

- *If, as a result of the resource evaluation and tribal consultation process, the resource is considered to be a Tribal Cultural Resource and determined, in accordance with California Public Resource Code Section 21074, to be eligible for inclusion in the California Register of Historical Resources or a local register of historical resources or is determined to be significant by the California Environmental Quality Act lead agency (Metro), the qualified archaeologist and Native American monitor shall monitor all remaining ground-disturbing activities in the area of the resource. The input of all consulting tribes shall be considered in the preparation of any required treatment plan activities prepared by the qualified archaeologist for any Tribal Cultural Resources identified during the project construction as required in the Cultural Resources Monitoring and Mitigation Plan (MM CUL-1).*
- *Work in the area of the discovery may not resume until evaluation and treatment of the resource is completed and/or the resource is recovered and removed from the site. Construction activities may continue on other parts of the construction site while evaluation and treatment of the resource takes place.*

MM TCR-2: Unanticipated Discovery of Human Remains

- *If human remains are discovered, work in the immediate vicinity of the discovery shall be suspended and the Los Angeles County Coroner shall be contacted immediately. If the remains are deemed Native American in origin, the coroner shall contact the State of California Native American Heritage Commission and identify a Most Likely Descendant pursuant to Public Resource Code Section 5097.98 and California Code of Regulations Section 15064.5. The Most Likely Descendants (MLDs) may inspect the site within 48 hours of being notified and may issue recommendations for scientific removal and nondestructive analysis. If the Most Likely Descendant fails to make recommendations, then Metro and/or the landowner may rebury the remains in a location not subject to further disturbance, at their discretion. Work may be resumed at Metro's discretion but shall commence only after consultation and treatment have been concluded. Work may continue on other parts of the Project while consultation and treatment are conducted.*

Impacts After Mitigation

After implementation of mitigation measures, Alternative 5 would result in less than significant impacts with mitigation on the following historical resources:

- Sherman Way Street Trees
- Van Nuys Boulevard Street Trees
- Lt. Patrick H. Daniels United States Army Reserve Center

- UCLA Ackerman Hall
- Linde Medical Building
- 4506 Saugus Avenue
- Gayley Center
- Tishman Building

With implementation of MM CUL-1, MM CUL-4 through MM CUL-8, MM TCR-1, and MM TCR-2, impacts related to archaeological resources, disturbance of human remains, and TCRs would be reduced to less than significant for Alternative 5 (including HRT MSF). Alternative 5 exhibits low to moderate sensitivity for archaeological resources and TCRs, and there is limited potential to impact human remains. Potential impacts from construction of all Alternative 5 include disturbing previously unknown archaeological resources, human remains, or TCRs that may be buried below the surface. Due to the highly developed setting of the Project area, conducting subsurface testing in sensitive areas of the alignment to identify evidence of intact soils or subsurface deposits is not feasible and would be unlikely to provide information that could reduce the sensitivity assessments. Providing training to construction personnel on how to identify cultural resources and appropriate steps in the event cultural resources, TCRs, and human remains are encountered would reduce the likelihood of a significant impact in the event unanticipated discoveries may be encountered during Project activities. Additionally, having archaeological monitors and Native American monitors on-site during ground disturbing construction activities in sensitive areas would ensure the appropriate identification and treatment of inadvertent discoveries, which would further reduce any impacts to archaeological and tribal cultural resources to less than significant.

8.2.16 Visual Quality and Aesthetics

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-33.

Table 8-33. Alternative 5: Visual Quality and Aesthetics Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 5
Aesthetics Construction Impacts		
Impact AES-1: Would the project have a substantial adverse effect on a scenic vista?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact AES-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-12
	Impacts After Mitigation	LTS
Impact AES-3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vintage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM AES-1
	Impacts After Mitigation	LTS
Impact AES-4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025c

AES = aesthetics
BIO = biological resources
LTS = less than significant
MM = mitigation measure
NA = not applicable

8.2.16.1 Impact AES-1: Would the project have a substantial adverse effect on a scenic vista?

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in a community. Construction of Alternative 5 would introduce visually disruptive elements in each LU, including the following:

- Light and heavy excavation
- Tunneling
- Roadway/bridge demolition and reconstruction
- Structural falsework
- Tree removal
- Soil removal/displacement
- Security fencing
- Stockpiled soil
- Stockpiled building materials
- Safety and directional signage
- Station platforms and plazas
- Ancillary facilities
- Large, heavy equipment may include cranes, bulldozers, scrapers, and trucks

Construction activities could be visible to pedestrians and motorists on adjacent streets, as well as to viewers within nearby buildings. However, construction activities — while a visual nuisance — would not substantially obstruct views of the Santa Monica Mountains, San Gabriel Mountains, because activities would be temporary and intermittent and limited to the immediate area. Therefore, construction of Alternative 5 would not alter views or sightlines from scenic vistas, and impacts would be less than significant.

Maintenance and Storage Facilities

Maintenance of HRT vehicles and equipment would occur at the MSF. Multiple buildings would be constructed, including a multi-level maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, and traction power substation structures. A grade separated access road and a parking area for employees would also be included. These structures would be the primary visual elements of the MSF. The MSF site would be located within a heavily industrialized area, and operation of this MSF would generally fit within the context of the existing industrial character. While the MSF site would represent a visual change, it would not substantially obstruct views of the San Gabriel Mountains to the north because the built-out urban landscape already prevents clear views of the mountains. As such, views of scenic vistas as a whole would not be substantially affected.

Construction activities could be visible to pedestrians and motorists on adjacent streets, as well as to viewers within nearby buildings. However, construction activities, while a visual nuisance, would not substantially obstruct views of the Santa Monica Mountains or San Gabriel Mountains, because activities

would be temporary and intermittent and limited to the immediate area. Therefore, the vertical elements proposed under the MSF would not substantially alter views or sightlines from scenic vistas, and operation of the MSF would result in a less than significant impact to scenic vistas.

8.2.16.2 Impact AES-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in a community. Construction of Alternative 5 would introduce visually disruptive elements in each LU, including the following:

- Light and heavy excavation
- Tunneling, roadway/bridge demolition and reconstruction
- Building demolition
- Structural falsework
- Security fencing
- Soil removal/stockpile
- Stockpiled building materials
- Safety and directional signage
- Station platforms and plazas
- Ancillary facilities
- Large, heavy equipment may include cranes, bulldozers, scrapers, and trucks.

Tree removal during construction would create noticeable changes in certain areas, exposing previously screened views of infrastructure and construction activities. However, these changes would be temporary and would not be located within a state scenic highway.

No California-designated scenic highways or scenic parkways (or proposed state scenic highways or parkways) are located within the Project Study Area. Construction of Alternative 5 would not substantially damage any scenic resources within SR-1 or SR-27, the nearest state scenic highways, neither of which is within the Project Study Area. Therefore, construction of Alternative 5 would not damage any scenic resources within the viewshed of a state scenic highway, and impacts would be less than significant.

Maintenance and Storage Facilities

No California-designated scenic highways or scenic parkways (or proposed state scenic highways or parkways) are located within the MSF area. Additionally, no state-designated scenic highways or City of Los Angeles-designated scenic highways are located in proximity to the MSF. Therefore, operation of the MSF would not substantially damage any scenic resources within a state scenic highway, and none of the six scenic highways designated by the City of Los Angeles would be impacted by the MSF.

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in a community. However, as discussed previously, Metro projects are not required to adhere to local zoning ordinances. Any elements that would be located on properties outside of the public ROW (e.g., station plazas and TPSS) would comply with applicable zoning and design requirements, including undergoing mandated design review where applicable and coordinating with

local jurisdictions and/or other public entities during preliminary and final designs. In addition, while Alternative 5 would add new visible structures, it is expected that visual change associated with the MSF would not be readily noticeable given the existing structures associated with the LOSSAN rail corridor and background conditions. Therefore, the MSF would not damage any scenic resources within the viewshed of a state scenic highway, and impacts would be less than significant.

8.2.16.3 Impact AES-3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vintage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

During the construction phase, the visual character of the alignment would change temporarily from existing conditions. Construction of primarily an underground tunnel, as well as aerial guideway and stations would require equipment such as construction barriers and sound walls, cranes, and other appurtenances that would be visible during much of the approximately 99-month substantial completion construction period.

Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings and other aerial transportation infrastructure. Certain areas may be fenced off with construction barriers and sound walls, resulting in a temporary change and contrast in visual character from the existing conditions. Although temporary and short-term in nature, construction activities would be a visual nuisance. MM AES-1 would include temporary privacy screens to minimize impacts from construction barriers and sound walls. In addition, the designated construction areas along the alignment would experience additional truck traffic compared to existing conditions, with trucks moving materials on- and off-site, and work crews and construction equipment moving around the alignment and between Alternative 5 components.

Some residents may have private views of the project construction from their windows. While residents would be highly sensitive to visual changes and would have a higher degree of personal investment in Alternative 5, as previously mentioned, visual impacts are assessed based on changes to public views.

Motorists would primarily experience views of construction activities while driving along the roadways along and adjacent to Alternative 5. In addition, drivers would have prolonged views while idling at the various traffic signals surrounding the proposed station areas and aerial guideway. Passing drivers would notice the change in the visual character during the construction phase. However, drivers are considered to have a low sensitivity to any visual changes because they would likely be passing through the Project Study Area to reach their destinations and would not necessarily have a personal investment in the visual character or quality of the Project Study Area.

In addition, pedestrians would primarily experience views of construction activities while walking along public sidewalks, within transit stations, and near businesses that are to Alternative 5, and would have prolonged views while walking or standing near the proposed station areas and aerial guideway. The change in the visual character of the alignment during the construction phase would be noticeable by these viewers. In addition, pedestrians are considered to have a moderate sensitivity to visual changes because they may be engaged in observing their surroundings.

Overall, construction would represent a temporary change in the visual quality and character. Project components would potentially stand out as memorable or remarkable features in the landscape due to their scale, which would have a temporary impact on visual character and quality of the Project Study

Area and its surroundings compared to existing conditions. Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings in urbanized areas. Impacts from construction activities would be temporary and post-construction views of Alternative 5-related construction activities, equipment, stockpiles, and fencing would be removed once construction is completed. In addition, Alternative 5 would comply with the best management practices noted previously in Section 8.1.2, as well as the city's development standards related to scenic quality during construction, which would be verified during the city's permitting process. Therefore, construction of Alternative 5 would not conflict with applicable regulations governing scenic quality and would result in less than significant impacts.

Maintenance and Storage Facilities

Maintenance of HRT vehicles and equipment would occur at the MSF. Multiple buildings would be constructed, including a multi-level maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, and traction power substation structures. A grade separated access road and a parking area for employees would also be included. These structures would be the primary visual elements of the MSF. The MSF site within the northern portion of LU-6 would be located within a heavily industrialized area, and operation of this MSF would generally fit within the context of the existing industrial character.

During the construction phase, the visual character would change temporarily from existing conditions. Construction of the MSF would require equipment such as construction barriers and sound walls, cranes, and other appurtenances that would be visible during the construction period.

Construction of the MSF would comply with applicable regulations governing scenic quality, including South Coast Air Quality Management District Rule 403, and would occur in an urbanized area. Rule 403 does not permit track-out dust to extend 25 feet or more beyond the active construction area and requires all track-out dirt to be removed at the end of each workday or evening shift. Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings and other aerial transportation infrastructure.

Although temporary and short-term in nature, construction activities would be a visual nuisance. However, certain areas may be fenced off with construction barriers and sound walls, resulting in a temporary change and contrast in visual character from the existing conditions. MM AES-1 would include temporary privacy screens to minimize impacts from construction barriers and sound walls. In addition, the designated construction areas along the alignment would experience additional truck traffic compared to existing conditions, with trucks moving materials on- and off-site, and work crews and construction equipment moving around the alignment and between the project components.

Some residents may have private views of the project construction from their windows. While residents would be highly sensitive to visual changes and would have a higher degree of personal investment in Alternative 5, as previously mentioned, visual impacts are assessed based on changes to public views.

Motorists would primarily experience views of construction activities while driving along the roadways along and adjacent to the MSF. In addition, drivers would have prolonged views while idling at the various traffic signals surrounding the proposed station areas and aerial guideway. Passing drivers would notice the change in the visual character during the construction phase. However, drivers are considered to have a low sensitivity to any visual changes because they would likely be passing through the Project Study Area to reach their destinations and would not necessarily have a personal investment in the visual character or quality of the MSF area.

In addition, pedestrians would primarily experience views of construction activities while walking along public sidewalks, within transit stations, and near businesses that are to the proposed station areas and aerial guideway. The change in the visual character during the construction phase would be noticeable by these viewers. In addition, pedestrians are considered to have a moderate sensitivity to visual changes because they may be engaged in observing their surroundings.

Construction would represent a temporary change in the visual quality and character. Project components would potentially stand out as memorable or remarkable features in the landscape due to their scale, which would have a temporary impact on visual character and quality of the MSF area and its surroundings compared to existing conditions. Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings in urbanized areas. Impacts from construction activities would be temporary and post-construction views of Alternative 5-related construction activities, equipment, stockpiles, and fencing would be removed once construction is completed. In addition, the MSF would comply with the best management practices noted in Section 8.1.2, as well as the city's development standards related to scenic quality during construction, which would be verified during the permitting process. Therefore, the MSF would not conflict with applicable regulations governing scenic quality, or substantially degrade the existing visual character or quality of public views of the site and its surroundings, and the impact would be less than significant.

8.2.16.4 Impact AES-4: Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Construction of Alternative 5 would occur during daytime hours. Additionally, some work would be conducted throughout 24-hour periods, seven days a week when appropriate, such as work within the tunnel station box. Nighttime and weekend construction, if any, would comply with local ordinance restrictions. Such activities may include, but would not be limited to, tunneling, columns and trackwork, and stockpiling materials. As part of best management practiced discussed in Section 8.1.2, construction lighting would be directed toward the construction areas and/or shielded with temporary screening to minimize light spillover and glare onto adjacent areas. In addition, construction-related illumination would be temporary and limited to safety and security purposes. The implementation of best management practices would reduce temporary impacts to adjacent uses, such as the residential properties. Therefore, construction of Alternative 5 would have less than significant impacts related to light and glare.

Maintenance and Storage Facilities

Construction of the MSF would primarily occur during daytime hours. Nighttime and weekend construction, if any, would comply with local ordinance restrictions. As part of best management practices discussed in Section 8.1.2, construction lighting would be directed toward the construction areas and/or shielded with temporary screening to minimize light spillover and glare onto adjacent areas. In addition, construction-related illumination would be temporary and limited to safety and security purposes. The implementation of best management practices would reduce temporary impacts to adjacent uses, such as the residential properties. Therefore, the MSF would have less than significant impacts related to light and glare.

8.2.16.5 Mitigation Measures

The following mitigation measures would be implemented:

MM AES-1: *Privacy screens, as applicable and appropriate, shall be placed in high visibility areas that have construction related structures or activities. Privacy screens shall be used in areas requiring tree removal activities adjacent visually sensitive areas, including but not limited to residential areas.*

MM BIO-12: ***Avoid and Minimize Construction-Related Impacts to Protected Trees and Shrubs (Applicable to Alternatives 4 and 5).*** *Impacts to protected trees and shrubs shall be avoided, minimized, and/or mitigated by incorporation of the following:*

- *A Tree Expert, as defined under the City of Los Angeles Protected Tree and Shrub Ordinance, shall complete a detailed tree survey report prior to construction and once access is obtained to properties within the alignment. The report shall build upon the Initial Protected Tree and Shrub Inventory Memorandum (Attachment 2 of the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report) and include detailed field methods and data for each protected tree or shrub, such as species, height, diameter, canopy spread, physical condition, and precise location. The City of Los Angeles Protected Tree and Shrub Ordinance has jurisdiction in the Project; therefore, a Tree Expert shall be required to conduct the detailed survey and procure permits for protected tree/shrub removal from the Los Angeles Board of Public Works. The Tree Expert's follow-up report shall expand upon the initial assessment to provide a comprehensive dataset with verification of tree/shrub species, height, canopy width, and tree/shrub health for the Ground Disturbance Area. This follow-up report shall be used to procure the required permit prior to commencement of tree impacts within the City of Los Angeles.*
- *Impacts to protected trees and shrubs shall be minimized to the maximum extent feasible. For the purposes of this measure, "feasible" is defined as the ability to avoid or minimize impacts while meeting project design, safety, and operational requirements, as determined by the Tree Expert and project engineers. When trimming and/or encroachment into the tree/shrub protection zone (defined as the dripline or canopy) is needed, the following measures shall be required.*
- *Trimming of protected trees/shrubs must comply with the pruning standards set forth by the Western Chapter of the International Society of Arboriculture and conducted in a manner that does not cause permanent damage or adversely affect the health of the trees or shrubs. Trimming shall require coordination and permitting with the appropriate entities as follows:*
  - *Species protected under the Los Angeles Protected Tree and Shrub Ordinance shall coordinate with the City of Los Angeles Board of Public Works, Urban Forestry Division.*
  - *Trees protected under the City of Los Angeles Street Tree Policy shall require coordination with the City of Los Angeles Department of Public Works, Urban Forestry Division.*
  - *Trees protected under the City of Santa Monica Tree Ordinance shall require coordination with the Director of Community and Cultural Services for pruning, maintenance, removal, and care for all affected trees*

  - *Trees covered by the Metro Tree Policy shall require the Project to prepare a tree protection plan identifying Tree Protection Zones for all trees designated for retention and to prepare a mitigation plan for damaged and removed trees.*

- *For impacts to protected trees and shrubs beyond trimming, the required tree removal permits shall be obtained, and replacement shall occur at the below rates. Mitigation locations of replacement trees shall be determined through the permitting process.*

  - ***City of Los Angeles Protected Tree and Shrub Ordinance:*** *Protected trees and shrubs included trees of the oak genus (indigenous to California), western sycamore, southern California black walnut and California bay, and two shrub species (Mexican elderberry and toyon). Individual trees and shrubs shall be replaced at a 4:1 ratio by plants that are the same species of protected plant.*

  - ***City of Santa Monica Tree Code****: Trees protected under the City of Santa Monica Tree Code shall require coordination with the Director of Community and Cultural Services for pruning, maintenance, removal, and care for all affected trees.*

  - ***Policy-Protected Trees:*** *All policy-protected trees, which fall under the purview of the Los Angeles Street Tree Policy or the Metro Tree Policy, shall be replaced at a ratio of 2:1. The Los Angeles Street Tree Policy allows for an in-lieu fee to be made with approval of the Board of Public Works following verification that replacement trees cannot be feasibly planted onsite. Trees under the Metro Tree Policy that are designated as heritage trees in a local ordinance shall be replaced at a 4:1 ratio with trees of the same variety.*

- *All trees occurring on private property, or Caltrans right-of-way, shall not require permitting, but shall require coordination and negotiation with property owners. Mitigation implementation shall follow Metro Tree Policy's replacement ratio of 2:1.*

- *For protected trees and shrubs that are not anticipated to be impacted, a Tree Protection Zone shall be established around each tree/shrub or cluster of trees/shrubs prior to the commencement of work. The Tree Protection Zone shall be erected using temporary fencing in an environmentally sensitive manner and remain in place until all site work has been completed. Specific installation timeframe may vary but the Tree Protection Zone must be inspected and approved by a Qualified Arborist prior to construction work occurring including staging of equipment. Work can commence directly following arborist inspection and approval. No construction-related materials shall be stored or staged within the Tree Protection Zone (fenced areas*).

- *The LA Street Tree Policy would require coordination with the City of Los Angeles Department of Public Works for removal or maintenance of protected trees; this policy does not apply to trees within private property, UCLA, or within the Caltrans right-of-way. Metro Tree Policy would not require permitting but would*

require coordination with the landowners (e.g., private landowners, UCLA, Caltrans) when a tree must be removed. Additionally, Metro Tree Policy states a mitigation plan would be required to be developed in consultation with a Certified Arborist if construction impacts damaged or removed a tree; decisions would be made in accordance with local ordinances identifying protected trees.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

During construction MM AES-1 would reduce the temporary visual nuisance of construction activities. MM BIO-12 from the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k) would reduce impacts related to tree removal during construction. To the greatest extent practicable protected trees and shrubs would not be removed. When removal is unavoidable, mitigation would be implemented. The implementation of these mitigation measures would result in less than significant impacts related to construction.

8.2.17 Water Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 8-34.

Table 8-34. Alternative 5: Water Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 5
Hydrology and Water Quality Operational Impacts		
Impact HWQ-1: Would the project violate any water quality standards or Waste Discharge Requirements or otherwise substantially degrade surface or groundwater quality?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would: i. result in substantial erosion or siltation on- or off-site; ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv. impede or redirect flood flows??	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-4: Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025g

HWQ = hydrology and water quality

LTS = less than significant
NA = not applicable

8.2.17.1 Impact HWQ-1: Would the project violate any water quality standards or Waste Discharge Requirements or otherwise substantially degrade surface or groundwater quality?

Construction activities associated with the Alternative 5 heavy rail transit (HRT) alignment would be the same as those previously described for the underground portions of the Alternative 4 HRT alignment and would result in the same potential stormwater discharges. The construction impacts discussion for Alternative 4 presents the regulatory requirements to address stormwater discharges.

With adherence to existing laws and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or WDRs or substantial degradation of surface or groundwater quality during construction activities of Alternative 5 would be less than significant.

Maintenance and Storage Facilities

Maintenance of vehicles and equipment would occur at the MSF, which would include multiple buildings, including a multi-level maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, and TPSS structures. The MSF would be constructed on parcels containing existing impervious surfaces. Therefore, the MSF would not increase the existing impervious surface area.

The MSF for 5 would comply with the same regulatory requirements previously described for the MSF Base Design for Alternatives 1 and 3, and applicable regulatory requirements are presented in that discussion.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or WDRs or substantial degradation of surface or groundwater quality during construction of the MSF would be less than significant.

8.2.17.2 Impact HWQ-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

Construction activities associated with foundations would include excavation and concrete work, installation of drilled piles, aerial guideway, and tunneling. As previously discussed, excavations for stations, piles, and other underground structures would occur at depths ranging between 6 to 140 feet bgs and tunnel depth would range from 40 feet to 470 feet deep.

The Alternative 5 alignment may encounter groundwater in shallower areas and would require the removal of nuisance water that seeps into boreholes during construction. Nuisance water and seepage encountered during construction would be removed from the boreholes, containerized, and analyzed consistent with existing applicable regulations to determine the proper disposal method or possible treatment and reuse on-site.

Alternative 5 would include a tunnel comprising three separate tunnel segments, one running north from the southern terminus to the UCLA Gateway Plaza Station, one running south from the Ventura Boulevard Station to the UCLA Gateway Plaza Station, and one running north from the Ventura Boulevard Station to the portal near Raymer Street. The depth of cover for the tunnel through the

Westside would vary from approximately 40 feet to 90 feet. The depth of cover for the second segment would vary greatly from approximately 470 feet as it passes under the Santa Monica Mountains to 70 feet near UCLA. The depth of cover for the tunnel through the Valley would vary from approximately 40 feet near the Ventura Boulevard/Sepulveda Station and north of the Metro G Line Sepulveda Station to 150 feet near Weddington Street. The groundwater depth along segments of the proposed tunnel varies from 40 to 320 feet bgs.

There is potential for groundwater to be encountered during tunnel boring activities in areas where the tunnel invert is below groundwater level; however, proposed tunnel boring activities would not be expected to require dewatering because tunnel boring would involve a closed mode machine that would operate under the water table, and a precast concrete tunnel liner (designed for full hydrostatic pressure) would be installed post-excavation. Both of these features would substantially reduce (if not eliminate) groundwater ingress during construction. Any dewatering would be limited to the construction phase only. The volume of groundwater extracted during construction would not be expected to decrease groundwater supplies. The volume of groundwater removed during construction would be monitored and documented.

Alternative 5 would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, as well as commonly used industry standards. These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Policies, NPDES CGP requirements, the MS4 Permit, Caltrans NPDES Statewide Stormwater Permit, and the City of Los Angeles and County of Los Angeles LID Ordinance.

Due to the limited amount of nuisance seepage water anticipated to be encountered and because most of the existing surfaces at the Alternative 5 alignment component sites are currently covered with impervious surfaces, construction activities are not anticipated to interfere substantially with groundwater recharge or groundwater resource supplies. Construction activities, including construction of underground structures, are not anticipated to decrease groundwater supplies such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts to groundwater supply and recharge during construction of Alternative 5 would be less than significant.

Maintenance and Storage Facilities

Extracting large volumes of groundwater that would decrease groundwater supplies would not be expected during construction. Therefore, the MSF would not be expected to result in a decrease in groundwater supplies or interfere substantially with groundwater recharge to the extent that the proposed MSF may impede sustainable groundwater management of the basin.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts to groundwater supply and recharge during construction of the MSF would be less than significant.

8.2.17.3 Impact HWQ-3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on- or off-site

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv) impede or redirect flood flows?

Construction activities associated with Alternative 5 would be the same as those previously described for Alternative 4 components, and information on regulatory compliance to address site runoff and drainage would be the same as Alternative 4. The construction impacts discussion for Alternative 4 presents the regulatory requirements to address drainage.

With adherence to existing laws and regulations and proper implementation of stormwater compliance requirements, potential impacts related to substantial erosion or siltation, a substantial increase in the rate or amount of surface runoff that would cause flooding, creation of runoff that would exceed drainage system capacity or provide additional sources of polluted runoff, or impede or redirect flood flows during construction of Alternative 5 would be less than significant.

Maintenance and Storage Facilities

The MSF would comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, as well as commonly used industry standards. Construction activities would comply with all applicable federal and local floodplain regulations. Any impacts to existing drainage patterns would be temporary. Implementation of runoff control measures and pollution prevention practices in compliance with the construction SWPPP would control stormwater runoff from the MSF construction areas to minimize construction-related flooding impacts, erosion, and the discharge of potential pollutants, including sedimentation/siltation.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to substantial erosion or siltation, a substantial increase in the rate or amount of surface runoff resulting in flooding, creation of runoff that would exceed drainage system capacity or provide additional sources of polluted runoff, or impeding or redirecting flood flows during construction of the MSF would be less than significant.

8.2.17.4 Impact HWQ-4: Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The majority of the proposed Project alignment would be constructed outside of the Federal Emergency Management Agency (FEMA)-designated 100-year floodplain and would be in an inland area that is not in close proximity to the ocean; therefore, the risk of inundation by a tsunami is considered low.

Given the Alternative 5's distance from Encino and Stone Canyon reservoirs, any oscillation and subsequent release of water in the reservoir as part of a seiche would not inundate the Project. Therefore, there would be low potential for risk of release of pollutants due to inundation by seiche.

Los Angeles River and Ballona Creek are the major flood control measures for draining stormwater from Potential impacts during construction would be less than significant.

Maintenance and Storage Facilities

The MSF would be located outside of the FEMA-designated 100-year floodplain and would be in an inland area that is not in proximity to the ocean; therefore, the risk of inundation by a tsunami is considered low.

Given the distance of the MSF construction site from the Encino Reservoir and Stone Canyon Reservoir, any oscillation and subsequent release of water in the reservoirs as part of a seiche would not inundate the MSF. Therefore, there would be low potential for risk of release of pollutants due to inundation by seiche.

The Los Angeles River and Ballona Creek are the major flood control measures for draining stormwater from the Project Study Area and directing it safely to the San Pedro Bay and Santa Monica Bay, respectively. The risk related to flooding would be considered low as the MSF is within a well-developed area that maintains storm drainage and water runoff control.

Construction of the MSF would not result in impacts to the hydrology, hydraulics, and connectivity of natural watercourses, including floodways.

The MSF would have no impacts related to risk of release of pollutants due to inundation by flood, tsunami, or seiche, and potential impacts during construction of the MSF would be less than significant.

8.2.17.5 Impact HWQ-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Alternative 5 would have the same construction impact evaluation as Alternative 4. With adherence to existing laws and regulations and with proper implementation of stormwater compliance requirements, potential impacts related to conflict with implementation of a water quality control plan or sustainable groundwater management plan during construction of Alternative 5 would be less than significant.

Maintenance and Storage Facilities

The MSF would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, and water quality control and/or sustainable groundwater management plans. Dewatering would be limited to the construction phase only. Extracting large volumes of groundwater that would decrease groundwater supplies would not be expected during construction.

With adherence to existing regulations and with proper implementation of stormwater compliance requirements, potential impacts related to conflict with implementation of a water quality control plan or sustainable groundwater management plan during construction of the MSF would be less than significant.

8.2.17.6 Mitigation Measures

Construction Impacts

No mitigation measures are required with adherence to all existing local, regional, and federal regulations, guidelines, and standards. As such, all water-related impacts are less than significant.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

9 ALTERNATIVE 6

9.1 Alternative Description

Alternative 6 is a heavy rail transit (HRT) system with an underground track configuration. This alternative would provide transfers to five high-frequency fixed guideway transit and commuter rail lines, including the Los Angeles County Metropolitan Transportation Authority's (Metro) E, Metro D, and Metro G Lines, East San Fernando Valley Light Rail Transit Line, and the Metrolink Ventura County Line. The length of the alignment between the terminus stations would be approximately 12.9 miles.

The seven underground HRT stations would be as follows:

1. Metro E Line Expo/Bundy Station (underground)
2. Santa Monica Boulevard Station (underground)
3. Wilshire Boulevard/Metro D Line Station (underground)
4. UCLA Gateway Plaza Station (underground)
5. Ventura Boulevard/Van Nuys Boulevard Station (underground)
6. Metro G Line Van Nuys Station (underground)
7. Van Nuys Metrolink Station (underground)

9.1.1 Operating Characteristics

9.1.1.1 Alignment

As shown on Figure 9-1, from its southern terminus station at the Metro E Line Expo/Bundy Station, the alignment of Alternative 6 would run underground through the Westside of Los Angeles (Westside), the Santa Monica Mountains, and the San Fernando Valley (Valley) to the alignment's northern terminus adjacent to the Van Nuys Metrolink/Amtrak Station.

The proposed southern terminus station would be located beneath the Bundy Drive and Olympic Boulevard intersection. Tail tracks for vehicle storage would extend underground south of the station along Bundy Drive for approximately 1,500 feet, terminating just north of Pearl Street. The alignment would continue north beneath Bundy Drive before turning to the east near Iowa Avenue to run beneath Santa Monica Boulevard. The Santa Monica Boulevard Station would be located between Barrington Avenue and Federal Avenue. After leaving the Santa Monica Boulevard Station, the alignment would turn to the northeast and pass under Interstate 405 (I-405) before reaching the Wilshire Boulevard/Metro D Line Station beneath the Metro D Line Westwood/UCLA Station, which is currently under construction as part of the Metro D Line Extension Project. From there, the underground alignment would curve slightly to the northeast and continue beneath Westwood Boulevard before reaching the UCLA Gateway Plaza Station.

Figure 9-1. Alternative 6: Alignment

Source: HTA, 2024

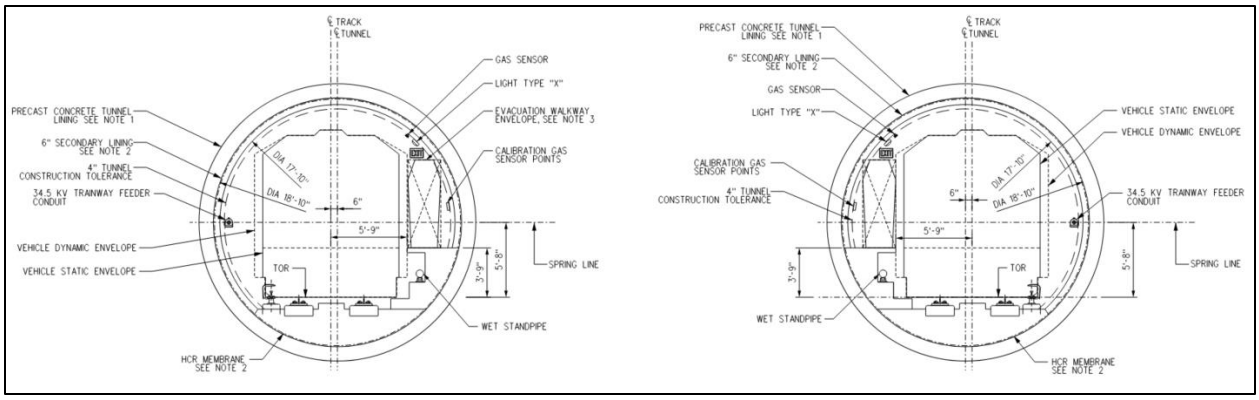
After leaving the UCLA Gateway Plaza Station, the alignment would continue to the north and travel under the Santa Monica Mountains. While still under the mountains, the alignment would shift slightly to the west to travel under the Los Angeles Department of Water and Power (LADWP) Stone Canyon Reservoir property to facilitate placement of a ventilation shaft on that property east of the reservoir. The alignment would then continue to the northeast to align with Van Nuys Boulevard at Ventura Boulevard as it enters the San Fernando Valley. The Ventura Boulevard Station would be beneath Van Nuys Boulevard at Moorpark Street. The alignment would then continue under Van Nuys Boulevard

before reaching the Metro G Line Van Nuys Station just south of Oxnard Street. North of the Metro G Line Van Nuys Station, the alignment would continue under Van Nuys Boulevard until reaching Sherman Way, where it would shift slightly to the east and run parallel to Van Nuys Boulevard before entering the Van Nuys Metrolink Station. The Van Nuys Metrolink Station would serve as the northern terminus station and would be located between Saticoy Street and Keswick Street. North of the station, a yard lead would turn sharply to the southeast and transition to an at-grade configuration and continue to the proposed maintenance and storage facility (MSF) east of the Van Nuys Metrolink Station.

9.1.1.2 Guideway Characteristics

The alignment of Alternative 6 would be underground using Metro's standard twin-bore tunnel design. Figure 9-2 shows a typical cross-section of the underground guideway. Cross-passages would be constructed at regular intervals in accordance with Metro Rail Design Criteria (MRDC). Each of the tunnels would have a diameter of 19 feet (not including the thickness of wall). Each tunnel would include an emergency walkway that measures a minimum of 2.5 feet wide for evacuation.

Figure 9-2. Typical Underground Guideway Cross-Section



Source: HTA, 2024

9.1.1.3 Vehicle Technology

Alternative 6 would utilize driver-operated steel-wheel HRT trains, as used on the Metro B and D Lines, with planned peak headways of 4 minutes and off-peak-period headways ranging from 8 to 15 minutes. Trains would consist of four or six cars and are expected to consist of six cars during the peak period. The HRT vehicle would have a maximum operating speed of 70 miles per hour; actual operating speeds would depend on the design of the guideway and distance between stations. Train cars would be 10.3 feet wide with three double doors on each side. Each car would be approximately 75 feet long with capacity for 133 passengers. Trains would be powered by a third rail.

9.1.1.4 Stations

Alternative 6 would include seven underground stations with station platforms measuring 450 feet long. The southern terminus underground station would be adjacent to the existing Metro E Line Expo/Bundy Station, and the northern terminus underground station would be located south of the existing Van Nuys Metrolink/Amtrak Station. Except for the Wilshire Boulevard/Metro D Line, UCLA Gateway Plaza, and Metro G Line Van Nuys Stations, all stations would have a 30-foot-wide center platform. The Wilshire/Metro D Line Station would have a 32-foot-wide platform to accommodate the anticipated passenger transfer volumes, and the UCLA Gateway Plaza Station would have a 28-foot-wide platform because of the width constraint between the existing buildings. At the Metro G Line Van Nuys Station,

the track separation would increase significantly in order to straddle the future East San Fernando Valley Light Rail Transit Line Station piles. The platform width at this station would increase to 58 feet.

The following information describes each station, with relevant entrance, walkway, and transfer information. Bicycle parking would be provided at each station.

Metro E Line Expo/Bundy Station

- This underground station would be located under Bundy Drive at Olympic Boulevard.
- Station entrances would be located on either side of Bundy Drive between the Metro E Line and Olympic Boulevard, as well as on the northeast corner of Bundy Drive and Mississippi Avenue.
- At the existing Metro E Line Expo/Bundy Station, escalators from the plaza to the platform level would be added to improve inter-station transfers.
- An 80-space parking lot would be constructed east of Bundy Drive and north of Mississippi Avenue. Passengers would also be able to park at the existing Metro E Line Expo/Bundy Station parking facility, which provides 217 parking spaces.

Santa Monica Boulevard Station

- This underground station would be located under Santa Monica Boulevard between Barrington Avenue and Federal Avenue.
- Station entrances would be located on the southwest corner of Santa Monica Boulevard and Barrington Avenue and on the southeast corner of Santa Monica Boulevard and Federal Avenue.
- No dedicated station parking would be provided at this station.

Wilshire Boulevard/Metro D Line Station

- This underground station would be located under Gayley Avenue between Wilshire Boulevard and Lindbrook Drive.
- A station entrance would be provided on the northwest corner of Midvale Avenue and Ashton Avenue. Passengers would also be able to use the Metro D Line Westwood/UCLA Station entrances to access the station platform.
- Direct internal station transfers to the Metro D Line would be provided at the south end of the station.
- No dedicated station parking would be provided at this station.

UCLA Gateway Plaza Station

- This underground station would be located underneath Gateway Plaza on the University of California, Los Angeles (UCLA) campus.
- Station entrances would be provided on the north side of Gateway Plaza, north of the Luskin Conference Center, and on the east side of Westwood Boulevard across from Strathmore Place.
- No dedicated station parking would be provided at this station.

Ventura Boulevard/Van Nuys Boulevard Station

- This underground station would be located under Van Nuys Boulevard at Moorpark Street.
- The station entrance would be located on the northwest corner of Van Nuys Boulevard and Ventura Boulevard.
- Two parking lots with a total of 185 parking spaces would be provided on the west side of Van Nuys Boulevard between Ventura Boulevard and Moorpark Street.

Metro G Line Van Nuys Station

- This underground station would be located under Van Nuys Boulevard south of Oxnard Street.
- The station entrance would be located on the southeast corner of Van Nuys Boulevard and Oxnard Street.
- Passengers would be able to park at the existing Metro G Line Van Nuys Station parking facility, which provides 307 parking spaces. No additional vehicle parking would be provided at the proposed station.

Van Nuys Metrolink Station

- This underground station would be located immediately east of Van Nuys Boulevard between Saticoy Street and Keswick Street.
- Station entrances would be located on the northeast corner of Van Nuys Boulevard and Saticoy Street and on the east side of Van Nuys Boulevard just south of the Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor.
- Existing Metrolink Station parking would be reconfigured, maintaining approximately the same number of spaces. Metrolink parking would not be available to Metro transit riders.

9.1.1.5 Station-to-Station Travel Times

Table 9-1 presents the station-to-station distance and travel times for Alternative 6. The travel times include both run time and dwell time. Dwell time is 30 seconds for stations anticipated to have higher passenger volumes and 20 seconds for other stations. Northbound and southbound travel times vary slightly because of grade differentials and operational considerations at end-of-line stations.

Table 9-1. Alternative 6: Station-to-Station Travel Times and Station Dwell Times

From Station	To Station	Distance (miles)	Northbound Station-to-Station Travel Time (seconds)	Southbound Station-to-Station Travel Time (seconds)	Dwell Time (seconds)
Metro E Line Station					*20*
Metro E Line	Santa Monica Boulevard	1.1	111	121	—
Santa Monica Boulevard Station					*20*
Santa Monica Boulevard	Wilshire/Metro D Line	1.3	103	108	—
Wilshire/Metro D Line Station					*30*
Wilshire/Metro D Line	UCLA Gateway Plaza	0.7	69	71	—
UCLA Gateway Plaza Station					*30*
UCLA Gateway Plaza	Ventura Boulevard	5.9	358	358	—
Ventura Boulevard Station					*20*
Ventura Boulevard	Metro G Line	1.8	135	131	—

From Station	To Station	Distance (miles)	Northbound Station-to-Station Travel Time (seconds)	Southbound Station-to-Station Travel Time (seconds)	Dwell Time (seconds)
Metro G Line Station					*30*
Metro G Line	Van Nuys Metrolink	2.1	211	164	—
Van Nuys Metrolink Station					*30*

Source: HTA, 2024

— = no data

9.1.1.6 Special Trackwork

Alternative 6 would include seven double crossovers within the revenue service alignment, enabling trains to cross over to the parallel track with terminal stations having an additional double crossover beyond the end of the platform.

9.1.1.7 Maintenance and Storage Facility

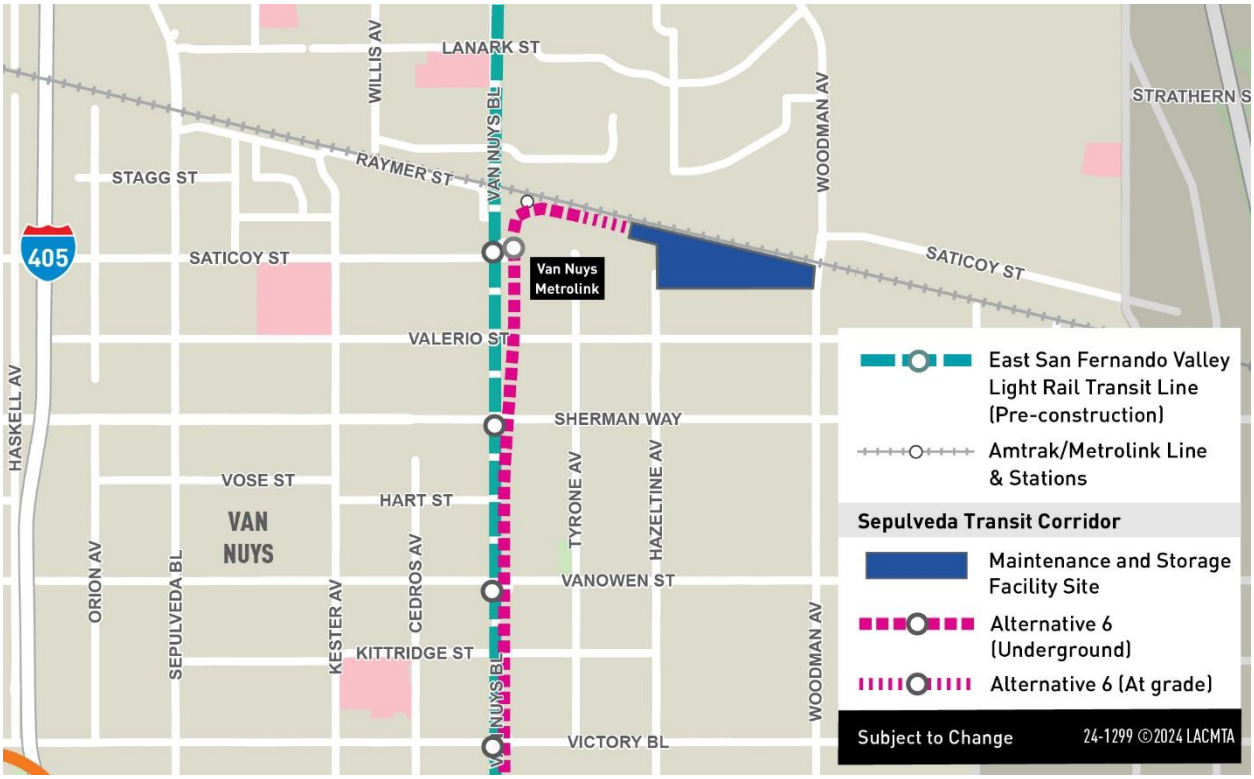
The MSF for Alternative 6 would be located east of the Van Nuys Metrolink Station and would encompass approximately 41 acres. The MSF would be designed to accommodate 94 vehicles and would be bounded by single-family residences to the south, the LOSSAN rail corridor to the north, Woodman Avenue to the east, and Hazeltine Avenue and industrial manufacturing enterprises to the west. Heavy rail trains would transition from underground to an at-grade configuration near the MSF, the northwest corner of the site. Trains would then travel southeast to maintenance facilities and storage tracks.

The site would include the following facilities:

- Two entrance gates with guard shacks
- Maintenance facility building
- Maintenance-of-way facility
- Storage tracks
- Carwash
- Cleaning platform
- Administrative offices
- Pedestrian bridge connecting the administrative offices to employee parking
- Two traction power substations (TPSS)

Figure 9-3 shows the location of the MSF for Alternative 6.

Figure 9-3. Alternative 6: Maintenance and Storage Facility Site



Source: HTA, 2024

9.1.1.8 Traction Power Substations

TPSSs transform and convert high voltage alternating current supplied from power utility feeders into direct current suitable for transit operation. Twenty-two TPSS facilities would be located along the alignment and would be spaced approximately 1 mile apart except within the Santa Monica Mountains. Each at-grade TPSS along the alignment would be approximately 5,000 square feet. Table 9-2 lists the TPSS locations for Alternative 6.

Figure 9-4 shows the TPSS locations along the Alternative 6 alignment.

Table 9-2. Alternative 6: Traction Power Substation Locations

TPSS No.	TPSS Location Description	Configuration
1 and 2	TPSSs 1 and 2 would be located immediately north of the Bundy Drive and Mississippi Avenue intersection.	Underground (within station)
3 and 4	TPSSs 3 and 4 would be located east of the Santa Monica Boulevard and Stoner Avenue intersection.	Underground (within station)
5 and 6	TPSSs 5 and 6 would be located southeast of the Kinross Avenue and Gayley Avenue intersection.	Underground (within station)
7 and 8	TPSSs 7 and 8 would be located at the north end of the UCLA Gateway Plaza Station.	Underground (within station)
9 and 10	TPSSs 9 and 10 would be located east of Stone Canyon Reservoir on LADWP property.	At-grade
11 and 12	TPSSs 11 and 12 would be located at the Van Nuys Boulevard and Ventura Boulevard intersection.	Underground (within station)

TPSS No.	TPSS Location Description	Configuration
13 and 14	TPSSs 13 and 14 would be located immediately south of Magnolia Boulevard and west of Van Nuys Boulevard.	At-grade
15 and 16	TPSSs 15 and 16 would be located along Van Nuys Boulevard between Emelita Street and Califa Street.	Underground (within station)
17 and 18	TPSSs 17 and 18 would be located east of Van Nuys Boulevard and immediately north of Vanowen Street.	At-grade
19 and 20	TPSSs 19 and 20 would be located east of Van Nuys Boulevard between Saticoy Street and Keswick Street.	Underground (within station)
21 and 22	TPSSs 21 and 22 would be located south of the Metrolink tracks and east of Hazeltine Avenue.	At-grade (within MSF)

Source: HTA, 2024

Figure 9-4. Alternative 6: Traction Power Substation Locations

Source: HTA, 2024

9.1.1.9 Roadway Configuration Changes

In addition to the access road described in the following section, Alternative 6 would require changes to roadways and sidewalks near stations.

9.1.1.10 Ventilation Facilities

Tunnel ventilation for Alternative 6 would be similar to existing Metro ventilation systems for light and heavy rail underground subways. In case of emergency, smoke would be directed away from trains and extracted through the use of emergency ventilation fans installed at underground stations and crossover locations adjacent to the stations. In addition, a mid-mountain ventilation shaft for the extraction of air would be located on LADWP property east of Stone Canyon Reservoir in the Santa Monica Mountains. An access road from the Stone Canyon Reservoir access road would be constructed to the location of the shaft, requiring grading of the hillside along its route.

9.1.1.11 Fire/Life Safety – Emergency Egress

Each tunnel would include an emergency walkway that measures a minimum of 2.5 feet wide for evacuation. Cross-passages would be provided at regular intervals to connect the two tunnels to allow for safe egress to a point of safety during an emergency.

9.1.2 Construction Activities

Temporary construction activities for Alternative 6 would include construction of ancillary facilities, as well as guideway and station construction and construction staging and laydown areas, which would be co-located with future MSF and station locations. Construction of the transit facilities through substantial completion is expected to have a duration of 7½ years. Early works, such as site preparation, demolition, and utility relocation, could start in advance of construction of the transit facilities.

For the guideway, twin-bore tunnels would be constructed using two tunnel boring machines (TBM). The tunnel alignment would be constructed over three segments — including the Westside, Santa Monica Mountains, and Valley — using a different pair of TBMs for each segment. For the Westside segment, the TBMs would be launched from the Metro E Line Station and retrieved at the UCLA Gateway Plaza Station. For the Santa Monica Mountains segment, the TBMs would operate from the Ventura Boulevard Station in a southerly direction for retrieval from UCLA Gateway Plaza Station. In the Valley, TBMs would be launched from the Van Nuys Metrolink Station and retrieved at the Ventura Boulevard Station.

The distance from the surface to the top of the tunnels would vary from approximately 50 feet to 130 feet in the Westside, between 120 feet and 730 feet in the Santa Monica Mountains, and between 40 feet and 75 feet in the Valley.

Construction work zones would also be co-located with future MSF and station locations. All work zones would comprise the permanent facility footprint with additional temporary construction easements from adjoining properties. In addition to permanent facility locations, TBM launch at the Metro E Line Station would require the closure of I-10 westbound off-ramps at Bundy Drive for the duration of the Sepulveda Transit Corridor Project (Project) construction.

Alternative 6 would include seven underground stations. All stations would be constructed using a “cut-and-cover” method whereby the station structure would be constructed within a trench excavated from the surface that is covered by a temporary deck and backfilled during the later stages of station construction. Traffic and pedestrian detours would be necessary during underground station excavation until decking is in place and the appropriate safety measures have been taken to resume cross traffic. In addition, portions of the Wilshire Boulevard/Metro D Line Station crossing underneath the Metro D Line Westwood/UCLA Station and underneath a mixed-use building at the north end of the station would be

constructed using sequential excavation method as it would not be possible to excavate the station from the surface.

Construction of the MSF site would begin with demolition of existing structures, followed by earthwork and grading. Building foundations and structures would be constructed, followed by yard improvements and trackwork, including paving, parking lots, walkways, fencing, landscaping, lighting, and security systems. Finally, building mechanical, electrical, and plumbing systems, finishes, and equipment would be installed. The MSF site would also be used as a staging site.

Station and MSF sites would be used for construction staging areas. A construction staging area, shown on Figure 9-5, would also be located off Stone Canyon Road northeast of the Upper Stone Canyon Reservoir. In addition, temporary construction easements outside of the station and MSF footprints would be required along Bundy Drive, Santa Monica Boulevard, Wilshire Boulevard, and Van Nuys Boulevard. The westbound to southbound loop off-ramp of the I-10 interchange at Bundy Drive would also be used as a staging area and would require extended ramp closure. Construction staging areas would provide the necessary space for the following activities:

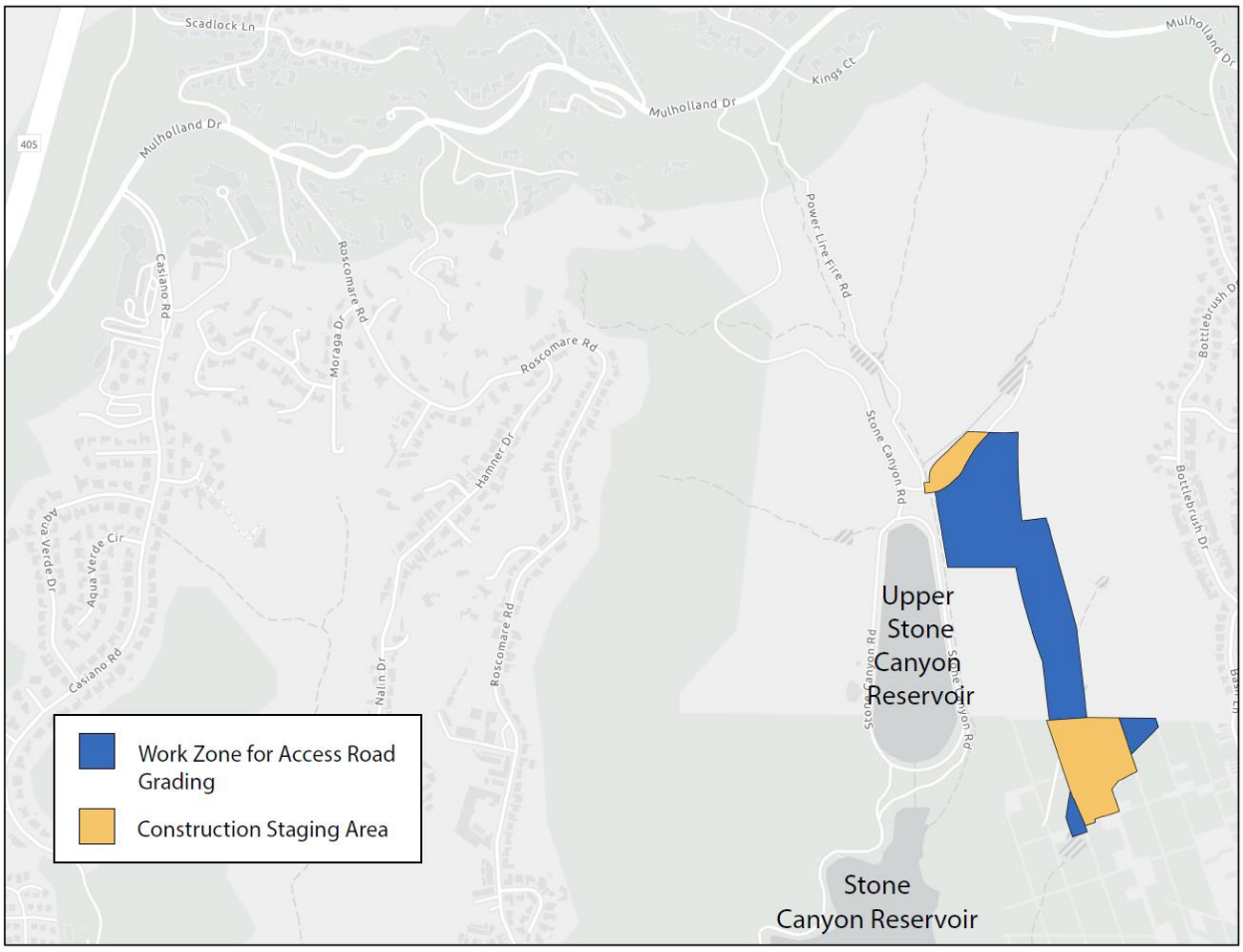
- Contractors' equipment
- Receiving deliveries
- Testing of soils for minerals or hazards
- Storing materials
- Site offices
- Work zone for excavation
- Other construction activities (including parking and change facilities for workers, location of construction office trailers, storage, staging and delivery of construction materials and permanent plant equipment, and maintenance of construction equipment)

The size of proposed construction staging areas for each station would depend on the level of work to be performed for a specific station and considerations for tunneling, such as TBM launch or extraction. Staging areas required for TBM launching would include areas for launch and access shafts, cranes, material and equipment, precast concrete segmental liner storage, truck wash areas, mechanical and electrical shops, temporary services, temporary power, ventilation, cooling tower, plants, temporary construction driveways, storage for spoils, and space for field offices.

Alternative 6 would also include several ancillary facilities and structures, including TPSS structures, a deep vent shaft structure at Stone Canyon Reservoir, as well as additional vent shafts at stations and crossovers. TPSSs would be co-located with MSF and station locations, except for two TPSSs at the Stone Canyon Reservoir vent shaft and four along Van Nuys Boulevard in the Valley. The Stone Canyon Reservoir vent shaft would be constructed using a vertical shaft sinking machine that uses mechanized shaft sinking equipment to bore a vertical hole down into the ground. Operation of the machine would be controlled and monitored from the surface. The ventilation shaft and two TPSSs in the Santa Monica Mountains would require an access road within the LADWP property at Stone Canyon Reservoir. Construction of the access road would require grading east of the reservoir. Construction of all mid-mountain facilities would take place within the footprint shown on Figure 9-5.

Additional vent shafts would be located at each station with one potential intermediate vent shaft where stations are spaced apart. These vent shafts would be constructed using the typical cut-and-cover method, with lateral bracing as the excavation proceeds. During station construction, the shafts would likely be used for construction crew, material, and equipment access.

Figure 9-5. Alternative 6: Mid-Mountain Construction Staging Site



Source: HTA, 2024

9.2 Impacts Evaluation

9.2.1 Air Quality

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-3.

Table 9-3. Alternative 6: Air Quality Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternatve 6
Air Quality Construction Impacts		
Impact AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact AQ-2: Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under and applicable federal or state ambient air quality standard?	Impacts Before Mitigation	SU
	Applicable Mitigation	MM AQ-1 through MM AQ-3
	Impacts After Mitigation	SU

CEQA Impact Topic		Alternatve 6
Impact AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations?	Impacts Before Mitigation	SU
	Applicable Mitigation	MM AQ-1 through MM AQ-3
	Impacts After Mitigation	SU
Impact AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025f.

AQ = air quality
LTS = less than significant
MM = mitigation measure
NA = not applicable
SU = significant and unavoidable

9.2.1.1 Impact AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Construction projects within the jurisdiction of the SCAQMD must comply with several rules and regulations aimed at controlling air pollution and minimizing environmental impact. Key SCAQMD rules that typically apply to construction projects include the following, among others:

- Rule 403 – Fugitive Dust, to reduce emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area. Requires that contractors implement best management practices such as watering down construction sites, covering trucks, and using windbreaks.
- Rule 401 – Visible Emissions, which prohibits the discharge of visible air contaminants into the atmosphere. Contractors must ensure that emissions from construction activities do not exceed the visible emissions limits, typically by controlling dust and particulate matter.
- Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities, to regulate the emissions of asbestos during demolition and renovation activities. Contractors must conduct thorough inspections for asbestos, notify SCAQMD before starting work, and follow specific procedures for handling and disposing of asbestos-containing materials.
- Rule 1113 – Architectural Coatings, which limits the volatile organic compound (VOC) content in architectural coatings. Contractors must use paints and coatings that comply with the VOC content limits specified by the rule.
- Rule 1108 – Cutback Asphalt, which limits the VOC emissions from the use of cutback asphalt and emulsified asphalt. Contractors must use compliant asphalt products with low VOC content.
- Rule 1157 – PM_{10} Emission Reductions from Aggregate and Related Operations, which serves to reduce PM_{10} emissions from aggregate operations, which can be a component of construction projects involving earth-moving activities. Contractors must implement dust control measures during material handling and processing operations.

Alternative 6 would comply with all relevant SCAQMD rules, and as such, would implement all required AQMP emissions control measures during construction. Impacts would be less than significant.

9.2.1.2 Impact AQ-2: Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under and applicable federal or state ambient air quality standard?

Alternative 6 construction activities would generate criteria pollutant emissions from off-road equipment, mobile sources — including workers, vendor trucks, and haul trucks traveling to and from construction sites — demolition, soil handling activities, paving, application of architectural coatings, and operation of temporary concrete batch plants. These emissions sources would be related to constructing the HRT system alignment, TPSSs, stations, and the MSF.

Construction emissions would vary substantially from day to day, depending on the level of activity and the specific type of construction activity. The peak daily construction emissions for Alternative 6 were estimated for each construction year. Based on the construction schedule for Alternative 6, construction phases for components could potentially overlap; therefore, the estimates of peak daily emissions included these potential overlaps by combining the relevant construction phase daily emissions. The peak daily emissions are predicted values for the worst-case day and do not represent the emissions that would occur for every day of construction. Table 9-4 summarizes the peak daily regional emissions for each construction year.

Table 9-4. Alternative 6: Unmitigated Peak Daily Regional Construction Criteria Pollutant Emissions

Construction Year	Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM_{10}[a]	$PM_{2.5}$[a]
2029	26	192	505	<1	55	14
2030	15	204	359	1	75	17
2031	10	128	292	1	64	14
2032	6	84	184	<1	47	10
2033	19	150	337	<1	44	11
2034	23	142	319	<1	32	9
2035	29	226	434	1	39	11
2036	21	197	385	<1	33	10
2037	5	54	105	<1	10	3
Peak Daily Emissions	**29**	**226**	**505**	**1**	**75**	**17**
SCAQMD Regional Significance Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	**Yes**	No	No	No	No

Source: HTA, 2024

[a]PM_{10} and $PM_{2.5}$ emissions include exhaust and fugitive dust emissions.

CO = carbon monoxide
lbs = pounds
NO_X = nitrogen oxides
PM_{10} = respirable particulate matter of 10 microns or less
$PM_{2.5}$ = fine particulate matter of 2.5 microns or less
SCAQMD = South Coast Air Quality Management District
SO_2 = sulfur dioxide
VOC = volatile organic compounds

As shown in Table 9-4, Alternative 6 construction emissions would exceed the SCAQMD regional significance thresholds for NO_X emissions. SCAQMD's cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the

SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. Because Alternative 6 construction emissions would exceed the applicable SCAQMD's regional construction significance thresholds for NO_X, Alternative 6 construction emissions would be cumulatively considerable. Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the NAAQS and CAAQS, which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, Alternative 6's contribution of pollutant emissions during short-term construction activities may result in appreciable human health impacts on a regional scale.

NO_x emissions can have various regional health and environmental impacts. Exposure to NO_x may cause eye and respiratory tract irritation and contribute to broader environmental issues such as acid rain and nitrate contamination in stormwater. Additionally, NO_x is a precursor to O_3 formation, which poses significant health and ecological risks. High concentrations of O_3 can irritate the lungs, and prolonged exposure may lead to damaged lung tissue, increased cancer risk, and harm to plant materials. Long-term O_3 exposure can damage vegetation, reduce crop productivity, and disrupt ecosystems.

As discussed in Section 3.1 of the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f), the emissions analysis incorporated Tier 4 Final engines for off-road equipment greater than or equal to 50 horsepower, trucks with model years 2007 or newer, and included dust control measures to be implemented during each phase of construction, as required by SCAQMD Rule 403. The construction analysis for Alternative 6 conservatively assumed all equipment would be diesel powered. The Metro *Green Construction Policy* contains measures that aim to reduce construction emissions through utilization of hybrid drive off-road equipment and using electric power instead of diesel power.

Mitigation measures (MM) AQ-1, MM AQ-2, and MM AQ-3 would reduce criteria pollutant emissions during construction, but mitigation measures would not reduce Alternative 6 NO_X emissions below SCAQMD significance thresholds; therefore, Alternative 6 construction emissions would result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard, and impacts would be significant and unavoidable.

9.2.1.3 Impact AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations?

To assess the potential localized air quality impacts resulting from Alternative 6 on nearby receptors during construction, the daily on-site construction emissions from the Alternative 6 components (alignment, stations, TPSSs, MSF) were compared to SCAQMD's applicable construction LSTs. Alternative 6 localized emissions included exhaust emissions from off-road equipment and trucks, and fugitive dust from demolition, earth movement activities, and truck travel. As shown in Table 9-5, Alternative 6 localized construction emissions would exceed the PM_{10} LST for construction activity in the Valley and Westside; therefore, Alternative 6 localized construction emissions would have adverse health risk implications and would be considered to be significant.

Table 9-5. Alternative 6: Unmitigated Localized Construction Criteria Pollutant Emissions

Construction Area	Daily Emissions (lb/day)[a]			
	NO_X	CO	PM_{10}[b]	$PM_{2.5}$[b]
Valley Construction Components[c]				
Segment 2-Mountain	13.6	22.9	4.8	0.7
Segment 3-Valley	24.8	34.3	6.4	0.8
Van Nuys Metrolink Station	18.3	36.5	—	—
Metro G Line Station	18.4	36.5	—	—
Ventura Boulevard Station	18.3	36.5	4.1	0.6
Vanowen Street/Van Nuys Boulevard TPSS	1.6	1.8	—	—
Magnolia TPSS	1.6	1.8	—	—
MSF	17.7	33.2	—	—
Precast Yard	—	—	7.7	1.2
Components In Proximity to Each Other				
Van Nuys Metrolink Station + MSF + Precast Yard	36.0	69.7	7.7	1.2
Segment 2 + Ventura Boulevard Station	32.0	59.4	8.9	1.2
Peak Daily Localized Emissions	**36.0**	**69.7**	**8.9**	**1.2**
SCAQMD Localized Significance Threshold[d]	114	786	7	4
Exceeds Threshold?	No	No	**Yes**	No
Westside Construction Components[c]				
Segment 1-Westside	—	—	—	—
Segment 2-Mountain	—	—	—	—
UCLA Gateway Plaza Station	25.1	60.0	1.9	0.7
Wilshire Boulevard/Metro D Line Station	25.1	60.0	2.2	0.7
Santa Monica Boulevard Station	25.1	60.0	15.7	2.8
Metro E Line Expo/Bundy Station	25.1	60.0	2.5	0.8
Components In Proximity to Each Other				
Not Applicable	—	—	—	—
Peak Daily Localized Emissions	25.1	60.0	15.7	2.8
SCAQMD Localized Significance Threshold[e]	147	827	6	4
Exceeds Threshold?	No	No	**Yes**	No

Source: HTA, 2024

[a]Daily emissions for each construction component represent the contribution to the maximum daily localized emissions in the Valley or Westside.

[b]PM_{10} and $PM_{2.5}$ emissions include exhaust and fugitive dust emissions.

[c]TPSSs listed in table would be located at standalone locations and not within the construction area of a station, MSF, track alignment, or tunnel. Each of these standalone TPSSs had their own construction phasing in the construction emissions analysis. For TPSSs located within the construction area of a station, MSF, track alignment, or tunnel, their construction activity was accounted for in the overall construction activity for the component.

[d]LST values are based on a 2-acre site with a 25-meter receptor distance in SRA 7 East San Fernando Valley.

[e]LST values are based on a 2-acre site with a 25-meter receptor distance in SRA 2 Northwest Coastal LA County.

SCAQMD = South Coast Air Quality Management District
SRA = source receptor area

Short-term exposure to elevated PM_{10} levels during construction can lead to significant health effects, particularly for sensitive populations such as children, the elderly, and individuals with pre-existing

respiratory or cardiovascular conditions. These health impacts include respiratory irritation, which can manifest as coughing, wheezing, shortness of breath, and worsened asthma symptoms. Additionally, PM_{10} exposure can exacerbate cardiovascular conditions, increasing heart rate variability, inflammation, and the risk of cardiac events. Acute respiratory infections, such as bronchitis, may also occur, particularly affecting vulnerable groups like children and older adults.

DPM, a component of PM_{10} from diesel engines, poses additional risks. It is associated with respiratory irritation, acute inflammation, and oxidative stress. Prolonged or high-level exposure can elevate the risk of lung cancer and cardiovascular issues. These impacts are particularly pronounced near construction sites, where emissions are concentrated, and receptors in close proximity are exposed

As discussed in Section 3.1 of the *Sepulveda Transit Corridor Project Air Quality Technical Report* (Metro, 2025f), the emissions analysis incorporated Tier 4 Final engines for off-road equipment greater than or equal to 50 horsepower, trucks with model years 2007 or newer, and included dust control measures to be implemented during each phase of construction, as required by SCAQMD Rule 403. The construction analysis for Alternative 6 conservatively assumed all equipment would be diesel powered. The Metro Green Construction Policy contains measures that aim to reduce construction emissions through utilization of hybrid drive off-road equipment and using electric power instead of diesel power.

Although MM AQ-1, MM AQ-2, and MM AQ-3 prescribed as follows would reduce criteria pollutant emissions during construction, including localized PM_{10} emissions, mitigation measures would not reduce Alternative 6 PM_{10} emissions below SCAQMD localized significance thresholds; therefore, Alternative 6 construction emissions would potentially expose sensitive receptors to substantial concentrations and impacts would be significant and unavoidable.

The SCAQMD's LSTs for each SRA represent the maximum emissions a project can emit without causing or contributing to a violation of any short-term NAAQS or CAAQS. As noted previously, the NAAQS and CAAQS are health-protective standards that define the maximum amount of ambient pollution that can be present without harming public health. Consequently, projects with emissions below the applicable LSTs would not be in violation of the NAAQS or CAAQS and, thus, EPA and CARB health-protective standards. Because Alternative 6 construction emissions would exceed the PM_{10} LST, Alternative 6 would cause or contribute to a violation of one or more health-protective CAAQS and NAAQS. Given that DPM emissions constitute a portion of localized PM_{10} emissions, impacts related to localized DPM emissions during construction are also considered to be significant and unavoidable due to the following: (1) the elevated background carcinogenic risk, (2) the duration of construction activity, and (3) the proximity of sensitive receptors to DPM emissions sources.

9.2.1.4 Impact AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

During construction of Alternative 6, exhaust from equipment, activities associated with the application of architectural coatings and other interior and exterior finishes, and paving activities may produce discernible odors typical of most construction sites. Such odors would be, at worst, a temporary source of nuisance to adjacent uses, if at all, and would not affect a substantial number of people. Alternative 6 would use architectural coatings compliant with SCAQMD Rule 1113, which would limit the odors associated with off-gassing from those coatings. Additionally, material deliveries and heavy-duty haul truck trips could occasionally produce odors from diesel exhaust. These odors would not affect a substantial number of people because construction would be temporary, and construction-generated emissions dissipate rapidly with increasing distance from the source. Overall, odors associated with

Alternative 6 construction would be temporary and intermittent in nature and would not create a significant level of objectionable odors affecting a substantial number of people.

9.2.1.5 Mitigation Measures

Construction Impacts

Under Alternative 6, there would be potential construction impacts related to exceedances of South Coast Air Quality Management District regional emissions thresholds for nitrogen oxides and carbon monoxide, as well as localized emissions thresholds for respirable particulate matter of diameter less than 10 microns and (fine particulate matter of diameter less than 2.5 microns). Therefore, the following three mitigation measures were developed.

MM AQ-1: *The Project shall require zero emissions or near zero emissions on-road haul trucks such as heavy-duty trucks with natural gas engines that meet or exceed the California Air Resources Board's adopted optional nitrogen oxides emissions standard at 0.02 grams per brake horsepower hour (g/bhp-hr), if and when feasible. Operators shall maintain records of all trucks associated with project construction to document that each truck used meets these emission standards. These records shall be submitted monthly to Metro for review and shall be made available to regulatory agencies upon request. To ensure compliance, Metro or its designated representative shall conduct regular inspections of construction operations, including on-site verification of truck compliance. Inspections shall occur at least twice per month during active construction. Any contractor found to be using non-compliant trucks without prior approval from Metro shall be subject to penalties, including suspension of operations until compliance is achieved.*

MM AQ-2: *Construction contracts shall include language that compels contractors to implement all policies and emissions control measures as presented in Metro's Green Construction Policy.*

MM AQ-3: *Construction contracts shall include language that compels contractors to implement all fugitive dust control measures as detailed in South Coast Air Quality Management District.*

Impacts After Mitigation

Although construction of the Project alternatives would require implementation of MM AQ-1, it is not technically feasible at the time of document preparation to verify the commercial availability of zero emissions (ZE) and near zero emissions (NZE) trucks to the extent needed to reduce construction-period NO_X, CO, PM_{10}, and $PM_{2.5}$ emissions below SCAQMD's regional and localized emissions thresholds. MM AQ-2 and MM AQ-3 simply enforce Metro and SCAQMD policies that are already required, independent of any additional prescribed mitigation. Given the current uncertainty around the availability of sufficient ZE and NZE trucks to reduce construction period impacts, impacts regarding construction period emissions would remain significant and unavoidable. Due to this uncertainty, all of the project alternatives would result in NO_X and PM_{10} construction emissions that cannot be reduced below SCAQMD's regional and localized emissions thresholds. In addition to significant and unavoidable construction-period NO_X and PM_{10} emissions, Alternatives 1 and 3 would also result in significant and unavoidable construction emissions of CO, and Alternatives 4 and 5 would result in significant and unavoidable construction emissions of CO and $PM_{2.5}$.

9.2.2 Communities and Neighborhoods

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-6.

Table 9-6. Alternative 6: Communities and Neighborhoods Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 6
Communities and Neighborhoods Operational Impacts		
Impact POP-1: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact PUB-3: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-3: Would the project result in a determination by the wastewater treatment provider who serves, or may serve, the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-4: Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Communities and Neighborhoods Construction Impacts		
Impact POP-1: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternative 6
Impact PUB-3: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-3: Would the project result in a determination by the wastewater treatment provider who serves, or may serve, the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-4: Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact US-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025b

LTS = less than significant
NA = not applicable
POP = population, housing, and growth
PUB = public services
US = utilities and service systems

9.2.2.1 Impact POP-1: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Alternative 6 would result in temporary economic growth through the influx of construction workers to the Alternative 6 RSA. However, these workers would likely be sourced from the local labor pool, and thus the temporary employment opportunities under Alternative 6 are unlikely to directly foster the construction of permanent housing for workers in the Alternative 6 RSA. Thus, construction of Alternative 6 would result in less than significant impacts related to unplanned economic or population growth.

Maintenance and Storage Facilities

Construction of the MSF would not construct any new housing units, and therefore the MSF would not generate new or unplanned population and housing growth. Thus, construction of the MSF would result in less than significant impacts related to unplanned economic or population growth.

9.2.2.2 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Construction of Alternative 6 would involve site preparation and demolition of structures; utility relocation; tunneling and cut-and-cover activities; installation of tiebacks to support the subsurface alignment; construction of subsurface alignment, stations, MSF, TPSS, auxiliary facilities, and parking facilities; street widening; and street and sidewalk reconstruction. Some parcels that would be permanently acquired for the operations of Alternative 6 would also be used for construction purposes (e.g., installation of tiebacks or for construction access, staging, and laydown). Temporary acquisitions would be required for parcels that would only be used as TCEs or tieback easements. These TCEs would only occupy portions of the affected residential properties as required to support construction vehicle access and would not substantially interfere with the habitability of the impacted residential properties.

Construction activities associated with Alternative 6 would not result in the displacement of any residential dwelling units. Therefore, no impacts related to the displacement of residential units and residents that would necessitate the construction of replacement units would occur as a result of Alternative 6 construction.

Maintenance and Storage Facilities

The proposed MSF site is currently developed as an auto storage lot. No residential uses are located on the MSF site; therefore, while property acquisitions would be required to develop the MSF, no residential displacements would occur that would necessitate the construction of replacement unit. The MSF would result in no impact.

9.2.2.3 Impact PUB-3: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools or other public facilities?

Construction of Alternative 6 would be temporary and does not require the expansion of existing school facilities. No educational facilities are located immediately adjacent to the proposed alignment or transit stations. Table 10-3 of the *Sepulveda Transit Corridor Project Communities and Neighborhoods Technical Report* (Metro, 2025b), lists the school facilities located within the RSA, most of which would be subject to construction-related disruptions. In particular, Little Village Nursery School is located within 500 feet of proposed TBM launch site at Pico Boulevard. During construction, substantial truck traffic would be experienced along Pico Boulevard as well as various construction-related traffic disruptions associated with equipment movement and construction personnel accessing the TBM launch site. During certain periods of construction activities at the TBM launch site would require temporary closure or lane reductions to accommodate tunnel boring operations. Closures and lane reductions along local roadways could impede the vehicle circulation network in the RSA as well as access to nearby schools.

Similarly, during construction of the UCLA Gateway Plaza Station, pedestrian movements and access through UCLA Gateway would be inhibited by the presence of construction equipment and activities affecting Westwood Plaza and adjacent pedestrian areas. All educational facilities on the UCLA campus would remain accessible and functional throughout construction and no new or physically altered education facilities would be required on the UCLA campus. Despite these temporary disruptions, it is anticipated that access to all schools in the Alternative 6 RSA would be maintained throughout construction.

Since construction-related disruptions to the roadway network would be temporary and access to all schools and other public facilities would be maintained throughout construction, no new or temporary schools or other public facilities would be needed. Impacts to schools and other public facilities would be less than significant

Maintenance and Storage Facilities

The proposed MSF site currently consists of an auto storage lot. MSF site construction activities do not include construction of educational facilities or require the expansion of existing educational facilities. No school facilities are located on or adjacent to the site. The nearest school is Panorama High School located approximately 0.5 miles northwest of the proposed MSF site. Construction of the MSF would not affect on-site or street parking or otherwise affect access to Panorama High School. The nearest other public facility is the Panorama City Post Office located approximately 1 mile north of the proposed MSF site. Given the distance of the post office from the MSF site, there would be no potential to affect access to any community facilities. Therefore, impacts to school facilities associated with the MSF construction would be less than significant. Implementation of MM TRA-4 would require a Transportation Management Plan (TMP) (refer to Section 9.2.14.5) that specifies measures to lessen disruption during construction and to maintain access to schools and associated circulation patterns.

9.2.2.4 Impact US-1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Utility conflicts would primarily occur within the proposed station and cross over areas since it is assumed the areas will be constructed using a cut-and-cover excavation method. In roadway areas, a temporary roadway decking will be installed and, where feasible, the existing utilities will be supported or hung from the underside of the decking. The depth of the decking is typically 2.5 to 3 feet from the ground surface. As such, any utility known to be shallower than 3 feet has been assigned the disposition of a relocation. Since not all utility depth data is available and the condition of each utility is unknown, additional subsurface utility investigation is recommended to verify the assumptions and impacts. In areas outside of the cut-and-cover construction methods, deep tunnel segments are proposed, which traditionally produce little to no utility impacts. Potentially impacted utilities are shown in Table 9-7. Approximately 136 components of utility infrastructure would be potentially impacted including 45 electrical, 29 water, 22 sewer, 23 telecommunications, 10 natural gas, and 7 storm drainage.

These components would likely be relocated near existing facilities, typically within a few feet of existing locations. The utility relocation efforts could potentially result in environmental effects related to construction and the temporary disruption of services, including generating construction emissions, disrupting roadway circulation, and temporarily decreased capacity of the electrical, natural gas, water supply, water treatment system, and telecommunications systems. These potential impacts are included in the assessments of construction-related impact in the relevant resource sections of the Draft Environmental Impact Report. Pursuant to project feature (PF)-US-1, Utility Identification and Coordination, if relocations are required, the construction contractor would verify the locations of existing utilities potentially affected by construction activities and determine specific relocation and setback and, pursuant to PF-US-2, Service Interruption Notification, the construction contractor would develop a construction plan that minimizes interruptions to utilities services to the greatest extent feasible and notify the public if/when interruptions would occur. Therefore, construction of Alternative 6 would result in a less than significant impact related to utilities and service systems.

Table 9-7. Alternative 6: Potentially Impacted Utilities

Utility Type	Number of Potentially Impacted Utilities
Electrical	45
Gas	10
Oil	0
Sewer	22
Storm Drainage	7
Telecommunications	23
Water	29
Total	**136**

Source: HTA, 2024

Water Facilities

Construction of Alternative 6 would not require substantial consumption of potable water. Water use would occur primarily through water trucks required for dust control and operation of the TBM. Although water use for construction would occur over a multi-year construction period, the water supply in the RSA has been determined to be adequate to meet demand, including construction water use, in normal, single-dry year, and multiple dry years. Construction of Alternative 6 would therefore not require the expansion or construction of new water facilities. Therefore, construction of Alternative 6 would result in a less than significant impact related to water facilities.

Wastewater Treatment

Construction activities would generate negligible wastewater through the use of temporary worker restrooms, which would have no potential to necessitate the construction of new or expanded wastewater facilities. Wastewater treatment facilities would not be required to be relocated during construction of Alternative 6. Therefore, construction of Alternative 6 would result in a less than significant impact related to wastewater facilities.

Stormwater Drainage

Stormwater runoff would be increased in the RSA as a result of construction. As described in the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g), any drainage pattern impacts from construction would be minor and temporary, minimizing the potential for exceeding stormwater drainage systems. In accordance with the Construction General Permit and Municipal Separate Storm Sewer Systems Permits, Alternative 6 would be required to prepare and submit a construction Stormwater Pollution Prevention Plan (SWPPP), which must be submitted to the State Water Resources Control Board prior to construction and be adhered to during construction. The construction SWPPP would identify the BMPs that would be in place prior to the start of construction activities and during construction. These measures would help reduce stormwater runoff velocity, thereby limiting its capacity to cause stormwater drainage systems exceedance. If necessary, new stormwater drainage facilities constructed at stations or along the alignment would comply with design requirements established by state and local regulations. For additional information regarding state and local regulations governing stormwater pollution prevention, refer to the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g). Compliance with these state and local regulations would reduce construction related impacts to stormwater drainage facilities. Therefore, a less than significant impact would occur related to stormwater drainage facilities.

Electric Power

Construction of Alternative 6 has no potential to require new or expanded electric power facilities. Minimal electricity would be used to power field offices for the construction contractor. Temporary lighting or some electrically powered pieces of construction equipment may temporarily consume electricity. Electric power would also be required for powering the TBM, but would be a temporary use and would cease upon completion of tunneling activities. Therefore, construction of Alternative 6 would result in a less than significant impact related to electric power facilities.

Natural gas

Construction of Alternative 6 has no potential to require new or expanded natural gas or oil facilities. Minimal natural gas would be required. Therefore, construction of Alternative 6 would result in a less than significant impact related to natural gas and oil infrastructure.

Telecommunication Facilities

Construction activities would have no potential to necessitate the construction of new or expanded telecommunication facilities. It is anticipated that existing telecommunication facilities would still be able to adequately serve construction crews and RSA. Therefore, a less than significant impact would occur related to telecommunication facilities.

Maintenance and Storage Facilities

Construction of the proposed MSF would require relocation of existing utilities. A significant portion of the proposed MSF is occupied by industrial uses. These utilities would likely be relocated near existing facilities, typically within a few feet of existing locations. The majority of utilities would be abandoned and new utilities installed in their place. The utility relocation efforts and installation of new utilities could potentially result in environmental effects related to construction and the temporary disruption of services, including generating construction emissions, disrupting roadway circulation, and temporarily decreased capacity of the electrical, natural gas, water supply, water treatment system, and telecommunications systems. These potential impacts are included in the assessments of construction-related impact in the relevant resource sections of the Draft Environmental Impact Report. Pursuant to PF-US-1, Utility Identification and Coordination, if relocations are required, the construction contractor would verify the locations of existing utilities potentially affected by construction activities and determine specific relocation and setback and, pursuant to PF-US-2, Service Interruption Notification, the construction contractor would develop a construction plan that minimizes interruptions to utilities services to the greatest extent feasible and notify the public if/when interruptions would occur. Therefore, construction of the proposed MSF would result in a less than significant impact related to utilities and service systems.

9.2.2.5 Impact US-2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Construction of Alternative 6 would not require substantial consumption of potable water. Water use would occur primarily related to water trucks required for dust control. However, a TBM would be used during construction of Alternative 6. Slurry would be used to apply fluid (hydraulic) pressure to the tunnel face and to transport soil cuttings from the tunneling machine's pressure chamber to the surface. The slurry would require water use since water is added to the bentonite to create the fluid mixture used in the TBM. Water from the discharge slurry would be recycled for further use in preparing slurry. Water would also be required for cooling the TBM motors. Typically, cooling water is recycled and

cooled using cooling towers near the access shafts. Thus, cooling water will have little impact on water use or discharge into the sanitary or storm drain system. Water use for the cooling towers would be temporary during construction and would be approved during specific construction design. The short-term use of water requires minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities. Therefore, construction of Alternative 6 would result in a less than significant impact related to water supplies.

Maintenance and Storage Facilities

Similar to construction of the transit line, the proposed MSF would not require substantial consumption of potable water. Water use would occur primarily related to water trucks required for dust control. The short-term use of water would require minimal water supplies when compared to regional supplies. Water supplies would not be impacted by limited water use during construction activities. Therefore, construction of proposed MSF would result in a less than significant impact related to water supplies.

9.2.2.6 Impact US-3: Would the project result in a determination by the wastewater treatment provider who serves, or may serve, the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Alternative 6 would generate wastewater during construction through the use of temporary worker restrooms and limited construction uses. Any wastewater generated during construction would be transported to wastewater facilities via vacuum service trucks. The RSA is serviced by the Joint Water Pollution Control Plant, Hyperion Water Reclamation Plant, Donald C. Tillman Water Reclamation Plant, and the Los Angeles-Glendale Water Reclamation Plant, which have a combined capacity of 950 million gallons of wastewater per day. The City of Santa Monica has an additional 1 million gallons per day of wastewater treatment capacity from its sustainable Water Infrastructure Project wastewater treatment facility. Wastewater generated by temporary worker restrooms for construction of Alternative 6 would represent a negligible proportion of the daily wastewater processed by the regional water reclamation plant and the facilities are anticipated to have adequate capacity to serve Alternative 6. Therefore, construction of Alternative 6 would result in a less than significant impact related to wastewater treatment capacity.

Maintenance and Storage Facilities

Similar to construction of the transit line, the proposed MSF would generate wastewater during construction through the use of temporary worker restrooms and limited construction uses. Any wastewater generated during construction would be transported to wastewater facilities via vacuum service trucks. Wastewater generated by temporary worker restrooms for construction of the proposed MSF would represent a negligible proportion of the daily wastewater processed by the regional water reclamation plants and the facilities are anticipated to have adequate capacity. Therefore, construction of the proposed MSF would result in a less than significant impact related to wastewater treatment capacity.

9.2.2.7 Impact US-4: Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Construction of Alternative 6 would generate solid waste related to discarded construction material. Solid waste would be hauled to regional landfills that have a remaining approximate capacity of

256,156,907 cubic yards (CY). Contaminated soils and hazardous building materials will be disposed of at permitted landfills. Landfills that accept contaminated soils include the Clean Harbors Button Willow Landfill located in Button Willow, California, the South Yuma County Landfill located in Yuma, Arizona, and the US Ecology Landfill located in Beatty, Nevada. The Clean Harbors Button Willow Landfill has a maximum permitted capacity of 10,500 tons per day and a maximum remaining capacity of 13,250,000 CY.

Based on the processing capacity of the Button Willow, California Landfill and the other two sites as a representative sample of contaminated soil processing capacity, landfills would be able to adequately process the small amount of contaminated soil anticipated to be generated by Alternative 6. Contaminated soil processing would not be limited to the identified landfills and could potentially occur at other permitted landfills. The TBM would also generate muck during the tunneling process that would be required to be disposed of at regional landfills. Alternative 6 would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Additionally, construction of Alternative 6 would be required to comply with all applicable federal, state, and local statutes and regulations pertaining to solid waste disposal. The construction contractor would comply with Assembly Bill 939, which requires a Solid Waste Diversion Program and diversion of at least 50 percent of the solid waste generated during construction activities from landfills to recycling facilities. Regional facilities have capacity for construction-related solid waste. Therefore, construction of Alternative 6 would result in a less than significant impact related to compliance with solid waste standards and capacity.

Maintenance and Storage Facilities

Construction of the proposed MSF would generate solid waste related to discarded construction material. Solid waste would be hauled to regional landfills that have a remaining approximate capacity of 256,156,907 CY. Due to the industrial nature of the existing uses, contaminated soils would also be encountered during construction. Contaminated soils would be transported to the Clean Harbors Button Willow Landfill, the South Yuma County Landfill, the US Ecology Landfill, or other permitted hazardous materials landfills. The proposed MSF would not generate a substantial amount of solid waste during construction that would result in the exceedance of remaining regional capacity. Additionally, construction of the MSF would be required to comply with all applicable federal, state, and local statutes and regulations pertaining to solid waste disposal, including AB939. Therefore, construction of the MSF would result in a less than significant impact related to compliance with solid waste standards and capacity.

9.2.2.8 Impact US-5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Alternative 6 would generate typical construction waste such as wood, concrete, and asphalt. Additionally, because Alternative 6 would be constructed within an urban built out environment, Alternative 6 is anticipated to encounter contaminated soil. As described previously, regional permitted facilities are anticipated to have the capacity to process all contaminated and non-contaminated construction related solid waste. Alternative 6 would fully comply with all federal, state, and local statutes and regulations regarding proper disposal, including AB 939 and AB 1327. Additionally, California Green Building Standards requires construction projects to recycle and/or salvage for reuse a minimum 65 percent of the nonhazardous construction and demolition waste or meet a local construction and demolition waste management ordinance, whichever is more stringent. There is no

element of construction activities that would be outside of compliance. Therefore, no impact would occur related to compliance with solid waste regulations.

Maintenance and Storage Facilities

Solid waste generated during construction activities associated with the proposed MSF would comply with AB 939, AB 1327 and all federal, state, and local statutes and regulations regarding proper disposal. Therefore, no impact would occur related to compliance with solid waste regulations.

9.2.2.9 Mitigation Measures

Construction Impacts

Construction of Alternative 6 would have a less than significant impact. Construction of Alternative 6 would require implementation of MM TRA-4 (refer to Section 9.2.14.5) to reduce disruption caused by construction work zones.

Impacts After Mitigation

After implementation of mitigation measures, Alternative 6 would result in less than significant impacts with mitigation.

9.2.3 Climate Change and Greenhouse Gas Emissions

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-8.

Table 9-8. Alternative 6: Climate Change and Greenhouse Gas Emissions Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 6
Climate Change and Greenhouse Gas Emissions Construction Impacts		
Impact GHG-1: Would the project result in greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025d

GHG = greenhouse gas emissions
LTS = less than significant
NA = not applicable

9.2.3.1 Impact GHG-1: Would the project result in greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction of Alternative 6 would result in greenhouse gas (GHG) emissions from off-road equipment, mobile sources including worker vehicles, vendor trucks, and haul trucks, as well as electricity consumptions from usage of TBMs and on-site portable offices. These emissions sources would be related to constructing the HRT system alignment, TPSSs, stations, and MSF.

As discussed in Section 3.1 of the *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report* (Metro, 2025d), construction GHG emissions are measured exclusively as cumulative impacts; therefore, the Alternative 6 construction emissions are considered part of its total

GHG emissions in conjunction with operational emissions. In accordance with SCAQMD guidance (SCAQMD, 2008), the Alternative 6 construction emissions were amortized over its design lifetime of 30 years, then combined with the Alternative 6 annual operational GHG emissions. Table 9-9 summarizes the Alternative 6 GHG emissions throughout the construction period. Alternative 6 construction would generate a total of 211,656 $MTCO_2e$ and would result in 7,055 $MTCO_2e$ annually when amortized over the project lifetime of 30 years.

Table 9-9. Alternative 6: Construction Greenhouse Gas Emissions

Construction Year	GHG Emissions ($MTCO_2e$)[a,b]
2029	8,303
2030	18,321
2031	11,210
2032	10,637
2033	12,118
2034	10,056
2035	13,064
2036	5,868
2037	842
TBM Electricity Consumption	121,166
Portable Office Electricity Consumption	71
Total	**211,656**
Amortized Construction Emissions (30 Years)	7,055

Source: HTA, 2024

[a]Totals may vary due to rounding.

[b]GHG emissions related to electricity consumption represent the total GHG emissions over the entire construction period.

$MTCO_2e$ = metric tons of carbon dioxide equivalents

Because construction emission sources would cease once construction is complete, they are considered short term. It should be noted that total and annual construction GHG emissions represent a conservative assessment because GHG emissions would decrease in future years as the construction industry shifts toward implementation of cleaner fuels (i.e., electrified equipment) and more efficient technologies. Additionally, Metro's Green Construction Policy requires contractors to use renewable diesel which would reduce upstream GHG emissions related to producing the fuel, as well as reduce GHG emissions from fuel combustion in off-road equipment and trucks as compared to petroleum diesel. GHG emissions for electric powered equipment such as the TBM and portable offices would also decrease in future years as LADWP continues to increase the amount of renewable energy sources in its power mix to meet state RPS goals. Thus, the annual construction GHG emissions associated with Alternative 6 would decrease with time and are likely to be lower than estimated herein. Annual operations of Alternative 6 compared to 2045 without Project conditions would result in a net reduction of GHG emissions; therefore, impacts from Alternative 6 construction emissions would be considered less than significant.

9.2.3.2 Impact GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Construction of Alternative 6 would generate short-term GHG emissions related to off-road equipment, mobile sources, and electricity consumption. Alternative 6 construction would comply with Metro's

Green Construction Policy (GCP), which requires idling restrictions for off-road equipment and trucks, using trucks with model years 2007 or newer, and implementing BMPs, such as using electric powered equipment in lieu of diesel equipment where available. Upon completion of Alternative 6 construction, these emissions would cease. As GHG emissions are exclusively cumulative impacts, the Alternative 6 amortized construction emissions were included with the long-term operational emissions for Alternative 6. As such, construction emissions were evaluated in conjunction with annual operational emissions in the next section. Based on the following discussion, annual operational emissions, which included construction emissions, were found to not conflict with plans or policies to reduce GHG emissions, therefore impacts for construction related GHG emissions would be less than significant.

9.2.3.3 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

9.2.4 Ecosystems and Biological Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-10.

Table 9-10. Alternative 6: Biological Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 6
Biological Resources Construction Impacts		
Impact BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-4 through MM BIO-10, MM BIO-17 MM BIO-18, MM BIO-29
	Impacts After Mitigation	LTS
Impact BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-10, MM BIO-16 through MM BIO-18, MM BIO-23 through MM BIO-25
	Impacts After Mitigation	LTS
Impact BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-15, MM BIO-18, MM BIO-21
	Impacts After Mitigation	LTS
Impact BIO-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-4, MM BIO-5, MM BIO-7, MM BIO-14
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternative 6
Impact BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-5 through MM BIO-10, MM BIO-13, MM BIO-14
	Impacts After Mitigation	LTS
Impact BIO-6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025k

BIO = biological resources
LTS = less than significant
MM = mitigation measure
NA = not applicable
NI = no impact
PS = potentially significant

9.2.4.1 Impact BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Wildlife or plant species and sensitive vegetation communities both directly and through modifications to suitable habitat during construction of stations, staging areas, the mid-mountain facility, and the MSF. Construction activities for Alternative 6 would result in significant impacts to special-status wildlife including nesting birds, special-status plant species, and sensitive vegetation communities if mitigation measures are not implemented. These potentially significant impacts include injury to or mortality of individuals, habitat loss due to permanent vegetation removal, behavioral or health modifications from noise pollution or exposure to fugitive dust from prolonged heavy equipment operation, and behavioral modifications extended human disturbances within species habitats during construction.

Since Alternative 6 is an underground alignment, Ground Disturbance Area is only present within the station footprints, staging areas, the MSF, and the mid-mountain facility and associated access road; clearing and grading of native vegetation would be required for construction of these components. Construction of the three tunnel segments would be underground except for the launch and extraction sites within stations or staging areas that are included in the Ground Disturbance Area. Native vegetation is concentrated around the mid-mountain facility; vegetation elsewhere within the Ground Disturbance Area is predominantly non-native and/or ornamental landscaping within developed areas, although native vegetation could be present in remnant patches. If required mitigation measures are not enacted, Alternative 6 would result in a potentially significant impact to special-status plant and wildlife species, including nesting birds, as a result of construction activities. Potential impacts include habitat loss from permanent vegetation removal activities, noise pollution from prolonged heavy equipment operation, and prolonged human-induced disturbances associated with the construction for Alternative 6.

Other anticipated construction impacts related to the construction of Alternative 6 include the possibility of increased noise, dust, and vibration during at-grade impacts such as “cut-and-cover” installation of the stations, clearing and grading at the mid-mountain facility and associated access road,

and at the TBM launch and extraction locations for the tunnel excavation (launch sites at Metro E Line Station, Ventura Station, and Van Nuys Metrolink Station in the north, extraction sites at the UCLA Gateway Plaza Station and Ventura Station). While these areas are developed and therefore less likely for special-status species to be present, trees are present that provide potential habitat for special-status birds.

For construction of the underground tunnel, impacts of noise, dust, and vibration are not expected at surface levels except at the tunnel portal near the Metrolink ROW, which is a developed area already subject to disturbances. Excessive noise generated by heavy equipment operation could significantly disturb avian species and/or other special-status species who are dependent on auditory signals during essential daily activities. Vibration related disturbance from drilling could also disrupt their normal behavioral patterns near the TBM launch and extraction sites; impacts through the Santa Monica Mountains are not anticipated due to tunnel depth. Construction-related dust (associated with construction of stations, vegetation clearing, grading, etc.) would significantly impact habitat quality by depositing on vegetation, which may reduce photosynthesis and increase leaf temperature, making vegetation more susceptible to drought (Farmer, 1993). Evaluation of the Project's impact on wildfire risk and occurrence is discussed in the wildfire chapter of the *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Metro, 2025o).

Vegetation Communities/Land Cover Types and Sensitive Vegetation Communities

Direct impacts to vegetation communities would occur within the Ground Disturbance Area; acreages of temporary and permanent impacts to vegetation communities within Alternative 6 are detailed in Table 9-11. Due to the sparse vegetation, lack of diversity, and continued anthropogenic disturbance, special-status species are less likely to be found in developed land cover types. Approximately 81 percent (106.7 acres) of the acreage in Alternative 6 planned for ground disturbing activities consists of developed or undifferentiated artificial cuts/embankments. Excluding these developed areas, construction of Alternative 6 is anticipated to result in 10.2 acres of temporary impacts and 23.4 acres of permanent impacts are anticipated from the construction of Alternative 6. Within the vegetated areas subject to impacts, approximately 3 percent (4.1 acres of temporary impacts) is California annual grassland. The remaining vegetation communities are native vegetation in nine communities that represent approximately 15 percent (19.3 acres) of the impacts, of which 11.1 acres are anticipated to be permanently impacted and 8.0 acres are anticipated to be temporarily impacted from construction of Alternative 6. Indirect impacts to vegetation communities may also occur during construction activities. For example, fugitive dust deposition on foliage may reduce photosynthesis and increase plant vulnerability to drought. Additionally, vegetation removals may increase edge effects, including incursion of nonnative, weedy plants that compete with natives for space and resources.

One sensitive vegetation community, California walnut woodland, represents 12.0 acres that would be permanently and temporarily impacted from clearing and grading of native vegetation at the mid-mountain facility by Stone Canyon Reservoir. An additional five vegetation communities have potential to be considered sensitive (** in Table 9-11) depending upon the associated codominant plants present (Section 3.2.2 and Section 10.2.5.4 in the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* [Metro, 2025k]). Up to an additional 5.6 acres of potentially sensitive communities would be impacted at the mid-mountain facility. For this analysis, Metro is conservatively considering impacts to these communities to be significant pending further analysis and refinement of vegetating mapping.

The removal and degradation of native and sensitive vegetation communities would constitute potentially significant impacts.

Table 9-11. Alternative 6: Impacts on Land Cover Types and Vegetation Communities

Vegetation Community/Land Cover Type [a]	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Impacts (acres) [b]	Percent of Total Project Impacts
Developed	83.8	22.9	106.7	81.0
Developed Total	**83.8**	**22.9**	**106.7**	**81.0**
California Walnut Woodland*	7.6	4.4	12.0	9.2
California Annual Grassland	1.9	2.2	4.1	3.2
Black Sage Shrubland**	1.5	2.6	4.1	3.1
Undifferentiated Vegetation – Artificial cuts/Embankments	0.7	0.7	1.4	1.0
Ceanothus Chaparral	0.7	0.1	0.8	0.6
California Sagebrush-California Buckwheat Shrubland**	0.4	0.3	0.7	0.6
Coast Live Oak Woodland	0.5	0.1	0.6	0.4
Coyote Brush Shrubland**	0.2	0.4	0.5	0.4
Chamise-Black Sage Shrubland	0.2	0	0.2	0.2
Undifferentiated Chaparral Shrubland**	0.2	0	0.2	0.1
California Encelia Shrubland**	0.1	0	0.1	0.1
Total excluding Developed	**13.9**	**10.8**	**24.7**	**19.0**
GRAND TOTAL	**97.7**	**33.7**	**131.4**	**100.0**

Sources: HTA, 2024

[a]Vegetation communities based on the classifications provided in *A Manual of California Vegetation*, 2nd Edition (Sawyer et al., 2009).

[b]Inconsistencies in calculations due to rounding.

*Sensitive vegetation community
**Potential sensitive vegetation community based on codominant species on-site.

Special-Status Invertebrates

One special-status invertebrate, Crotch's bumble bee, has potential to be present within the Alternative 6 RSA during construction activities. Despite having a relatively narrow range, this species is known to use a wide variety of natural and disturbed habitat for nesting and foraging and could be present throughout the RSA in undeveloped areas where pavement is not present and the earth is not regularly maintained through grading, tilling or planting. Based on their broad range of suitable habitat and generalist foraging behavior, Crotch's bumble bee are likely to forage throughout the RSA where preferred flowering plants are present (e.g., native sage species (*Salvia* spp.), milkweeds (*Asclepias* spp.), and plants within the pea family (*Fabaceae*) and may nest where abandoned rodent burrows are present.

Individuals in occupied burrow nests or overwintering queens in surface soils would be crushed or trapped during construction if present within the Ground Disturbance Area. Additionally, foraging Individuals also would be injured or killed if they are foraging during vegetation clearing activities. This species would also be impacted by the removal of nectar sources and nests in the Ground Disturbance Area resulting from construction of Alternative 6 features, including the mid-mountain vent shaft and access road (Stone Canyon Reservoir) and TPSS site 5. Ground-disturbing impacts from grading and

vegetation clearing throughout the RSA would impact individuals and would likely result in loss of suitable habitat that would be used for nesting, breeding, shelter, and/or foraging for Crotch's bumblebee; this is considered a significant impact.

The loss of individual Crotch's bumble bees and suitable habitat for this species suitable habitat for Crotch's bumble bee would constitute a significant impact.

Special-Status Reptiles

Three special-status reptiles are known to occur and two have a high or moderate potential to occur within the Alternative 6 RSA; individuals of these species may be present during construction activities. Reptiles present during construction activities would be directly injured or killed due to collisions with vehicles and equipment or during vegetation clearing activities. Species that shelter in burrows or under debris would be entrapped and suffocate or be crushed during grading activities; buried nests would be similar crushed or destroyed. Additionally, if individuals become entrapped in open trenches or excavations during construction activities, they would be subject to injury or mortality due to dehydration, opportunistic predation, inability to properly thermoregulate, starvation, or other causes associated with constrained movement. Indirect impacts would include disruption of normal feeding, basking, sheltering, and breeding behaviors due to avoidance of excessive noise and vibration, fugitive dust, and increased human presence. Normal movement patterns throughout a home range also may be disrupted temporarily by avoidance of areas adjacent to construction activities, or permanently by habitat structure modifications. During construction, special-status reptiles also may be subject to higher predation rates by opportunistic predators such as common ravens (*Corvus corax*), coyote, or skunk, that would be attracted to work areas if food debris is present.

Two of the species, southwestern pond turtle and two-striped garter snake, are most likely to occur near aquatic resources such as the Stone Canyon Reservoir. Based on habitat requirements, the remaining three are most likely to be found in the Santa Monica Mountains. Individuals would be found in or proximate to the mid-mountain facility in the Santa Monica Mountains. Construction of the facility would involve clearing and grading of native vegetation adjacent to the reservoir. The clearing of vegetation in the Santa Monica Mountains would likely result in injury or mortality of individuals, disruptions of natural behaviors, and loss of suitable habitat that would be used for nesting, breeding, shelter, and/or foraging for the following five special-status reptiles:

- Southwestern pond turtle (*Actinemys pallida,* federal candidate for listing)
- Southern California legless lizard (*Anniella stebbinsi*, SSC)
- Coastal whiptail (*Aspidoscelis tigris stejnegeri,* SSC)
- Coast horned lizard (*Phrynosoma blainvillii*, SSC)
- Two-striped garter snake (*Thamnophis hammondii*, SSC)

The loss of individuals and suitable habiting for these special-status species would constitute a significant impact.

Special-Status Birds

Eight special-status bird species have a high or moderate potential to occur within the Alternative 6 RSA; none were present. Based on habitat requirements for these eight species, they are likely to be found throughout the RSA in transit, resting and/or foraging from the UCLA campus in the south to the centrally located Stone Canyon Reservoir. Birds in transit are unlikely to be affected by construction activities; adults are highly mobile and can be expected to relocate away from construction activities of their own volition. However, migratory individuals may experience temporary or permanent loss of

transitory habitat. If overwintering burrowing owls are present, individuals would be entrapped and suffocate or be crushed if burrows are present in the work areas during grading and vegetation removal. Additionally, grading would result in loss of suitable wintering burrows for migratory burrowing owls. If native birds breeding within or adjacent to work areas, nests, eggs, and nestlings would be vulnerable to destruction, injury, or mortality if they are present during vegetation clearing and other construction activities. Ground nests may be vulnerable to crushing, trampling, or destruction by pedestrians and vehicles. Nests in adjacent areas also may be exposed to noise, fugitive dust, human presence, and vibration that would disrupt natural breeding behaviors including incubation of eggs and care and feeding of young; these disruptions would result in failure of a nest to successful produce young. Excessive disruption, or substantial changes in habitat during the nesting period, would also result in abandonment of nest sites, eggs, or young. Further, impacts associated with clearing and grading of vegetation for the mid-mountain facility would likely result in loss of suitable habitat that would be used for nesting, breeding, shelter, and/or foraging for the following eight special-status avian species and nesting birds protected under the MBTA:

- Tricolored blackbird (*Agelaius tricolor*, state threatened and SSC)
- Burrowing owl (*Athene cunicularia*, state candidate and SSC)
- Swainson's hawk (*Buteo swainsoni*, state threatened)
- Northern harrier (*Circus hudsonius*, SSC)
- Olive-sided flycatcher (*Contopus cooperi*, SSC)
- Bald eagle (*Haliaeetus leucocephalus*, state endangered and fully protected)
- Loggerhead shrike (*Lanius ludovicianus*, SSC)
- Vermilion flycatcher (*Pyrocephalus obscurus*, SSC)

The loss of nests, eggs, or nestlings, impacts to natural breeding behaviors, eviction from wintering burrows, and loss of suitable habiting for these special-status species would constitute a significant impact.

Special-Status Mammals

Three special-status mammals were identified as present within the Alternative 6 RSA. Mountain lions are known to occur within the Santa Monica Mountains, while the silver-haired and hoary bat have broader habitat requirements and have potential to forage in both natural and developed habitats. Within the Santa Monica Mountains, special-status mammals would occur in or proximate to work areas with ground disturbing activities. Impacts from installation of the mid-mountain facility would include clearing and grading of native vegetation.

Within the developed northern and southern ends of the projects, special-status bats would be present in ornamental street trees or on existing infrastructure, such as bridges and buildings. Individuals may be subject to injury or mortality if they are present as roosting adults during vegetation clearing activities. Roosting adults also may be disturbed by construction-related noise and vibration, causing them to flee roosts during daylight hours. Maternal roosts would also be vulnerable to injury or mortality if present, as pups are unable to take flight and would be likely to be killed if present. Suitable foraging, sheltering, and roosting habitats have potential to be removed during vegetation clearing and grading, or temporarily impacts by construction noise, fugitive dust, and increased human presence. Nighttime construction lighting also may impact foraging habitat by attracting prey species, which may attract some bat species and repel others.

Individual larger mammals, including mountain lions, are unlikely to be directly impacted by construction activities as they are highly mobile and can be anticipated to relocate away from work

areas of their own volition. Individuals are not likely to be vulnerable to collisions with slower moving construction equipment and vehicles. However, natural foraging, sheltering, and breeding behaviors may be disrupted by construction activities, both temporarily through avoidance of areas with construction-related noise, human presence, vibration, and fugitive dust, and permanently through changes in habitat due to vegetation clearing and grading.

The clearing of vegetation in the Santa Monica Mountains and along city streets, and the demolition of structures with suitable roosts would likely result in loss of suitable habitat that would be used for roosting, breeding, sheltering, and/or foraging for the following 3 special-status mammals:

- Mountain lion (*Puma concolor*, state candidate for listing)
- Silver-haired bat (*Lasionycteris noctivagans*, WBWG Medium priority)
- Hoary bat (*Lasiurus cinereus*, WBWG Medium priority)

Specifically for mountain lion, Alternative 6 is unlikely to result in a significant impact to suitable habitat due to the small size and linear nature of the clearing and grading activities in comparison to the species' large home range size. The construction of Alternative 6, specifically temporary and permanent impacts associated with the mid-mountain facility and access roads, has the potential to result in a significant impact to mountain lion movement and usage of wildlife corridors through disruption of previously continuous habitat.

The loss of individuals and loss of suitable habitat for silver-haired bats and hoary bats would constitute a significant impact.

Special-Status Plants

Five special-status plant species were identified with medium or high potential to occur within the Alternative 6 RSA; none were present. Based on habitat requirements, these five species are most likely to occur in chaparral and/or coastal sage scrub which occurs on the Project in the Sepulveda Pass and would be in or proximate to work areas along I-405 in the Santa Monica Mountains. Impacts from roadway realignment along I-405 into existing hillsides between Sunset Boulevard and Mulholland Drive would include clearing and grading of native vegetation adjacent to the freeway. Clearing and grading of vegetation would also be required for construction of the structural support beams for the guideway track, staging yards, TPSSs, and aerial MRT stations; although vegetation to be impacted is largely non-native and/or ornamental landscaping, native vegetation is also present. If individuals are present during clearing and grading activities, special-status plants would be subject to trampling, crushing, and removal. Individuals present in adjacent areas may be exposed to fugitive dust, which can settle on vegetation and interrupt natural photosynthesis. Following vegetation clearing, adjacent areas also may be subject to edge effects including higher exposure to sun, dust, and wind, and incursion by nonnative, weedy species, which can increase competition for space and resources and decrease habitat value for special-status plants.

The clearing of vegetation in the Sepulveda Pass would likely result in loss of suitable habitat for the following special-status plant species:

- Braunton's milk-vetch (*Astragalus brauntonii*, federally endangered, CRPR 1B.1)
- Slender mariposa lily (*Calochortus clavatus* var. *gracilis*, CRPR 1B.2)
- Davidson's bushmallow (*Malacothamnus davidsonii*, CRPR 1B.2)
- Chaparral nolina (*Nolina cismontana*, CRPR 1B.2)
- Nuttall's scrub oak (*Quercus dumosa*, CRPR 1B.1)

Further detail on each species' potential to occur in the Alternative 6 RSA is provided in the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k).

The loss of individuals or suitable habitat for these special-status plants would constitute a significant impact.

Mitigation Measures

As described in Section 9.2.4.7, mitigation measures would be implemented to reduce construction-related impacts to special-status plant and wildlife species and their habitats to less than significant through establishment of survey and monitoring requirements (MM BIO-4 through MM BIO-9, MM BIO-17, MM BIO-29); monitoring of bird nests and determination if no-disturbance buffers require adjustments (such as due to noise from construction activities) (MM BIO-4); education and training of personnel about Project's biological concerns and requirements (MM BIO-18); and creation of a habitat restoration plan (MM BIO-9).

Maintenance and Storage Facilities

The MSF for Alternative 6 would be located would be on developed property located east of the Van Nuys Metrolink Station and south of the LOSSAN rail corridor, bounded by Hazeltine Avenue to the west and Woodman Avenue to the east; no habitat modifications or removal would be required for the construction of the MSF. No impacts on special-status plant species would result from the construction of the MSF since suitable habitat is not present. Roosting bats and MBTA-protected nesting birds have potential to be impacted during construction of the MSF if ornamental trees and/or shrubs located within the Ground Disturbance Area of the MSF are trimmed or removed. Impacts may include disruption of natural breeding and sheltering behaviors; injury or morality to bat pups; destruction, injury, or mortality of nests, eggs, nestlings, and individuals; loss of roosting and breeding habitat; and temporary impacts to roosting sites and nesting sites in adjacent areas due to noise, vibration, and human presence. MM BIO-4 and MM BIO-5, included in Section 9.2.4.7, are included to reduce construction-related impacts to special-status bats and nesting birds from vegetation trimming or removal to less than significant.

9.2.4.2 Impact BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

One sensitive natural vegetation community (California walnut woodland) is known to occur within the Ground Disturbance Area for Alternative 6, specifically in the Santa Monica Mountains near Stone Canyon Reservoir; 12.0 acres of the sensitive community are mapped within the Alternative 6 Ground Disturbance Area. Potentially sensitive vegetation communities also occur near the Stone Canyon Reservoir, with 5.4 acres present within the Alternative 6 Ground Disturbance Area. Clearing of vegetation for Alternative 6 at the mid-mountain vent shaft, access road, and TPSS site at Stone Canyon Reservoir would likely result in loss of California walnut woodland, a sensitive natural community, and four potentially sensitive communities. Vehicle tires on equipment used for construction of Alternative 6 have potential to transport invasive plant seeds into native habitat during clearing and grading. Also, elevated levels of dust from active construction can disrupt photosynthesis and other processes critical for plant survival when it settles on foliage.

Construction of Alternative 6 would result in significant impacts to sensitive natural communities, including permanent vegetation removal. MM BIO-10, MM-BIO 16 through MM BIO-18, and MM BIO-23

through MM BIO-25, described in Section 9.2.4.7, are included to reduce construction-related impacts to sensitive natural communities to less than significant through establishment of Environmentally Sensitive Areas, biological monitoring of work within these communities, environmental training to Project workers, protection from invasive weeds, and protection from dust from speeding or other sources.

Maintenance and Storage Facilities

The MSF for Alternative 6 would be on developed property located east of the Van Nuys Metrolink Station and south of the LOSSAN rail corridor, bounded by Hazeltine Avenue to the west and Woodman Avenue to the east. No riparian habitats or sensitive natural communities are present within the Ground Disturbance Area or the 500-foot buffer of the MSF. No impacts to riparian habitat or sensitive natural communities are expected from the operation or construction of the MSF.

9.2.4.3 Impact BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The Los Angeles River is concrete-lined and devoid of riparian or herbaceous wetland vegetation where Alternative 6 traverses the river; no wetlands are associated with the river at this location. There are no state or federally protected wetlands that occur within the Ground Disturbance Area for Alternative 6; consequently, no construction-related impacts to protected wetlands are anticipated from construction of Alternative 6.

The Los Angeles River is within the Alternative 6 Ground Disturbance Area. A total of 0.07 acre of non-wetland waters under the jurisdiction of the USACE, RWQCB, and CDFW is associated with the Los Angeles River at this crossing. However, because Alternative 6 is underground at this crossing, construction activities for Alternative 6 are not anticipated to have any impact on this aquatic resource.

Additionally, one unnamed ephemeral channel occurs along the Alternative 6 alignment within the mid-mountain facility work area, including an estimated 0.11 acre of waters of the State under the jurisdiction of the RWQCB, and 0.22 acre of CDFW-jurisdictional streambed. Permanent impacts to this feature are anticipated to facilitate construction of Alternative 6, including permanent filling of, or sedimentation and erosions into the channel, disturbance to the banks and bed to facility the mid-mountain facility construction; this is a significant impact to aquatic features. These permanent impacts to CDFW-jurisdictional streambed and RWQCB-jurisdictional waters of the State would trigger permitting requirements, likely to include mitigation for impacts. Prior to the start of construction, Metro would engage with the relevant agencies and secure all necessary waters-related permits.

Impacts to aquatic resources would be avoided, minimized, and mitigated for through implementation of MM BIO-15, MM BIO-18, and MM BIO-21, which require aquatics monitoring during work near jurisdictional waters, work area delineation, BMP implementation to protect against sedimentation, worker education on sensitive aquatic resources, and avoidance of work near jurisdictional waters during and following rain events.

Maintenance and Storage Facilities

The MSF for Alternative 6 would be located on developed property located east of the Van Nuys Metrolink Station and south of the LOSSAN rail corridor, bounded by Hazeltine Avenue to the west and Woodman Avenue to the east. Since there are no wetlands or non-wetland waters present within the

Ground Disturbance Area of the MSF, no impacts to protected wetlands or jurisdictional waters are expected from the construction of the MSF.

9.2.4.4 Impact BIO-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Native Resident or Migratory Fish

There are no native resident or migratory fish with established native resident corridors or migration routes present within the Alternative 6 RSA. Therefore, there are no impacts anticipated to resident or migratory fish movement for Alternative 6.

Native Resident or Migratory Wildlife

Construction of Alternative 6 would have localized, temporary impacts on wildlife during construction of stations, staging areas, and the MSF. Construction of the three tunnel segments would be underground except for launch and extraction sites within stations or staging areas. The Ground Disturbance Area associated with construction of Alternative 6 would consist of cut-and-cover construction of the seven underground stations; construction of the MSF site; clearing and grading for the construction staging areas; and clearing and grading for the mid-mountain ventilation shaft and associated access road. Ground-disturbance activities including removal of vegetation/habitat, topsoil removal, and grading would result in a potential impact to vertebrate movement including large mammals, bat and avian species. Special-status birds and bats and MBTA-protected birds have potential to occur during construction of Alternative 6 and would be impacted from vegetation clearing and habitat removal. One special-status migratory bat species, the hoary bat, and special-status birds have the potential to occur in the Alternative 6 RSA during construction of Alternative 6. The Santa Monica Mountains provides roosting habitat for the hoary bat and foraging resources during their migration from south to north, and vice-versa.

Mountain lion movement is already dramatically impacted within the Santa Monica Mountains due to I-405; construction activity associated with Alternative 6 has potential to temporarily further hinder movement of mountain lions and other vertebrates in the Santa Monica Mountains as a result of construction activities at the mid-mountain facility. Disturbance can be associated with equipment present and activity, lighting, and prolonged human presence. This would be a significant impact to wildlife movement and habitat connectivity. The TBM launch and extraction sites are outside of the Santa Monica Mountains where mountain lion corridors are located; thus, no impacts are associated with these Alternative 6 features.

MM BIO-4, MM BIO-5, MM BIO-7, and MM BIO-14, described in Section 9.2.4.7, are included to reduce construction-related impacts to migratory species to less than significant through protection to nesting birds and special-status bats, and protection of least Bell's vireo. MM BIO-14, described in Section 9.2.4.7, is included to reduce construction-related impacts to the movement of native wildlife species, specifically mountain lions and other vertebrates, to less than significant through implementation of preconstruction surveys, protection of natal dens if located, limiting vegetation removal, vegetation restoration, and creation of a 5-year monitoring plan to document wildlife movement over time and inform the need for additional measures.

Maintenance and Storage Facilities

The MSF for Alternative 6 would be located east of the Van Nuys Metrolink Station and south of the LOSSAN rail corridor, bounded by Hazeltine Avenue to the west and Woodman Avenue to the east. Since there is no open habitat, waterways, or native vegetation present, no impacts to the movement of native resident or migratory fish or wildlife would be expected from the operation or construction of the MSF.

9.2.4.5 Impact BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Table 9-12 provides a summary of the protected trees and shrubs potentially affected by Alternative 6. A total of 938 protected trees and shrubs are mapped within the Alternative 6 Tree Survey Area. Of those, 329 are estimated to be protected under the purview of the City of LA Ordinance, irrespective of land ownership, and require permits for alterations made to protected trees and shrubs during construction, including trimming and encroaching into the tree/shrub protection zone. Due to lack of access into portions of the Tree Survey Area around Stone Canyon Reservoir, the number of trees was estimated through aerial imagery and species was designated as southern California black walnut per the publicly available vegetation mapping (NPS, 2004-2019). Since California walnut are protected under the City of LA Ordinance, inventoried trees within the area were assumed to be protected and are included herein.

Table 9-12. Alternative 6: Ordinance-Protected Trees and Shrubs within Ground Disturbance Area

Jurisdiction	Scientific Name	Common Name	Quantity	Mitigation Amount (# replacement trees)
City of Los Angeles Protected Tree and Shrub Ordinance	*Juglans californica*[a]	Southern California black walnut[a]	314	1,256
	Quercus agrifolia	Coast live oak	13	52
	Sambucus mexicana	Mexican elderberry	2	8
TOTAL			**329**	**1,316**
Metro/City of Los Angeles Street Tree Policy	Numerous native and non-native tree species[b]		609	1,218 plus additional for heritage trees
GRAND TOTAL			**938**	**2,534 plus heritage trees**

Source: HTA, 2024

[a]Los Angeles County Oak Tree Ordinance states “any tree of the oak genus”; therefore, non-native oak species are included in this inventory and mitigation calculations.

[b]Full list of SMMNRA and Policy-protected trees listed in the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report (Metro, 2025k), Appendix B – Attachment 1, Tree Inventory Tables.

[c]SMMNRA and City of Santa Monica Tree Code mitigation amounts presumed to be within range of ordinances and policies within the area; final mitigation would be decided through coordination with appropriate entities.

[d]Mitigation amounts would be at discretion of City of Santa Monica.

*Mitigation amount describes the number of replacement trees as per applicable tree ordinance or policy.
SMMNRA = Santa Monica Mountains National Recreation Area
TBD = to be determined

The remaining 609 trees are under the jurisdiction of the City of LA Policy or the Metro Tree Policy. Heritage or protected trees as determined by local ordinances or policy, may be present within the Alternative 6 Tree Survey Area; impacts to these trees are anticipated to be less than significant for Alternative 6.

Unless mitigated, the anticipated removal and alteration of protected trees and shrubs during construction of Alternative 6 would conflict with the city and county tree ordinances and with Metro and city tree policies. This is considered a significant impact. Refer to the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k), Appendix B – Attachment 1, Tree Inventory Tables for the full list of these recorded trees.

To address this impact, Alternative 6 would implement MM BIO-13, described in Section 9.2.4.7, which would require installation and maintenance of replacement trees or shrubs following requirements of the pertinent preservation policy or ordinance. With implementation of MM BIO-13, impacts associated with the removal of protected trees and shrubs during construction of Alternative 6 would be reduced to less than significant.

Maintenance and Storage Facilities

The MSF for Alternative 6 would be on developed property located east of the Van Nuys Metrolink Station and south of the LOSSAN rail corridor, bounded by Hazeltine Avenue to the west and Woodman Avenue to the east. Within the Alternative 6 MSF, there are 36 ornamental trees including Mexican fan palm, Canary Island pine, and eucalyptus trees among others. Since the MSF would be within Los Angeles Metro property lines, Metro is responsible for trees within the MSF; these trees are covered by the Metro Tree Policy.

Impacts to trees at the Alternative 6 MSF during the operational phase would conflict with the Metro Tree Policy, which applies to tree removal within Metro property lines or Metro's ROW. Trees within the Alternative 6 MSF are anticipated to be removed during construction. Those that are not removed during construction would be subject to potentially significant impacts during operations if maintenance, such as trimming, injury that would result in death, or removal, is required during operations. With implementation of MM BIO-3, impacts to protected trees and shrubs during operations of the MSF for Alternative 6 would be reduced to less than significant.

Tree removal at the Alternative 6 MSF during construction would conflict with the Los Angeles Street Tree and Metro Tree Policies, which would constitute a significant impact. To address this impact, the MSF for Alternative 6 would implement MM BIO-13, described in Section 9.2.4.7, which would require the installation and maintenance of replacement trees or shrubs following requirements of the pertinent tree preservation policy or ordinance. With implementation of MM BIO-13, impacts associated with removal of protected trees and shrubs during construction of the MSF for Alternative 6 would be reduced to less than significant.

9.2.4.6 Impact BIO-6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

There are no adopted HCPs, NCCPs, or other approved regional or state HCPs that occur within the Alternative 6 RSA. Therefore, no impacts to an adopted HCP, NCCP, or other state HCP would occur.

Maintenance and Storage Facilities

There are no adopted HCPs, NCCPs, or other approved regional or state HCPs that occur within the Alternative 6 RSA. Therefore, no impacts to an adopted HCP, NCCP, or other state HCP would occur.

9.2.4.7 Mitigation Measures

Construction Impacts

MM BIO-4: ***Avoid and Minimize Construction-Related Impacts to Nesting Birds.*** *Vegetation clearance for construction of the Project related to construction activities shall occur outside of the nesting bird season (generally February 15 through September 15) to the extent feasible. If vegetation removal outside this time period is not feasible, the following additional measures shall be employed to avoid and minimize impacts to special-status bird species and nesting birds protected under the Migratory Bird Treaty Act and California Fish and Game Code:*

- *A preconstruction nesting bird survey of the work area (as defined by the Ground Disturbance Area, including staging and laydown yards) plus a 300-foot buffer shall be conducted by a Qualified Biologist within three days prior to the start of ground disturbing activities (including vegetation removal activities) to determine whether active nests (defined as nests with eggs or young) are present within or adjacent to (i.e., within 100 feet for non-special status songbirds, 300 feet for raptors and special-status species) the work zone. Any active nests found shall be recorded and a nest avoidance zone shall be established where no work shall occur. If project activities are delayed beyond 72 hours, a new nesting bird survey should be completed within 72 hours prior to the resumption of ground disturbing activities.*
- *Active bird nests for species protected by the Migratory Bird Treaty Act shall have a clearly demarcated (via flagging, fencing and/or signage) no-disturbance buffer established as follows: 300-foot radius buffer for raptors and special-status birds (see MM BIO-7 for additional least Bell's vireo measures) and 100-foot-radius buffer for non-raptor and non-special status avian nests. The Qualified Biologist can adjust buffer distances to increase or decrease the radius contingent on topography, existing noise levels, planned operational activities, species specific tolerances to disturbances such as noise and vibration from construction activities, and observations specific nesting pair tolerance to disturbances. Nest monitoring by the Qualified Biologist shall be required following buffer modifications to ensure new buffer is appropriate; adjustments can be made only following monitoring of nesting pair to determine if buffer is adequate to protect nest from construction impacts including from noise and vibrations. Installation of temporary noise barriers between the work area and nest can also be evaluated, if installation can occur in a manner to not disturb the nesting pair based on the Qualified Biologist's recommendation. If a Qualified Biologist determines work activities may result in nest failure, project work shall cease within the recommended no-disturbance buffer until a Qualified Biologist determines nest status. Additional follow-up surveys shall be conducted as necessary to determine nest status. Once the nest is determined to be fledged or no longer active, the buffer shall be removed.*

- *A Qualified Biologist shall inform maintenance personnel of any active nests, facilitate avoidance measures, and verify operational activities do not cause disturbance. Maintenance personnel shall be updated on nest status and when avoidance buffers are no longer necessary.*
- *A Qualified Biologist shall monitor each nest on a biweekly basis and project activities shall not occur within the buffer until a Qualified Biologist determines the nest is no longer active (either by fledging or failing naturally). If a nest is adjacent to an access road where no project activities are being conducted, vehicles can drive past the nest without stopping or parking. Signage stating no stopping of idling vehicles will be posted (facing outwards from the buffer) at the start and end of the nest buffer where it crosses the road.*
- *A Qualified Biologist can determine a nest to be inactive (defined as eggs and young no longer present or reliant on the nest site, including fledged young that still depend upon the nest), following no observations of activity at the nest location for 1 hour for non-raptor avian nests and 4 hours for raptors.*
- *A summary of nesting bird surveys, monitoring efforts, and any no-disturbance buffers that were installed shall be documented by the biologist at the conclusion of each nesting season and submitted to Metro. In the event that an active bird nest identified is associated with a special-status species afforded protection under the California Endangered Species Act or the federal Endangered Species Act, then the appropriate agency will be immediately informed, and additional coordination will occur, as needed.*

MM BIO-5: ***Avoid and Minimize Construction-Related Impacts to Roosting Special-Status Bat Species.*** *To reduce impacts on roosting bats resulting from construction activities, the following shall be implemented:*

- *A bat habitat assessment will be conducted during the bat maternity season (generally April 15 through August 31 for southern California, yearly timing dependent on weather conditions) at least one year prior to construction. A Qualified Bat Biologist will conduct surveys to determine the presence of bat roosting or maternity habitat within suitable areas where vegetation trimming, tree removal, bridge repair activities, structure demolition, or other construction-related activities may occur and bats may be present. A visual inspection and/or one-night emergence survey of potential bat habitat that may be impacted by activities shall be completed utilizing acoustic recognition technology to determine if any maternity roosts are present. Results from this survey will be used to create a Bat Habitat Mitigation and Monitoring Plan (BHMMP) by a Qualified Bat Biologist which will include site-specific minimization and avoidance measures for operations and construction of the Project that will include but not be limited to establishment of no-disturbance buffers, monitoring of roosting bats to ensure tolerance to disturbances such as noise and vibration from Project activities, mitigation for habitat impacts, and humane eviction or exclusion. If monitoring indicates established no-disturbance buffer is not adequate to prevent disturbances to roosting bats, a Qualified Bat Biologist can adjust as needed.*

- *Flight pathways, i.e., line of flight into and out of the roost, shall be maintained during maintenance Project work. Modifications to ingress and egress routes are not allowed including but not limited to obstacles presented from construction equipment use and staging, location and type of lighting or reconfiguration of staged materials (vehicles, equipment, etc.) at night relative to roosting locations.*
- *If swallow nests need to be removed during construction, removal should occur in the fall (September 1 to October 31 or based on local expert bat biologist input as long as it is outside of bat maternity or hibernation season), preferably at night. Nests should be inspected for occupancy by a Qualified Bat Biologist and if empty, removed. If a bat is present, if feasible a small portion of the nest can be carefully removed to make the nest a less suitable for roosting. The following night, if the nest is empty, it can be removed entirely. If not, another small portion can be removed if feasible. If removal is not feasible or bats are still present, consultation with CDFW may be appropriate.*
- *Trees or structures to be removed as part of the Project shall be evaluated for their potential to support bat roosts. An experienced bat biologist shall conduct a one-night emergence survey during acceptable weather conditions, before the start of removal. The following measures shall apply to trees or structures to be removed that provide potential bat roost habitat; these shall be implemented by a Qualified Bat Biologist.*
  - *If roosting bats are determined present in a tree or on a structure during the maternity season (April 15 through August 31), the tree/structure shall be avoided until after the maternity season when young are self-sufficient. If other trees/structures in the immediate vicinity are slated for removal, or other work will occur in the immediate vicinity that might disturb roosting bat, a no-work buffer may be needed.*
  - *If roosting bats are determined to be present during the winter months when bats are in torpor (i.e., a state in which the bats have significantly lowered their physiological state that occurs generally October 31 through February 15), and if conditions permit, a Qualified Bat Biologist shall physically examine the roost for the presence or absence of bats before the start of project activities; equipment such as an electric lift may be utilized to conduct the inspection. If the roost is determined to be occupied during this time, the tree or structure shall be avoided until after the winter season when bats are once again active.*
- *Trees or structures with potential colonial bat habitat can be removed outside of the maternity season and winter season (generally February 16 through April 14 and September 1 through October 30, or as determined by a Qualified Bat Biologist) using a two-step process that occurs over two consecutive days.*
  - *Day 1, Step 1: Under the supervision of a Qualified Bat Biologist, tree branches and limbs with no cavities shall be removed by hand (e.g., using handsaws) or smaller components of the structure should begin to be removed by hand (e.g., hammer, screwdriver). The associated vibrational*

and noise disturbance and physical alteration of the tree/structure shall likely cause bats roosting to either abandon the roost immediately or avoid returning to the roost after emergence.

- *Day 2, Step 2: Removal of the remainder of the tree or structure can occur the following day under the supervision of a Qualified Bat Biologist.*

- *Trees that are only to be trimmed and not removed shall also require a two-step process with these deviations from the removal process explained above: if a branch with a potential roost must be removed, all surrounding branches shall be trimmed on Day 1 under supervision of a Qualified Bat Biologist and then the limb with the potential roost shall be removed on Day 2.*
- *The results of bat surveys, evaluations, and monitoring efforts that are undertaken shall be documented in a report by the biologist and provided to CDFW in electronic format at the conclusion of all bat-related mitigation activities.*

MM BIO-6: ***Avoid and Minimize Construction-Related Impacts to Crotch's Bumble Bee.*** *To reduce impacts on Crotch's bumble bee from construction activities, the following shall be implemented:*

- *A pre-construction habitat assessment for Crotch's bumble bee shall be conducted by a Qualified Biologist within the Ground Disturbance Area and a surrounding 100-foot buffer to demarcate potentially suitable nesting and foraging habitat.*
- *Nesting surveys and foraging surveys shall be conducted during the most active flight period and peak blooming period of nectar and pollen sources (generally April 1 through July 31). The survey shall be conducted between at least 1 hour after sunrise and at least 2 hours before sunset, with ambient air temperature between 60- and 90-degrees Fahrenheit. Surveys shall not be conducted during windy periods with speeds of over 10 mph, during fog or low visibility, or precipitation heavier than drizzling rain.*
- *Foraging surveys shall focus on areas of high abundance of nectar and pollen sources with meandering transects within these areas at a rate of no more than 2.5 acres per hour.*
- *Nesting surveys shall focus on areas with existing, abandoned, rodent burrows; the biologist shall focus on detecting potential Crotch's bumble bee nest within suitable habitat.*
- *If a nest is documented, a 50-foot "no-disturbance" buffer shall be established and clearly identified in the field for avoidance. Construction activities shall avoid the nest location and surrounding buffer until the nest has senesced.*
- *Results of all survey efforts will be summarized in writing and submitted to Metro for documentation. In the event species presence is confirmed and/or a nest is located, CDFW will be informed, and additional coordination will occur as needed.*

MM BIO-7: ***Avoid and Minimize Project-Related Impacts to Least Bell's Vireo.*** *To reduce impacts on least Bell's vireo from construction activities, the following shall be implemented:*

- *Prior to initiation of construction activities, the Project shall perform one full season of protocol surveys for least Bell's vireo in suitable habitat within 500 feet of construction activities following the accepted U.S. Fish and Wildlife Service protocol. Focused surveys shall be completed prior to construction initiation and results shall be used to inform a consultation process with the U.S. Fish and Wildlife Service for project permitting. Eight surveys shall be conducted between April 10 and July 31, with each survey spaced at least 10 days apart. Reduction in the prescribed number of individual surveys may be evaluated in accordance with the U.S. Fish and Wildlife Service protocol. Surveys shall be conducted between dawn and 11:00am and outside of periods of inclement weather (excessive heat or cold, high winds, rain, etc.). Surveys shall not be conducted concurrently with other surveys. Per the U.S. Fish and Wildlife Service protocol, surveyors shall not survey more than 3 linear kilometers or more than 50 hectares in one day.*
- *Following completion of protocol surveys, pre-construction presence/absence clearance surveys shall be required if construction is planned to begin within the nesting season. Clearance surveys shall be required within 500 feet of suitable habitat and must occur 3 or fewer days prior to start of activities. Presence/absence surveys shall be conducted by a Qualified Biologist familiar with species visually and aurally who is able to differentiate similar species. The Qualified Biologist shall not be required to have an Endangered Species Act Section 10(a) recovery permit covering this species since recorded vocalizations shall not be used to illicit responses and nest monitoring (i.e., locate and monitor the nest, including removal of brown-headed cowbird (Molothrus ater) eggs and chicks from parasitized nests) and handling of individual are not proposed.*
- *If protocol and pre-construction survey results are negative, construction activities can commence, and a Qualified Biologist shall conduct presence/absence surveys weekly during the breeding season while construction is occurring within 500 feet of suitable habitat. If least Bell's vireo are detected during a survey, a Qualified Biologist shall be required to monitor construction activities within 500 feet of suitable habitat until the end of the breeding season. If construction within 500 feet of suitable habitat is paused for more than 3 days, a new survey must be conducted to verify if least Bell's vireo are present.*

- *If an active nest is documented, a no-disturbance 300-foot radius buffer shall be established and clearly identified in the field. Construction activities shall avoid the nest location and buffer until a Qualified Biologist declares the nest inactive. A Qualified Biologist shall be required to monitor construction activities within 500 feet of suitable habitat every day work is occurring while the nest is active. Noise monitoring shall be required weekly on varying days for changes in construction-related noise levels from before the nest is active to after. Monitoring shall be to ensure noise levels remain at or below 60 A-weighted decibels (dBA) or to the ambient noise level if it already exceeds 60 dBA before construction at specified monitoring locations within 100 feet of the nest. The Qualified Biologist shall either conduct the noise monitoring or escort the noise monitor if they are not a Qualified Biologist.*
- *The results of the surveys shall be used to design project features and temporary work areas to avoid direct impacts to occupied habitat for listed riparian bird species. Results of all survey efforts shall be summarized in writing and submitted to Metro for documentation. In the event species presence is confirmed, the U.S. Fish and Wildlife Service shall be informed, and additional coordination will occur as needed and in compliance with Section 7 of the Endangered Species Act.*

MM BIO-8: ***Avoid and Minimize Construction-Related Impacts to Special-Status Reptiles.*** *To reduce Impacts on special-status reptiles from construction activities, the following shall be implemented:*

- *Prior to the start of vegetation removal, the Ground Disturbance Area shall be clearly fenced (usually with silt fencing) to delineate the extent of the construction area.*
- *Once fencing is in place, a Qualified Biologist shall conduct a pre-vegetation clearance sweep to look for and remove any special-status reptile species (e.g., coast horned lizard, two-striped garter snake, southwestern pond turtle, coastal whiptail, and southern California legless lizard) that may occur within the Ground Disturbance Area. If any special-status reptile species are detected within the Ground Disturbance Area, personnel shall allow the species to escape unimpeded if possible. Alternatively, the Qualified Biologist shall move the species outside of the fencing to the closest suitable habitat pending authorization from USFWS or CDFW, if required.*
- *Trash and food items will be contained in closed containers and removed daily to reduce the attraction of opportunistic predators such as common ravens, coyotes, and feral cats and dogs that may prey on sensitive species.*
- *Any observations of special-status reptiles will be summarized in writing and submitted to Metro. In the event that an observed special-status species is afforded protection under CESA or ESA, then the appropriate agency will be immediately informed and additional coordination will occur, as needed.*

MM BIO-9: ***Avoid and Minimize Construction-Related Impacts to Special-Status Plants.*** *Impacts to special-status plants shall be avoided, minimized and/or mitigated through incorporation of the following:*

- *Prior to any Project activities that may modify vegetation, focused rare plant surveys shall be conducted following California Department of Fish and Wildlife protocols. Focused surveys shall occur during optimal blooming periods for special-status species likely to occur, which typically results in multiple visits within one growing season (e.g., early, mid- and late-season surveys). In the event species presence is confirmed, the U.S. Fish and Wildlife Service shall be informed, and additional coordination will occur as needed and in compliance with Section 7 of the Endangered Species Act.*
- *If focused rare plant data is more than 1 year old at commencement of construction, pre-construction surveys during the optimal blooming periods shall occur to demarcate special-status plant populations for avoidance (where feasible). The results of the focused surveys shall be used to design project features and temporary work areas to avoid direct impacts to federally and state-listed plant species.*
- *Any observations of special-status plants will be summarized in writing and submitted to Metro. In the event that an observed special-status species is afforded protection under CESA or ESA, then the appropriate agency will be immediately informed and additional coordination will occur, as needed. When impacts to special-status plants are unavoidable, mitigation would be required and would be implemented by the Project consistent with a Mitigation Monitoring and Reporting Program, as required under California Environmental Quality Act. Furthermore, the Project shall prepare a Habitat Restoration Plan to meet the conditions stated in the Project's Mitigation Monitoring and Reporting Program. Mitigation may include restoring impacted areas through seeding, plantings, and weed abatement if project activities result in non-native species within the Ground Disturbance Area that were not present before activities began, as described below:*
  - *If feasible, special-status plant species observed during focused surveys within or adjacent to the Ground Disturbance Area that can be transplanted, such as the slender mariposa lily (Calochortus clavatus var. gracilis), may be dug up from the Ground Disturbance Area before work begins, stored in an appropriate manner depending on species, and replanted within the Ground Disturbance Area close to its original location at project conclusion.*
  - *When the location of special-status plant population is at risk from human access not related to the Project, fencing or staking may be installed to reduce or eliminate public access once construction is completed.*
  - *If proposed repair and restoration efforts are not feasible or adequate to mitigate for impacted plants, additional options shall be explored, including off-site compensation, such as mitigation banking or permanent protection of an existing off-site native or introduced population. This option would*

require determination of appropriateness and approval from appropriate agencies to be enacted.

MM BIO-10: ***Avoid and Minimize Construction-Related Impacts to Sensitive Vegetation Communities.*** *Impacts to sensitive vegetation communities shall be avoided, minimized, and/or mitigated as follows:*

- *The Project shall minimize impacts to sensitive vegetation communities California walnut woodland and sugar bush shrubland (and any other communities determined to be state ranked S1 to S3 by California Department of Fish and Wildlife following mapping refinement) by planning for impacts to occur in previously disturbed areas when feasible.*
- *Impacts to any natural vegetation communities designated sensitive, such as California walnut woodland and sugar bush shrubland, shall be reduced by attempting to trim vegetation instead of removing entire trees and shrubs where feasible. Where warranted, removal will be implemented such as when trimming to provide necessary clearance for the Project to be constructed and operate safely would result in permanent damage or adversely affect plant health and result in death.*
- *When feasible, temporary impact areas shall have vegetation trimmed and rootballs left intact to enable revegetation once construction is complete.*
- *In conjunction with appropriate entities with jurisdiction (i.e., Caltrans for their ROW, Santa Monica Mountains Conservancy for SMMNRA), Metro shall design and develop a 5-year restoration plan which shall include monitoring, irrigation, and native plantings/seedings to native vegetation communities that are disturbed by construction activities. If feasible, native species that can be transplanted, such as succulents, bulb species, and cactus, may be moved from the Ground Disturbance Area before work begins, stored in an appropriate manner depending on species, and replanted within the Ground Disturbance Area close to its original location at project conclusion as part of the restoration efforts. Preconstruction assessment of sensitive vegetation communities will be conducted to collect comprehensive species list, community structure data, cover assessments for native, nonnative annual, and nonnative perennial plants, and preconstruction photos for permanent photo points. Success standards to indicate restoration is complete will include native cover restored to or exceeding preconstruction conditions by the end of the five-year period, along with nonnative annual cover of 10 percent or less. Nonnative perennials shall not be present within the restoration site. If the cover success standards are not met by year five, additional measures such as replanting, remedial seeding, supplemental watering shall be considered. The monitoring period shall extend until success criteria are met.*

MM-BIO-13: ***Avoid and Minimize Construction-Related Impacts to Protected Trees and Shrubs (Applicable to Alternative 6).*** *Impacts to protected trees and shrubs shall be avoided, minimized, and/or mitigated by incorporation of the following:*

- *A Tree Expert, as defined in the City of Los Angeles Protected Tree and Shrub Ordinance, shall utilize the Initial Protected Tree and Shrub Inventory Memorandum (Appendix B of the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report) to complete a separate, more in-depth tree survey report prior to the start of construction and access is procured for properties within the alignment; the Tree Expert Report shall include field survey methods and details of each protected tree or shrub in height, diameter, canopy spread, physical condition, and location of each protected tree and shrub. The City of Los Angeles Protected Tree and Shrub Ordinance has jurisdiction in the Project; therefore, a Tree Expert shall be required to conduct the detailed survey and procure permits for protected tree/shrub removal from the Los Angeles Board of Public Works. The Tree Expert's follow-up report shall expand upon the initial assessment to provide a comprehensive dataset with verification of tree/shrub species, height, canopy width, and tree/shrub health for the Ground Disturbance Area. This follow-up report shall be used to procure the required permit prior to commencement of tree impacts within the City of Los Angeles.*
- *Impacts to protected trees and shrubs shall be minimized to the maximum extent feasible. When trimming and/or encroachment into the tree/shrub protection zone (defined as the dripline or canopy) is needed, the following measures shall be required.*
- *Trimming of protected trees/shrubs must comply with the pruning standards set forth by the Western Chapter of the International Society of Arboriculture in a manner that does not cause permanent damage or adversely affect the health of the trees or shrubs. Trimming shall require coordination and permitting with the appropriate entities as follows:*
  - *Species protected under the Los Angeles Protected Tree and Shrub Ordinance shall coordinate with the City of Los Angeles Board of Public Works, Urban Forestry Division.*
  - *Trees protected under the City of Los Angeles Street Tree Policy shall require coordination with the City of Los Angeles Department of Public Works, Urban Forestry Division.*
  - *Trees covered by the Metro Tree Policy shall require the Project to prepare a tree protection plan identifying Tree Protection Zones for all trees designated for retention and to prepare a mitigation plan for damaged and removed trees.*
- *For impacts to protected trees and shrubs beyond trimming, the required tree removal permits shall be obtained, and replacement shall occur at the below rates. Mitigation locations of replacement trees shall be determined through the permitting process.*
  - ***City of Los Angeles Protected Tree and Shrub Ordinance:** Protected trees and shrubs included trees of the oak genus (indigenous to California), western sycamore, southern California black walnut and California bay, and two shrub species (Mexican elderberry and toyon). Individual trees and*

shrubs shall be replaced at a 4:1 ratio by plants that are the same species of protected plant.

- ***Policy-Protected Trees:*** *All policy-protected trees, which fall under the purview of the Los Angeles Street Tree Policy or the Metro Tree Policy, shall be replaced at a ratio of 2:1. The Los Angeles Street Tree Policy allows for an in-lieu fee to be made with approval of the Board of Public Works following verification that replacement trees cannot be feasibly planted onsite. Trees under the Metro Tree Policy that are designated as heritage trees in a local ordinance shall be replaced at a 4:1 ratio with trees of the same variety.*

- *All trees occurring on private property, or Caltrans right-of-way, shall not require permitting, but shall require coordination and negotiation with property owners. Mitigation implementation shall follow Metro Tree Policy's replacement ratio of 2:1.*
- *For protected trees and shrubs that are not anticipated to be impacted, a Tree Protection Zone shall be established around each tree/shrub or cluster of trees/shrubs prior to the commencement of work. The Tree Protection Zone shall be erected using temporary fencing in an environmentally sensitive manner and remain in place until all site work has been completed. Specific installation timeframe may vary but the Tree Protection Zone must be inspected and approved by a Qualified Arborist prior to construction work including staging of equipment. Work can commence directly following arborist inspection and approval. No construction-related materials shall be stored or staged within the Tree Protection Zone (fenced areas).*
- *The LA Street Tree Policy would require coordination with the City of Los Angeles Department of Public Works for removal or maintenance of protected trees; this policy does not apply to trees within private property, UCLA, or within the Caltrans ROW. Metro Tree Policy would not require permitting but would require coordination with the landowners (i.e., private landowners, UCLA, Caltrans) when a tree must be removed. Additionally, Metro Tree Policy states a mitigation plan would be required to be developed in consultation with a Certified Arborist if construction impacts resulted in a damaged or removed tree; decisions would be made in accordance with local ordinances identifying protected trees.*

MM BIO-14: ***Avoid and Minimize Construction-Related Impacts to Mountain Lion and Vertebrate Movement Corridors.*** *Impacts to mountain lion and other vertebrate movement corridors shall be avoided, minimized, and/or mitigated as follows:*

- *After a preferred alternative is selected and prior to any ground-disturbing activity, a Qualified Biologist shall conduct a detailed analysis of wildlife movement and corridors within the Santa Monica Mountains as they relate to ground disturbance activities for the Project. Analysis shall include desktop review of publicly available documentation — including research publications, project reports, environmental analyses, and high-quality aerial imagery — to anticipate wildlife movement patterns within the project vicinity. Field surveys shall also be conducted to identify and document wildlife crossings.*

- *Prior to construction, Metro shall coordinate with the California Department of Fish and Wildlife, Caltrans, the Santa Monica Mountains Conservancy/Santa Monica Mountains National Recreation Area, and species experts (as appropriate) to identify and implement appropriate minimization and avoidance measures to facilitate mountain lion and other vertebrate movement and connectivity across the Santa Monica Mountains. Performance standards for wildlife connectivity and movement shall ensure that post-construction conditions are maintained or improved. This includes achieving a 0% increase in road mortality for mountain lions and other sensitive species in the Project Study Area, as measured through tracking and monitoring for at least five years after construction.*
- *Prior to any ground-disturbing activities, field surveys will be conducted by a Qualified Biologist to survey for (1) mountain lion presence/absence (2) known or potential mountain lion natal dens within suitable habitat within the 600 feet of ground disturbance activities during the breeding season (April through September) and (3) to identify and document wildlife crossing locations. Presence/absence and den surveys will be conducted at dawn and dusk to increase probability of detection.*
- *If a mountain lion natal den is identified during the survey, the Qualified Biologist will establish a clearly demarcated (via flagging, fencing and/or signage) no-disturbance buffer where work will cease until the den is no longer occupied or the cubs have successfully reared. The size of the buffer will be determined based on characteristics of the den (i.e., distance, direction facing, observed behavior) and through consultation with species experts and CDFW to ensure the buffer is of appropriate size to not adversely affect rearing of cubs.*
- *Vegetation removal shall be limited wherever possible, particularly within the Santa Monica Mountains.*
- *Within the Habitat Restoration Plan (MM BIO-9), vegetation restoration of temporarily disturbed areas adjacent to wildlife crossings will be done in a manner to facilitate usage of installed vegetation to act as "stepping stones" on the approach to the freeway, i.e., to provide cover for wildlife to approach crossings.*
- *A summary of survey results from presence/absence and den surveys will include maps of the survey area and possible denning locations and will be submitted to Metro and CDFW. If a natal den or presence is confirmed, CDFW will be immediately informed, and additional coordination will occur, as needed.*

- *Metro shall also develop a five-year monitoring plan, in coordination with CDFW and species experts, to track wildlife movement across corridors during and after construction. Monitoring shall use camera traps, radio collars, or other wildlife tracking technologies. If the data indicate that mountain lion or other vertebrate movement is negatively impacted, additional mitigation measures, such as enhanced crossing infrastructure or more extensive wildlife funneling fencing, shall be implemented within six months. During the five-year monitoring phase, annual reports summarizing the effectiveness of the mitigation measures, any observed impacts on wildlife movement, and the results of the monitoring program will be submitted to CDFW, Caltrans, and the Santa Monica Mountains Conservancy. These reports shall also include recommendations for adjustments to ensure compliance with wildlife connectivity standards.*

MM BIO-15: ***Avoid and Minimize Construction-Related Impacts to Jurisdictional Aquatic Resources.*** *Potential impacts to drainages shall be avoided and/or minimized when working in or adjacent to aquatic resources as defined in the Aquatic Resources Delineation Report (Appendix A from the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report) through incorporation of the following:*

- *A Qualified Biologist/Aquatic Specialist shall monitor construction activities adjacent to jurisdictional aquatic resources during vegetation clearing and/or initial ground-disturbance activities. Additionally, they shall support impact avoidance and minimization measures detailed in permits and approvals obtained for the Project.*
- *Limits of the Ground Disturbance Areas shall be designated with lathe staking or a similar method. All equipment and workers shall remain within approved work limits.*
- *Wherever possible, construction personnel shall utilize existing access roads or previously disturbed areas to reach the project area or stage their vehicles and equipment.*
- *Maintenance personnel will also not leave any waste or debris behind which could impact natural habitats.*
- *To protect water quality:*
  - *Appropriate BMPs shall be installed to prevent erosion and guide runoff during rain events.*
  - *Equipment and materials shall be staged within the alignment and away from water drainages. Parked equipment shall have secondary containment to prevent any fluid leaks from coming into contact with the ground surface.*
  - *Water containing mud, silt, or other pollutants from construction activities shall not be allowed to enter into an aquatic resource.*
  - *Disposal or temporary placement of excess fill, brush, or other debris shall not be allowed in Waters of the United States, Waters of the State, and California Department of Fish and Wildlife streambeds or their banks.*

General Construction Measures

The following general construction measures are proposed for implementation during construction activities:

MM BIO-16: *Prior to vegetation clearing, grading, and/or construction activities that may impact habitats of special-status species, a Qualified biologist(s) shall oversee installation of appropriate temporary Environmentally Sensitive Area fencing and/or flagging to delineate the limits of construction and the approved construction staging areas for protection of identified sensitive resources outside the approved construction/staging zones. All construction access and circulation shall be limited to designated construction/staging zones. Fencing shall be of a type that will not entangle or otherwise detrimentally effect wildlife or the environment. Fencing should be checked weekly to ensure it is intact and functioning as intended, to look for signs of degradation that might cause harm to wildlife or the environment, and to ensure fenced construction limits are not exceeded. This fencing shall be removed upon completion of construction activities.*

MM BIO-17: *A Qualified biologist(s) shall monitor project activities during vegetation clearing, grading, and/or construction within or adjacent to areas identified as sensitive habitat and/or jurisdictional aquatic resources. If special-status species and/or sensitive habitats adjacent to the project sites are inadvertently impacted by activities, then the Qualified biologist(s) shall immediately inform the on-site construction supervisor who shall temporarily halt or redirect work away from the area of impact. If unanticipated impacts occur to occupied habitat for special-status species, the Project shall consult with the appropriate regulatory agencies.*

MM BIO-18: *A Worker Environmental Awareness Plan (WEAP) shall be developed and implemented prior to the start of construction. Environmental training shall be led by the Qualified Biologist(s) and shall cover the sensitive resources found on-site, flagging/fencing of exclusion areas, permit requirements, and other environmental issues. New workers added to construction after the initial training at project start shall be required to receive WEAP training before they may begin work on the Project. Documentation of personnel who have attended WEAP training will be maintained and submitted to Metro. All information included in WEAP training should be kept on Project sites to be readily accessible to any personnel in a form deemed appropriate for the Project (e.g., wallet cards, printed flyers, etc.).*

MM BIO-19: *Wildfires shall be prevented by exercising care when driving to prevent sparks and by not parking construction vehicles where catalytic converters could ignite dry vegetation. All construction vehicles shall carry water and shovels or fire extinguishers in the field. The use of shields, protective mats, or other fire prevention equipment shall be used during grinding and welding to prevent or minimize the potential for fire. Smoking shall take place within designated areas and away from vegetated areas.*

MM BIO-20: *Construction workers shall be prohibited from bringing pets and firearms to the site.*

MM BIO-21: *To prevent unnecessary erosion, runoff, and sedimentation, all construction activities within 100 feet of drainages or wetlands shall cease during Stormwater Pollution Prevention Plan-defined rain events and shall not resume until conditions are suitable for the movement of equipment and materials. Vehicle access along unpaved access routes shall not occur during saturated soil condition to avoid rutting or other soil disturbance.*

MM BIO-22: *If night work should occur, all lighting used during night construction shall be temporary and shall be implemented to reduce lighting effects onto adjacent open space areas (i.e., downcast, away from habitat) and/or shall also be directed away from nests/roosting sites on man-made structures. Light shields shall be used to minimize light pollution adjacent to the Project.*

MM BIO-23: *Prior to entering the construction areas, equipment and personnel shall be free of mud, debris, or vegetation to prevent the introduction and spread of weeds or invasive species to the Project. If required, vehicle washing shall occur within designated areas within project construction areas where appropriate containment has been established, or at a suitable off-site facility.*

MM BIO-24: *Dust suppression measures shall be implemented during construction to minimize the creation of dust clouds and possible degradation of sensitive vegetation communities and special-status species suitable habitat. These measures shall include applying water at least once per day or as determined necessary by the Qualified biologist(s) to prevent visible dust emissions from exceeding 100 feet in length in any direction. In addition, watering frequency shall be increased to four times per day if winds exceed 25 miles per hour. Nontoxic soil stabilizers may be used on access roads to control fugitive dust, as needed.*

MM BIO-25: *Vehicle speeds shall be restricted to posted speed limits on existing paved roads and to 15 miles per hour on dirt or gravel access roads during all phases of the Project. Speed limit signs shall be posted on dirt or gravel access roads throughout the site to remind workers of travel speed restrictions.*

MM BIO-26: *Trenches and excavations located within open areas shall be backfilled with earth at the end of each workday or have one edge sloped into an escape ramp with a less than 1:1 (45 degree) slope to prevent wildlife entrapment. A non-slip material may be used (e.g., wooden ramp with traction) when an earthen escape ramp cannot be created. For instances when these methods are not feasible (e.g., deep, long-term excavations for underground segments), temporary exclusion fencing can be installed around the perimeter of the work area to prevent animal entrapment. The Qualified Biologist shall ensure the temporary exclusion fencing is sufficiently supported to maintain integrity under all conditions and shall be checked daily to ensure integrity is maintained and inspect it daily while work is occurring. Fencing will be repaired each day, as needed to ensure integrity is maintained. A Qualified biologist shall inspect all trenches and excavations for trapped animals at the beginning and end of each day, as well as before excavations are backfilled. Should wildlife become trapped in any trenches or excavations, a Qualified biologist(s) shall remove and relocate them outside the construction zone. When entrapped wildlife is a listed species with handling restrictions, relocation must be conducted by a biologist*

permitted to handle the species. Where trenches or excavations cannot be immediately backfilled or sloped, open excavations shall be covered and the end of each day with boards or plates. The edges of the boards shall be sealed with native spoils to prevent wildlife from entering the excavation in gaps at the board edges.

MM BIO-27 *Spoils, trash, and any construction-generated debris will be removed to an approved off-site disposal facility. Trash and food items will be contained in closed containers and removed daily to reduce the attraction of opportunistic predators such as common ravens, coyotes, and feral cats and dogs that may prey on sensitive species.*

Impacts After Mitigation

Implementation of the mitigation measures would mitigate biological resources impacts related to project operations and construction to a level that is considered less than significant.

9.2.5 Energy

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-13.

Table 9-13. Alternative 6: Energy Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 6
Energy Construction Impacts		
Impact ENG-1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact ENG-2: Would the project conflict or obstruct a state or local plan for renewable energy or energy efficiency?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025p

ENG = energy
LTS = less than significant
NA = not applicable

9.2.5.1 Impact ENG-1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Alternative 6 would require petroleum-based transportation fuels and electricity to construct the transit system. Construction activities would comply with Metro's Green Construction Policy (GCP) and construction equipment would be maintained in accordance with manufacturers' specifications. Construction would result in a one-time expenditure of approximately 7,803,150 gallons of diesel fuel, 1,324,088 gallons of gasoline, and 471,395 megawatt-hours (MWh) of electricity. Table 9-14 provides a summary of the energy consumption estimated for construction of Alternative 6.

Table 9-14. Alternative 6: Construction Fuel and Electricity Consumption

Source Type	Fuel Consumption (gal)	Electricity Consumption (MWh)
Mobile Source Fuel Consumption		
Off-Road Equipment (Diesel)	4,430,397	NA
Worker Vehicles (Gasoline)	1,324,088	NA
Vendor Trucks (Diesel)	710,776	NA
Haul Trucks (Diesel)	2,667,977	NA
Electricity Consumption		
TBM	NA	471,120
Onsite Portable Offices	NA	275
Summary		
Total Gasoline (gal):	**1,324,088**	**NA**
Total Diesel (gal):	**7,803,150**	**NA**
Total Electricity (MWh):	**NA**	**471,395**

Source: HTA, 2024

gal = gallons
MWh = megawatt hour
NA = not applicable
TBM = tunnel boring machine

All equipment and vehicles used in construction activities would comply with applicable California Air Resources Board regulations, Low Carbon Fuel Standards, and the Corporate Average Fuel Economy (CAFE) Standards. Construction would not place an undue burden on available energy resources. The one-time expenditure of energy associated with diesel fuel consumption would be offset by operations within approximately 5 years through transportation mode shift, and the one-time expenditure of energy associated with gasoline consumption would be offset by operations within 1 year. The temporary additional transportation fuels consumption does not require additional capacity provided at the local or regional level. CEC transportation energy demand forecasts indicate that gasoline and diesel fuel production is anticipated to increase between 2021 and 2035, while demand for both gasoline and diesel transportation fuels is projected to decrease over the same time period (CEC, 2021). Construction vehicles and equipment activities would not place an undue burden on available petroleum fuel resources during construction of Alternative 6.

Construction activities may include lighting for security and safety in construction zones. Nighttime construction would be limited, and lighting would be sparse and would not require additional capacity provided at the local or regional level.

The GCP requires and commits project contractors to using newer engines for off-road diesel-powered construction equipment that are more fuel efficient than older models. All equipment and vehicles would be maintained in accordance with manufacturer specifications and would be subject to idling limits. As required by the California Green Building Standards (CALGreen) Code Tier 2, at least 80 percent of the nonhazardous construction debris generated by demolition activities will be diverted from landfills. Also, CALGreen includes the mandatory requirement to reuse or recycle all clean soil that would be displaced during construction of Alternative 6, which would result in reduced energy consumption from hauling trucks. Furthermore, the Metro 2020 Moving Beyond Sustainability Strategic Plan (MBSSP) and the Metro Design Criteria and Standards require and commit contractors to using high-efficiency lighting as opposed to less energy-efficient lighting sources in alignment with Leadership in Energy and Environmental Design (LEED) sustainability energy standards.

Based on the substantiation previously described, construction would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, Alternative 6 results in a less-than-significant impact related to construction activities.

Maintenance and Storage Facilities

Construction of the MSF would require petroleum-based transportation fuels and electricity. Construction activities would comply with Metro's GCP and adhere to Metro's policy for aligning with LEED Silver sustainable certification. The required energy demand to construct and operate the MSF would be more than offset by the energy savings in the forms of petroleum fuels and natural gas, and the consumption would support a mass transit system that would contribute to regional efforts to enhance energy efficiency and reduce reliance on nonrenewable resources. Construction of the MSF would not result in wasteful, inefficient, or unnecessary consumption of energy resources and the MSF would result in a less than significant impact.

9.2.5.2 Impact ENG-2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Alternative 6 would require petroleum-based transportation fuels and electricity to construct the transit system. Construction would result in a one-time expenditure of approximately 7,809,150 gallons of diesel fuel, 1,324,088 gallons of gasoline, and 471,395 MWh of electricity. Alternative 6 would be consistent with state and local energy plans and policies to reduce energy consumption as activities would comply with Metro's GCP, CALGreen Code, and Title 24. The GCP requires and commits project contractors to using newer engines for off-road diesel-powered construction equipment that are more fuel efficient than older models. Compliance with GCP would limit excess petroleum fuels consumption. The CALGreen Code requires reduction, disposal, and recycling of at least 80 percent of nonhazardous construction materials and requires demolition debris to be recycled and/or salvaged, which would ultimately result in reductions of indirect energy use associated with waste disposal and storage. Alternative 6 would comply with state and local plans for energy efficiency in construction activities. Therefore, Alternative 6 would result in a less-than-significant impact related to construction activities.

Maintenance and Storage Facilities

The MSF would support Alternative 6 operations, providing energy efficient mass transit to the region and reducing auto passenger vehicle trips. The benefits of Alternative 6 are consistent with the goals, objectives, and land use and transportation planning policies of SCAG and the City of Los Angeles. Additionally, Alternative 6 would comply with design requirements for components outlined in the MBSSP, such as achieving LEED Version 4 Building and Design Construction (LEED v4 BD+C) Level Silver certification — and Envision Version 3 certification if LEED is not applicable — and Tier 2 of the CALGreen Code. There is no potential for construction or operations of the MSF to conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The MSF would not conflict with any adopted plan or regulation to enhance energy efficiency or reduce transportation fuels consumption and would support the initiatives of the Metro Climate Action and Adaptation Plan. In addition, the MSF would not interfere with renewable portfolio targets and would not result in a wasteful or inefficient expenditure of energy resources. The MSF would positively contribute to statewide, regional, and local efforts to create a more efficient and sustainable transportation infrastructure network. Therefore, the MSF would result in a less than significant impact.

9.2.5.3 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

9.2.6 Geotechnical, Subsurface, Seismic, and Paleontological Materials

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-15.

Table 9-15. Alternative 6: Geology, Soils, Seismicity, and Paleontological Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 6
Geology, Soils, Seismicity, and Paleontological Resources Construction Impacts		
Impact GEO-1: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-2: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking and/or seismic-related ground failure, including liquefaction?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-3: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-2
	Impacts After Mitigation	LTS
Impact GEO-4: Would the project result in substantial soil erosion or the loss of topsoil?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GEO-5: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-1 through MM GEO-5
	Impacts After Mitigation	LTS
Impact GEO-6: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-5
	Impacts After Mitigation	LTS
Impact GEO-7: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

CEQA Impact Topic		Alternative 6
Impact GEO-8: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM GEO-6 through MM GEO-9
	Impacts After Mitigation	SU

Source: Metro, 2025l

GEO = geotechnical
LTS = less than significant
MM = mitigation measure
NA = not applicable
NI = no impact
PS = potentially significant
SU = significant and unavoidable

9.2.6.1 Impact GEO-1: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Construction of Alternative 6 would occur within the Santa Monica Fault zone, north of Santa Monica Boulevard and along I-405. A TBM would be used to construct the underground segment of the guideway. Tunneling depth would range between 60 feet to 750 feet. Underground stations would use a "cut-and-cover" construction method whereby the station structure would be constructed within a trench excavated from the surface that is covered by a temporary deck and backfilled during the later stages of station construction. In addition, portions of the Wilshire Boulevard/Metro D Line Station crossing underneath the Metro D Line Westwood/UCLA Station and underneath a mixed-use building at the north end of the station would be constructed using sequential excavation method (SEM) as it would not be possible to excavate the station from the surface.

Alternative 6 construction would not directly or indirectly exacerbate rupture of a known earthquake fault causing substantial adverse effects, including the risk of loss, injury, or death, because these elements do not reach a depth or be of an intensity that would affect geological processes such as faults. Therefore, construction impacts related to the rupture of a fault are less than significant.

Maintenance and Storage Facilities

The proposed MSF would be situated east of the existing Van Nuys Metrolink Station, bounded by the Metrolink tracks on the north, Woodman Place on the south, Hazeltine Avenue on the west, and Woodman Avenue on the east. The proposed MSF is not within the Alquist-Priolo Earthquake Fault Zone. The closest Alquist-Priolo Earthquake Fault Zone is the Hollywood Fault located approximately 8.4 miles southeast from the proposed MSF. Therefore, no impacts related to loss, injury, or death involving the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map during construction

9.2.6.2 Impact GEO-2: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking and/or seismic-related ground failure, including liquefaction?

Construction of Alternative 6 would occur within liquefaction zones, both within the San Fernando Valley and the Los Angeles Basin. A TBM would be used to construct the underground segment of the guideway. Tunneling depth would range between 60 feet to 750 feet. Underground stations would use a "cut-and-cover" construction method whereby the station structure would be constructed within a trench excavated from the surface that is covered by a temporary deck and backfilled during the later stages of station construction. In addition, portions of the Wilshire Boulevard/Metro D Line Station crossing underneath the Metro D Line Westwood/UCLA Station and underneath a mixed-use building at the north end of the station would be constructed using SEM as it would not be possible to excavate the station from the surface.

While TBM construction of the Alternative 6 would reach a depth that could cause ground disturbances thereby inducing liquefaction, construction of the underground alignment would not directly or indirectly cause strong seismic ground shaking and/or seismic-related ground failure. This is because construction activities of Alternative 6 do not reach a depth or be of an intensity that would affect geological processes such as faults. As such, impacts related to seismic ground shaking including liquefaction would be less than significant during construction activities.

Special construction considerations to protect workers and future users of the alternative against liquefaction hazards can be found within the *Sepulveda Transit Corridor Project Preliminary Geotechnical Design and Data Report* (Metro, 2024c).

Maintenance and Storage Facilities

Construction of the proposed HRT MSF does not involve extensive excavation and do not reach a depth or be of an intensity that would affect geological processes such as faults. As such, impacts related to seismic ground shaking including liquefaction would be less than significant during construction

9.2.6.3 Impact GEO-3: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

The tunnel portal for Alternative 6 traverses through the Santa Monica Mountains which are within a designated LHZ making the stability of the tunnel and surrounding infrastructure during construction vulnerable during a landslide-related hazard. As such, the impacts associated with a landslide hazard within the Santa Monica Mountains are potentially significant.

Alternative 6 would be below ground surface and would traverse the Santa Monica Mountains but would be situated deep underground in a tunnel in this location and the risk of landslides would be low. The one location where the potential for landslides should be a consideration is at the proposed mid-mountain shaft site, including its existing access road to the location of the shaft site, which will be widened and graded; this location is within a CGS earthquake-induced LHZ). No landslides are shown on any of the published geologic maps at the shaft location. Therefore, based on the available information, there does not appear to be a significant landslide hazard at the mid-mountain shaft site. Nevertheless, due to the steep terrain that characterizes the shaft site, there is some potential for a landslide. Future investigations to confirm the absence of a landslide at the shaft site would be required during the final design phase.

Construction of Alternative 6 would adhere to existing regulations and the provisions listed in the CBC and equivalent design criteria as the MRDC that require site-specific geotechnical evaluation during the final design phase that would include specific structural engineering recommendations. Grading and construction activities would be carried out in compliance with the regulatory requirements including state regulations and the equivalent design criteria such as the MRDC, to account for the portion of Alternative 6 that would be within an LHZ.

The final design of the tunnel portal's retaining walls, and its temporary engineering would abide with structural engineering standards set forth in the provisions listed in the CBC. The CBC provisions that relate to the construction and design of the retaining walls include the requirements for foundation and soil investigations, excavation, grading, and fill-allowable, load-bearing values of soils. The CBC provision also relates to design of footings, foundations, and slope clearances, retaining walls, and pier, pile, driven, and CIP foundation support systems (Section 1810). Chapter 33 includes requirements for safeguards at work sites to ensure stable excavations and cut or fill slopes). Appendix J includes grading requirements for the design of excavations and fills (Sections J106 and J107) and for erosion control (Section J110). Construction activities are subject to occupational safety standards for excavation, shoring, and trenching as specified in Cal/OSHA regulations (CCR Title 8).

Alternative 6 would require a site-specific slope-stability design to ensure adherence to the standards contained in the CBC and County of Los Angeles and City of Los Angeles guidelines, as well as by Cal/OSHA requirements for stabilization. The proposed Alternative 6 would include manufactured slopes in the retention basins, which would mostly occur on the perimeter of construction sites.

The combination of site-specific slope-stability design, compliance with applicable regulatory requirements, and the use of manufactured slopes and retention basins is anticipated to effectively manage constructed-slope instability such that impacts associated with constructed-slope instability, including landslides, are reduced, but may still be potentially significant.

This is particularly true for temporary slopes, as excavation activities for Alternative 6 within Landslide Zones could encounter unstable soils. Temporary slopes generally pose a higher risk of slope failure due to their steeper gradients compared to permanent, manufactured slopes. Similar to permanent slope construction, temporary slopes would be required to comply with Cal/OSHA requirements for shoring and stabilization.

To address these significant impacts MM GEO-2 would be implemented so that any excavations for the construction of the underground segment of Alternative 6 would shore excavation walls or flatten or "lay back" the excavation walls to a shallower gradient as required by applicable local, state, or federal laws or regulations to ensure stability of temporary slopes.

In addition, the construction of Alternative 6 would include a new vent shaft and access road in Stone Canyon, which is a sloped area that may be susceptible to landslides. Potential landslides during construction could cause injury or death to construction workers.

With the implementation of MM GEO-2, the impacts associated with landslides and/or slope instability during construction activities would be reduced to less than significant.

Maintenance and Storage Facilities

The proposed MSF would be located west of Woodman Avenue and south of the LOSSAN rail corridor ROW. The proposed MSF would not be located on land designated as a LHZ Area. The closest landslide zone would be located approximately 4.10 miles south from the proposed MSF. Therefore, the proposed

MSF would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides, and no impact would occur.

9.2.6.4 Impact GEO-4: Would the project result in substantial soil erosion or the loss of topsoil?

Ground-disturbing activities occurring during construction would temporarily expose surficial soils to wind and water erosion and have the potential to temporarily increase erosion and loss of topsoil. Construction work that would involve ground-disturbing activities would include installation of the emergency vent access road, utility relocations, mass excavation of the underground stations, and grading relating to these activities. The Santa Monica Mountains have areas of pervious surfaces at the proposed access road at the Stone Water Canyon emergency vent shaft. Construction of the access road would involve considerable earth-moving activities to grade and pave the roadway. However, construction activities would be required to comply with existing regulatory requirements, including implementation of BMPs and other erosion and sedimentation control measures that would ensure that grading, excavation, and other earth-moving activities would avoid a significant impact.

There would be a potential for temporary construction-related soil erosion because Alternative 6 would involve grading and excavation operations that could expose soils. Metro would be required to prepare a site-specific SUSMP, which is part of the NPDES Municipal General Permit. Preparation of the site-specific SUSMP would describe the minimum required BMPs to be incorporated into the Alternative 6 design and ongoing operation of the facilities. Prior to the initiation of grading activities associated with the implementation of Alternative 6, Metro would submit a site-specific SUSMP to reduce the discharge of pollutants to the maximum extent practical using BMPs, control techniques and systems, design and engineering methods, and other provisions that are appropriate during construction activities. All development activities associated with Alternative 6 would comply with the site-specific SUSMP.

Preparation of a site-specific SUSMP and adherence to existing regulations would ensure the maximum practicable protection available for soils excavated during the construction of buildings and associated infrastructure. Compliance with existing regulations would minimize effects from erosion and ensure consistency with the Regional Water Quality Control Board Water Quality Control Plan. Therefore, Alternative 6 would have a less than significant impact associated with soil erosion or loss of topsoil during construction activities.

Maintenance and Storage Facilities

The proposed MSF would comply with post-construction measures in applicable NPDES permits and LID standards required by Los Angeles County and the City of Los Angeles that aim to minimize erosion impacts from development projects. Therefore, the proposed MSF would result in a less than significant impact related to substantial soil erosion or the loss of topsoil during construction

9.2.6.5 Impact GEO-5: Would the project be located on a geographic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Excavation for construction of underground structures, such as station boxes, cut-and-cover tunnels, and tunnel portals would be reinforced by shoring systems to protect abutting buildings, utilities, and other infrastructure. Tunneling using a TBM would result in ground volume loss and potential ground

movements. Dewatering, when performed to create a dry work condition for construction of the underground structures, would result in compaction or consolidation of the subsurface soils and thus result in surface settlements. These surface settlements could potentially affect the stability of nearby buildings, roads, and utilities, leading to structural damage, uneven ground surfaces, and the need for additional maintenance or repair work in the affected areas. This would be a potentially significant impact.

Additionally, the use of unsuitable materials for fill and/or foundation support would have the potential to create future heaving, subsidence, spreading, or collapse problems leading to foundation and pavement settlement. Using such materials exclusively for landscaping would not cause these problems. An acceptable degree of soil stability can be achieved for expansive or compressible material by the incorporation of soil treatment programs (replacement, grouting, compaction, drainage control, etc.) in the excavation and construction plans that will be prepared to address site-specific soil conditions. In addition to the treatment of soils for underground facilities, Alternative 6 would include installation of the emergency vent access road. Construction of the access road would involve considerable earth-moving activities to grade and pave the roadway. A site-specific evaluation of soil conditions is required and must contain recommendations for ground preparation and earthwork specific to the site.

Alternative 6 would be in compliance with the regulatory requirements as defined in PM GEO-2. Under PM GEO-2, a site-specific evaluation of soil conditions shall be conducted and shall contain recommendations for ground preparation, earthwork, and compaction specification based on the geological conditions specific to the site.

To reduce this impact, Alternative 6 would implement MM GEO-1 through MM GEO-5. MM GEO-3 would also ensure compliance with the recommendations of the final soils and geotechnical report for the Project, which would provide site-specific information pertaining to the depths and areal extents of lateral spreading, subsidence, or collapse. Additionally, prior to construction, MM GEO-5 specifies that Metro shall prepare a CMP detailing how to address geologic constraints and minimize or avoid impacts to geologic hazards during construction.

Adherence to existing regulations and policies, and implementation of MM GEO-1 through MM GEO-5, would ensure the maximum practicable protection available for users of buildings and infrastructure and associated trenches, slopes, and foundations. Therefore, Alternative 6 would have a less than significant impact associated with the exposure of people or structures to hazards associated with unstable geologic units or soils.

Maintenance and Storage Facilities

The proposed MSF would be located on stable soils where no liquefaction or landslide zones are present as addressed in Section 9.2.6.2 and Section 9.2.6.3. Construction would not occur on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed MSF, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. As with Alternative 6, the proposed MSF would be designed in compliance with applicable local, state, or federal laws or regulations, including recommendations on engineering and with implementation of MM GEO-1 through MM GEO-5. Thus, construction of the proposed MSF would have less than significant impacts related to soil stability that could potentially result in landslides, lateral spreading, subsidence, liquefaction, or collapse

9.2.6.6 Impact GEO-6: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Construction activities for Alternative 6 primarily involve building underground sections and its underground stations. The underground guideway will be constructed using a TBM. All stations would be constructed using a "cut-and-cover" method whereby the station structure would be constructed within a trench excavated from the surface that is covered by a temporary deck and backfilled during the later stages of station construction. In addition, portions of the Wilshire Boulevard/Metro D Line Station crossing underneath the Metro D Line Westwood/UCLA Station and underneath a mixed-use building at the north end of the station would be constructed using SEM as it would not be possible to excavate the station from the surface.

Expansive soils can be found almost anywhere, including the Los Angeles Basin, Santa Monica Mountains, and San Fernando Valley. Expansive soils could have an impact on project elements, including the proposed stations, guideway, and TPSS sites. Construction of Alternative 6 includes excavation and surface ground disturbances, if expansive soils do exist, construction activities have the potential to create substantial direct or indirect risks to life or property. As such, impacts related to construction activities could be potentially significant.

To reduce these risks, Alternative 6 would be designed in accordance with the equivalent seismic design criteria such as the MRDC, Los Angeles County and other applicable local building codes, and the CBC. This includes compliance with MRDC Section 5 (or equivalent seismic design criteria), which requires the preparation of a geotechnical investigation during final. This design-level geotechnical investigation must include a detailed evaluation of geologic hazards, including the depths and areal extents of liquefaction, soil expansiveness, lateral spread, and seismically induced settlement. This investigation would include collecting soil samples and performing tests to assess the potential for corrosion, consolidation, expansion, and collapse. Based on the investigation and test results, specific design recommendations, including potential remediation of expansive soils, would be developed to address any identified issues. Expansive soil remediation could include soil removal and replacement, chemical treatment, or structural enhancements.

Alternative 6 would be in compliance with the regulatory requirements as defined in PM GEO-2 which calls for a California-registered geologist and geotechnical engineer to submit to and conduct a site-specific evaluation of unstable soil conditions to confirm the existence of expansive soils. The evaluation would also provide recommendations for ground preparation and earthwork activities specific to the site.

Alternative 6 would be required to comply with applicable provisions of the CBC and the MRDC with regard to soil hazard-related design, as described by PM GEO-3. The MRDC and the County of Los Angeles and City of Los Angeles building codes require site-specific investigations and reports for each construction site. The reports must identify any unsuitable soil conditions and provide recommendations for foundation type and design criteria, consistent with the analysis and building code standards. Regulations exist to address weak soil issues, including expansion. PM GEO-3 would be implemented and as such, Alternative 6 would comply with applicable local, state, or federal laws or regulations to address any potential weak soil issues during construction.

Prior to construction, the Project shall implement MM GEO-5, which requires preparation of a CMP which addresses geologic hazards such as soils with shrink-swell potential (expansive soils) and outlines strategies to minimize or avoid impacts.

With compliance with the regulatory requirements as defined PM GEO-2, PM GEO-3, and implementation of MM GEO-5, Alternative 6 would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils during construction.

Maintenance and Storage Facilities

Construction of the proposed MSF would involve grading, excavation, or other ground disturbances. If expansive soils exist at these sites, construction activities have the potential to create substantial direct or indirect risks to life or property. As such, impacts related to construction activities could be potentially significant.

The proposed MSF would be in compliance with the regulatory requirements as defined in PM GEO-2 which calls for a California-registered geologist and geotechnical engineer to submit to and conduct a site-specific evaluation of unstable soil conditions to confirm the existence of expansive soils. The evaluation would also provide recommendations for ground preparation and earthwork activities specific to the site. Moreover, the proposed MSF would be required to comply with applicable provisions of the CBC and the MRDC with regard to soil hazard-related design, as described by PM GEO-3. Finally, prior to construction, the proposed MSF shall implement MM GEO-5, which requires the preparation of a CMP which addresses geologic hazards such as soils with shrink-swell potential (expansive soils) and outlines strategies to minimize or avoid impacts.

With compliance with the regulatory requirements as defined in PM GEO-2, PM GEO-3, and implementation of MM GEO-5, the proposed MSF would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils during construction.

9.2.6.7 Impact GEO-7: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No septic systems or alternative wastewater disposal systems are proposed for Alternative 6. Alternative 6 would have no impacts associated with soils incapable of adequately supporting such systems during construction activities.

Maintenance and Storage Facilities

No septic systems or alternative wastewater disposal systems are proposed for the proposed MSF. Therefore, the proposed MSF would have no impacts associated with soils incapable of adequately supporting such systems during construction.

9.2.6.8 Impact GEO-8: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Alternative 6 would utilize a heavy rail system with seven underground stations. The path the heavy rail system would take for Alternative 6 would be located to the east of the I-405 corridor. The southern terminus of the tunnel for Alternative 6 would be located beneath Bundy Drive to the southeast of the station. The tunnel would travel north under the Santa Monica Mountains and curve to the west and onto Los Angeles Department of Water and Power's Stone Canyon Reservoir property to allow for construction of a ventilation and access shaft in the mountains. A proposed underground station would be just south of the existing Van Nuys Metrolink Station. This station would serve as a transfer point to

Metrolink and the planned East San Fernando Valley Light Rail Transit Line station at this location. North of the station, the alignment would curve east toward Woodman Avenue to connect to the proposed MSF.

Possible construction impacts involved with Alternative 6 would all be a result of access, staging and lay down areas that would be required for placing the heavy rail track and excavating the tunnel. Additionally, there would also be potentially significant impacts to surrounding sediments for staging areas and access pathways for all seven of the underground stations that are planned for Alternative 6 (Metro E Line Expo/Bundy Station, Santa Monica Boulevard Station, Wilshire Boulevard/Metro D Line Station, UCLA Gateway Plaza Station, Ventura Boulevard/Van Nuys Boulevard Station, Metro G Line Van Nuys Station, Van Nuys Metrolink Station).

The geologic units mapped within the project footprint for Alternative 6 are young alluvium, unit 2 (Qya2), young alluvium fan deposits, unit 1 (Qyf1), young alluvium fan deposits, unit 2 (Qyf2), Modelo Formation undivided (Tm), Modelo Formation sandstone (Tms), Modelo Formation Topanga Group undivided (Tt), Modelo Formation diatomaceous shale (Tmd), Cretaceous tonalite (Kt), Santa Monica Slate spotted slate (Jsms), and Santa Monica Slate phyllite (Jsmp). Cretaceous tonalite (Kt) was formed by the cooling of molten rock and thus cannot contain fossils; the Santa Monica Slate – Phyllite (Jsmp), and artificial fill (af), have “No” paleontological sensitivity. As stated before, knowing for certain what geologic units would be impacted at depth is difficult to specify without on-site monitoring of the sediments in any given working area. However, the sediments mapped at the surface of where the tunnel system would go for Alternative 6 are mapped as Qya2, Qyf1, Qyf2, Tm, Tms, Tt, Tmd, Jsms, Santa Monica Slate undivided (Jsm), and Jsmp. Generally, geologic units such as the Santa Monica Slate (Jsms, Jsmp) do not have any paleontological sensitivity to preserve fossil material. The Santa Monica Slate is a geologic unit consisting of metamorphic rock, which undergoes intense pressure and temperature, chemically altering it from the original form. This metamorphic process usually destroys and deforms any fossil material that could have been located within; however, because of the relatively low grade of metamorphism, enough relevant features of the fossils were preserved in portions of the Santa Monica Slate. When the portion of the Santa Monica Slate with “Unknown” sensitivity (Jsms) is encountered, the project paleontologist would need to determine if low-grade metamorphic conditions are present. If that is the case, that portion of the unit (Jsms) may be considered “Low” paleontological sensitivity and monitored accordingly (Imlay, 1963). Additionally, the Qyf1, Qyf2, and Qya2 have a “Low” sensitivity for preserving fossil material because these units are too young to have preserved any significant fossil material. The geologic map units labeled as Tm, Tms, Tmd, and Tt all have a high sensitivity for preserving fossil material due to their age, as do the fossil localities found within the same map units nearby (Bell, 2023).

Because of the uncertainty regarding the depth of sensitive sediments and the potential for encountering unique paleontological resources during ground disturbance, the impact would be significant. To address this significant impact, MM GEO-6 through MM GEO-9 would be implemented. These measures include the use of onsite paleontological monitors who can quickly identify and protect resources until any discovered localities can be safely removed. These mitigation measures are designed to minimize impacts to paleontological resources by ensuring that any discoveries are properly documented, evaluated, and protected during construction activities. With the implementation of MM GEO-6 through MM GEO-9, impacts to paleontological resources would be reduced to less than significant for non-TBM activities.

However, for the underground tunnels of Alternative 6, which would require use of a TBM, it may not be possible to mitigate impacts paleontological resources to less than significant levels. TBMs are designed

to excavate sediments to the precise dimensions of the finished tunnel, removing the excavated material through an internal conveyor belt while simultaneously erecting the tunnel's concrete walls. However, the operation of the TBM does not allow for real-time monitoring of the excavated sediments or the tunnel walls prior to the installation of the concrete lining. As a result, it is not possible to identify, document, and recover of paleontological resources that may be present within the paleontologically sensitive geologic units encountered during tunneling. Therefore, excavations for tunnel construction would result in a significant and unavoidable impact to paleontological resources when a TBM is used [Refer to Figure 5 in the *Paleontological Resources Technical Memorandum*, Attachment A of the *Sepulveda Transit Corridor Project Geotechnical, Subsurface, Seismic, and Paleontological Resources Technical Report (*Metro, 2025l].

Maintenance and Storage Facilities

The impacts involved with the MSF include the construction of the administrative buildings, maintenance buildings, wash facilities, drive aisles, and storage tracks. The surface rocks in the underground portions of the proposed MSF are mapped as Qya2 but may be more paleontologically sensitive (older) than indicated, at depth. Since the depth and extent of sensitive sediments are unknown, there is a potential to impact sensitive paleontological resources during ground disturbance activities. This would constitute a significant impact.

To address these impacts, the MSF would be required to implement MM GEO-6 through MM GEO-9, which include requirements for construction monitoring and resource management. With the implementation of these measures, the impact on paleontological resources from construction of the MSF would be reduced to less than significant.

9.2.6.9 Impact GEO-9: Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or an important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Construction of Alternative 6 would require excavation (cut and cover) for underground stations and the vent shaft in Stone Canyon, as well as TBM use for tunnel construction. However, Alternative 6 would not be located in an area with known mineral deposits. Alternative 6 is located in areas designated as MRZ-1 and MRZ-3. The California Department of Conservation, Division of Mines and Geology has classified areas of regional significance as MRZ-2 (CGS, 2021). Alternative 6 would not be located within an area designated as MRZ-2. Alternative 6 would be located within areas designated as MRZ-1 in the northern portion of Alternative 6 in the San Fernando Valley as well as the southern portion of Alternative 6 near West Los Angeles. MRZ-1-designated areas indicate that no significant mineral deposits are present, or little likelihood exists for their presence. No mining operations are present within the Alternative 6 RSA, so construction of Alternative 6 would not disrupt mining operations. Therefore, Alternative 6 would have no construction impacts related to the loss of availability of a known mineral resource or a locally important mineral resource recovery site.

Maintenance and Storage Facilities

Construction of the MSF would not require excavation that may affect mineral resources. No mining operations are present within or in the vicinity of the MSF. Therefore, the MSF would have no construction impacts related to the loss of availability of a known mineral resource or a locally important mineral resource recovery site.

9.2.6.10 Project and Mitigation Measures

Alternative 6 would implement the following project and mitigation measures to ensure that impacts to the geology, soils, and seismicity remain less than significant during construction activities.

PM GEO-1: *The Project shall demonstrate to the County of Los Angeles and the City of Los Angeles that the design of the Project complies with all applicable provisions of the California Building Code with respect to seismic design. Compliance shall include the following:*

- *California Building Code Seismic Zone 4 Standards as the minimum seismic-resistant design for all proposed facilities*
- *Seismic-resistant earthwork and construction design criteria (i.e., for the construction of the tunnel below ground surface, liquefaction, landslide, etc.), based on the site-specific recommendations of a California Registered Geologist in cooperation with the Project Engineers.*
- *An engineering analysis to characterize site specific performance of alluvium or fill where either forms part or all of the support.*

PM GEO-2: *A California-registered geologist and geotechnical engineer shall submit to and have approval by the Project a site specific evaluation of unstable soil conditions, including recommendations for ground preparation and earthwork activities specific to the site and in conformance with City of Los Angeles Building Code, County of Los Angeles Building Code, the California Building Code, Metro Rail Design Criteria (as applicable), and Caltrans Structure Seismic Design Criteria.*

PM GEO-3: *The Project shall demonstrate that the design of the Project complies with all applicable provisions of the County of Los Angeles Building Code and City of Los Angeles Building Code.*

MM GEO-1: *The Project's design shall include integration and installation of early warning system to detect and respond to strong ground motion associated with ground rupture. Known active fault(s) (i.e., Santa Monica Fault) shall be monitored. Linear monitoring systems such as time domain reflectometers or equivalent or more effective technology shall be installed along fixed guideway in the zone of potential ground rupture.*

MM GEO-2: *Where excavations are made for the construction of the below surface tunnel, the Project shall either shore excavation walls with shoring designed to withstand additional loads or reduce the slope of the excavation walls to a shallower gradient. Excavation spoils shall not be placed immediately adjacent to excavation walls unless the excavation wall is shored to support the added load. Spoils should be stored at a safe distance from the excavation site to prevent undue pressure on the walls.*

MM GEO-3: *The Project shall comply with the recommendations of the final soils and geotechnical report. These recommendations shall be implemented in the design of the Project, including but not limited to measures associated with site preparation, fill placement, temporary shoring and permanent dewatering, groundwater seismic design features, excavation stability, foundations, soil stabilization, establishment of deep foundations, concrete slabs and pavements, surface drainage, cement type and corrosion measures, erosion control, shoring and internal bracing, and plan review.*

MM GEO-4: *In locations where soils have a potential to be corrosive to steel and concrete, the soils shall be removed, and buried structures shall be designed for corrosive conditions, and corrosion-protected materials shall be used in infrastructure.*

MM GEO-5: *Prior to construction, the Project shall prepare a Construction Management Plan (CMP) that addresses geologic constraints and outlines strategies to minimize or avoid impacts to geologic hazards during construction. The plan shall address the following geological and geotechnical constraints/resources and incorporate standard mitigation measures (shown in parentheses):*

- *Groundwater withdrawal (using dewatering pumps and proper disposal of contaminated groundwater according to legal requirements)*
- *Risk of ground failure from unstable soils (retaining walls and inserting soil stabilizers)*
- *Subsidence (retaining walls and shoring)*
- *Erosion control methods (netting on slopes, bioswales, sediment basins, re-vegetation)*
- *Soils with shrink-swell potential (inserting soil stabilizers)*
- *Soils with corrosive potential (protective coatings and protection for metal, steel or concrete structures, soil treatment, removal of corrosive soils and proper disposal of any corrosive soils)*
- *Impact to topsoils (netting, and dust control)*
- *The recommendations of the CMP would be incorporated into the project plans and specifications.*

MM GEO-6: *The potential to avoid impacts to previously unrecorded paleontological resources shall be avoided by having a qualified Paleontologist or Archaeologist cross-trained in paleontology, meeting the Society of Vertebrate Paleontology Standards retained as the project paleontologist, with a minimum of a bachelor's degree (B.S./B.A.) in geology, or related discipline with an emphasis in paleontology and demonstrated experience and competence in paleontological research, fieldwork, reporting, and curation. A paleontological monitor, under the guidance of the project paleontologist, shall be present as required by the type of earth-moving activities in the Project, specifically in areas south of Ventura Boulevard that have been deemed areas of high sensitivity for paleontological resources. The monitor shall be a trained paleontological monitor with experience and knowledge of sediments, geologic formations, and the identification and treatment of fossil resources.*

MM GEO-7: *A Paleontological Resources Impact Mitigation Program (PRIMP) shall be prepared by a qualified paleontologist. The PRIMP shall include guidelines for developing and implementing mitigation efforts, including minimum requirements, general fieldwork, and laboratory methods, threshold for assessing paleontological resources, threshold for excavation and documentation of significant or unique paleontological resources, reporting requirements, considerations for the curation of recovered paleontological resources into a relevant institution, and process of documents to Metro and peer review entities.*

MM GEO-8: *The project paleontologist or paleontological monitor shall perform a Workers Environmental Awareness Program training session for each worker on the project site to familiarize the worker with the procedures in the event a paleontological resource is discovered. Workers hired after the initial Workers Environmental Awareness Program training conducted at the pre-grade meeting shall be required to take additional Workers Environmental Awareness Program training as part of their site orientation.*

MM GEO-9: *To prevent damage to unanticipated paleontological resources, a paleontological monitor shall observe ground-disturbing activities including but not limited to grading, trenching, drilling, etc. Paleontological monitoring shall start at full time for geological units deemed to have "High" paleontological sensitivity. Geological units deemed to have "Low" paleontological sensitivity shall be monitored by spot checks. No monitoring is required for geologic units identified as having "No" paleontological sensitivity. "Unknown" paleontological sensitivity is assigned to the less metamorphosed portions of the Santa Monica Slate, as detailed below.*

- *The monitor shall be empowered to temporarily halt or redirect construction efforts if paleontological resources are discovered. The paleontological monitor shall flag an area 50 feet around the discovery and notify the construction crew immediately. No further disturbance in the flagged area shall occur until the qualified paleontologist has cleared the area. In consultation with the qualified paleontologist, the monitor shall quickly assess the nature and significance of the find. If the specimen is not significant, it shall be quickly removed, and the area cleared. In the event paleontological resources are discovered and deemed by the project paleontologist to be scientifically important, the paleontological resources shall be recovered by excavation (i.e., salvage and bulk sediment sample) or immediate removal if the resource is small enough and can be removed safely in this fashion without damage to the paleontological resource. If the discovery is significant, the qualified paleontologist shall notify Metro immediately. In consultation with Metro, the qualified paleontologist shall develop a plan of mitigation, which will likely include salvage excavation and removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation of the find in a local qualified repository, and preparation of a report summarizing the find.*

- *Generally, geologic units that have endured metamorphic processes (i.e., extreme heat and pressure over long periods of time) do not contain paleontological resources. The Santa Monica Slate, originally a fossiliferous shale, has been subjected to various levels of metamorphism and thus, in areas of "low-grade metamorphism," paleontological resources may be discovered. Due to the rarity of paleontological resources dating to the Mesozoic (between approximately 65.5 to 252 million years ago) of Southern California, any such materials have high importance to the paleontology of the region. When encountered, the project paleontologist shall assess the levels of metamorphism that portion of the Santa Monica Slate has experienced. The Santa Monica Slate shall be monitored part time where the project paleontologist has determined lower levels of metamorphism have taken place and the preservation of paleontological resources is possible. If exposures of the Santa Monica Slate have been subjected to high levels of metamorphism (i.e., phyllite components of Jsmp), paleontological monitoring in that portion of the formation is not necessary.*
- *Recovered paleontological resources shall be prepared, identified to the lowest taxonomic level possible, and curated into a recognized repository (i.e., Natural History Museum of Los Angeles County). Bulk sediment samples, if collected, shall be "screen-washed" to recover the contained paleontological resources, which will then be identified to the lowest taxonomic level possible, and curated (as above). The report and all relevant field notes shall be accessioned along with the paleontological resources.*

Impacts After Mitigation

Adherence to existing regulations and implementation of PM GEO-1 and MM GEO-1 would ensure that Alternative 6 remains with a less than significant impact associated with exposing people or structures to seismic ground shaking, including effects related to seismic-related ground failure during construction activities.

Adherence to existing regulations and implementation of PM GEO-1 and MM GEO-1 would result in a less than significant impact for Alternative 6.

With implementation of MM GEO-2 and adherence to existing regulations, Alternative 6 would have a less than significant impact associated with landslides and/or slope instability during construction activities.

Adherence to existing regulations and policies, and implementation of PM GEO-2 and MM GEO-3 through MM GEO-5, would ensure the maximum practicable protection available for users of buildings and infrastructure and associated trenches, slopes, and foundations. Therefore, Alternative 6 would have a less than significant impact associated with the exposure of people or structures to hazards associated with unstable geologic units or soils.

With implementation of PM GEO-3 and adherence to existing regulations, Alternative 6 would have a less than significant impact regarding the exposure of people or structures to hazards related to expansive soils.

Possible construction impacts involved with paleontological resources would all be a result of access, staging, and lay down areas that would be required for placing the heavy rail track and excavating the tunnel. With implementation of MM GEO-6 through MM GEO-9, impacts to surrounding sediments for

staging areas and access pathways for all seven of the underground stations that are planned for Alternative 6 (Metro E Line Expo/Bundy Station, Santa Monica Boulevard Station, Wilshire Boulevard/Metro D Line Station, UCLA Gateway Plaza Station, Ventura Boulevard/Van Nuys Boulevard Station, Metro G Line Van Nuys Station, and Van Nuys Metrolink Station) would be reduced to less than significant.

9.2.7 Growth Inducing Impacts

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-16.

Table 9-16. Alternative 6: Growth Inducing Impacts Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 6
Growth Inducing Impacts		
Impact GI-1: Would the Project foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact GI-2: Would the project remove obstructions to population growth … [or] encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025e

GI = growth inducing
LTS = less than significant
NA = not applicable

9.2.7.1 Impact GI-1: Would the project foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment?

Construction of Alternative 6 would result in temporary environmental impacts within the RSA due to the necessary addition of construction workers. However, these workers would likely be sourced from the local labor pool and therefore the temporary employment opportunities for Alternative 6 would not directly foster the construction of permanent housing for workers in the Alternative 6 RSA. Thus, construction of Alternative 6 would result in less than significant impacts related to unplanned population, housing, and employment growth.

Maintenance and Storage Facilities

Construction of the MSF would not construct any new housing units; therefore, the MSF site would not generate new or unplanned population and housing growth. Thus, construction of the MSF would result in less than significant impacts related to unplanned population, housing, and employment growth.

9.2.7.2 Impact GI-2: Would the project remove obstructions to population growth…[or] encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively?

Construction of Alternative 6 would result in temporary influxes of construction workers, equipment, and vehicular trips to the Alternative 6 RSA. However, because the Alternative 6 RSA would be within a

densely developed region, and because construction workers would likely reside in the wider metropolitan area, construction activities would not induce growth or extend environmental impacts into previously undeveloped areas. Construction activities for Alternative 6 would not remove obstructions to population growth, nor encourage or facilitate other projects that have not already been identified in the SCAG 2024-2050 RTP/SCS, Metro's 2020 LRTP, the 2023 FTIP, or Measure M. Thus, construction of Alternative 6 would result in less than significant impacts related to the removal of obstructions to population growth or encouragement and facilitation of other activities that could significantly affect the environment, either individually or cumulatively.

Maintenance and Storage Facilities

The MSF would be within an urbanized region and would be constructed on a previously developed area. The MSF would not construct any housing units and thus would not generate unplanned population or housing growth. Thus, construction of the MSF would result in less than significant impacts related to the removal of obstructions to population growth or encouragement and facilitation of other activities that could significantly affect the environment, either individually or cumulatively.

9.2.7.3 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

9.2.8 Hazards and Hazardous Materials

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-17.

Table 9-17. Alternative 6: Hazards and Hazardous Materials Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 6
Hazards and Hazardous Materials Construction Impacts		
Impact HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM HAZ-1 through MM HAZ-5
	Impacts After Mitigation	LTS
Impact HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HAZ-4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM HAZ-1 through MM HAZ-4
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternative 6
Impact HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025m

HAZ = hazards and hazardous materials
LTS = less than significant
MM = mitigation measure
NA = not applicable

9.2.8.1 Impact HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction of Alternative 6 could expose the public or the environment to hazardous materials if the following situations occurred: improper handling or use of hazardous materials or hazardous wastes (particularly if used or handled by untrained personnel); transportation accident; environmentally unsound disposal methods; or fire, explosion, or other emergencies. The severity of potential effects would vary with the activity conducted, the concentration of and type of hazardous material or wastes present, and the proximity of sensitive receptors.

There is an established, comprehensive federal, state, regional, and local framework independent of the CEQA process that is intended to reduce the risks associated with the use, transport, and disposal of hazardous materials. Transportation of hazardous materials on area roadways is regulated by the CHP and Caltrans. The use and disposal of hazardous materials is heavily regulated at both the federal and state level; these regulations are declared and enforced by agencies such as EPA, SWRCB, DTSC, Cal/OSHA, and the SCAQMD. Metro would be required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases. In accordance with the SWRCB and PM HAZ-2, Metro would obtain and comply with an NPDES permit. In addition, coverage under the State Water Resource Control Board's Construction General Permit would be obtained. As part of the Construction General Permit, the contractor would be required to prepare and implement an SWPPP, which would include BMPs as mandated by PM HAZ-2, including the following and/or similar measure to minimize the risk of accidental spills of hazardous materials during construction.

The types and amounts of hazardous materials would vary according to the nature of the construction activity. Construction of Alternative 6 would require use of typical construction equipment (e.g., gasoline- or diesel-powered machinery) and vehicles containing fuel, oil, and grease, as well as use and transport of these materials. Limited quantities of certain hazardous materials such as paints, solvents, and glues would be used during construction. Construction staging and laydown would occur at multiple locations along the alignment and station sites and could include storage of excavated materials, construction offices, equipment storage, mechanical shops, and plants (grout, water treatment, foam, etc.) (Metro, 2024c). There is low likelihood that substantial quantities of hazardous materials would be stored during construction. Moreover, these hazardous materials would not include acutely hazardous materials or substances listed in 40 CFR 355 *Appendix A: Extremely Hazardous Substances and Their Threshold Planning Quantities* that could harm construction workers or the general public.

Whether a person exposed to a hazardous substance suffers adverse health effects as a result of that exposure depends upon a complex interaction of factors, including the following: the exposure pathway

(the route by which a hazardous material enters the body); the amount of material to which the person is exposed; the physical form of the hazardous material (e.g., liquid or vapor) and its characteristics (e.g., toxicity); the frequency and duration of exposure; and the individual's unique biological characteristics, such as age, gender, weight, and general health. Adverse health effects from exposure to hazardous materials may be short term (acute) or long term (chronic). Acute effects can include damage to organs or systems in the body and possibly death. Chronic adverse effects, which may result from long-term exposure to a hazardous material, can also include organ or systemic damage, but chronic effects of particular concern include birth defects, genetic damage, and cancer. Transportation of hazardous materials, such as contaminated soils; hazardous building materials, including asbestos, lead, and PCBs; and other hazardous wastes (i.e., TWW, roadway demolition debris, and hazardous building materials) would occur along designated truck routes within the Alternative 6 corridor and/or along major streets connecting to construction staging areas and the nearest freeways (e.g., I-405, I-10, US-101). Consistent with local plans, truck routes that may be used for transporting and hauling hazardous materials include Van Nuys Boulevard, Ventura Boulevard, Beverly Glen Boulevard, Santa Monica Boulevard, and Bundy Drive. As mandated by PM HAZ-2, transportation of hazardous materials would comply with state regulations governing hazardous materials transport as stated in the California Vehicle Code (Title 13 of the CCR), the State Fire Marshal Regulations (Title 19 of the CCR), and Title 22 of the CCR. Restrictions on haul routes can be incorporated into the construction specifications according to local permitting requirements.

Alternative 6 would also require the use of the TBM during underground tunnel construction activities. TBM's are typically used in the construction of infrastructure projects to build deep underground tunnels by boring, or excavating, through soil, rocks, and/or other subsurface materials. After mining is completed and TBM logistics are demobilized, both ends of the tunnel would be utilized to build the invert roadway, walkways, center wall and etc. Alternative 6 is anticipated to result in some contaminated soil associated with mass excavation efforts. Contaminated soils and hazardous building materials and wastes would be disposed of in accordance with federal, state, and local requirements. The Los Angeles County Public Health Department manages enforcement and permitting for facilities that receive and dispose of solid waste, including hazardous waste, at the landfills. Table 9-18 provides a representative list of the hazardous waste disposal landfills and potential haul routes.

Table 9-18. Alternative 6: Hazardous Waste Disposal Landfills and Potential Haul Routes

Landfill Site Name	Hazardous Waste Accepted	General Potential Haul Route
South Yuma County Landfill 19536 South Avenue 1E Yuma, AZ	Contaminated soil, PCBs, asbestos	I-405 South to SR-91 East to I-15 South to I-8 East to Yuma, Arizona
Clean Harbors Buttonwillow 2500 West Lokern Road Buttonwillow, CA	Acutely hazardous materials[a], contaminated soil, PCBs, asbestos, RCRA waste with heavy metals	I -405 North to I-5 North to SR-58 West to Lokern Road
U.S. Ecology Highway 95 South Beatty, NV	Contaminated soil, PCBs, asbestos	I-405 North to I-10 East to I-15 North to I-95 North to Beatty, Nevada

Source: HTA, 2024

[a]Acutely hazardous materials are defined as waste containing dangerous chemicals that could pose a threat to human health and the environment even when properly managed.

PCB = polychlorinated biphenyls
RCRA = Resource Conservation and Recovery Act

Adherence to federal and state regulations stipulated by PM HAZ-2 reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With compliance with existing regulations, impacts related to the creation of significant hazards to the public or the environment through the routine transport, storage, use, and disposal of hazardous materials during construction of Alternative 6 would be less than significant.

Maintenance and Storage Facilities

The types and amounts of hazardous materials would vary according to the nature of the activity. Construction of the MSF would require use of typical construction equipment (e.g., gasoline- or diesel-powered machinery) and vehicles containing fuel, oil, and grease, as well as use and transport of these materials. Limited quantities of certain hazardous materials such as paints, solvents, and glues would be used during construction.

Maintenance of trains, vehicles, and equipment would occur at an MSF. Multiple buildings would be constructed, including a multi-level maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, and traction power substation structure. Operation of the MSF would involve the use of small amounts of hazardous substances such as oil, grease, solvents, paints, common household-type cleaning materials, and pesticides/herbicides. Cleaning and maintenance products are required to be labeled with appropriate cautions and instructions for handling, storage and disposal, and do not represent a significant threat to human health and the environment. Staff would be required to use, store, and dispose of these materials properly in accordance with label directions. The types and amounts of hazardous materials used at the MSF would not pose any greater risk than the existing uses at other similar development elsewhere in the vicinity of the MSF. Operation of the MSF would not require the use, handling, or storage of quantities of hazardous materials in excess of regulatory thresholds.[1] If the quantity of hazardous materials used, handled, or stored on-site would exceed the regulatory thresholds, there is an established comprehensive regulatory framework independent of the CEQA process that would be followed, including preparation and submittal of a HMBP, as mandated by PM HAZ-1.

Adherence to federal and state regulations stipulated by PM HAZ-2 reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a more coordinated, quicker response to emergencies. With compliance with existing regulations, impacts related to the creation of significant hazards to the public or the environment through the routine transport, storage, use, and disposal of hazardous materials during construction of the MSF would be less than significant.

9.2.8.2 Impact HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction activities for the proposed Project, such as grading and excavation, could result in the exposure of construction personnel and the public to previously unidentified hazardous substances in the soil. Exposure to unanticipated hazardous substances could occur from previously unidentified soil

[1] The thresholds are 55 gallons for a hazardous liquid; 500 pounds of a hazardous solid; 200 cubic feet for any compressed gas; or threshold planning quantities of an extremely hazardous substance, per Chapter 6.95 California Health and Safety Code.

contamination caused by the contaminants originating at nearby listed sites (e.g., roadways and industrial uses). Or from construction-related soil contamination caused by spillage and/or mixing of construction trash and debris into the soil. EDR searched various regulatory databases and identified several sites in the surrounding area as being contaminated or having the potential to become contaminated from the release of hazardous substances. A summary and details of these sites are presented in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m). Exposure to hazardous materials during construction activities could occur as a result of any of the following:

- Direct dermal contact with hazardous materials
- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking)
- Inhalation of airborne dust released from dried hazardous materials

If any unidentified sources of contamination are encountered during demolition, grading, or excavation, the removal activities required could pose health and safety risks capable of resulting in various short-term or long-term adverse health effects in exposed persons. The risks are particularly heightened during tunneling activities, which would involve deeper excavation and may encounter legacy contamination or naturally occurring hazardous materials that are less likely to be present near the surface.

If tunneling is advanced through contaminated soil or groundwater, the excavated soil/slurry mix could be considered hazardous, depending on the levels of contamination encountered. Potentially affected parcels within one-quarter mile of Alternative 6 may have subsurface contamination from undocumented releases associated with current and/or historical use of the property(ies) (e.g., gas stations, dry cleaners, or industrial properties) (ICF, 2023). During construction, there is the potential to encounter, dewater, and dispose of contaminated groundwater during ground-disturbing activities, shallow excavation, tunnel boring, excavation for the underground guideway, or relocation of utilities. During construction activities involving ground-disturbing activities, there is potential to encounter contaminated groundwater. This risk is heightened when performing shallow excavations, utilities relocation, or construction that requires dewatering. If contaminated groundwater is encountered, it would be managed and disposed of in compliance with local, state, and federal regulations. This could include treating the contaminated groundwater on-site or offsite or transporting it to a wastewater treatment facility capable of handling hazardous materials.

The Area 4 Pollock OU could potentially extend near the northern portions of Alternative 6 north of Saticoy Street (ICF, 2022b). A historical manufacturing work in the Valley groundwater basin, dating back to World War II, contaminated the groundwater in the region with volatile organic compounds (VOCs), including trichloroethylene (TCE) and tetrachloroethylene (PCE). Use of contaminated groundwater poses the greatest risk at this site. The Valley Area 4 groundwater contamination is being addressed through the coordination of federal, state and municipal agencies including EPA, DTS, SRWQCB, and Los Angeles Regional Water Quality Control Board (LARWQCB). EPA conducted rounds of indoor sampling in the Atwater Village area (outside of the RSA) and determined that the VOCs migrating from the groundwater did not impact the area. Based on these results, it can be inferred that VOCs would not affect proposed stations under Alternative 6.

The tunnel alignment for Alternative 6 would traverse the methane and methane buffer zones in the southern portion of the alignment. The Santa Monica Boulevard Station and the Wilshire/Metro D Line

Station would be within the methane hazard zone. In addition, the methane zones map shows a small methane and methane buffer zone located near the northern portion of the Alternative 6 alignment. The methane and methane buffer zones are located near the location of an abandoned oil exploration well (Leadwell Well No. 1) on Van Nuys Boulevard between Valerio Street and Wyandotte Street (EDR 2021). As described in DEIR *Section 3.8.4, Hazards and Hazardous Materials*, methane gas and hydrogen sulfide are highly flammable and can pose challenges during construction, particularly when tunneling activities disturb formations where methane gas and/or hydrogen sulfide may accumulate. The use of a TBM in such areas increase the potential for encountering pockets of methane gas and/or hydrogen sulfide, which could lead to fire or explosion hazards if proper precautions are not taken. Pursuant to Section 91.7104.1 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619) and as outlined in PM HAZ-3, all construction activities within the methane hazard zones would implement the City's methane mitigation measures. These measures include subsurface testing of geological formations, compliance with Methane Mitigation Standards established by the Superintendent of Building, and installation of methane gas and/or hydrogen sulfide mitigation systems for all underground structures, such as stations and tunnels. During tunneling, monitoring for methane gas and/or hydrogen sulfide concentrations, maintaining ventilation systems to minimize accumulation of gas.

Several high-pressure pipelines containing crude oil traverse the RSA. A review of the PHMSA Pipeline Map Viewer (PHMSA, 2023) indicated there have been no recorded pipeline releases within the RSA. However, Project-related excavation and earthmoving activities could encounter buried pipelines resulting in accidental rupture or leaks, which could cause a human health and environmental hazard. For security reasons, the PHMSA Pipeline Map Viewer (PHMSA, 2023) cannot be used for field verification of exact high-pressure pipeline locations, and the potential presence of other pipelines is unknown. In addition, it is possible buried underground utility lines may be within the RSA (such as stormwater, sewer, electrical, or communication cables). In addition, utility relocation could result in TWW that requires disposal.

Construction would require demolition of existing structures. Demolition of structures could potentially expose construction workers and the public to hazardous conditions through the disturbance or improper handling, transporting, and/or disposal of hazardous building materials such as ACM, LBP, or PCBs. Both the federal OSHA and Cal/OSHA regulate worker exposure during construction activities that disturb LBP. Any ACMs, if present, would need appropriate abatement of the identified asbestos prior to demolition pursuant to the SCAQMD Rule 1403 and PM HAZ-4.

Additional effects from construction activities, such as excavation, tunneling, demolition, and grading, could include potential exposure of construction workers and/or the public to chemical compounds present in soils or soil gases. These activities may also result in the localized spread of contamination if disturbed soils or materials are improperly handled, leading to the migration of contaminants to previously uncontaminated areas. In addition, airborne chemical compounds released from construction or demolition areas, such as dust containing hazardous substances, could pose inhalation risks to workers, nearby residents, and the environment. Transportation of contaminated slurry or soils off-site for disposal could also result in accidental releases, such as spills or leaks, if proper containment measures are not implemented. Therefore, construction impacts related to creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving.

Alternative 6 would be required to implement MM HAZ-1 through MM HAZ-5, which would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as

well as procedures and plans for safely handling, transporting, and disposing of hazardous materials. Implementation of MM HAZ-1 through MM HAZ-5 and would minimize the risk of exposing construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials such as ACM, LBP, or PCBs) during demolition activities. Regulations stipulated by PM HAZ-3 would ensure that the city's methane mitigation measures to reduce the potential exposure of construction workers and the public to methane gas would be implemented. Alternative 6 would be required to implement MM HAZ-1 through MM HAZ-5, which would require investigations into potential contamination sources prior to, and during construction activities. Therefore, with implementation of MM HAZ-1 through MM HAZ-5 and adherence to PM HAZ-2 and applicable local, state, and federal regulations would reduce impacts related to the upset and accidental release of hazardous materials to a less than significant level.

Maintenance and Storage Facilities

As discussed in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m), operation of stations, guideway, and MSF would involve the use of small amounts of hazardous substances such as oil, grease, solvents, paints, and common cleaning materials. None of these substances would be acutely hazardous. No activities are proposed that would result in the use or discharge of unregulated hazardous materials. Storage and disposal of hazardous materials and waste would be conducted in accordance with all federal and state regulatory requirements as mandated by PM HAZ-1, that are intended to prevent or manage hazards, and if a spill does occur, it would be remediated accordingly.

Construction activities for the proposed Project, such as grading and excavation, could result in the exposure of construction personnel and the public to previously unidentified hazardous substances in the soil. Exposure to unanticipated hazardous substances could occur from previously unidentified soil contamination caused by the contaminants originating at nearby listed sites (e.g., roadways and industrial uses). Or from construction-related soil contamination caused by spillage and/or mixing of construction trash and debris into the soil. EDR searched various regulatory databases and identified several sites in the surrounding area as being contaminated or having the potential to become contaminated from the release of hazardous substances. A summary and details of these sites are presented the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m). Exposure to hazardous materials during construction activities could occur as a result of any of the following:

- Direct dermal contact with hazardous materials
- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking)
- Inhalation of airborne dust released from dried hazardous materials

If any unidentified sources of contamination are encountered during demolition, grading, or excavation, the removal activities required could pose health and safety risks capable of resulting in various short-term or long-term adverse health effects in exposed persons.

Additional effects could include the potential exposure of construction workers and/or the public to chemical compounds in soils, and soil gases; potential localized spread of contamination; potential exposure of workers, the public, and the environment to airborne chemical compounds migrating from the construction or demolition areas; and potential accidents during transportation of contaminated slurry or soils. Therefore, construction impacts related to creating a significant hazard to the public or

the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials would be potentially significant.

Construction would require demolition of existing structures. Demolition of structures could potentially expose construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials (such as ACM, LBP, or PCBs). Both the federal OSHA and Cal/OSHA regulate worker exposure during construction activities that disturb LBP. Any ACMs, if present, would need appropriate abatement of the identified asbestos before demolition begins, pursuant to the SCAQMD Rule 1403 and PM HAZ-4.

The MSF would be required to implement MM HAZ-1 through MM HAZ-4, which would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling hazardous materials and would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials. Therefore, with implementation of MM HAZ-1 through MM HAZ-4, and adherence to applicable local, state, and federal regulations would reduce impacts related to the upset and accidental release of hazardous materials to a less than significant level.

9.2.8.3 Impact HAZ-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Construction of Alternative 6 would involve handling of hazardous materials and use of diesel-powered equipment within 0.25 mile of schools. Such activities, if not appropriately managed, could result in hazardous emissions that would potentially affect nearby schools.

As described throughout the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m), there is an established, comprehensive federal, state, regional, and local framework independent of the CEQA process that is intended to reduce the risks associated with handling of hazardous materials, including transport, use, storage, and disposal. The use and disposal of hazardous materials is heavily regulated at both the federal and state level; these regulations are declared and enforced by agencies such as EPA, the SWRCB and DTSC, Cal/OSHA, and the SCAQMD. By implementing the SWPPP and associated BMPs, as mandated by the SWRCB Construction General Permit and described in PM HAZ-2, construction-related hazardous substances, such as oil and greases, would be managed through appropriate material handling and BMP. In addition, transportation of hazardous materials would comply with state regulations governing hazardous materials transport included in the California Vehicle Code (Title 13 of the CCR), the State Fire Marshal Regulations (Title 19 of the CCR), and Title 22 of the CCR. Cooperation with the corridor cities would occur throughout the construction process. Restrictions on haul routes would be incorporated into the construction specifications according to local permitting requirements as set forth in PM HAZ-2.

Adherence to federal and state regulations reduces the risk of exposure to hazardous materials used during construction. Each of these regulations is specifically designed to protect the public health through improved procedures for the handling of hazardous materials, better technology in the equipment used to transport these materials, and a faster, more coordinated response to emergencies. By adhering to existing regulations, construction of Alternative 6 would have less than significant impacts associated with the transportation, use, storage, and handling hazardous materials within 0.25 mile of an existing school.

Maintenance and Storage Facilities

The MSF is not located within 0.25 miles of a school. Therefore, the MSF would have no impact related to emissions of hazardous materials within 0.25 miles of a school.

9.2.8.4 Impact HAZ-4: Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

There are 69 Cortese-listed hazardous materials sites within 0.5 mile of Alternative 6 (refer to the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* [Metro, 2025m]). Confirmed releases of hazardous materials include petroleum hydrocarbons, VOCs, and metals to soil. Table B-6 of the technical report provides the business addresses and proximity of the parcels to Alternative 6 and describes the status of each parcel. Sixty-seven of those sites have been listed as Closed. Sites listed as "Closed" signify that they have been remediated to the satisfaction of the agency with oversight. Based on the regulatory status of case closed, these sites are not anticipated to have a negative environmental impact on the project site.

However, the following two LUST sites have an open status and located within 100 feet of Alternative 6:

- Miller Infinity Site located at 5455 Van Nuys Boulevard (Site 25). The site (GeoTracker T0603702402) is listed as a gasoline-impacted soil and groundwater site with an Open-Remediation status under the LUST database. The site is the location of a former commercial petroleum fueling facility. An unauthorized release was reported in April 1989 following the removal of eight gasoline USTs. Remediation has been ongoing. According to the information reviewed, the petroleum release is limited to the soil and shallow groundwater. RWQCB approved a revised Remedial Action Plan on December 23, 2021. The plan involves "over-purging" to remove remaining free product in selected monitoring wells. Depth to water ranges from 59 to 62 feet below ground surface. Groundwater flow is toward the northeast. Several monitoring wells appear to be in or adjacent to the Alternative 6 footprint. As of August 2022, the site does not qualify for closure under the Low-Threat Underground Storage Tank Case Closure Policy.
- Winall Station #17 located at 4441 Van Nuys Boulevard (Site 35). The site (GeoTracker T0603702422) is listed as gasoline-impacted soil, soil vapor and groundwater contamination with a remediation plan status. The site first reported the release in April of 1990. Soil and groundwater remediation and monitoring have been ongoing since then. Groundwater impacts are both on- and off-site. According to a Los Angeles RWQCB April 2022 letter, off-site groundwater impacts extend to the north and northeast, in the direction of groundwater flow. However, off-site impacts to the north have not been adequately delineated. Depth to groundwater has varied between 11 and 21 feet below ground surface. Four monitoring wells appear to be located in or adjacent to the Alternative 6 footprint. A Remedial Action Plan was submitted on August 27, 2021. Remedial activities will be conducted on soil vapor and groundwater.

As discussed in the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* (Metro, 2025m), construction that disturbs existing soil that has been contaminated from hazardous materials release sites or other sources could pose a health risk to construction workers, the public, and/or the environment if not characterized, handled, and disposed of properly. This potential health risk could be a potentially significant impact.

MM HAZ-1 through MM HAZ-4 would be implemented. Implementation of MM HAZ-1 through MM HAZ-4 would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling and minimizing risk from hazardous materials. With implementation of MM HAZ-1 through MM HAZ-4 and adherence of existing regulations, construction of the Alternative 6 would not create or result in a significant hazard to people or the environment and Alternative 6 would have a less than significant impact.

Maintenance and Storage Facilities

The hazardous site conditions for the MSF related to Government Code Section 65962.5 (commonly known as the Cortese list) are associated with contaminated soils, and these sites are listed as "Closed," which signifies that they have been remediated to the satisfaction of the agency with oversight. (Refer to the *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report* [Metro, 2025m].) Therefore, the MSF would result in no impact related to Cortese-listed hazardous materials sites.

9.2.8.5 Impact HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

According to the Van Nuys Airport Plan for the Van Nuys Airport and the Los Angeles County ALUP for the Santa Monica Municipal Airport, Alternative 6 is located outside the AIA for both airports. Alternative 6 is not located within the safety zone or the noise impact zone for the airports. (DCP, 2006; LA County Planning, 1991; ALUC, 2003a, 2003b, 2023).

Construction of Alternative 6 would comply with CFR Title 14 Part 77.13 which requires that any construction or alterations to structures that exceed 200 feet in height above ground level must notify the FAA for project approval. The Alternative 6 is not within the AIA, Safety Zones, and Noise Impact Zones. Adherence to existing local, state, and federal regulations would ensure that during construction of the Alternative 6, impacts associated with potential aviation hazards would be less than significant.

Maintenance and Storage Facilities

The MSF would be approximately 2.6 miles from the Van Nuys Airport and outside the airport's AIA. Because the MSF would be outside of the AIA, there are no airport land use plans applicable to MSF. Therefore, construction of the MSF would have no impact with respect to safety hazards for people residing or working in the project area.

9.2.8.6 Mitigation Measures

Construction Impacts

Project Measures

The following project measures are design features, BMP, or other measures required by law and/or permit approvals. These measures are components of the Project and are applicable to Alternative 6.

PM HAZ-2: *Construction BMPs shall include but not be limited to:*

- *The Project shall be required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases in accordance with EPA, SWRCB, DTSC, Cal/OSHA, and the SCAQMD.*

- *The Project shall develop a SWPPP in accordance with the SWRCB Construction Clean Water Act Section 402 General Permit conditions, and subject to regular inspections by applicable jurisdiction(s) to ensure compliance. The SWPPP shall include specifications for the following but not be limited to:*
  - *Maintain proper working conditions for vehicles and equipment to minimize potential fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials.*
  - *Conduct servicing, refueling, and staging of construction equipment only at designated areas where a spill would not flow to drainages. Conduct equipment washing, if needed, only in designated locations where water would not flow into drainage channels.*
  - *Implement drainage BMPs to protect water quality, such as oil/water separators, catch basin inserts, storm drain inserts, media filtration, and catch basin screens.*
  - *Report hazardous spills to the designated Certified Unified Program Agency (i.e., Los Angeles County Fire Department Health Hazardous Materials Division or Santa Fe Springs Department of Fire and Rescue) and implement clean up immediately and proper disposal of contaminated soil at a licensed facility.*
  - *Establish properly designed, centralized storage areas to keep hazardous materials fully contained.*
  - *Keep spill cleanup materials (e.g., rags, absorbent materials, and secondary containment) properly stored and maintained at the work site when handling materials.*
  - *Implement monitoring program by the construction site supervisor that includes both dry and wet weather inspections.*
- *Transportation of hazardous materials by the Project shall comply with State regulations governing hazardous materials transporting included in the California Vehicle Code (Title 13 of the California Code of Regulations [CCR]), the State Fire Marshal Regulations (CCR Title 19), and CCR Title 22. This includes:*
  - *Require all motor carrier transporters of hazardous materials to have a Hazardous Materials Transportation license issued by the CHP.*
  - *Require the transport of hazardous materials via routes with the least overall travel time.*
  - *Prohibit the transport of hazardous materials through residential neighborhoods.*
  - *Require transporters to take immediate action to protect human health and the environment in the event of spill, release, or mishap.*
  - *Incorporate restrictions on haul routes into the construction specifications according to local permitting requirements.*

- *Contaminated soils and hazardous building materials and wastes shall be disposed of in accordance with federal, state, and local requirements at landfills serving Los Angeles County. The removal and disposal of hazardous building materials shall be the responsibility of a Cal/OSHA certified contractor in accordance with SCAQMD Rule 1403 (Asbestos Emissions from Renovation/Demolition Activities).*
- *Traffic control during construction shall follow local jurisdiction guidelines. For specialized construction tasks, it may be necessary to work during nighttime hours to minimize traffic disruptions.*

PM HAZ-3: *Construction BMPs for activities within methane hazard zones shall include but not be limited to:*

- *Pursuant to Section 91.7104.1 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619), site testing of subsurface geological formations shall be conducted by a Metro-approved testing agency under the supervision of a licensed architect or registered engineer or geologist. The licensed architect or registered engineer or geologist shall indicate the testing instruments used and testing procedure followed. The testing procedure shall meet the Methane Mitigation Standards established by the Superintendent of Building.*
- *All paving work and building construction within the methane zone or methane buffer zone as defined by Los Angeles Department of Building and Safety shall comply with Methane Mitigation Standards established by the Superintendent of Building as well as the requirements outlined in Sections 91.7103 and 91.7104 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619).*
- *All buildings located in the Methane Zone shall provide a methane mitigation system as required by Los Angeles Municipal Code Table 71 in Section 91.7104.2 of the City of Los Angeles Methane Code (Ordinance Nos. 175790 and 180619) based on the appropriate Site Design Level. The Superintendent of Building may approve an equivalent methane mitigation system designed by an Architect, Engineer, or Geologist.*

PM HAZ-4: *Construction BMPs for demolition of existing structures shall include but shall not be limited to:*

- *Both the federal OSHA and Cal/OSHA regulate worker exposure during construction activities that disturb LBP. Any ACMs, if present, require appropriate abatement of identified asbestos prior to demolition pursuant to the SCAQMD Rule 1403.*
- *PCBs-containing fluorescent light fixtures and electrical transformers that are not labeled "No PCBs" shall be assumed to contains PCBs, and shall be removed prior to demolition activities and be disposed of by a licensed and certified PCBs removal contractor, in accordance with local, state, and federal regulations. The removal and disposal of the electrical transformers shall be the responsibility of the utility owner in accordance with all standards and practices.*

PM HAZ-5: *Construction BMPs for the areas with known or previously undiscovered hazardous materials (shall include but not be limited to):*

- *The Project shall hire a qualified professional to sample soil suspected of contamination (obvious signs of contamination includes indicators such as odors, stains, or other suspect materials) for the purpose of classifying material and determining disposal requirements before construction begins. If excavated soil is suspected or known to be contaminated, the Project shall:*
  - *Segregate and stockpile the excavated material in a way that shall facilitate measurement of the stockpile volume.*
  - *Spray the stockpile with water or an SCAQMD approved vapor suppressant and cover the stockpile with a heavy-duty plastic (i.e., Visqueen) to prevent soil volatilization in the atmosphere or exposure to nearby workers per SCAQMD Rule 1166.*
- *Existing groundwater monitoring wells shall remain under ongoing groundwater investigations associated with off-site sources.*

Mitigation Measures

MM HAZ-1: ***Phase II Environmental Site Assessment.*** *Prior to the issuance of a grading permit and before any substantial ground disturbance occurs on or near the properties with documented releases, the Project shall hire a qualified environmental professional to conduct a Phase II Environmental Site Assessment to determine the potential presence of petroleum hydrocarbons, metals, and volatile organic compounds in soil and/or groundwater.*

- *If the Phase I Environmental Site Assessment identifies any recognized environmental conditions or other indicators of potential contamination, a Phase II Environmental Site Assessment shall be conducted. The Phase II Environmental Site Assessment shall include sufficient soil and groundwater sampling and laboratory analysis to identify the types of chemicals and their respective concentrations. The Phase II Environmental Site Assessment shall compare soil and groundwater sampling results against applicable environmental screening levels developed by the Los Angeles Regional Water Quality Control Board and/or Department of Toxic Substances Control. If the Phase II Environmental Site Assessment identifies contaminant concentrations above the screening levels, a site-specific Soil and Groundwater Management Plan shall be prepared and implemented as described in MM HAZ-2. The Project shall consult with the Department of Toxic Substances Control, California Environmental Protection Agency, and/or other appropriate regulatory agencies to ensure sufficient minimization of risk to human health and the environment is completed.*

MM HAZ-2: ***Soil and Groundwater Management Plan.*** *Prior to the issuance of a grading permit, a site-specific Soil and Groundwater Management Plan shall be prepared by a qualified professional environmental contractor to address handling and disposal of contaminated soil and groundwater prior to demolition, excavation, and construction activities.*

- *The Project shall implement the Soil and Groundwater Management Plan during construction activities. The Soil and Groundwater Management Plan shall specify all necessary procedures to ensure the safe handling and disposing of excavated soil, groundwater, and/or dewatering effluent in a manner that is protective of human health and in accordance with federal and state hazardous waste disposal laws, and with state and local stormwater and sanitary sewer requirements. At a minimum, the plan shall include the following:*
  - *Identification and delineation of contaminated areas and procedures for limiting access to such areas to properly trained personnel.*
  - *Step-by-step procedures for handling, excavating, characterizing, and managing excavated soils and dewatering effluent, including procedures for containing, handling, and disposing of hazardous waste; procedures for containing, handling, and disposing of groundwater generated from construction dewatering; the method used to analyze excavated materials and groundwater for hazardous materials likely to be encountered at specific locations; appropriate treatment and/or disposal methods. Removal of soil and materials shall be performed by a licensed engineering contractor with a Class A license and hazardous-substance removal certification.*
  - *Requirements to water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, and staging.*
  - *Requirements to cover or maintain at least 2 feet of free board space on haul trucks transporting soil or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.*
  - *Requirements to use wet power vacuum street sweepers to remove any visible track out mud or dirt onto adjacent public roads at least once a day. Use of dry powered sweeping is prohibited.*
  - *Procedures for handling volatile organic compound-contaminated soil, including, but not limited to, segregating volatile organic compound-contaminated stockpiles from non-volatile organic compound-contaminated stockpiles, spraying volatile organic compound-contaminated soil stockpiles with water and/or approved vapor suppressant and covering them with plastic sheeting for all periods of inactivity lasting more than 1 hour, conducting a daily visual inspection of all covered volatile organic compound-contaminated soil stockpiles to ensure the integrity of the plastic covered surfaces, and removing contaminated soil from an excavation or grading site within 30 days from the time of excavation to a licensed facility.*
  - *Procedures for notification and reporting, including notifying and reporting to internal management and to local agencies.*

- *Minimum requirements for site-specific Health and Safety Plans to protect the general public and workers in the construction area. Prior to the issuance of grading permits, the Soil and Groundwater Management Plan and the results of environmental sampling shall be provided to contractors who shall be responsible for developing their own construction worker Health and Safety Plan and training requirements, per MM HAZ-4.*
- *The Project shall hire a qualified environmental professional to sample groundwater suspected of contamination. If any suspected groundwater contamination is encountered during construction, the contractor shall stop work in the vicinity, cordon off the area, and contact the Los Angeles County Metropolitan Transportation Authority who shall immediately notify the Regional Water Quality Control Board. In coordination with the Regional Water Quality Control Board, an investigation and remediation plan shall be developed by a qualified environmental professional in order to protect public health and the environment. Any hazardous or toxic materials shall be disposed of according to local, state, and federal regulations.*
- *Trucking operations shall comply with the California Department of Transportation and any other applicable regulations, and all trucks shall be licensed and permitted to carry the appropriate waste classification. The tracking of dirt by trucks leaving the project site shall be minimized by cleaning the wheels upon exit and cleaning the loading zone and exit area as needed.*

MM HAZ-3: ***Contractor Specifications.*** *The Project shall include in its contractor specifications the following requirement relating to hazardous materials:*

- *During all ground-disturbing activities, the contractor(s) shall inspect the exposed soil and groundwater for obvious signs of contamination, such as odors, stains, or other suspect materials. Qualified personnel shall monitor for volatile organize compounds and other subsurface gases for concentrations exceeding South Coast Air Quality Management District levels with a photoionization detector. Should signs of unanticipated contamination be encountered, work shall be suspended, and the Los Angeles County Department of Public Health shall be notified, and the area secured. Contaminated soil and/or groundwater shall be segregated and characterized, and a site-specific Soil and Groundwater Management Plan, as described under MM HAZ-2, shall be prepared and implemented.*

MM HAZ-4: ***Worker Health and Safety Plan.*** *The contractor shall prepare site-specific Worker Health and Safety Plan to protect the general public and workers in the construction area. The Health and Safety Plan shall be prepared in accordance with California and federal Occupational Safety and Health Administration regulations. Copies of the Health and Safety Plan shall be made available to construction workers for review during their orientation and/or regular health and safety meetings. The Health and Safety Plan shall identify chemicals of concern, potential hazards, worker training requirements, personal protective equipment and devices, decontamination procedures, the need for personal or area monitoring, and emergency response procedures. The Health and Safety Plan shall be amended, as necessary, if new information becomes available that could affect implementation of the plan.*

MM HAZ-5: ***Hazardous Building Survey and Abatement.*** *Prior to demolition activities of any structures, the Project shall retain a California Division of Occupational Safety and Health-certified contractor to determine the presence or absence of building materials or equipment that contains hazardous materials, including asbestos, lead-based paint, and polychlorinated biphenyl-containing equipment. If such substances are found to be present, the contractor shall prepare and submit a workplan to the relevant oversight agency to demonstrate how these hazardous materials would be properly removed and disposed of in accordance with federal and state law, including South Coast Air Quality Management District Rule 1403 (Asbestos Emissions from Renovation/Demolition Activities). The removal and disposal of hazardous building materials shall be the responsibility of a California Division of Occupational Safety and Health-certified contractor. Following completion of removal activities, the Project shall submit documentation to the relevant oversight agency verifying that all hazardous materials were properly removed and disposed of.*

Impacts After Mitigation

Implementation of MM HAZ-1 through MM HAZ-5 would ensure that workers have a clear understanding of hazardous materials that may occur in the construction area as well as procedures and plans for safely handling hazardous materials, and would minimize potential exposure to construction workers and the public to hazardous conditions through the disturbance or improper handling and/or disposal of hazardous building materials such as ACM, LBP, or PCBs during demolition activities; thus, impacts would be reduced to less than significant.

9.2.9 Land Use and Development

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-19.

Table 9-19. Alternative 6: Land Use and Development Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternativ 6
Land Use and Development Construction Impacts		
Impact LUP-1: Would the project physically divide an established community?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4
	Impacts After Mitigation	LTS

CEQA Impact Topic		Alternativ 6
Impact LUP-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025h

LTS = less than significant
LUP = Land Use and Planning
MM = mitigation measure
NA = not applicable
PS = potentially significant
TRA = transportation

9.2.9.1 Impact LUP-1: Would the project physically divide an established community?

Construction of Alternative 6 would not result in permanent physical divisions of established communities; however, construction easements (i.e., the areas needed during construction) would be required for the underground guideway and station installation, staging areas, street reconstruction, demolition, and utility relocation. The properties under these easements are designated as commercial, educational, public facility, industrial, residential, and open space uses (SCAG, 2024a). While the properties under these easements and permits would retain their original land use designation and zoning classifications, the temporary use of these properties for construction activities could cause access disruptions that represent a significant impact without mitigation.

Permanent acquisitions would be required to provide a station entrance on the northwest corner of Midvale Avenue and Ashton Avenue for the proposed Metro D Line Westwood/UCLA Station as described in the *Sepulveda Transit Corridor Project Real Estate and Acquisition Technical Report* (Metro, 2025i). Where acquisition and relocation are unavoidable, Metro would apply its acquisition and relocation policies to assure compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (42 U.S. Code [U.S.C.] Chapter 61) and California Relocation Act (Government Code Section 7260 et seq.).

The proposed alignment and stations would be constructed underneath residential communities located in West Los Angeles, Westwood, Bel Air-Beverly Crest, Sherman Oaks, and Van Nuys within the roadway ROW along Bentley Avenue, Westwood Boulevard, and Sepulveda Boulevard. Street and sidewalk closures during construction would temporarily limit property access between established communities. Without mitigation, the temporary street detours and access restrictions during construction could represent a significant impact due to potential access disruptions.

To address these potential impacts, Alternative 6 would be required to implement MM TRA-4. which would require preparation and implementation of a TMP to reduce the impacts of construction work zones, provide wayfinding signage to inform the public of reroutes due to closed pedestrian areas and roadways, and require Metro and the contractor to notify and coordinate with surrounding communities regarding the construction schedule. With implementation of MM TRA-4, the potential significant impacts would be reduced to less than significant.

Maintenance and Storage Facilities

Construction activities for the proposed MSF would not create any permanent physical divisions within the surrounding community. Street and sidewalk closures during construction would result in temporary

limitations on movement for pedestrians, bicyclists, and vehicles within and between local communities. Without mitigation, these closures could result in significant impacts related to community access.

The *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a) further analyzes the potential impacts on circulation and pedestrian access to adjoining or nearby properties. As discussed in that report, street and sidewalk closures may be required during construction of the proposed MSF that would temporarily limit property access between established communities. These closures would be temporary and periodic. However, without mitigation, these temporary closures could still result in significant impacts related to community access and connectivity.

To address these impacts, the proposed MSF would implement MM TRA-4, which would require preparation and implementation of a construction TMP to minimize disruptions from construction work zones, provide wayfinding signage to inform the public of reroutes, and require Metro and the contractor notify and coordinate with surrounding communities regarding the construction schedule. With implementation of MM TRA-4, the potential significant impacts would be reduced to less than significant.

9.2.9.2 Impact LUP-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Construction of Alternative 6 would require construction easements for construction, including underground guideway and station installation, ventilation shaft, street reconstruction, demolition, construction staging, cut-and-cover construction for the proposed stations, and utility relocation. The properties under construction easements would retain their original land use designation and zoning classifications.

Alternative 6 would require construction easements for properties consisting of residential, commercial, open space, industrial, educational, and public facility land uses located along the proposed alignment and stations. Construction activities include modifications to the existing roadway and sidewalks, construction staging, and cut-and-cover construction. However, the construction easements would be temporary and the properties would retain their original land use designation and zoning classifications. The land use identified for the proposed access road and ventilation shaft located east of the Stone Canyon Reservoir is designated as restricted public open space (*Santa Monica Mountains Comprehensive Plan* [Santa Monica Mountains Comprehensive Commission, 1979]) and open space (SCAG, 2024a). However, the areas surrounding the Stone Canyon Reservoir include built up features including the access road and supporting building, therefore, Alternative 6 would not conflict with existing land uses or policies for preserving open space resources located within the Santa Monica Mountains.

Furthermore, Alternative 6 would support the *West Los Angeles Community Plan* (DCP, 1999), specifically Goal 11, which states, "*encourage alternative modes of transportation over the use of single occupant vehicles to reduce vehicular trips;"* Objective 11-1 to "*pursue transportation management strategies that can reduce the number of vehicle trips;*" and Policy 11-1.4, to "*further the promotion of the development of transportation facilities and services that encourage transit ridership and improve pedestrian and bicycle access.*"

Construction activities associated with Alternative 6 would not conflict with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the construction of Alternative 6 would result in a less than significant impact.

Maintenance and Storage Facilities

The proposed MSF would require construction easements and acquisition of properties with industrial uses. The parcels within the proposed MSF and in the vicinity are zoned as Light Industrial (City of Los Angeles, 2023a). A significant portion of the proposed MSF is occupied by industrial uses owned by the Copart car auctions. The construction easements would be temporary, and the properties would retain their original land use designation and zoning classifications. Given the existing industrial uses of the parcels to be acquired and of the parcels in the surrounding area, construction of the proposed MSF would not be considered a change in land use type and would not conflict with adjacent land uses.

The proposed MSF would not create any new land uses that could generate conflicts with land uses adjacent to the alignment, or conflict with local land use plans, policies, or regulations; therefore, impacts would be less than significant during construction.

9.2.9.3 Impact AFR-1: Would the project convert Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

There are no land uses for agricultural purposes within the RSA for Alternative 6. Implementation of Alternative 6 during construction activities would not involve changes that could result in conversion of farmland to non-agricultural uses because there are no agricultural uses or farmland within or in close proximity to the RSA for Alternative 6. Therefore, Alternative 6 would not involve conversion of Prime Farmland, Unique Farmland, or Farmlands of Statewide Importance to non-agricultural use, and no impact would occur during construction.

Maintenance and Storage Facilities

The parcels that are part of the proposed MSF are not zoned for agricultural uses. Therefore, the proposed MSF would not involve conversion of Prime Farmland, Unique Farmland, or Farmlands of Statewide Importance to non-agricultural use, and no impact would occur during construction.

9.2.9.4 Impact AFR-2: Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Alternative 6 and surrounding areas within the RSA are neither zoned for agricultural use nor a part of a Williamson Act contract. Implementation of Alternative 6 would not conflict with existing zoning for agricultural use or affect land under a Williamson Act Contract. Therefore, Alternative 6 would have no impact on agricultural zoning during construction.

Maintenance and Storage Facilities

The parcels that are part of the proposed MSF are not zoned for agricultural uses. Therefore, the proposed MSF would not conflict with existing zoning for agricultural use or affect land under a Williamson Act Contract, and no impact would occur during construction.

9.2.9.5 Impact AFR-3: Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

Alternative 6 and surrounding areas within the RSA are characterized by features typical of the urban landscape. There are no properties zoned as forest land or timberland within the RSA for Alternative 6.

According to the USDA Forest Services, the closest designated forest land is the Angeles National Forest located approximately 12.06 miles east of the northern portion of Alternative 6 (USDA, 2023). Implementation of Alternative 6 would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

Maintenance and Storage Facilities

The parcels that are part of the proposed MSF are not zoned as forest lands or timberland. Therefore, the proposed MSF would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

9.2.9.6 Impact AFR-4: Would the project result in the loss of forest land or conversion of forest land to non-forest land use?

Alternative 6 and surrounding areas within the RSA are characterized by features typical of the urban landscape. There are no properties zoned as forest land or timberland within the RSA for Alternative 6. According to the USDA Forest Services, the closest designated forest land is the Angeles National Forest located approximately 12.06 miles east of the northern portion of Alternative 6 (USDA, 2023). Implementation of Alternative 6 would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

Maintenance and Storage Facilities

The parcels that are part of the proposed MSF are not zoned as forest lands or timberland. Therefore, the proposed MSF would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production, and no impact would occur during construction.

9.2.9.7 Impact AFR-5: Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Alternative 6 and surrounding areas within the RSA are characterized by features typical of the urban landscape. Implementation of Alternative 6 would not involve changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use. There are no agricultural uses, farmland, or forest land within or in close proximity to the RSA for Alternative 6. Therefore, there would be no impact associated with conversion of farmland or forest land during construction.

Maintenance and Storage Facilities

The parcels that are part of the proposed MSF are not zoned as agricultural land, forest lands, or timberland. Therefore, the proposed MSF would not result in conversion of farmland or forest land, and no impact would occur during construction.

9.2.9.8 Mitigation Measures

Construction Impacts

Construction of Alternative 6 would require implementation of MM TRA-4 to reduce disruption caused by construction work zones to a less than significant impact.

The following mitigation measures would be implemented for Alternative 6:

MM TRA-4 *The project contractor shall prepare a Transportation Management Plan to facilitate the flow of traffic and transit service in and around construction zones. The Transportation Management Plan shall include, at minimum, the following measures:*

- *Where feasible, schedule construction-related travel (i.e., deliveries, hauling, and worker trips) during off-peak hours and maintain two-way traffic circulation along affected roadways during peak hours. Avoid the closure of two major adjacent streets where feasible.*
- *Designated routes for project haul trucks shall primarily utilize the I-405, I-10, US-101 corridors. Throughout the construction process, these routes shall be coordinated with the City of Los Angeles and Veterans Affairs to ensure consistency with land use and mobility plans. Additionally, the routes shall be situated to minimize noise, vibration, and other possible impacts.*
- *Develop detour routes to facilitate traffic movement through construction zones without significantly increasing cut-through-traffic in adjacent residential areas.*
- *Where construction encroaches on the Los Angeles-San Diego-San Luis Obispo rail corridor right-of-way, coordinate construction activities with Union Pacific, Metrolink, and Amtrak to minimize disruptions to service and coordinate on outreach to inform passengers of service impacts. Provide temporary parking and drop-off facilities at the Van Nuys Metrolink/Amtrak Station to minimize passenger impacts.*
- *Develop and implement an outreach program and public awareness campaign in coordination with Caltrans, the City of Los Angeles, the City of Santa Monica, and the County of Los Angeles to inform the general public about the construction process and planned roadway closures, potential impacts, and mitigation measures, including temporary bus stop relocation.*
- *Where feasible, temporarily restripe roadways to maximize the vehicular capacity at locations affected by construction closures.*
- *Provide wayfinding signage, lighting, and access to specify pedestrian safety amenities (such as handrails, fences, and alternative walkways) during construction.*
- *Where construction encroaches on pedestrian facilities, special pedestrian safety measures shall be used, such as detour routes and temporary pedestrian barricades.*
- *Where construction encroaches onto the University of California, Los Angeles campus, the project contractor shall ensure that access to campus buildings is maintained through temporary decking and the construction of temporary stairs and ramps.*
- *During final design, the project contractor shall coordinate with Metro Operations to minimize construction impacts on existing Metro rail operations in and around existing stations. Where construction results in the interruption of*

Metro rail operations, buses shall provide temporary service between rail stations.

- *Provide on-street bicycle detour routes and signage to address temporary effects to bicycle circulation and minimize inconvenience (e.g., lengthy detours) as to minimize users potentially choosing less safe routes if substantially rerouted.*
- *During final design, the project contractor shall coordinate with first responders and emergency service providers to minimize impacts on emergency response. Coordination efforts shall include the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing.*
- *Maintain customer and delivery access to all operating businesses near construction work areas. Access shall be maintained to allow for reasonable business operations, including clear signage for alternate routes, temporary driveways, or entry points as necessary. Coordination with businesses shall be conducted to address specific access needs and minimize disruptions, ensuring that any restrictions are communicated in advance and alternative arrangements are provided as appropriate.*

Impacts After Mitigation

Regarding Impact LUP-1, implementation of MM TRA-4 would require preparation and implementation of a TMP during construction to minimize disruptions caused by construction activities of each of the project alternatives. The TMP would facilitate the flow of traffic and transit service in and around construction zones, ensuring access to and from established communities is maintained. With implementation of MM TRA-4, construction impacts associated with Alternative 6 under Impact LUP-1 would be reduced to than significant.

Under Impact LUP-2, construction of Alternative 6 would result in a less than significant impact, therefore, no mitigation measures would be required.

9.2.10 Noise and Vibration

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-20.

Table 9-20. Alternative 6: Noise and Vibration Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 6
Noise and Vibration Construction Impacts		
Impact NOI-1: Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established by the Federal Transit Administration?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM NOI-6.2
	Impacts After Mitigation	SU
Impact NOI-2: Would the project result in generation of excessive groundborne vibration or groundborne noise levels?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM VIB-6.1
	Impacts After Mitigation	SU

CEQA Impact Topic		Alternative 6
Impact NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025j

MM = mitigation measure
NA = not applicable
NI = no impact
NOI = noise
PS = potentially significant
SU = significant and unavoidable
VIB = vibration

9.2.10.1 Impact NOI-1: Would the project cause generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction of Alternative 6 would include various phases that would involve the use of construction equipment at specific locations along the proposed alignment. Construction noise levels from Alternative 6 were predicted in terms of the 8-hour L_{eq} for each phase of construction based upon the number and types of off-road construction equipment to be employed during the given phase. Table 9-21 shows the results of the construction noise predictions at a reference distance of 50 feet from construction activities and at the nearest sensitive receptors.

The FTA has provided guidance for assessing construction noise associated with transit projects. The criteria are based upon an 8-hour L_{eq}. For residential uses, the threshold is 80 dBA for daytime construction and 70 dBA for nighttime construction. Commercial uses are held to an 85-dBA daytime and nighttime noise construction threshold, while industrial uses are held to a 90-dBA daytime and nighttime construction noise threshold. For the purposes of this analysis, FTA's detailed assessment construction noise limit criteria of an 8-hour L_{eq} have been applied.

Table 9-21 is a summary of expected construction noise levels at locations of nearest noise-sensitive receptors to each construction activity. Additional details regarding construction equipment and noise levels by phase are included in Attachment 14 of the *Sepulveda Transit Corridor Project Noise and Vibration Technical Report* (Metro, 2025j). Construction noise would range from 8-hour L_{eq} noise levels of approximately 59 to 98 dBA at the nearest sensitive receptors. A TBM would be required for tunneling underground segments of Alternative 6 but would not generate aboveground noise. As shown in. As shown in Table 9-21, construction activities would result in noise levels that exceed the FTA 80-dBA daytime and 70-dBA nighttime 8-hour L_{eq} thresholds for residential land uses.

The construction noise contours are depicted graphically in DEIR *Section 3.11, Noise and VIbration*, which represent the noise levels that could potentially occur along the entirety of the alignment. Construction noise contours are only included for aboveground construction activities because activities such as tunnelling would not generate noise at aboveground receptors. The noisiest phase of construction is used to depict the contours. An interval of 5 dBA is used for each contour and each contour was calculated based on the distance at which noise would decrease by 5 dBA, starting at a

noise level of 90 dBA L_{eq} to 70 dBA L_{eq}. The 90 dBA L_{eq} noise level is representative of the FTA daytime and nighttime construction noise threshold for industrial uses. The 70 dBA L_{eq} contour shows the areas where construction noise levels would exceed the nighttime construction noise threshold for residential uses. The 90 dBA L_{eq} contour covers areas within a distance of 63 feet from the nearest construction activity. The 70 dBA L_{eq} contour extends to a maximum distance of 630 feet.

For TPSS sites, the 90 dBA L_{eq} contours cover areas within a distance of 25 feet from the nearest construction activity. The 70 dBA L_{eq} contours extend to a maximum distance of 251 feet. For the mid-mountain shaft, the 90 dBA L_{eq} contours cover areas within a distance of 35 feet from the nearest construction activity. The 70 dBA L_{eq} contours extend to a maximum distance of 354 feet. The construction noise contours do not include noise reductions that may occur as a result of terrain or intervening structures. As an example of how to read the contours, the figures show that within the first contour of 63 feet (shown in dark purple), the calculated construction noise levels may be above 90 dBA L_{eq}. At the next distance of 112 feet (shown in light purple), noise levels would decrease to approximately 85 dBA L_{eq}.

Pile driving may be required for installation of retaining walls or potentially at TBM launch locations. Impact or vibratory piledrivers are the most noise intensive construction equipment that could result in elevated noise levels above typical construction methods. It is unknown at this stage of design if pile driving would be the required construction method which is dependent on soil type. Typically, where possible, piles are drilled which is a quieter method of pile installation such as CIDH Impact pile driving generates an hourly noise level of approximately 94.3 dBA L_{eq} at 50 feet, vibratory pile driving generates an hourly noise level of 93.8 dBA L_{eq}, at 50 feet and CIDH generates an hourly noise level of approximately 77.4 dBA L_{eq} at 50 feet. Vibratory pile driving is approximately 0.5 dBA quieter than impact pile driving and CIDH is approximately 16.9 dBA quieter. To reduce noise levels where piles may be required, MM NOI-6.2 would require impact pile driving to be avoided where possible and to use drilled or vibratory piles where feasible. Soil improvements such as grouting injection would be required for cut-and-cover construction to stabilize soils. Soil improvement activity would typically require drilling equipment and pumping equipment to inject the grout into the soil. A noise level of 90 dBA 8-hour L_{eq}_ at 50 feet reflects equipment required for cut-and-cover construction, which is shown in Table 9-21 as "Support of Excavation."

Alternative 6 would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and, where applicable, the standards established by the local noise ordinances. While MM NOI-6.2 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

Table 9-21. Alternative 6: Estimated Construction Noise Levels

Construction Phase	8-hour L_{eq} (dBA) at 50 feet	8-hour L_{eq} (dBA) at Nearest Receptors	Exceeds 80-dBA 8-Hour L_{eq} Daytime Threshold	Exceeds 70-dBA 8-Hour L_{eq} Nighttime Threshold
Segment 1-Westside, Segment 2-Mountain, and Segment 3-Valley				
Ground Improvements	89	95	Yes	Yes
Tunnel Boring Setup/Assembly	83	89	Yes	Yes
Tunnel Boring/Tunneling	81	87	Yes	Yes

Construction Phase	8-hour L_{eq} (dBA) at 50 feet	8-hour L_{eq} (dBA) at Nearest Receptors	Exceeds 80-dBA 8-Hour L_{eq} Daytime Threshold	Exceeds 70-dBA 8-Hour L_{eq} Nighttime Threshold
Tunnel Boring Machine Retrieval/Tunnel Preparation	81	87	Yes	Yes
Annular Grouting	89	95	Yes	Yes
Invert Construction	77	83	Yes	Yes
Cross Passage	87	93	Yes	Yes
Rail and Plinth	74	80	Yes	Yes
Systems, Testing, Commissioning	86	92	Yes	Yes
Mid-Mountain Shaft				
Site Preparation/Demolition	83	59	No	No
Access Road	88	64	No	No
Drainage/Utilities	84	60	No	No
Shaft Drilling	87	63	No	No
Cavern and Adit	85	61	No	No
Underground Station Construction				
Utility Relocation	92	98	Yes	Yes
Demolition/Site Preparation	90	96	Yes	Yes
Grading	85	91	Yes	Yes
Drainage/Utilities	86	92	Yes	Yes
Support of Excavation	90	96	Yes	Yes
Station Excavation	92	98	Yes	Yes
Station Construction	87	93	Yes	Yes
Final Roadway Construction	89	95	Yes	Yes
Station Finishes and Testing	84	90	Yes	Yes
TPSS Construction (Vanowen St/Van Nuys Blvd TPSS and Magnolia TPSS, and Mid-Mountain Shaft TPSS)				
Site Preparation-Traction Power Utilities	84	90	Yes	Yes
Foundation Construction	78	84	Yes	Yes
Traction Power Substation Installation	80	86	Yes	Yes
Maintenance and Storage Facility Construction				
Site Preparation/Demolition	87	91	Yes	Yes
Grading	87	91	Yes	Yes
Building Construction	90	94	Yes	Yes
Pavements	88	92	Yes	Yes
Drainage/Utilities	86	90	Yes	Yes
Pre-Cast Yard				
Concrete Activity	85	89	Yes	Yes

Source: HTA, 2024

Maintenance and Storage Facilities Noise

Construction of the MSF would involve activities such as utility relocation, demolition, excavation, concrete work, utility installation, and paving. MSF construction would result in phased noise levels of approximately 86 to 90 dBA, 8-hour L_{eq} at 50 feet. Sensitive receptors adjacent to the MSF site would be potentially exposed to noise levels that would exceed the FTA 80-dBA daytime and 70-dBA nighttime 8-hour L_{eq} thresholds for residential land uses. Construction of the MSF would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and, where applicable, the standards established by the local noise ordinances. The construction noise

contours are depicted graphically in DEIR *Section 3.11, Noise and Vibration*. The 90 dBA L_{eq} contours cover areas within a distance of 50 feet from the nearest construction activity. The 70 dBA L_{eq} contours extend to a maximum distance of 500 feet. While MM NOI-6.2 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

9.2.10.2 Impact NOI-2: Would the project cause generation of excessive groundborne vibration or groundborne noise levels?

Construction Vibration Impacts on Sensitive Receptors

The primary concern related to vibration during construction is the potential to damage structures. Construction activities, such as pile driving, use of drill rigs, pavement breaking, and the use of tracked vehicles (e.g., bulldozers) and hoe rams, could result in perceptible levels of GBV at sensitive buildings located in close proximity to construction sites. These activities would typically be limited in duration and their vibration levels are likely to be well below thresholds for minor cosmetic building damage. Alternative 6 would also include the use of a TBM along the underground alignment.

Project construction would include a limited number of activities expected to generate vibration that approaches the lowest building damage limit of 0.12 in/sec PPV. Table 9-21 shows the distances at which the 0.12 in/sec PPV, 0.2 in/sec PPV, and 0.3 in/sec PPV thresholds would not be exceeded. For example, use of a drilling rig, hoe ram, or large bulldozer would be safe at distances greater than 22 feet from Category IV buildings. A vibratory roller would be safe at distances greater than 22 feet from Category IV buildings and typical impact pile driver operation would be safe at distances of 79 feet or greater. Typical building construction in an urban setting consists of buildings that are Category II engineered concrete and masonry that have a 0.3 in/sec PPV threshold or Category III non-engineered timber and masonry buildings that have a 0.2 in/sec PPV threshold. Typical construction equipment, such as a large bulldozer, would not exceed the 0.2 in/sec PPV building damage criterion at distances of 18 feet or greater and would not exceed the 0.3 in/sec PPV building damage criterion at distances of 13 feet or greater. A vibratory roller would not exceed the 0.2 in/sec PPV building damage criterion at distances of 32 feet or greater and would not exceed the 0.3 in/sec PPV building damage criterion at distances of 23 feet or greater. An impact pile driver would not exceed the 0.2 in/sec PPV building damage criterion at distances of 67 feet or greater and would not exceed the 0.3 in/sec PPV building damage criterion at distances of 47 feet or greater.

Along the underground alignment of Alternative 6, the TBM would be the main source of GBVs. However, the TBM is slow moving and causes very little vibration and related GBN to the surrounding area when operating at full tunnel depths. The Alternative 6 underground tunnels would be at depths of approximately 40 feet to over 700 feet from the aboveground buildings along the tunnels' alignment. In some residential areas, GBV from the TBM may be felt for a short period (about two days) while the machine passes under the receptor locations. In residential areas in the mountain region between Sunset Boulevard and Mulholland Drive, GBV from the TBM would not be perceptible, because the tunnels would be very deep underground. Expected TBM vibration levels would be well below the strictest building damage threshold of 0.12 in/sec along the entire alignment. In some residential areas, GBV from the TBM may be felt for a short period (about two days) while the machine passes under the receptor locations. Construction of the proposed Metro E Line, Santa Monica Boulevard, Wilshire/Metro D Line, UCLA Gateway Plaza, Ventura Boulevard, Metro G Line, and Van Nuys Metrolink Stations along

the underground alignment would likely be cut-and-cover construction, which could at times occur within 25 feet of structures, therefore potentially resulting in excessive vibration. Regarding the mid-mountain shaft, the nearest structures would be located more than 500 feet to the east of construction activity, and there would be no potential for vibration damage or annoyance impacts to occur.

While MM VIB-6.1 would be implemented, which would include vibration-reducing measures, there may still be temporary or periodic increases in vibration levels that exceed FTA construction vibration impact criteria. There are no additional feasible mitigation measures to reduce construction vibration levels. Therefore, impacts related to construction vibration would be significant and unavoidable .

Construction Vibration Impacts on Historic Resources

Construction under Alternative 6 would have the potential to damage historic buildings in close proximity to vibration-intensive construction activities. Using the reference levels in the FTA *Transit Noise and Vibration Impact Assessment Manual* (FTA, 2018), vibration levels from project construction activities were estimated at historic buildings or structures eligible for the National Register of Historic Places along the Project alignment. Such buildings are generally classified as extremely susceptible to vibration damage (Building Type IV).

Findings of the construction vibration assessment at historic structures are as follows:

- The following historic buildings are very close to the proposed project construction areas. Most vibration-intensive construction activities at these locations would likely result in levels exceeding the damage criterion of 0.12 in/sec PPV. Special consideration should be made for these buildings in MM VIB-6.1 (Vibration Control Plan).
  - Gayley Center located at 1101 Gayley Avenue, Los Angeles adjoining the proposed Wilshire Boulevard/Metro D Line Station
  - Linde Medical Building located at 10921 Wilshire Boulevard, Los Angeles adjacent to the proposed Wilshire Boulevard/Metro D Line Station
  - Tishman Building located at 10950 Wilshire Boulevard, Los Angeles adjacent to the proposed Wilshire Boulevard/Metro D Line Station
  - UCLA Ackerman Hall, 308 Westwood Plaza, Los Angeles
- Pile driving at locations along the alignment in the vicinity of the following historic properties would potentially result in GBV levels exceeding the damage criterion of 0.12 in/sec PPV. Therefore, these locations must be addressed in the Vibration Control Plan if pile driving is to occur within 150 feet of the buildings:
  - Historic building located at 5958 Van Nuys Boulevard, Sherman Oaks

Implementation of MM VIB-6.1 would reduce the potential for damage to occur at historic resources. Vibration levels would be monitored at historic resources to determine if the vibration damage criterion of 0.12 in/sec PPV would be exceeded. A pre-construction and post construction survey would be prepared, and any damage noted and restored per the requirements of SOI's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. Therefore, impacts related to construction vibration at historic resources would be less than significant with mitigation.

Maintenance and Storage Facilities

The nearest existing buildings to the construction of the proposed MSF are buildings within the residential properties along Cohasset Street south of the MSF site. The closest structures within the residential properties are as close as 17 feet from the proposed construction activities which would have a vibration damage risk criterion of 0.2 in/sec PPV (Building Type III). Estimated vibration levels from ballast tamper and caisson drilling would be less than the applicable damage risk criterion for the building type in this area is 0.2 in/sec PPV. The highest vibration levels from construction of the MSF at the closest off-site building would be 0.375 in/sec PPV from the use of a vibratory roller during paving and 0.16 in/sec PPV from a large bulldozer during the grading phase which would exceed the 0.2 in/sec PPV vibration damage risk criterion. While MM VIB-6.1 would be implemented, which would include vibration-reducing measures, there may still be temporary or periodic increases in vibration levels that exceed FTA construction vibration impact criteria. There are no additional feasible mitigation measures to reduce construction vibration levels. Therefore, impacts related to construction vibration would be significant and unavoidable.

9.2.10.3 Impact NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The Santa Monica Airport is located within 2 miles of Alternative 6. However, Alternative 6 is a transit project that is not sensitive to noise. Transit riders would not dwell at one location for an extended period of time that would result in exposure to excessive airport noise. Construction workers working on Alternative 6 would utilize ear protection as required while working on the Project. Therefore, no impacts related to airport noise would occur.

9.2.10.4 Mitigation Measures

Construction Impacts

The following mitigation Measures would be needed to reduce construction noise and vibration levels to below the applicable limits:

MM NOI-6.2: ***No*ise Control Plan:**

- *Prior to the initiation of localized construction activities, the Project contractor shall develop a Noise Control Plan demonstrating how the Federal Transit Administration 8-hour $L_{eq.equip}$ (equivalent noise level of equipment) noise criteria would be achieved during construction. The Noise Control Plan shall be prepared by a board-certified acoustical engineer. The Federal Transit Administration 8-hour $L_{eq.equip}$ construction noise standards are as follows: Residential daytime standard of 80 dBA $L_{eq.equip}$ and nighttime standard of 70 dBA $L_{eq.equip}$, Commercial daytime and nighttime standard of 85 dBA $L_{eq.equip}$, and Industrial daytime and nighttime standard of 90 dBA $L_{eq.equip}$. The Noise Control Plan shall be designed to follow Metro requirements, and shall include measurements of existing noise, a list of the major pieces of construction equipment that would be used, predictions of the noise levels at the closest noise-sensitive receptors (residences, hotels, schools, religious facilities, and similar facilities), and noise mitigation measures to be implemented to achieve compliance with the Federal Transit Administration 8-hour $L_{eq.equip}$ construction noise standards to the degree feasible. The Noise*

Control Plan must be approved by Metro prior to initiating noise-generating construction activities. The Project contractor shall conduct continuous noise monitoring to demonstrate compliance with the Federal Transit Administration 8-hour $L_{eq.equip}$ noise limits. If the Federal Transit Administration 8-hour $L_{eq.equip}$ criteria are exceeded, the Project contractor shall implement measures to reduce construction noise as much as feasible. The Project contractor shall establish a public information and complaint system. The Project contractor shall respond to and provide corrective action for complaints within 24-hours. In addition, the Project shall comply with local noise ordinances when applicable, including by obtaining a variance(s) from the applicable local jurisdiction when nighttime work is required. Noise reducing methods that may be implemented by the Project contractor include:

- *If nighttime construction is planned, a noise variance may be prepared by the Project contractor, if required by the jurisdiction, that demonstrates the implementation of control measures to maintain noise levels below the applicable Federal Transit Administration and local standards.*
- *Where feasible, minimize nighttime construction.*
- *Utilize specialty equipment equipped with enclosed engines and/or high performance mufflers as feasible. The Project contractor shall locate equipment and staging areas as far from noise-sensitive receptors as possible.*
- *Limit unnecessary idling of equipment.*
- *Install temporary noise barriers as needed where feasible.*
- *Reroute construction related truck traffic away from residential streets to the extent permitted by the relevant municipality.*
- *Avoid impact pile driving where possible. Drilled piles or vibratory pile drivers would be required where feasible.*
- *Where Project construction cannot be performed in accordance with the requirements of the applicable noise limits, the Project contractor shall be required to investigate alternative construction methods that would result in lower sound levels.*

MM VIB-6.1: ***Vibration Control Plan:***

- *Prior to construction, the Project contractor shall prepare a Vibration Control Plan demonstrating how the Federal Transit Administration building damage risk criteria and the Federal Transit Administration vibration annoyance criteria would be achieved. The Vibration Control Plan must be approved by Metro prior to initiating vibration-generating construction activities. The Vibration Control Plan shall include a list of the major pieces of construction equipment that will be used, and the predictions of the vibration levels at the closest sensitive receivers. The Project contractor shall conduct vibration monitoring to demonstrate compliance with the vibration limits during construction activity. Where the construction cannot be performed to meet the vibration criteria, the Project*

contractor shall implement alternative means and methods of construction measures to reduce vibration levels as much as feasible. Vibration reducing methods that may be implemented by the Project contractor include:

- *When feasible, less vibration intensive equipment or techniques near vibration sensitive locations.*
- *Use as small an impact device (i.e., hoe ram, pile driver) as possible to accomplish necessary tasks.*
- *Avoid impact pile driving where possible. Drilled piles or vibratory pile drivers will be required where feasible.*
- *When feasible, in construction areas close to sensitive buildings, select non-impact demolition and construction methods such as saw or torch cutting and removal for off-site demolition, and use chemical splitting, or hydraulic jack splitting, instead of high impact methods.*

- *The Project contractor shall monitor construction vibration levels at structures identified as a "historic" resource within the meaning of California Environmental Quality Act Guidelines Section 15064.5(a)to ensure the vibration damage threshold of 0.12 in/sec peak particle velocity shall not be exceeded. The vibration monitoring shall be conducted by a qualified professional for real-time vibration monitoring for construction work at the Project construction site requiring heavy equipment or ground compaction devices. A pre-construction and post-construction survey of these buildings shall be conducted by a qualified structural engineer. Any damage shall be noted. All vibration monitors used for these measurements shall be equipped with an "alarm" feature to provide advanced notification that vibration impact criteria have been approached. Documented damage in the post-construction survey shall be repaired as required by the Secretary of the Interior's (SOI's) Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. The following historic resources shall be included in the Vibration Control Plan.*
  - *Gayley Center located at 1101 Gayley Avenue, adjoining the proposed Wilshire Boulevard/Metro D Line Station, Los Angeles*
  - *Linde Medical Building located at 10921 Wilshire Boulevard, adjacent to the proposed Wilshire Boulevard/Metro D Line Station, Los Angeles*
  - *Tishman Building located at 10950 Wilshire Boulevard, adjacent to the proposed Wilshire Boulevard/Metro D Line Station, Los Angeles*
  - *UCLA Ackerman Hall, 308 Westwood Plaza, Los Angeles*
  - *Historic buildings located at 5958 Van Nuys Boulevard, Sherman Oaks*

Impacts After Mitigation

Construction Noise

Project construction would result in temporary and periodic increases in ambient noise levels due to construction activity that would exceed FTA's criteria, and where applicable, the standards established

by the local noise ordinances. While MM NOI-6.2 would be implemented, which would include noise-reducing measures, there may still be temporary or periodic increases in ambient noise levels that exceed FTA construction impact criteria. There are no additional feasible mitigation measures to reduce construction noise levels. Therefore, impacts related to construction noise would be significant and unavoidable.

Construction Vibration

Significant GBV could exceed the FTA vibration damage and vibration annoyance criteria when certain construction activities would occur at close distances to sensitive receptors. While MM VIB-6.1 would be implemented, which would include vibration-reducing measures, there may still be temporary or periodic increases in vibration levels that exceed FTA construction vibration impact criteria. There are no additional feasible mitigation measures to reduce construction vibration levels. Therefore, impacts related to construction vibration would be significant and unavoidable.

9.2.11 Parklands and Other Community Facilities

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-22.

Table 9-22. Alternative 6: Parklands and Other Community Facilities Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 6
Recreation Construction Impacts		
Impact REC-1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? OR Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact REC-2: Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	Impacts Before Mitigation	NI
	Applicable Mitigation	NA
	Impacts After Mitigation	NI

Source: Metro, 2025q

LTS = less than significant
NA = not applicable
NI = no impact
REC = recreation

9.2.11.1 Impact REC-1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Or

Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?

Construction of Alternative 6 would be temporary and would not generate permanent residences that would increase the use of existing parks and recreational facilities, resulting in accelerated physical deterioration of the facilities or require the expansion of existing recreational facilities. While construction workers may utilize nearby parks and recreational facilities during lunchtime breaks, such use would be temporary and nominal.

Construction of Alternative 6 would require temporary street detours at proposed underground stations during cut-and-cover activities. Street detours would be concentrated at areas surrounding proposed underground station boxes, which would require cut-and-cover construction. Street detours would disrupt bicycle and pedestrian circulation.

Although temporary, the potential disruptions to bicycle facilities would result in a significant impact during construction. Implementation of MM TRA-4 would require a TMP that specifies measures to lessen disruption during construction and to maintain access to parks and recreational and bicycle facilities during construction. The TMP would also identify detour routes, and bicyclists would be informed of such closures and detours through signage. (Refer to Section 9.2.14.5) Therefore, impacts would be less than significant with mitigation.

Maintenance and Storage Facilities

MSF construction activities would be temporary and would not create new residential populations that would directly increase the use of existing parks, recreational facilities, and bike facilities in the surrounding communities. Therefore, impacts to parklands associated with the MSF site would be less than significant.

9.2.11.2 Impact REC-2: Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Construction of Alternative 6 would be temporary and would not include the construction of recreational facilities or require the expansion of existing recreational facilities. Therefore, no impacts would occur.

Maintenance and Storage Facilities

MSF site construction activities would be temporary and would not include construction of recreational facilities or require the expansion of existing recreational facilities. The MSF would not affect on-site or street parking used by visitors to the Andres and Maria Cardenas Recreation Center. Therefore, impacts to parklands associated with the MSF site would be less than significant.

9.2.11.3 Mitigation Measures

Construction Impacts

Alternative 6 would have a less than significant impact; therefore, no mitigation measures would be required.

Impacts After Mitigation

Impacts would be less than significant.

9.2.12 Real Estate and Acquisitions

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-23.

Table 9-23. Alternative 6: Real Estate and Acquisitions Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 6
Population, Housing, and Growth Construction Impacts		
Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025i

LTS = less than significant
NA = not applicable
POP = population, housing, and growth

9.2.12.1 Impact POP-2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Temporary acquisitions would be required for parcels that would only be used as TCEs or tieback easements.

Construction activities associated with Alternative 6 would not result in the displacement of any residential dwelling units. Therefore, no impacts related to the displacement of residential units and residents that would necessitate the construction of replacement units would occur as a result of Alternative 6 construction.

Maintenance and Storage Facilities

The MSF would not require the acquisition or displacement of any residential property. Therefore, the MSF would have no potential to displace existing people or housing and would not necessitate the construction of replacement housing elsewhere. The MSF would have no impact.

9.2.12.2 Mitigation Measures

Construction Impacts

No mitigation measures are required.

Impacts After Mitigation

No mitigation measures are required; no impacts would occur.

9.2.13 Safety and Security

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-24.

Table 9-24. Alternative 6: Safety and Security Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 6
Safety and Security Construction Impacts		
Impact PUB-1: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered fire protection and emergency response facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the fire protection and emergency response?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact PUB-2: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the police protection?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact WFR-1: Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4
	Impacts After Mitigation	LTS
Impact WFR-2: Would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM SAF-1, MM SAF-2
	Impacts After Mitigation	LTS
Impact WFR-3: Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM SAF-1, MM SAF-2
	Impacts After Mitigation	LTS
Impact WFR-4: Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025o

LTS = less than significant
MM = mitigation measure
NA = not applicable
PS = potentially significant
PUB = public services
SA = safety and security
WFR = wildfire

9.2.13.1 Impact PUB-1: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered fire protection and emergency response facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the fire protection and emergency response?

Construction of Alternative 6 would potentially temporarily increase demands on fire protection response times as a result of new workers, construction equipment, and construction materials in the RSA as well as periodic construction-related street closures or detours. Specifically, temporary lane closures on adjacent streets would occur for construction of the proposed alignment, stations, TPSS sites, and construction staging areas. Although temporary lane closures could interfere with fire service response times, this temporary condition would not necessitate the construction of new or physically altered governmental facilities. As discussed in DEIR *Section 3.15.6, Transportation*, under MM TRA-4, a TMP would be prepared and approved in coordination with the LAFD prior to construction, including the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control measures in the TMP during construction to coordinate emergency response routing.

Alternative 6 would comply with the provisions set forth under the CCR Title 8 (California Department of Industrial Relations, 2024) and Cal/OSHA (California Department of Industrial Relations, 2023) regulations. Under Cal/OSHA, the contractor would create a Fire Prevention Plan that identifies potential fire hazards and their proper handling and storage procedures, potential ignition sources (such as welding, smoking and others) and their control procedures, and the type of fire protection equipment or systems that can control a fire involving them. A training program would inform employees of the fire hazards of the materials and processes to which they are exposed. The contractor would review with each worker upon initial assignment those parts of the Fire Prevention Plan that the employee must know to protect the worker in the event of an emergency. The written plan would be kept in the workplace and made available for employee review. The demand for fire protection during the construction period is anticipated to remain at acceptable levels and would not require new or physically altered fire protection facilities. Therefore, impacts associated with fire protection services would be less than significant during construction activities.

Maintenance and Storage Facilities

The construction of the MSF would increase the exposure of occupational hazards to the contractor and MSF employees and therefore increase demand for fire and life safety services when and if emergency circumstances would occur. Alternative 6 would comply with the provisions set forth under the CCR Title 8 (California Department of Industrial Relations, 2024) and Cal/OSHA (California Department of Industrial Relations, 2023) regulations. However, in any emergency situation, fire department personnel from LAFD Station 81 and Metro Transit Service Bureau officers would respond. The *Metro Emergency Response Plan* would be followed in the event of a fire, and Metro shall coordinate with local fire protection service providers in advance of any construction activities to preserve emergency access. This includes compliance with the California Fire Code that specifies minimum access requirements for fire apparatus. The risk of fire-related injury would be minimized within the MSF locations through adherence to the requirements of the Fire/Life Safety Criteria, the CBC, and the Los Angeles City Fire Code. Therefore, impacts associated with fire protection services would be less than significant during construction activities.

9.2.13.2 Impact PUB-2: Would the project result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the police protection?

Construction of Alternative 6 would increase daytime and nighttime worker population, which has the potential to increase the need for police services.

Police service agencies in the area — including the LAPD, LASD, UCLA PD, and CHP — allocate funding from tax revenues to maintain adequate staffing levels and response times.

During construction, relevant police service agencies would review Health and Safety Plans for Alternative 6, which include safety measures such as nighttime lighting, clear signage, and pedestrian detour routes. Agencies may also assess fees to support police protection services as needed. Additionally, as discussed in DEIR *Section 3.15.6, Transportation*, Metro standard practices require that lane and roadway closures be scheduled to minimize disruptions, with a Transportation Management Plan (TMP) prepared and approved in coordination with local police departments prior to construction. The contractor would coordinate with first responders and emergency service providers to minimize any impacts on emergency response. For these reasons, construction of Alternative 6 would not require the construction or expansion of police facilities to maintain service ratios, response times, or other performance objectives. Therefore, the impact would be less than significant.

Maintenance and Storage Facilities

During construction, police services would be provided by LAPD under Metro's existing service agreements with the agency. Metro has contracted the LASD and LAPD Transit Services Division to provide policing services on the Metro system within the City of Los Angeles. Potential impacts would occur if the MSF were to result in unacceptable emergency response times that necessitate the construction or expansion of facilities, where such construction could cause significant environmental impact. The MSF would not require modifications to the adjacent roadways during construction or operations to the degree that would impart delays or affect police protection standards. Therefore, the MSF would not require the need for new or physically altered police protection services.

During construction of the MSF, there would be low potential increase in the demand for police protection services from incidents or emergencies, which could result in an increase in overall response calls within the local jurisdictions. Metro MSFs are typically fenced off and access is restricted. In addition, security cameras and nighttime lighting would be provided. Metro has an established service agreement with the LAPD. Additionally, during construction, relevant police service agencies would review Health and Safety Plans for the MSF. For these reasons, construction of the MSF would not require the construction or expansion of police facilities to maintain service ratios, response times, or other performance objectives. Therefore, the impact would be less than significant.

9.2.13.3 Impact WFR-1: Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

As required by existing regulations, Alternative 6 would be required to provide adequate access for emergency vehicles and equipment during construction activities. Temporary short-term construction impacts on street traffic adjacent to and along Bundy Avenue, Santa Monica Boulevard, Van Nuys Boulevard, Wilshire Boulevard, Midvale Avenue, Gayley Avenue, Westwood Plaza, and all crossing

streets would occur for the working area surrounding Alternative 6. Such detours would support roadway and infrastructure improvements to provide sufficient space for the proposed guideway, stations, TPPS sites, and construction staging yards, and the potential extension of construction activities into the ROW that would result in a reduction of the number of lanes or temporary closure of roadways. Temporary lane and/or roadway closures, increased truck traffic, and other roadway effects that could slow emergency vehicles or require detours could temporarily increase response times and impede existing services. For specialized construction tasks, it may be necessary to work during nighttime hours to minimize traffic disruptions, and temporary lane or roadway closures impacts would be limited to the construction period of Alternative 6 and would affect only adjacent streets or intersections along Bundy Avenue, Santa Monica Boulevard, and Van Nuys Boulevard.

As discussed in the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), under MM TRA-4, a TMP shall be prepared in coordination with local fire and police departments prior to construction, including the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing.

Additionally, as outlined in the regulatory framework described in Section 2.2 of the *Sepulveda Transit Corridor Project Safety and Security Technical Report* (Metro, 2025o), Alternative 6 would comply with the provisions set forth under the CCR Title 8 and Cal/OSHA regulations. Under Cal/OSHA (California Department of Industrial Relations, 2023), the contractor would create an Emergency Action Plan that would cover designated actions that employers and employees must take to ensure employee safety from fire and other emergencies. The following elements, at a minimum, would be included in the plan:

- Procedures for emergency evacuation, including type of evacuation and exit route assignments
- Procedures to be followed by employees who remain to operate critical plant operations before they evacuate
- Procedures to account for all employees after emergency evacuation has been completed
- Procedures to be followed by employees performing rescue or medical duties
- The preferred means of reporting fires and other emergencies
- Names or regular job titles of persons or departments who can be contacted for further information or explanation of duties under the plan.

Adherence to existing regulations and implementation of the TMP under MM TRA-4 would ensure that the Project would provide adequate access for emergency vehicles and the impact would be less than significant during construction activities for Alternative 6.

Maintenance and Storage Facilities

As required by existing regulations, the proposed MSF would be required to provide adequate access for emergency vehicles during construction activities. Temporary short-term construction impacts on street traffic adjacent to the proposed MSF because of roadway and infrastructure improvements could result in a reduced number of lanes or temporary closure of segments of adjacent roadways and result in a potentially significant impact. Any such impacts would be limited to the construction period of the proposed MSF and would affect only adjacent streets. Furthermore, MM TRA-4 would ensure that emergency response teams for the City of Los Angeles, including the fire departments and police departments, would be notified of any lane closures during construction activities.

As discussed in the *Sepulveda Transit Corridor Project Transportation Technical Report* (Metro, 2025a), a TMP and notification procedures would be implemented to ensure safe and efficient traffic flow in the area during the proposed MSF construction. The TMP would address short-term traffic circulation and access effects during the proposed MSF construction. Specifically, the TMP shall include elements to reduce traveler and emergency responder delays and enhance safety during project construction.

Adherence to existing regulations and implementation of the TMP (refer to the *Sepulveda Transit Corridor Project Transportation Technical Report* [Metro, 2025a]) would ensure that the proposed MSF would provide adequate access for emergency vehicles, and the impact would be less than significant during operational and construction periods with mitigation.

9.2.13.4 Impact WFR-2: Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?

Construction activities associated with the implementation of Alternative 6 would be located within the Wildfire Hazard Zone and has the potential for wildfires. While the proposed alignment would be constructed underground at the depth of the proposed tunnel, the ventilation shaft and its access road would require construction in open space areas that would have direct health impacts related to smoke and fire, as well as the destruction of property. The Stone Canyon Reservoir is located south of Mulholland Drive and features an elevated slope and height above sea level, and steepness of land that can increase the spread of fire by influencing a fire's intensity, direction, and rate of spread. The areas surrounding the ventilation shaft and access road consist of private undeveloped land that has natural habitats (e.g., grasslands, sage scrub), as well as developed land consisting of residential uses and facilities associated with the Stone Canyon Reservoir. Extended droughts, combined with the region's characteristic Mediterranean climate can yield large areas of dry vegetation and provide fuel for wildland fires. Additionally, low humidity levels allow the fuels to become dry and more prone to catching fire and burn more quickly than when humidity levels are high (NPS, 2017). Potential ignition sources during construction of Alternative 6 include hot exhaust from a vehicle parked on dry grass or welding during high winds, which could send sparks traveling through the air and land and igniting dry grass. Furthermore, Alternative 6 would be located within Stone Canyon, which can channelize wind passing through the Sepulveda Pass region and could push the fire toward the ventilation shaft.

Construction activities occurring within the landscaped areas of Sepulveda Pass could exacerbate the potential risk of wildfire by adding to ignition sources within the area if not properly controlled. Wildfire ignition from construction activity could increase the risk of exposure to pollutants to the potentially susceptible wildfire hazard area.

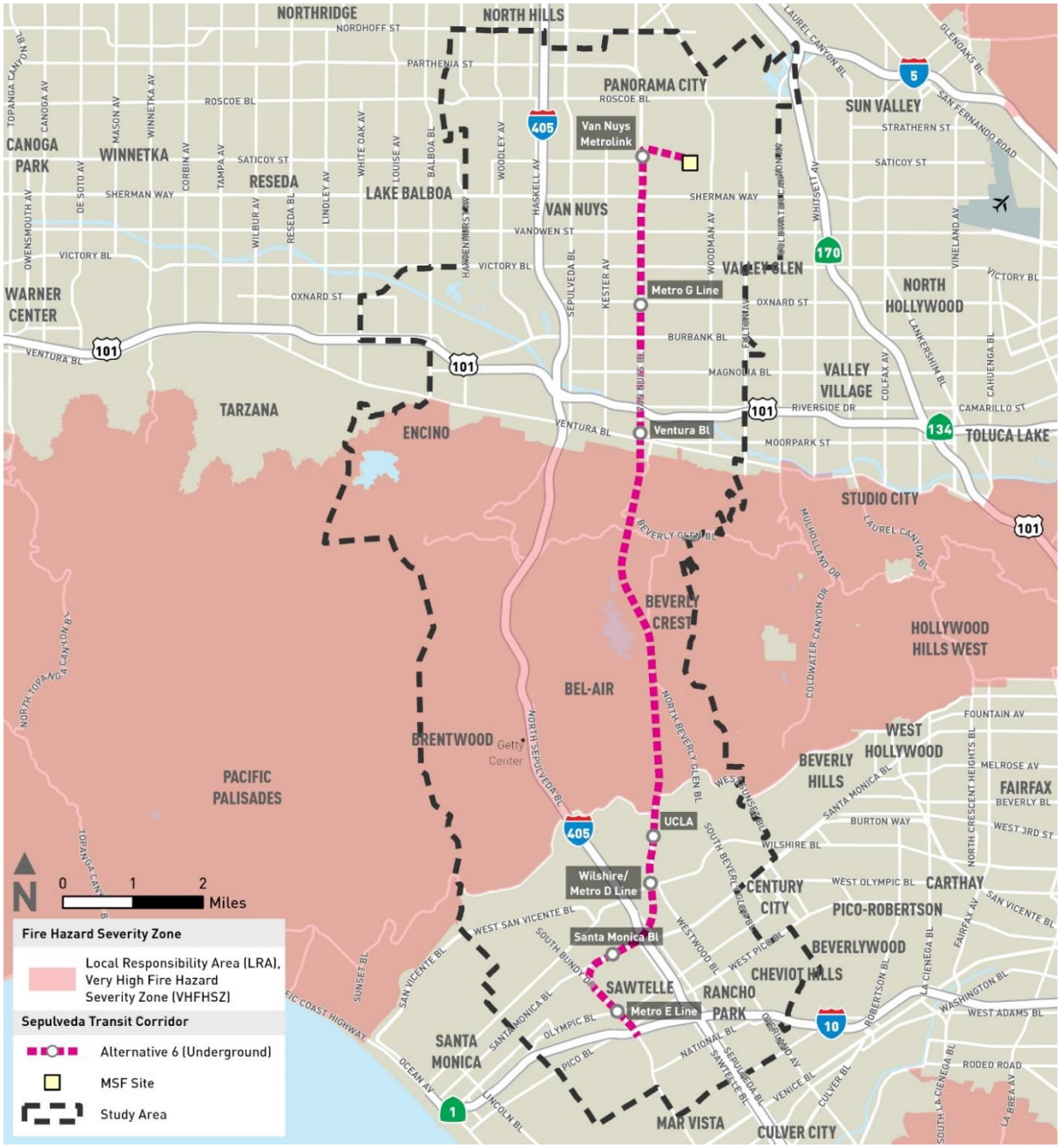
Construction activities must also comply with existing regulations that restrict periods of activity to times that are not a high fire risk. The implementation of MM SAF-1 and MM SAF-would ensure that the impacts associated with exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire risks due to slope, prevailing winds, and other factors, exacerbate wildfire would be less than significant.

Maintenance and Storage Facilities

The proposed MSF would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires (refer to Figure 9-6). The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4.2 miles south of the proposed MSF. The construction of the MSF would not expose people or structures to significant risks, including downslope or downstream flooding

or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impact would occur.

Figure 9-6. Alternative 6: Wildfire Hazard Zone



Source: CAL FIRE, 2011; Metro, 2025o

9.2.13.5 Impact WFR-3: Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Construction activities associated with the implementation of Alternative 6 would be located within the Wildfire Hazard Zone and have the potential for wildfires. While the proposed alignment would be constructed underground at the depth of the proposed tunnel, the ventilation shaft and its access road would require construction in open space areas. The Stone Canyon Reservoir is located south of Mulholland Drive and features an elevated slope and height above sea level, and steepness of land that can increase the spread of fire by influencing a fire's intensity, direction, and rate of spread.

Construction activities occurring within the vegetated areas of the Stone Canyon Reservoir could exacerbate the potential risk of wildfire by adding to ignition sources within the area if not properly controlled. Potential ignition sources include surface-level welding activities and hot exhaust from a vehicle or motorized construction equipment parked on dry grass; additionally, welding during high winds could send sparks traveling through the air to land on and ignite dry grass. Wildfire ignition from construction activity could exacerbate wildfire risk that may result in temporary and potentially significant impacts to the environment.

To minimize the impacts related to wildfires, Alternative 6 would implement MM SAF-1 and MM SAF-2 (Section 9.2.13.7). MM SAF-1 and MM SAF-2 provide construction-related protocols that would curtail work under red-flag warning days and maintain and monitor potential sources of fuel and ignition to reduce impacts related to exacerbating wildfire risks to a less than significant level. In addition, the implementation of MM SAF-1 and MM SAF-2 would ensure that the impacts associated with fire risks would be less than significant with mitigation.

Maintenance and Storage Facilities

The proposed MSF would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires as shown on Figure 9-6. The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4.2 miles south of the MSF. Therefore, the construction of the MSF would not require the installation or maintenance of associated infrastructure that would exacerbate wildfire risks or that may result in temporary or ongoing impacts to the environment, and no impact would occur.

9.2.13.6 Impact WFR-4: Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes

The discussions on exposure of people or structures to flooding as a result of runoff or drainage changes are in the *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g). The discussion on exposure of people or structures to landslides is in the *Sepulveda Transit Corridor Project Geotechnical, Subsurface, Seismic, and Paleontological Resources Technical Report* (Metro, 2025l).

Construction activities associated with the implementation of Alternative 6 would occur within the Wildfire Hazard Zone, which the California Department of Forestry and Fire Protection (CAL FIRE) has designated as VHFHSZ. The proposed alignment would be located underground at the depth of the tunnel underneath landscaped areas east of I-405. The Stone Canyon Reservoir vent shaft, TPSS, and access road would be located on surface level within the Wildfire Hazard Zone in the Santa Monica

Mountains. Fire incidents have not occurred in the Stone Canyon Reservoir in recent history and therefore post-fire slope instability in this location would be less than significant.

Additionally, during construction, to address potential post-wildfire ground instabilities, the Project would implement project design features and would implement a SWPPP. As described in further detail in *Sepulveda Transit Corridor Project Water Resources Technical Report* (Metro, 2025g), regulatory framework set forth by the SWRCB would require Alternative 6 to prepare and submit a construction SWPPP to comply with the NPDES CGP. A construction SWPPP must be submitted to the SWRCB prior to construction and adhered to during construction. The construction SWPPP would identify the BMPs that would be in place prior to the start of construction activities and during construction. BMPs are identified in the *Sepulveda Transit Corridor Project Water Resources Technical Report* with categories that would include, but not be limited to, erosion control, sediment control, non-stormwater management, and materials management BMPs. the construction of Alternative 6 would include the implementation of BMPs and would not create additional runoff, post-fire slope instability, or drainage changes within the Wildfire Hazard Zone. Alternative 6 would not expose people or structures to significant risks, including downslope or downstream flooding or landslides. Therefore, impacts would be less than significant.

Maintenance and Storage Facilities

The proposed MSF would not be located on land designated as an LRA or VHFHSZ and would not have potential for wildfires as shown on Figure 9-6. The closest areas designated as an SRA or land classified as VHFHSZ are located approximately 4.2 miles south of the proposed MSF. The MSF would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impact would occur.

9.2.13.7 Mitigation Measures

Construction Impacts

MM SAF-1: *Curtail above ground construction and maintenance activities requiring spark-producing equipment during high-risk wildfire periods in applicable areas. Applicable areas would be areas in the Santa Monica Mountain Range that the California Department of Forestry and Fire Protection designates as a wildfire zone and is populated with dried vegetation or other material that could ignite. Construction and maintenance activities utilizing motorized equipment shall be curtailed during red-flag warning days and other high-risk periods characterized by relative humidity of 15 percent or less combined with windy conditions consisting of frequent gusts at 25 miles per hour or greater for at least 3 hours in a 12 hour period.*

MM SAF-2: *During construction of the Project, all staging areas, welding areas, or areas slated for development that use spark-producing equipment shall be cleared of dried vegetation or other material that could ignite. Any construction equipment that includes a spark arrestor shall be monitored to ensure the spark arrestor is in good working order. All vehicles and crews working on the project site shall have access to functional fire extinguishers at all times.*

Impacts After Mitigation

Compliance with all state laws, plans, policies, and regulations regarding wildfire prevention and suppression, as well as implementation of PM SAF-1, would ensure that impacts associated with wildfire and fire risks would be less than significant during operation activities.

Implementation of MM SAF-1 and MM SAF-2 would ensure that the impacts associated with wildfire and fire risks would be less than significant during construction activities.

9.2.14 Transportation

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-25.

Table 9-25. Alternative 6: Transportation Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 6
Transportation Construction Impacts		
Impact TRA-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TRA-4, MM TRA-5
	Impacts After Mitigation	LTS
Impact TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact TRA-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact TRA-4: Would the project result in inadequate emergency access?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025a

LTS = less than significant
MM = mitigation measure
NA = not applicable
PS = potentially significant
TRA = transportation

9.2.14.1 Impact TRA-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities?

Given the temporary nature of construction, it is not expected that construction of Alternative 6 would preclude or conflict with any programs, plan ordinances, or policies addressing the circulation system. The following sections describe construction impacts on transit facilities, roadways, and active transportation.

Transit Facilities

Temporary full or partial closures of some intersections, lanes, or sidewalks may be necessary during construction, which may result in disruptions to bus service. Temporary re-routing and relocation of bus stops may be needed for the following transit lines:

- Metro 4, 20, 155, 158, 169, 233, 240, 602, and 761
- BBB 1, 2, 5, R10, R12, 14, 15, and 18
- CCB 6 and R6

- LADOT 431, 534, and DASH PC/VN
- Amtrak Thruway
- BruinBus U1, U2, U3, U5

In addition to impacts to on-street bus service, construction at existing fixed guideway stations would impact rail and BRT service operations. Construction of new escalators at the existing Metro E Line Expo/Bundy Station connecting the plaza and platform levels would result in temporary impacts to the passenger experience at the station. Excavation of the Alternative 6 tunnel segment underneath the existing Metro E Line Expo/Bundy Station and the Alternative 6 station underneath the Metro D Line Westwood/UCLA Station would result in temporary impacts to service on the Metro E Line and D Line. In addition, temporary impacts to Amtrak and Metrolink rail operations and passenger experience at the Van Nuys Metrolink/Amtrak Station would also occur as a result of the construction of the underground Van Nuys Metrolink Station. Construction activities would occur within the vicinity of the ESFV LRT Van Nuys Metrolink Station for the cut-and-cover construction of the Alternative 6 Van Nuys Metrolink Station which may temporarily affect passenger experience; however, disruptions to rail service or MSF operations are not anticipated.

Construction of a mezzanine extension over the Metro D Line tracks and new escalators connecting the mezzanine level to the platform at the Metro D Line Westwood/UCLA Station would result in temporary impacts to Metro D Line rail operations and passenger experience. Metro D Line trains would operate between Union Station and the Metro D Line Century City Station while temporary falsework is constructed over the Metro D Line tracks. The Metro D Line Westwood/UCLA Station would then be temporarily closed to passengers during construction of the mezzanine extension. However, Metro D Line trains would be able to pass through the station to the Westwood/VA Hospital Station.

Although temporary, the potential disruptions to the transit network under Alternative 6 is considered a potentially significant impact to transit facilities due to temporary road or lane closures, rail service interruptions during station improvements, and sidewalk closures. Implementation of MM TRA-4, to provide a TMP that specifies measures to limit disruption during construction, and MM TRA-5, to provide temporary bus service at rail stations taken out of passenger service, would reduce impacts to less than significant during construction of Alternative 6.

Roadways

Construction vehicles would primarily use major arterials and freeways to comply with Policy 1.8 from *Mobility Plan 2035* that "truck movement should be limited to the arterial street network as much as possible since these streets have the lanes and wider turning radii to accommodate these heavy large vehicles" (DCP, 2016). Table 9-26 identifies construction staging locations and roadway facilities that would be used for construction haul routes.

Table 9-26. Alternative 6: Construction Staging Locations and Haul Routes

No.	Construction Staging Location Description	Haul Route
1	Bundy Drive and Olympic Boulevard	Bundy Drive, I-10, I-405
2	Along Santa Monica Boulevard between Barrington Avenue and Federal Avenue	Santa Monica Boulevard, I-405
3	Along Gayley Avenue between Wilshire Boulevard and Ashton Avenue	Wilshire Boulevard, I-405
4	UCLA Gateway Plaza	Westwood Boulevard. Wilshire Boulevard, I-405
5	Northeast of Upper Stone Canyon Reservoir	Stone Canyon Road, Mulholland Drive, Skirball Center Drive, Sepulveda Boulevard, I-405

No.	Construction Staging Location Description	Haul Route
6	Van Nuys Boulevard and Moorpark Street	Van Nuys Boulevard, US-101, I-405
7	Van Nuys Boulevard and Oxnard Street	Van Nuys Boulevard, Burbank Boulevard or Victory Boulevard, I-405
8	East of Van Nuys Boulevard between Saticoy Street and Keswick Street	Van Nuys Boulevard, Sherman Way or Roscoe Boulevard, I-405
9	West of Woodman Avenue and south of the Los Angeles-San Diego-San Luis Obispo rail corridor	Woodman Avenue, Sherman Way, and I-405 or SR-170

Source: HTA, 2024

Alternative 6 would require closures and detours of street, lane, and I-10 freeway ramps during construction. Table 9-27 presents the locations of proposed traffic detours to support station cut-and-cover activities. The road closures and detours would last between 18 and 24 months, with I-10 ramp detours at Bundy Drive lasting for the duration of Alternative 6 construction. Traffic control measures necessary to complete construction of Alternative 6 would be temporary in nature and are considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction (such as establishing detour routes, informing the traveling public, and coordinating with local business owners to maintain customer and delivery access) — would further reduce temporary impacts due traffic control measures. Therefore, construction of Alternative 6 is considered a less than significant impact related to a conflict with a program, plan, ordinance, for policy on roadway facilities.

Table 9-27. Alternative 6: Projected Roadway Detours

Station	Proposed Roadway Detours
Metro E Line Expo/Bundy	Bundy Drive, Exposition Boulevard, Olympic Boulevard, Pico Boulevard, Mississippi Avenue; I-10 On- and Off-Ramps at Bundy Drive
Santa Monica Boulevard	Santa Monica Boulevard, Barrington Avenue, Barry Avenue, Federal Avenue
Wilshire Boulevard/Metro D Line	Gayley Avenue, Wilshire Boulevard, Lindbrook Drive
UCLA Gateway Plaza	Westwood Plaza, Strathmore Place
Ventura Boulevard/Van Nuys Boulevard	Van Nuys Boulevard, Ventura Boulevard, Moorpark Street
Metro G Line/Van Nuys	Van Nuys Boulevard, Tiara Street, Emelita Street, Califa Street, Oxnard Street
Van Nuys Metrolink	Lane reduction on Van Nuys Boulevard between Covello Street to Cabrito Road

Source: HTA, 2024

Bicycle and Pedestrian Circulation

Alternative 6 would require temporary roadway detours at proposed underground stations during cut-and-cover activities. Street detours would be concentrated at areas surrounding proposed underground station boxes that would require cut-and-cover construction. Street detours would disrupt bicycle and pedestrian circulation. The underground guideway would be constructed using a TBM; therefore, construction of the guideway would not disrupt bicycle and pedestrian circulation.

Although temporary, the potential disruptions to bicycle and pedestrian circulation would result in a potentially significant impact during project construction. In addition to compliance with all local, state, and federal standards on construction, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction (such as establishing detour routes, informing the traveling public, and coordinating with local business owners to maintain customer and delivery access)

— would minimize temporary impacts due to traffic control measures. Alternative 6 detour routes would be identified in the TMP, and bicyclists and pedestrians would be informed of such closures and detours through signage and online postings that would be consistent with Policy 1.6 from *Mobility Plan 2035* that states, "Design detour facilities to provide safe passage for all modes of travel during construction" (DCP, 2016). Therefore, implementation of MM TRA-4 would reduce impacts to less than significant during construction of Alternative 6.

Maintenance and Storage Facilities

The MSF for Alternative 6 would be located on a contiguous parcel east of the Van Nuys Metrolink/Amtrak Station and bounded by the LOSSAN rail corridor to the north, Woodman Place to the south, the property lines extending north of Hazeltine Avenue to the east, and Woodman Avenue to the west. Construction of the MSF would not conflict with a program, plan, ordinance, or policy addressing the circulation system; therefore, no impacts would occur.

9.2.14.2 Impact TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Construction of Alternative 6 would temporarily generate additional VMT related to construction workers commuting to the construction site, construction work activities, construction labor trips, and the transport of excavated materials, construction equipment, and supplies. This additional VMT would terminate upon completion of construction and would not be in effect during operation of Alternative 6. The temporary nature of construction-related VMT and construction-related traffic circulation changes (e.g., detours) would generally be localized to the work areas and construction staging locations listed in Table 9-26.

In addition, there would be minor impacts to traffic operations associated with construction staging areas and haul routes. Vehicles and trucks related to construction activities entering and exiting these areas would increase traffic and VMT on local streets. All construction trucks would use designated haul routes, as listed in Table 9-26, to access the regional freeway system. The construction-related traffic volumes would be minimal compared to overall background traffic volumes and generally would occur during the off-peak periods when volumes and congestion are lower. Increased traffic generated by construction-related vehicle operations would be temporary in nature. As a result, construction would not result in a substantial or long-term change in regional travel patterns related to VMT and is considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic. Therefore, construction of Alternative 6 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and is considered a less than significant impact.

Maintenance and Storage Facilities

Construction of the MSF would result in a minor increase in traffic volumes as construction vehicles enter and exit the site. Construction vehicles entering and exiting the construction site would temporarily increase VMT on local streets. The construction-related traffic volumes would be minimal compared to overall background traffic volumes and generally would occur during the off-peak periods when volumes and congestion are lower. Increased traffic generated by construction-related vehicle operations would be temporary in nature. As a result, construction-related traffic would not result in a substantial or long-term change in regional travel patterns related to VMT and is considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce

temporary impacts due to construction-related traffic. Therefore, construction of the MSF for Alternative 6 would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and is considered a less than significant impact.

9.2.14.3 Impact TRA-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?

Temporary modifications of existing transportation facilities under Alternative 6 would include full or partial road closures, lane reductions or modifications, and detour routes. Construction of Alternative 6 would include temporary modifications to segments of Bundy Drive, Olympic Boulevard, Mississippi Avenue, Santa Monica Boulevard, Barrington Avenue, Barry Avenue, Federal Avenue, Wilshire Boulevard, Gayley Avenue, Lindbrook Drive, Westwood Plaza, and Strathmore Place in the Westside, and Van Nuys Boulevard, Ventura Boulevard, Moorpark Street, Tiara Street, and Oxnard Street in the San Fernando Valley. Construction worksites would be fenced, and lane closures and associated lane tapers, temporary advance warning signs, and detour signs would be implemented in accordance with OSHA, Cal/OSHA, and CA MUTCD (Caltrans, 2024) standards to ensure that no significant geometric design hazards or incompatible uses would be introduced during construction. Safety for pedestrians, bicyclists, and motorists would be maintained during construction using signage, partial lane closures, construction barriers, and supervision by safety and security personnel at access points and throughout construction sites. Traffic control measures necessary to complete construction of Alternative 6 would be temporary in nature and are considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 — to provide a TMP that specifies measures to limit disruption during construction — would further reduce temporary impacts due to construction-related traffic control measures and would ensure hazards are not introduced during construction. Therefore, construction of Alternative 6 would not substantially increase hazards due to a geometric design feature or incompatible use and is considered a less than significant impact.

Maintenance and Storage Facilities

Construction of the MSF may include construction staging, materials stockpiling, hauling of dirt and materials, temporary lane reductions, and use of temporary easements. Construction activities would meet all relevant and applicable safety standards, including OSHA, Cal/OSHA, and CA MUTCD (Caltrans, 2024) standards to ensure that no significant geometric design hazards or incompatible uses are introduced during construction. Thus, construction of the MSF would not result in an increase in hazards or incompatible uses due to a design feature. Therefore, construction of the MSF for Alternative 6 would result in no impact.

9.2.14.4 Impact TRA-4: Would the project result in inadequate emergency access?

Project construction would include temporary lane reductions, road closures, and detours that would affect local roadways. As a result, traffic congestion associated with temporary traffic control measures could result in delayed emergency response times or limited access by emergency services. Traffic control measures necessary to complete construction of Alternative 6 would be temporary in nature and are considered a less than significant impact. In accordance with Metro standard practice, implementation of MM TRA-4 would require coordination with first responders during final design to further reduce temporary impacts on emergency access. Therefore, construction of Alternative 6 is considered to have a less than significant impact on emergency access.

Maintenance and Storage Facilities

Construction of the MSF would result in temporary impacts to traffic operations due to a minor increase in traffic volumes as construction vehicles enter and exit the site. Traffic control measures necessary to complete construction of the MSF would be temporary in nature and are considered a less than significant impact. In accordance with standard Metro practice, implementation of MM TRA-4 would ensure adequate emergency access is maintained within and surrounding the site during construction to further reduce temporary impacts. Therefore, construction of the MSF for Alternative 6 is considered a less than significant impact.

9.2.14.5 Mitigation Measures

Construction Impacts

MM TRA-4: *The project contractor shall prepare a Transportation Management Plan to facilitate the flow of traffic and transit service in and around construction zones. The Transportation Management Plan shall include, at a minimum, the following measures:*

- *Where feasible, schedule construction-related travel (i.e., deliveries, hauling, and worker trips) during off-peak hours and maintain two-way traffic circulation along affected roadways during peak hours. Avoid the closure of two major adjacent streets where feasible.*
- *Designated routes for project haul trucks shall primarily utilize the I-405, I-10, and US-101 corridors. Throughout the construction process, these routes shall be coordinated with the City of Los Angeles and U.S. Department of Veterans Affairs to ensure consistency with land use and mobility plans. Additionally, the routes shall be situated to minimize noise, vibration, and other possible impacts.*
- *Develop detour routes to facilitate traffic movement through construction zones without significantly increasing cut-through traffic in adjacent residential areas.*
- *Where construction encroaches on the Los Angeles-San Diego-San Luis Obispo rail corridor right-of-way, coordinate construction activities with Union Pacific, Metrolink, and Amtrak to limit disruptions to service and coordinate on outreach to inform passengers of service impacts. Provide temporary parking and drop-off facilities at the Van Nuys Metrolink/Amtrak Station to minimize passenger impacts.*
- *Develop and implement an outreach program and public awareness campaign in coordination with Caltrans, the City of Los Angeles, the City of Santa Monica, and the County of Los Angeles to inform the general public about the construction process and planned roadway closures, potential impacts, and mitigation measures, including temporary bus stop relocation.*
- *Where feasible, temporarily restripe roadways to maximize the vehicular capacity at locations affected by construction closures.*
- *Provide wayfinding signage, lighting, and access to specify pedestrian safety amenities (such as handrails, fences, and alternative walkways) during construction.*

- *Where construction encroaches on pedestrian facilities, special pedestrian safety measures shall be used, such as detour routes and temporary pedestrian barricades.*
- *Where construction encroaches onto the University of California, Los Angeles campus, the project contractor shall ensure that access to campus buildings is maintained through temporary decking and the construction of temporary stairs and ramps.*
- *During final design, the project contractor shall coordinate with Metro Operations to minimize construction impacts on existing Metro rail operations in and around existing stations. Where construction results in the interruption of Metro rail operations, buses shall provide temporary service between rail stations.*
- *Provide on-street bicycle detour routes and signage to address temporary effects to bicycle circulation and minimize inconvenience (e.g., lengthy detours) as to minimize users potentially choosing less safe routes if substantially rerouted.*
- *During final design, the project contractor shall coordinate with first responders and emergency service providers to minimize impacts on emergency response. Coordination efforts shall include the development of detour routes and notification procedures to facilitate and ensure safe and efficient traffic movement. The nearest local first responders would be notified, as appropriate, of traffic control plans during construction to coordinate emergency response routing.*
- *Maintain customer and delivery access to all operating businesses near construction work areas. Access shall be maintained to allow for reasonable business operations, including clear signage for alternate routes, temporary driveways, or entry points as necessary. Coordination with businesses shall be conducted to address specific access needs and limit disruptions, ensuring that any restrictions are communicated in advance and alternative arrangements are provided as appropriate.*

MM TRA-5: *Where construction results in the interruption of Metro rail operations, the Project shall provide temporary bus service at rail stations taken out of passenger service. Temporary bus service may consist of either dedicated bus shuttles or extensions of other Metro bus service. Temporary bus service during closures of the Metro D Line Westwood/UCLA Station and/or Metro D Line Westwood/VA Hospital Station shall operate on Bonsall Avenue, Wilshire Boulevard, Santa Monica Boulevard, Century Park East, Avenue of the Stars, Century Park West, and/or Constellation Drive.*

Impacts After Mitigation

Construction of Alternative 6 would result in a potentially significant impact under Impact TRA-1 due to temporary traffic control measures, rail service interruptions during station improvements, and sidewalk closures. Implementation of MM TRA-4 would reduce impacts to less than significant by requiring a TMP to minimize temporary disruptions associated with construction activities. Implementation of MM TRA-5 would reduce this impact to less than significant by providing temporary bus service at rail stations taken out of passenger service during construction.

9.2.15 Cultural Resources and Tribal Cultural Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-28.

Table 9-28. Alternative 6: Cultural Resources and Tribal Cultural Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 6
Cultural Resources and Tribal Cultural Resources Construction Impacts		
Impact CUL-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM CUL-1 MM CUL-4 MM CUL-5
	Impacts After Mitigation	SU
Impact CUL-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM CUL-1 MM CUL-6 MM CUL-7
	Impacts After Mitigation	LTS
Impact CUL-3: Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM CUL-8
	Impacts After Mitigation	PS
Impact TCR-1: Would the project cause a substantial adverse change in the significance of a TCR, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM TCR-1, MM TCR-2
	Impacts After Mitigation	LTS

Source: Metro, 2025n

CUL = cultural resources
MM = mitigation measure
LTS = less than significant
PS = potentially significant
SU = significant and Unavoidable
TCR = tribal cultural resources

9.2.15.1 Impact CUL-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Alternative 6 activities during construction of the alignment would include property acquisitions, demolition of historical resources, and new construction of permanent Project Alternative 6 features. Construction impacts on historical resources could be direct and indirect. Direct impacts include the physical demolition, destruction, relocation, or alteration of historical resources. Indirect impacts during construction could include temporary visual, audible, or atmospheric intrusions affecting the surroundings of historical resources. This assessment also considers the permanent impacts of Alternative 6's new infrastructure, such as its visual and physical presence within the setting of historical resources. These impacts are treated as construction-related impacts, rather than operational impacts, because these project changes are directly tied to the introduction of the infrastructure during the construction phase. For historical resources where construction activities would not result in physical

demolition, destruction, relocation, or alteration, and where the setting would remain unaffected by the new infrastructure, impacts are considered less than significant. Similarly, where visual and physical changes would not materially impair the historical significance of a resource, the impacts are also identified as less than significant. Historical resources are identified by Map Reference numbers corresponding to the maps included in Appendix A of the *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n).

Alternative 6 Historical Resources – Significant and Less Than Significant Impacts

Construction of Alternative 6 would result in less than significant impact to 5 resources (Table 9-29) with further discussion on their analysis in the *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n).

Table 9-29. Alternative 6: Historical Resources – Less Than Significant Impacts

Map Reference #	Resource Name	Location
1	13912 Saticoy Street	13912 Saticoy Street
2	13914 Saticoy Street	13914 Saticoy Street
3	13938 Saticoy Street	13938 Saticoy Street
4	13942 Saticoy Street	13942 Saticoy Street
5	Southern Pacific Railroad Warehouse	7766 Van Nuys Boulevard

Source: Metro, 2025n

Alternative 6 Historical Resources – Significant Impacts

Bill's Valley Car Wash (Map Reference #44)

The Bill's Valley Car Wash building at 7530 Van Nuys Boulevard is a commercial property. It is significant for its role in the commercial and industrial development of Van Nuys and for its 1962 Googie design.

Under Alternative 6, the property would be acquired and demolished for the construction of the proposed Van Nuys Metrolink Station. Physical demolition would materially impair the significance of the historical resource and would result in a significant impact. Implementation of MM CUL-4 and MM CUL-5 would reduce impacts to these resources but cannot reduce impacts related to demolition to a less than significant level.

5958 Van Nuys Boulevard (Map Reference #55)

The building located at 5958 Van Nuys Boulevard is a commercial building significant for its One-Part Commercial Block design.

Under Alternative 6, the proposed TPSS 15 and 16 would be located along Van Nuys Boulevard between Emelita Street and Califa Street. The TPSS would be underground and located immediately under the commercial building. The building would not be physically demolished, destroyed, relocated, or altered. The historical resource's setting is commercial, and the west elevation's current viewshed includes the commercial corridors along Van Nuys Boulevard. Due to the underground nature of the proposed improvements, no permanent visual impacts on this historical resource or its setting are anticipated from the addition of the station or the underground alignment.

However, construction of the station and roadway improvements, as well as the use of pile driving at this location, has the potential to cause construction vibration adjacent to the building that could impact the historical resource. The construction activities adjacent to the resource also has the potential to inadvertently impact character-defining features (e.g., design elements, fenestration, architectural

details) and landscape elements if protection measures are not put in place. This would be a significant impact. Implementation of MM CUL-1 would reduce this potentially significant impact to a less than significant level.

UCLA Historic District (Map Reference #72)

The UCLA Historic District includes 15 contributing resources and landscape features, and two non-contributing resources. The district is significant as the first public institution of higher education in Southern California and for its design.

Under Alternative 6, the proposed UCLA Gateway Plaza Station would be built within the boundaries of the historic district. The station would be underground, and none of the contributing buildings or landscape elements would be physically demolished, destroyed, relocated, or altered. The historical resource's setting is the UCLA campus and roadways. Due to the underground nature of the proposed improvements, no permanent visual impacts on this historic district or its setting are anticipated from the addition of the station or the underground alignment.

However, construction of the station and construction staging areas has the potential to cause construction vibration that could impact the historical district. The construction activities within the district also have the potential to inadvertently impact character-defining features (e.g., design elements, fenestration, architectural details) and landscape elements if protection measures are not put in place. This would result in a significant impact. Implementation of MM CUL-1 would reduce this potentially significant impact to a less than significant level.

UCLA Ackerman Hall (Map Reference #73)

The UCLA Ackerman Hall building is a multiple-story education property that is significant for its association with the history of UCLA and for its 1961 Modern design.

Under Alternative 6, the proposed UCLA Gateway Plaza Station would be constructed approximately 20 feet from the west elevation of the building. During construction, a portion of the stairs leading to the building would be removed and replaced with temporary stairs. Once the station box is completed, permanent stairs would be rebuilt. The stairs are not a contributing element to the historical significance of UCLA Ackerman Hall and therefore, would not result in a significant impact. The station would be underground, and the UCLA Ackerman Hall building would not be physically demolished, destroyed, relocated, or altered. The historical resource's setting is the UCLA campus and roadways. Due to the underground nature of the proposed improvements, no permanent visual impacts on this historical resource or its setting are anticipated from the addition of the station or the underground alignment.

However, construction of the station and construction staging areas has the potential to cause construction vibration that could impact the historical resource. The construction activities adjacent to the resource also have the potential to inadvertently impact character-defining features (e.g., design elements, fenestration, architectural details) and landscape elements if protection measures are not put in place. This would be a significant impact. Implementation of MM CUL-1 would reduce this potentially significant impact to a less than significant level.

Gayley Center (Map Reference #103)

The Gayley Center located at 1101 Gayley Avenue is a larger commercial property. It is significant for its Late Modern commercial architecture and as work of noted architects Krisel Shapiro & Associates.

Under Alternative 6, the proposed Wilshire Boulevard/Metro D Line Station would be constructed approximately 50 feet east from the west elevation of the building. The station would be underground,

and the Gayley Center would not be physically demolished, destroyed, relocated, or altered. The historical resource's setting is commercial, and the west elevation's current viewshed includes the commercial corridors along Gayley Avenue. Due to the underground nature of the proposed improvements, no permanent visual impacts on this historical resource or its setting are anticipated from the addition of the station or the underground alignment.

However, construction of the station and construction staging areas has the potential to cause construction vibration that could impact the historical resource. The construction activities adjacent to the resource also have the potential to inadvertently impact character-defining features (e.g., design elements, fenestration, architectural details) and landscape elements if protection measures are not put in place. This would be a significant impact. Implementation of MM CUL-1 would reduce this potentially significant impact to a less than significant level.

Linde Medical Building (Map Reference #104/105)

The Linde Medical Building, located at 10921 Wilshire Boulevard, is a large commercial property. It is significant for its 1962 International style design.

As designed, affected portions of the property entrance would be restored in accordance with the California Historical Building Code and all applicable requirements. Under Alternative 6, the proposed Wilshire Boulevard/Metro D Line Station would be constructed approximately 100 feet from the west elevation of the building. The station would be underground, and the Linde Medical Building would not be physically demolished, destroyed, relocated, or altered. The historical resource's setting is commercial, and the west elevation's current viewshed includes the commercial corridors along Gayley Avenue and Wilshire Boulevard. Due to the underground nature of the proposed improvements, no permanent visual impacts on this historical resource or its setting are anticipated from the addition of the station or the underground alignment.

However, construction of the station and construction staging areas has the potential to cause construction vibration that could impact the historical resource. The construction activities adjacent to the resource also have the potential to inadvertently impact character-defining features (e.g., design elements, fenestration, architectural details) and landscape elements if protection measures are not put in place. This would be a significant impact. Implementation of MM CUL-1 would reduce this potentially significant impact to a less than significant level.

Tishman Building (Map Reference #106)

The Tishman Building is a commercial building constructed in 1971. It is significant for its Corporate Modern high-rise architecture and as the work of master architect Welton Becket.

Under Alternative 6, the proposed Wilshire Boulevard/Metro D Line Station would be constructed approximately 20 feet from the north elevation of the building. The station would be underground, and the Tishman Building would not be physically demolished, destroyed, relocated, or altered. The historical resource's setting is commercial, and the north elevation's current viewshed includes the commercial corridors along Gayley Avenue and Wilshire Boulevard. Due to the underground nature of the proposed improvements, no permanent visual impacts on this historical resource or its setting are anticipated from the addition of the station or the underground alignment.

However, construction of the station and construction staging areas has the potential to cause construction vibration that could impact the historical resource. The construction activities adjacent to the resource also have the potential to inadvertently impact character defining features (e.g., design elements, fenestration, architectural details) and landscape elements if protection measures are not put

in place. This would be a significant impact. Implementation of MM CUL-1 would reduce this potentially significant impact to a less than significant level.

Laemmle Theater (Map Reference #132)

The Laemmle Theater at 11521 Santa Monica Boulevard is a commercial property constructed in 1923. It is significant for its Italian Renaissance design.

Under Alternative 6, the proposed Santa Monica Boulevard Station would be constructed approximately 20 feet from the south elevation of the building. The station would be underground, and the Laemmle Theater would not be physically demolished, destroyed, relocated, or altered. The historical resource's setting is commercial, and the north elevation's current viewshed includes the commercial corridor along Santa Monica Boulevard. Due to the underground nature of the proposed improvements, no permanent visual impacts on this historical resource or its setting are anticipated from the addition of station or the underground alignment.

However, construction of the station and construction staging areas has the potential to cause construction vibration that could impact the historical resource. The construction activities adjacent to the resource also have the potential to inadvertently impact character-defining features (e.g., design elements, fenestration, architectural details) and landscape elements if protection measures are not put in place. This would be a significant impact. Implementation of MM CUL-1 would reduce this potentially significant impact to a less than significant level.

Alternative 6 Historical Resources – No Impact

Construction of Alternative 6 would result in no impact to 44 resources (Table 9-30). These historical resources would not be physically demolished, destroyed, relocated, or altered. Due to the underground nature of the improvements, no permanent visual impacts on these historical resources or their setting is anticipated from the addition of the underground alignment. These historical resources are either located within the underground portions of the alignment or are located a considerable distance from station locations, construction staging area, or TBM launch and extraction sites.

Table 9-30. Alternative 6: No Impact Historical Resources

Map Reference #	Resource Name	Address
14	Van Nuys Street Trees	Sherman Way and Van Nuys Boulevard, south to Van Nuys Boulevard and Hamlin Street
45	Tacos Mexico	7140 Van Nuys Boulevard
46	Bank of America	6551 North Van Nuys Boulevard
47	Van Nuys Utilities Center	6550 North Van Nuys Boulevard
48	Firestone	6530 North Van Nuys Boulevard
49	Hart's Pawn Shop	6362 North Van Nuys Boulevard
50	Owl-Rexall Drug Co.	6353 North Van Nuys Boulevard
51	Chase Bank	6300 North Van Nuys Boulevard
52	Happy Dogs	6235 North Van Nuys Boulevard
53	6203 North Van Nuys Boulevard	6203 North Van Nuys Boulevard
54	San Fernando Valley Administrative Center Historic District (Van Nuys State Office Building, Van Nuys State Building)	6162 North Van Nuys Boulevard
56	Rob's Car Wash	5328 North Van Nuys Boulevard

Map Reference #	Resource Name	Address
57	Stanley Burke's/Corky's Restaurant and Sign; The Lamplighter	5037-5053 North Van Nuys Boulevard
58	Sherman Oaks Plaza Building	4955 North Van Nuys Boulevard
59	4449 Van Nuys Boulevard	4449 Van Nuys Boulevard
69	121 North Udine Way	121 North Udine Way
70	120 North Udine Way	120 North Udine Way
71	Marymount High School (Main Administration Building, including Chapel and Auditorium)	10643-10685 Sunset Boulevard and 101-121 Marymount Place
87	UCLA Veterans Rehabilitation Services	1000 Veteran Avenue
89	Campbell's Book Store	10918 Le Conte Avenue
90	Holmby Building	921 Westwood Boulevard
91	924 Westwood Boulevard	924 Westwood Boulevard
93	10940 Weyburn Avenue	10940 Weyburn Avenue
94	Chatam Restaurant	10930 Weyburn Avenue
95	Desmond's	1001 Westwood Boulevard
96	Bullock's Department Store	1000 South Westwood Boulevard
97	Kelly Music Building/Alice's Restaurant	1041 Westwood Boulevard
98	Penney's	1056 Westwood Boulevard
99	Janss Investment Company Building	1081 Westwood Boulevard
100	Glendale Federal Savings and Loan Association	1090 Westwood Boulevard
101	Westwood Village Streetlight	Westwood and Kinross, northwest corner, adjacent to Janss Investment Company Building
102	Bratskeller Egyptian Theater (Ralphs Grocery Store)	1142 Westwood Boulevard
107	1220 Veteran Avenue	1220 Veteran Avenue
109	LADWP Westwood Distribution Headquarters	1400 South Sepulveda Boulevard
110	1400 Greenfield Avenue	1400 Greenfield Avenue
112	1410 Camden Avenue	1410 Camden Avenue
113	1418 S Bentley Avenue	1418 S Bentley Avenue
115	1511 South Bentley Avenue	1511 South Bentley Avenue
116	1516 Pontius Avenue	1516 Pontius Avenue
117	1527 Pontius Avenue	1527 Pontius Avenue
118/119	1544 Cotner Avenue	1544 Cotner Avenue
130	West End Hotel	1538 South Sawtelle Boulevard
131	11271 West Massachusetts Avenue	11271 West Massachusetts Avenue

Source: HTA, 2024

Maintenance and Storage Facilities

The Alternative 6 MSF has the potential to impact Map References #1, #2, #3, and #4 (four industrial buildings on Saticoy Street). However, the proposed MSF would not physically demolish, destroy, relocate, or alter any historical resources. The existing viewshed of these historical resources is commercial with modern development and this alteration of setting would not materially impair their significance. There would be no construction impacts to these historical resources associated with the MSF. Therefore, the MSF would result in a less than significant impact. No mitigation is required.

9.2.15.2 Impact CUL-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

An assessment of archaeological sensitivity for the Archaeological RSA indicates construction activities associated with the Alternative 6 alignment would have low to high potential to encounter previously unidentified archaeological resources below ground surface. Portions of the Archaeological RSA in proximity to P-19-000382 were determined to have high potential because intact significant archaeological resources have been identified directly adjoining to the Archaeological RSA. No prehistoric archaeological sites and only one historic-age archaeological site have been identified within or directly adjacent to the Archaeological RSA for Alternative 6. The one resource documented within the Archaeological RSA (P-19-003803) has been determined to no longer be present within the alignment and does not have potential to be impacted by construction of Alternative 6. However, the sediments present across the Alternative 6 alignment consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits.

Locations considered to have low potential to encounter archaeological resources are those in older geologic deposits, such as where Alternative 6 components would be constructed at great depth, and those in areas with high levels of well-documented, previous subsurface ground disturbance. Locations considered to have moderate potential to encounter archaeological deposits are those in younger soils, such as Alternative 6 components constructed in shallower depths and with low or unknown levels of previous disturbance. Proximity to previously recorded archaeological resources, important prehistoric resource areas, and water sources also increases sensitivity.

Archival research and field survey determined that one recorded historic-age resource (P-19-003803) was previously recorded in the Archaeological RSA but has likely been removed as a result of prior construction activity in the area. Archaeological resources of prehistoric and historic age have been documented in the Built Environment RSA and within a 0.5-mile radius of the Alternative 6 Archaeological RSA. They were often encountered in the context of subsurface construction activity, indicating there is potential in the area to encounter additional resources in a similar manner. Activities during construction of the alignment would include property acquisitions, demolition of historical resources, and new construction of permanent Alternative 6 features.

Buried archaeological resources may exist within the Alternative 6 Archaeological RSA, and it is possible these resources could be unearthed during excavation activities. The proposed alignment for Alternative 6 is largely within the public ROW that has already been disturbed with utility and street construction, but those disturbances were relatively shallow. Locations considered to have low potential to encounter archaeological resources are those in older geologic deposits, such as tunnel locations where project components would be constructed at great depth. Shallow construction work associated with the Alternative 6 alignment would have limited potential to encounter intact archaeological resources. Other proposed construction activities, such as mass excavation required for new stations, TBM launch and extraction sites, mountain shaft and access road, near-surface construction activities, and ancillary facilities with excavation depths greater than 5 feet would have the potential to encounter intact archaeological deposits below the shallow previous ground disturbance and are considered to have moderate archaeological sensitivity (see the *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report* (Metro, 2025n)).

Based on this analysis, construction of Alternative 6 has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to archaeological resources related to

construction of the alignment alternative would be significant, and mitigation is required (Section 9.2.15.5). With implementation of MM CUL-1, MM CUL-6, MM CUL-7, impacts on archaeological resources, including historical resources and unique archaeological resources, would be reduced to less than significant for Alternative 6.

Maintenance and Storage Facilities

An assessment of archaeological sensitivity for the Archaeological RSA indicates construction activities associated with the Alternative 6 MSF would have moderate potential to encounter previously unidentified archaeological resources below ground surface. No prehistoric or historic-age archaeological sites have been identified within or adjacent to the MSF; however, the sediments present in the area consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits. Construction activities with excavation depths greater than 5 feet have the potential to encounter intact archaeological deposits below the previous ground disturbance and are considered to have moderate archaeological sensitivity.

Construction of the MSF has the potential to cause a substantial adverse change in the significance of an archaeological resource listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to archaeological resources related to construction of the alignment alternative would be significant and mitigation is required (Section 9.2.15.5). With implementation of MM CUL-1, MM CUL-6, MM CUL-7, impacts on archaeological resources, including historical resources and unique archaeological resources, would be reduced to less than significant for Alternative 6 MSF.

9.2.15.3 Impact CUL-3: Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Potential construction impacts on human remains, including those interred outside of dedicated cemeteries, would be related to ground disturbing activities.

One known cemetery, the Los Angeles National Cemetery, is located within 600 feet of the Alternative 6 Archaeological RSA. However, the probability of encountering human remains during construction is low because the Los Angeles National Cemetery is located outside of the proposed project alignment and no construction activities would occur within the cemetery grounds. While unlikely, because of the age of the cemetery and the documentation of at least one interment in the area prior to the official founding of the cemetery, there is potential for unmarked and forgotten graves to lie outside of the existing cemetery footprint.

At least two indigenous burials have been encountered within the previously recorded site of P-19-000382, an ethnohistoric village site located approximately 200 feet north of the Alternative 6 Archaeological RSA. The village site is located near the Alternative 6 Archaeological RSA and provides evidence that there is potential to encounter Native American human remains in the vicinity. While no evidence of human remains has been previously identified within the Alternative 6 alignment, unknown human burials may exist within the Alternative 6 Archaeological RSA, and it is possible these burials could be unearthed during excavation activities. Therefore, construction of Alternative 6 has the potential to cause a substantial adverse change to an unknown burial. Disturbance of unknown burial sites would result in a significant impact, and mitigation is required (Section 9.2.15.5). With implementation of MM CUL-8 impacts to human remains would be reduced to less than significant for Alternative 6.

Maintenance and Storage Facilities

While no evidence of human remains has been previously identified within the construction area for the Alternative 6 MSF, burials have been identified near the Alternative 6 Archaeological RSA. Unknown human burials may exist within the MSF Project area, and it is possible these burials could be unearthed during excavation activities. Therefore, construction of the Alternative 6 MSF has the potential to cause a substantial adverse change to an unknown burial. Disturbance of unknown burial sites would result in a significant impact, and mitigation is required (Section 9.2.15.5). With implementation of MM CUL-8 impacts to human remains would be reduced to less than significant for the Alternative 6 MSF.

9.2.15.4 Impact TCR-1: Would the Project cause a substantial adverse change in the significance of a TCR, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe?

Based on tribal consultation, archival research, and field survey, no resources meeting the criteria to be documented as TCRs exist within the Alternative 6 Tribal Cultural. However, one NAHC designated sacred site is located within 200 feet of the Archaeological and Tribal Cultural RSAs. Additionally, during AB 52 consultation and literature review, two landscape features, the Sepulveda Pass and the Los Angeles River, were identified as significant places important to tribal cultural heritage. As such, for the purposes of this analysis, the Sepulveda Pass and Los Angeles River are being treated in a manner consistent with a TCR. The presence of previously recorded archaeological sites with Native American components in such close proximity to the RSAs and the presence of indigenous trails and important water resources in the vicinity suggest that buried TCRs may exist within the Alternative 6 Tribal Cultural RSA. The resource documented within close proximity to the Tribal Cultural RSA is an ethnographic village where at least two indigenous burials have been encountered. It is possible that significant resources could be unearthed during project excavation activities.

The proposed alignment for Alternative 6 is largely within the public ROW that has already been disturbed with utility and street construction, but those disturbances were relatively shallow. Locations considered to have low potential to encounter TCRs are those in older geologic deposits, such as tunnel locations where project components would be constructed at great depth. Because of the prior disturbances, shallow construction work, such as work necessary for the at-grade portions of the alignment, would have limited potential to encounter intact TCR archaeological deposits and human remains. However, other proposed construction activities, such as mass excavation required for new stations, TBM launch and extraction sites, near-surface construction activities, and ancillary facilities, would have the potential to encounter deeper, intact archaeological deposits. Furthermore, while an archaeologist may place greater importance on the intact nature of archaeological deposits, tribes may be concerned with the potential to identify and protect prehistoric resources, regardless of scientific value. Therefore, construction of the Alternative 6 alignment has the potential to cause a substantial adverse change in the significance of a TCR listed or eligible for listing in the CRHR or in a local register of historical resources. Impacts would be potentially significant. Section 9.2.15.5 discusses the proposed mitigation measures, which require Native American monitoring during ground disturbance, work stoppage and consultation if Tribal Cultural Resources or human remains are encountered, and the implementation of protective measures to ensure culturally appropriate treatment and compliance with legal requirements. Additionally, MM CUL-1, MM-CUL-6, MM CUL-7, and MM CUL-8, described in Section 3.4.6, would be implemented, which require construction personnel training on identifying and

responding to cultural and Tribal Cultural Resources, archaeological monitoring in sensitive areas, work stoppage and treatment protocols for discovered artifacts, and procedures for the respectful handling of human remains in accordance with legal and tribal requirements. With implementation of MM TCR-1 and MM TCR-2, as well as MM CUL-1, MM CUL-6, MM CUL-7, and MM CUL-8, impacts on TCRs would be reduced to less than significant for Alternative 6.

Maintenance and Storage Facilities

An assessment of TCR sensitivity for the Tribal Cultural RSA indicates construction activities associated with the Alternative 6 MSF would have moderate potential to encounter previously unidentified TCRs below ground surface. No TCRs have been identified within the MSF Project area; however, the sediments present in the area consist of younger and older quaternary alluvium, which have potential to contain archaeological deposits and TCRs that could be impacted by ground-disturbing activities.

Construction of the Alternative 6 MSF has the potential to cause a substantial adverse change in the significance of a TCR listed or eligible for listing in the CRHR or in a local register of historical resources. The potential impacts to TCRs related to construction of the alignment alternative would be significant, and mitigation is required. Section 9.2.15.5 discusses the proposed mitigation measures, which require Native American monitoring during ground disturbance, work stoppage and consultation if Tribal Cultural Resources or human remains are encountered, and the implementation of protective measures to ensure culturally appropriate treatment and compliance with legal requirements. Additionally, MM CUL-1, MM-CUL-6, MM CUL-7, and MM CUL-8 would be implemented, which require construction personnel training on identifying and responding to cultural and Tribal Cultural Resources, archaeological monitoring in sensitive areas, work stoppage and treatment protocols for discovered artifacts, and procedures for the respectful handling of human remains in accordance with legal and tribal requirements. With implementation of MM TCR-1 and MM TCR-2, as well as MM CUL-1, MM CUL-6, MM CUL-7, and MM CUL-8, impacts on TCRs would be reduced to less than significant for the MSF.

9.2.15.5 Mitigation Measures

Construction Impacts

Under Alternative 6, there could be construction impacts to historical resources, archaeological resources, human remains, or TCRs during construction. Therefore, the following mitigation measures were developed. AB 52 consultation is ongoing, and any final mitigation measures for TCRs will be determined through consultation with tribes prior to the public review of the Draft Environmental Impact Report.

MM CUL-1: Cultural Resources Monitoring and Mitigation Plan

- *A project wide Cultural Resources Monitoring and Mitigation Plan shall be developed and implemented by Metro. The purpose of the Cultural Resources Monitoring and Mitigation Plan is to document the actions and procedures to be followed to ensure avoidance or minimization of impacts to cultural resources and to provide a detailed program of mitigation for direct and indirect impacts on cultural resources during Project construction. Preparation of the Cultural Resources Monitoring and Mitigation Plan shall necessitate the completion of a pedestrian survey of the private property parcels within the Resource Study Areas that were not accessible during the preparation of this EIR and the Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report; this shall occur only on parcels slated for acquisition and*

construction activities. Proposed ground disturbance for the Project shall be reviewed to make any necessary adjustments to archaeological sensitivity assessments as a result of ongoing project design.

- *The Cultural Resources Monitoring and Mitigation Plan shall include a detailed prehistoric and historic context that clearly demonstrates the themes under which any identified subsurface deposits would be determined significant. Should significant deposits be identified during earth moving activities, the Cultural Resources Monitoring and Mitigation Plan shall address methods for evaluation, treatment, artifact analysis for anticipated artifact types, report writing, repatriation of human remains and associated grave goods, and curation.*
- *The Cultural Resources Monitoring and Mitigation Plan will be a guide for archaeological and tribal monitoring activities as defined in MM CUL 7 and MM TCR 1. The Cultural Resources Monitoring and Mitigation Plan shall require that a Secretary of the Interior-qualified archaeologist in prehistoric and historical archaeology (36 Code of Federal Regulations Part 61) be retained prior to ground disturbing activities.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include recommended treatment measures. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation.*
- *The Cultural Resources Monitoring and Mitigation Plan shall include that, in the event, as a result of the resource evaluation and tribal consultation process, a resource is considered to be eligible for inclusion in the California Register of Historical Resources and/or a local register of historical resources or is determined to be a Tribal Cultural Resources through eligibility listing or determination of significance by the California Environmental Quality Act lead agency (Metro), an archaeological monitor and Native American monitor shall monitor all remaining ground disturbing activities in the area of the resource. If, during cultural resources monitoring, the Secretary of the Interior-qualified archaeologist determines that the sediments being excavated are previously disturbed or unlikely to contain significant cultural materials, the Secretary of the Interior qualified archaeologist can specify that monitoring be reduced or eliminated.*
- *The Cultural Resources Monitoring and Mitigation Plan shall outline the content and process for implementing pre-construction Cultural Resource training, as discussed in MM CUL 6.*
- *The Cultural Resources Monitoring and Mitigation Plan shall require a pre-construction baseline survey to identify building protection measures for historical resources in relation to tunnel boring machine launch/tunnel boring machine extraction, construction staging, and construction vibration and cut and cover activities adjacent to historical resources. The Project shall conduct a pre-construction survey to establish baseline, pre-construction conditions and to*

assess the potential for damage related to improvements adjacent to these historical resources.

- *The Cultural Resources Monitoring and Mitigation Plan shall include building protection measures such as fencing, sensitive construction techniques based on final project design, dust control measures, underpinning, soil grouting, or other forms of ground improvement, as well as lower vibration equipment and/or construction techniques. (Refer to vibration mitigation measures in the Sepulveda Transit Corridor Project Noise and Vibration Technical Report for more information.) In scenarios where a historical resource would be impacted by differential settlement caused by tunnel boring machine construction method, the Project shall require the use of an earth pressure balance or slurry shield tunnel boring machine, as deemed appropriate in consultation with Metro's tunneling panel. An architectural historian or historic architect who meets the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61) shall review proposed protection measures.*
- *The Cultural Resources Monitoring and Mitigation Plan shall require that a post construction survey be undertaken to ensure that no significant impacts had occurred to historical resources. An architectural historian or historic architect who meets the Secretary of Interior Professional Qualification Standards (36 CFR Part 61) shall prepare an assessment of the implementation of the mitigation measures.*
- *MM CUL-1 applies to the following historical resources:*
  - *UCLA Historic District*
  - *UCLA Ackerman Hall*
  - *Linde Medical Building*
  - *Tishman Building*
  - *Laemmle Theater*
  - *Gayley Center*
  - *5958 Van Nuys Boulevard*

MM CUL-4: Historical Resource Archival Documentation

- *The Project shall complete historical resource archival documentation of historical resources that will be demolished or substantially altered. The archival documentation shall follow the guidelines of the National Park Service's Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey program to create Historic American Building Survey-like documentation. At a minimum, the documentation shall consist of the following:*
  - *Large-format photographs including negatives and archival prints*
  - *Written narrative following the Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey short format*
  - *Site plan*

- *The Project shall provide copies of the documentation to the City of Los Angeles for archival purposes. Large-format photography shall be completed prior to any demolition activities that would affect the Bill's Valley Car Wash located at 7530 Van Nuys Boulevard. The documentation shall be prepared so that the original archival-quality documentation could be donated for inclusion in the Los Angeles Public Library. Copies of documentation shall be offered to the Los Angeles Public Library and local historical societies upon request.*
- *MM CUL-4 applies to the following historical resources:*
  - *Bill's Valley Car Wash*

MM CUL-5: Interpretive Program

- *The Project shall prepare interpretive programs for historical resources that will be demolished or substantially altered. The Project shall provide interpretive materials in the form of a pamphlet, website, or similar, that describes and/or illustrates the historic significance of these properties. Interpretive materials shall be provided to the City of Los Angeles for public education purposes. Copies of interpretive materials shall be offered to the Los Angeles Public Library and local historical societies upon request.*
- *MM CUL-5 applies to the following historical resources:*
  - *Bill's Valley Car Wash*

MM CUL-6: Cultural Resource Training

- *Prior to any ground disturbing activities, all construction personnel involved in ground disturbing activities shall be provided with appropriate cultural and Tribal Cultural Resources training in accordance with the Cultural Resources Monitoring and Mitigation Plan detailed in MM CUL 1.*
- *The training shall be prepared by an Secretary of the Interior qualified archaeologist to instruct the personnel regarding the legal framework protecting cultural resources and Tribal Cultural Resources, typical kinds of cultural resources and Tribal Cultural Resources that may be found during construction, artifacts that would be considered potentially significant, and proper procedures and notifications if cultural resources and/or Tribal Cultural Resources are discovered. The training shall be presented by, or under the supervision of, an Secretary of the Interior qualified archaeologist, who shall review types of cultural resources and artifacts that would be considered potentially significant to support operator recognition of these materials during construction. Contingent upon the results of Assembly Bill (AB) 52 consultation, Native American representatives shall be solicited to attend the Worker Environmental Awareness Program training and contribute to the course material to provide guidance on tribal perspectives on working in areas sensitive for Tribal Cultural Resources.*

MM CUL-7: Archaeological Monitoring

- *Project related ground disturbing activities conducted in locations determined to have moderate to high archaeological sensitivity, or other locations determined appropriate through Assembly Bill 52 consultation, shall be monitored by, or under the supervision of, a Secretary of the Interior qualified archaeologist, in accordance with the Cultural Resources Monitoring and Mitigation Plan detailed in MM CUL 1. If monitoring does not reveal any archaeological artifacts, then there would be no impact to archaeological resources. If archaeological artifacts are discovered, then work shall be halted in the immediate vicinity of the find, and a Secretary of the Interior-qualified archaeologist shall assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation.*

MM CUL-8: Unanticipated Discovery of Human Remains

- *If human remains are discovered, work in the immediate vicinity of the discovery shall be suspended and the Los Angeles County Coroner shall be contacted immediately. If the remains are deemed Native American in origin, the coroner shall contact the State of California Native American Heritage Commission and identify a Most Likely Descendant pursuant to Public Resource Code Section 5097.98 and California Code of Regulations Section 15064.5. The Most Likely Descendants may inspect the site within 48 hours of being notified and may issue recommendations for scientific removal and nondestructive analysis. If the Most Likely Descendant fails to make recommendations, then Metro and/or the landowner may rebury the remains in a location not subject to further disturbance, at their discretion. Work may be resumed at Metro's discretion but shall commence only after consultation and treatment have been concluded. Work may continue on other parts of the Project while consultation and treatment are conducted.*

MM TCR-1: Native American Monitoring

- *Project-related ground-disturbing activities conducted in locations determined to have moderate to high archaeological sensitivity, or other locations determined appropriate through Assembly Bill 52 consultation, shall be monitored by a Native American representative from a consulting tribe, in accordance with the Cultural Resources Monitoring and Mitigation Plan detailed in MM CUL-1. The tribal monitor shall be qualified by his or her tribe to monitor Tribal Cultural Resources.*
- *In the event that an archaeological resource discovered during project construction is determined to be potentially of Native American origin based on the initial assessment of the find by a Secretary of the Interior-qualified archaeologist pursuant to California Public Resource Code Section 21083.2(i), the Native American tribes that consulted on the Project pursuant to Assembly Bill 52 shall be notified. Those tribes shall also be provided information about the find to allow for early input from the tribal representatives with regard to the potential significance and treatment of the resource. Resources shall be treated with*

culturally appropriate dignity, taking into consideration the tribal cultural values and meaning of the resource.

- *If, as a result of the resource evaluation and tribal consultation process, the resource is considered to be a Tribal Cultural Resource and determined, in accordance with California Public Resource Code Section 21074, to be eligible for inclusion in the California Register of Historical Resources or a local register of historical resources or is determined to be significant by the California Environmental Quality Act lead agency (Metro), the qualified archaeologist and Native American monitor shall monitor all remaining ground-disturbing activities in the area of the resource. The input of all consulting tribes shall be considered in the preparation of any required treatment plan activities prepared by the qualified archaeologist for any Tribal Cultural Resources identified during the project construction as required in the Cultural Resources Monitoring and Mitigation Plan (MM CUL-1).*
- *Work in the area of the discovery may not resume until evaluation and treatment of the resource is completed and/or the resource is recovered and removed from the site. Construction activities may continue on other parts of the construction site while evaluation and treatment of the resource takes place.*

MM TCR-2: Unanticipated Discovery of Human Remains

- *If human remains are discovered, work in the immediate vicinity of the discovery shall be suspended and the Los Angeles County Coroner shall be contacted immediately. If the remains are deemed Native American in origin, the coroner shall contact the State of California Native American Heritage Commission and identify a Most Likely Descendant pursuant to Public Resource Code Section 5097.98 and California Code of Regulations Section 15064.5. The Most Likely Descendants (MLDs) may inspect the site within 48 hours of being notified and may issue recommendations for scientific removal and nondestructive analysis. If the Most Likely Descendant fails to make recommendations, then Metro and/or the landowner may rebury the remains in a location not subject to further disturbance, at their discretion. Work may be resumed at Metro's discretion but shall commence only after consultation and treatment have been concluded. Work may continue on other parts of the Project while consultation and treatment are conducted.*

Impacts After Mitigation

After implementation of mitigation measures, Alternative 6 would result in less than significant impacts with mitigation on the following historical resources:

- Linde Medical Building
- Tishman Building
- Laemmle Theater
- UCLA Ackerman Hall
- UCLA Historic District

Alternative 6 would result in a significant and unavoidable impact on the following historical resources:

- Bill's Valley Car Wash

Mitigation measures address the potential significant impacts to these historical resources. Mitigation would reduce impacts but cannot reduce impacts related to demolition to a less than significant level.

With implementation of MM CUL-1, MM CUL-6, MM CUL-7, MM CUL-8, MM TCR-1, and MM TCR-2 impacts related to archaeological resources, disturbance of human remains, and TCRs would be reduced to less than significant for Alternative 6 (Including HRT MSF). Alternative 6 exhibits low to high sensitivity for archaeological and tribal cultural resources, and there is limited potential to impact human remains. Potential impacts from construction of all Alternative 6 include disturbing previously unknown archaeological resources, human remains, or TCRs that may be buried below the surface. Due to the highly developed setting of the Project area, conducting subsurface testing in sensitive areas of the alignment to identify evidence of intact soils or subsurface deposits is not feasible and would be unlikely to provide information that could reduce the sensitivity assessments. Providing training to construction personnel on how to identify cultural resources and appropriate steps in the event cultural resources, TCRs, and human remains are encountered would reduce the likelihood of a significant impact in the event unanticipated discoveries may be encountered during Project activities. Additionally, having archaeological monitors and Native American monitors on-site during ground disturbing construction activities in sensitive areas would ensure the appropriate identification and treatment of inadvertent discoveries, which would further reduce any impacts to archaeological or tribal cultural resources to less than significant.

9.2.16 Visual Quality and Aesthetics

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-31.

Table 9-31. Alternative 6: Visual Quality and Aesthetics Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 6
Aesthetics Construction Impacts		
Impact AES-1: Would the project have a substantial adverse effect on a scenic vista?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact AES-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM BIO-13
	Impacts After Mitigation	LTS
Impact AES-3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vintage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Impacts Before Mitigation	PS
	Applicable Mitigation	MM AES-1
	Impacts After Mitigation	LTS
Impact AES-4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025c

AES = aesthetics
BIO = biological resources

LTS = less than significant
MM = mitigation measure
NA = not applicable

9.2.16.1 Impact AES-1: Would the project have a substantial adverse effect on a scenic vista?

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in a community. Construction of Alternative 6 would introduce visually disruptive elements in each LU, including the following:

- Light and heavy excavation
- Tunneling
- Roadway/bridge demolition and reconstruction
- Structural falsework
- Tree removal
- Soil removal/displacement
- Security fencing
- Stockpiled soil
- Stockpiled building materials
- Safety and directional signage
- Station platforms and plazas
- Ancillary facilities
- Large, heavy equipment may include cranes, bulldozers, scrapers, and trucks

Construction activities could be visible to pedestrians and motorists on adjacent streets as well as to viewers within nearby buildings. However, construction activities — while a visual nuisance — would not substantially obstruct views of the Santa Monica Mountains or San Gabriel Mountains because activities would be temporary and intermittent and limited to the immediate area. Therefore, construction of Alternative 6 would not alter views or sightlines from scenic vistas, and impacts would be less than significant.

Maintenance and Storage Facilities

Maintenance of HRT vehicles and equipment would occur at the MSF. Multiple buildings would be constructed, including a maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, and TPSS structures. These structures would be the primary visual elements of the MSF. The MSF site would be located within a heavily industrialized area, and operation of this MSF would generally fit within the context of the existing industrial character. While the MSF site would represent a visual change, it would not substantially obstruct views of the San Gabriel Mountains to the north because the built-out urban landscape already prevents clear views of the mountains. As such, views of scenic vistas as a whole would not be substantially affected.

Construction activities could be visible to pedestrians and motorists on adjacent streets, as well as to viewers within nearby buildings. However, construction activities, while a visual nuisance, would not substantially obstruct views of the Santa Monica Mountains or San Gabriel Mountains, because activities would be temporary and intermittent and limited to the immediate area. Therefore, the vertical elements proposed under the MSF would not substantially alter views or sightlines from scenic vistas, and operation of the MSF would result in a less than significant impact to scenic vistas.

9.2.16.2 Impact AES-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in a community. Construction of Alternative 6 would introduce visually disruptive elements in each LU, including the following:

- Light and heavy excavation
- Tunneling
- Roadway/bridge demolition and reconstruction
- Building demolition
- Structural falsework
- Security fencing
- Soil removal/stockpile
- Stockpiled building materials
- Safety and directional signage
- Station platforms and plazas
- Ancillary facilities
- Large, heavy equipment may include cranes, bulldozers, scrapers, and trucks

Tree removal would also occur during construction. However, MM BIO-13 would be implemented to avoid and minimize impacts related to tree removal and replacement, as discussed in the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k).

As discussed in the *Sepulveda Transit Corridor Project Visual Quality and Aesthetics Technical Report* (Metro, 2025c), no California-designated scenic highways or scenic parkways (or proposed state scenic highways or parkways) are located within the Project Study Area. However, the Alternative 6 alignment would be located underground within both the Inner Corridor and Outer Corridor of the MSPSP, and no impacts would occur within the MSPSP. Therefore, construction of Alternative 6 would not damage any scenic resources within the viewshed of a state scenic highway, and impacts would be less than significant.

Maintenance and Storage Facilities

No California-designated scenic highways or scenic parkways (or proposed state scenic highways or parkways) are located within the MSF area. Additionally, no state-designated scenic highways or City of Los Angeles-designated scenic highways are located in proximity to the MSF. Therefore, operation of the MSF would not substantially damage any scenic resources within a state scenic highway, and none of the six scenic highways designated by the City of Los Angeles would be impacted by the MSF.

Construction activities generally cause a contrast to and disruption in the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in a community. However, as discussed in the *Sepulveda Transit Corridor Project Visual Quality and Aesthetics Technical Report* (Metro, 2025c), Metro projects are not required to adhere to local zoning ordinances. Any elements that would be located on properties outside of the public ROW (e.g., station plazas and TPSS) would comply with applicable zoning and design requirements, including undergoing mandated design review where applicable and coordinating with local jurisdictions and/or other public entities during preliminary and final designs. In addition, while

Alternative 6 would add new visible structures, it is expected that visual change associated with the MSF would not be readily noticeable given the existing structures associated with I-405 and background conditions. Therefore, the MSF would not damage any scenic resources

9.2.16.3 Impact AES-3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vintage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

During the construction phase, the visual character of the alignment would change temporarily from existing conditions. Construction of the stations would require equipment such as construction barriers and sound walls, cranes, and other appurtenances that would be visible during much of the approximately 90-month construction period, which could begin as early as 2026.

Construction activities would include similar equipment to other construction projects in the city, such as high-rise buildings in urbanized areas. Certain areas may be fenced off with construction barriers and sound walls, resulting in a temporary change and contrast in visual character from the existing conditions. MM AES-1 would include temporary privacy screens to minimize impacts from construction barriers and sound walls. In addition, the designated construction areas along the alignment would experience additional truck traffic compared to existing conditions, with trucks moving materials on- and off-site, and work crews and construction equipment moving around the alignment and between the project components.

Some residents may have private views of the project construction from their windows. While residents would be highly sensitive to visual changes and would have a higher degree of personal investment in Alternative 6, visual impacts are assessed based on changes to public views.

Motorists would primarily experience views of construction activities while driving along the roadways along and adjacent to Alternative 6. In addition, drivers would have prolonged views while idling at the various traffic signals surrounding the proposed station areas. Passing drivers would notice the change in the visual character of the proposed station areas during the construction phase. However, drivers are considered to have a low sensitivity to any visual changes because they would likely be passing through the Project Study Area to reach their destinations and would not necessarily have a personal investment in the visual character or quality of the Project Study Area.

In addition, pedestrians would primarily experience views of construction activities while walking along public sidewalks, within transit stations, and near businesses that are to the proposed station areas. The change in the visual character of the alignment during the construction phase would be noticeable by these viewers. In addition, pedestrians are considered to have a moderate sensitivity to visual changes because they may be engaged in observing their surroundings.

Tourists would also potentially experience views of construction while traveling along Mulholland Drive or visiting one of the scenic overlooks along Mulholland Drive. Tourists are considered to have high sensitivity to visual changes.

Overall, construction would represent a temporary change in the visual quality and character. Project components would potentially stand out as memorable or remarkable features in the landscape due to their scale, which would have a temporary impact on visual character and quality of the Project Study Area and its surroundings compared to existing conditions. Construction activities would include similar

equipment to other construction projects in the city. Impacts from construction activities would be temporary and post-construction views of Alternative 6-related construction activities, equipment, stockpiles, and fencing would be removed once construction is completed. In addition, Alternative 6 would comply with the best management practices noted previously in Section 9.1.3, as well as the City of Los Angeles' development standards related to scenic quality during construction, which would be verified during the City of Los Angeles' permitting process. Therefore, construction of Alternative 6 would not conflict with applicable regulations governing scenic quality and would result in less than significant impacts.

Maintenance and Storage Facilities

Maintenance of HRT vehicles and equipment would occur at the MSF. Multiple buildings would be constructed, including a maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, and TPSS structures. These structures would be the primary visual elements of the MSF. The MSF site within the northern portion of LU-6 would be located within a heavily industrialized area, and operation of this MSF would generally fit within the context of the existing industrial character.

During the construction phase, the visual character would change temporarily from existing conditions. Construction of the MSF would require equipment such as construction barriers and sound walls, cranes, and other appurtenances that would be visible during the construction period.

Construction of the MSF would comply with applicable regulations governing scenic quality, including South Coast Air Quality Management District Rule 403, and would occur in an urbanized area. Rule 403 does not permit track-out dust to extend 25 feet or more beyond the active construction area and requires all track-out dirt to be removed at the end of each workday or evening shift. Construction activities would include similar equipment to other construction projects in the city, such as high-rise buildings and other aerial transportation infrastructure.

Although temporary and short-term in nature, construction activities would be a visual nuisance. However, certain areas may be fenced off with construction barriers and sound walls, resulting in a temporary change and contrast in visual character from the existing conditions. MM AES-1 would include temporary privacy screens to minimize impacts from construction barriers and sound walls. In addition, the designated construction areas along the alignment would experience additional truck traffic compared to existing conditions, with trucks moving materials on- and off-site, and work crews and construction equipment moving around the alignment and between the project components.

Some residents may have private views of the project construction from their windows. While residents would be highly sensitive to visual changes and would have a higher degree of personal investment in Alternative 6, visual impacts are assessed based on changes to public views.

Motorists would primarily experience views of construction activities while driving along the roadways along and adjacent to the MSF. In addition, drivers would have prolonged views while idling at the various traffic signals surrounding the proposed station areas. Passing drivers would notice the change in the visual character during the construction phase. However, drivers are considered to have a low sensitivity to any visual changes because they would likely be passing through the Project Study Area to reach their destinations and would not necessarily have a personal investment in the visual character or quality of the MSF area.

In addition, pedestrians would primarily experience views of construction activities while walking along public sidewalks, within transit stations, and near businesses that are to the proposed station areas. The change in the visual character during the construction phase would be noticeable by these viewers. In

addition, pedestrians are considered to have a moderate sensitivity to visual changes because they may be engaged in observing their surroundings.

Construction would represent a temporary change in the visual quality and character. Project components would potentially stand out as memorable or remarkable features in the landscape due to their scale, which would have a temporary impact on visual character and quality of the MSF area and its surroundings compared to existing conditions. Construction activities would include similar equipment to other construction projects in the city, such as mid-rise buildings in urbanized areas. Impacts from construction activities would be temporary and post-construction views of Alternative 6-related construction activities, equipment, stockpiles, and fencing would be removed once construction is completed. In addition, the MSF would comply with the best management practices noted previously in Section 9.1.2, as well as the city's development standards related to scenic quality during construction, which would be verified during the permitting process. Therefore, the MSF would not conflict with applicable regulations governing scenic quality, or substantially degrade the existing visual character or quality of public views of the site and its surroundings, and the impact would be less than significant.

9.2.16.4 Impact AES-4: Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Construction of Alternative 6 would primarily occur during daytime hours. Nighttime and weekend construction, if any, would comply with local ordinance restrictions. Such activities may include, but are not limited to, tunneling, columns and trackwork, and stockpiling materials. Construction lighting would be directed toward the construction areas and/or shielded with temporary screening to minimize light spillover and glare onto adjacent areas. In addition, construction-related illumination would be temporary and limited to safety and security purposes. Construction of Alternative 6 would not be a substantial source of light and glare because several nighttime lighting sources already exist around the construction areas (e.g., streetlights, building illumination). Therefore, construction of Alternative 6 would have less than significant impacts related to light and glare.

Maintenance and Storage Facilities

Construction of the MSF would primarily occur during daytime hours. Nighttime and weekend construction, if any, would comply with local ordinance restrictions. As part of best management practices discussed in Section 9.1.2, construction lighting would be directed toward the construction areas and/or shielded with temporary screening to minimize light spillover and glare onto adjacent areas. In addition, construction-related illumination would be temporary and limited to safety and security purposes. The implementation of best management practices would reduce temporary impacts to adjacent uses, such as the residential properties. Therefore, the MSF would have less than significant impacts related to light and glare.

9.2.16.5 Mitigation Measures

The following mitigation measures would be implemented:

MM AES-1: *Privacy screens, as applicable and appropriate, shall be placed in high visibility areas that have construction related structures or activities. Privacy screens shall be used in areas requiring tree removal activities adjacent visually sensitive areas, including but not limited to residential areas.*

MM BIO-13: ***Avoid and Minimize Construction-Related Impacts to Protected Trees and Shrubs (Applicable to Alternative 6).*** *Impacts to protected trees and shrubs shall be avoided, minimized, and/or mitigated by incorporation of the following:*

- *A Tree Expert, as defined under the City of Los Angeles Protected Tree and Shrub Ordinance, shall complete a detailed tree survey report prior to construction and once access is obtained to properties within the alignment. The report shall build upon the Initial Protected Tree and Shrub Inventory Memorandum (Attachment 2 of the Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report) and include detailed field methods and data for each protected tree or shrub, such as species, height, diameter, canopy spread, physical condition, and precise location. The City of Los Angeles Protected Tree and Shrub Ordinance has jurisdiction in the Project; therefore, a Tree Expert shall be required to conduct the detailed survey and procure permits for protected tree/shrub removal from the Los Angeles Board of Public Works. The Tree Expert's follow-up report shall expand upon the initial assessment to provide a comprehensive dataset with verification of tree/shrub species, height, canopy width, and tree/shrub health for the Ground Disturbance Area. This follow-up report shall be used to procure the required permit prior to commencement of tree impacts within the City of Los Angeles.*
- *Impacts to protected trees and shrubs shall be minimized to the maximum extent feasible. For the purposes of this measure, "feasible" is defined as the ability to avoid or minimize impacts while meeting project design, safety, and operational requirements, as determined by the Tree Expert and project engineers. When trimming and/or encroachment into the tree/shrub protection zone (defined as the dripline or canopy) is needed, the following measures shall be required.*
- *Trimming of protected trees/shrubs must comply with the pruning standards set forth by the Western Chapter of the International Society of Arboriculture and conducted in a manner that does not cause permanent damage or adversely affect the health of the trees or shrubs. Trimming shall require coordination and permitting with the appropriate entities as follows:*
  - *Species protected under the Los Angeles Protected Tree and Shrub Ordinance shall coordinate with the City of Los Angeles Board of Public Works, Urban Forestry Division.*
  - *Trees protected under the City of Los Angeles Street Tree Policy shall require coordination with the City of Los Angeles Department of Public Works, Urban Forestry Division.*
  - *Trees covered by the Metro Tree Policy shall require the Project to prepare a tree protection plan identifying Tree Protection Zones for all trees designated for retention and to prepare a mitigation plan for damaged and removed trees.*
- *For impacts to protected trees and shrubs beyond trimming, the required tree removal permits shall be obtained, and replacement shall occur at the below rates. Mitigation locations of replacement trees shall be determined through the permitting process.*
  - ***City of Los Angeles Protected Tree and Shrub Ordinance:** Protected trees and shrubs included trees of the oak genus (indigenous to California),*

western sycamore, southern California black walnut and California bay, and two shrub species (Mexican elderberry and toyon). Individual trees and shrubs shall be replaced at a 4:1 ratio by plants that are the same species of protected plant.

- ***Policy-Protected Trees:*** *All policy-protected trees, which fall under the purview of the Los Angeles Street Tree Policy or the Metro Tree Policy, shall be replaced at a ratio of 2:1. The Los Angeles Street Tree Policy allows for an in-lieu fee to be made with approval of the Board of Public Works following verification that replacement trees cannot be feasibly planted onsite. Trees under the Metro Tree Policy that are designated as heritage trees in a local ordinance shall be replaced at a 4:1 ratio with trees of the same variety.*

- *All trees occurring on private property, or Caltrans right-of-way, shall not require permitting, but shall require coordination and negotiation with property owners. Mitigation implementation shall follow Metro Tree Policy's replacement ratio of 2:1.*
- *For protected trees and shrubs that are not anticipated to be impacted, a Tree Protection Zone shall be established around each tree/shrub or cluster of trees/shrubs prior to the commencement of work. The Tree Protection Zone shall be erected using temporary fencing in an environmentally sensitive manner and remain in place until all site work has been completed. Specific installation timeframe may vary but the Tree Protection Zone must be inspected and approved by a Qualified Arborist prior to construction work including staging of equipment. Work can commence directly following arborist inspection and approval. No construction-related materials shall be stored or staged within the Tree Protection Zone (fenced areas).*
- *The LA Street Tree Policy would require coordination with the City of Los Angeles Department of Public Works for removal or maintenance of protected trees; this policy does not apply to trees within private property, UCLA, or within the Caltrans ROW. Metro Tree Policy would not require permitting but would require coordination with the landowners (e.g., private landowners, UCLA, Caltrans) when a tree must be removed. Additionally, Metro Tree Policy states a mitigation plan would be required to be developed in consultation with a Certified Arborist if construction impacts resulted in a damaged or removed tree; decisions would be made in accordance with local ordinances identifying protected trees.*

Impacts After Mitigation

During construction MM AES-1 would reduce the temporary visual nuisance of construction activities. MM BIO-13 from the *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report* (Metro, 2025k) would reduce impacts related to tree removal during construction. To the greatest extent practicable protected trees and shrubs would not be removed. When removal is unavoidable, mitigation would be implemented. No mitigation measures are required; impacts are less than significant.

9.2.17 Water Resources

Specific impacts and mitigation details related to construction are discussed below in this section for each numbered impact shown in Table 9-32.

Table 9-32. Alternative 6: Water Resources Construction Impacts Before and After Mitigation

CEQA Impact Topic		Alternative 6
Hydrology and Water Quality Operational Impacts		
Impact HWQ-1: Would the project violate any water quality standards or Waste Discharge Requirements or otherwise substantially degrade surface or groundwater quality?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would: i. result in substantial erosion or siltation on- or off-site; ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv. impede or redirect flood flows??	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-4: Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS
Impact HWQ-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Impacts Before Mitigation	LTS
	Applicable Mitigation	NA
	Impacts After Mitigation	LTS

Source: Metro, 2025g

HWQ = hydrology and water quality
LTS = less than significant
NA = not applicable

9.2.17.1 Impact HWQ-1: Would the project violate any water quality standards or Waste Discharge Requirements or otherwise substantially degrade surface or groundwater quality?

Construction of Alternative 6 involves underground and at-grade activities. Underground activities would include relocation of existing utilities, tunnel guideway construction, and station construction. At-grade activities would involve relocation of existing utilities, building MSFs, parking lots, and reconstruction of roadways with appropriate pedestrian and cyclist access. Temporary components of

Alternative 6 would include construction staging areas, office areas, and work zones at permanent facilities.

Construction activities such as demolition and excavation would temporarily expose bare soil, increasing the risk of erosion. Uncontrolled erosion and discharge of sediments and other potential pollutants, including the discharge of fill material, would affect water quality in Alternative 6 receiving waters (e.g., the Pacoima Wash, Tujunga Wash, and Los Angeles River) if not appropriately managed.

In addition to sediments, other pollutants including trash, concrete waste, and petroleum products, such as fuels, solvents, and lubricants, would degrade water quality and contribute to water pollution if not appropriately managed. The use of construction equipment and vehicles during Alternative 6 construction would result in spills of vehicle-related fluids that would contribute to water pollution if not appropriately managed. Improper handling, storage, or disposal of these materials or improper cleaning and maintenance of equipment would result in accidental spills and discharges that would contribute to water pollution.

Alternative 6 would be located within the Los Angeles Watershed and the Santa Monica Bay Watershed in the Ballona Creek subwatershed. The vast majority of land in the Los Angeles Watershed (approximately 80 percent) is developed with urban uses. Most of the Ballona Creek subwatershed drainage network has been modified into storm drains, underground culverts, and open concrete channels. A few natural channels remain in the Santa Monica Mountains and Baldwin Hills. Construction activities such as excavation near the Santa Monica Mountains and Baldwin Hills section of Alternative 6 would have the potential to impact these natural channels by contributing increased sediment/pollutants if not appropriately managed.

The construction activities for utility relocation would include demolishing existing concrete pavement and utilities, excavating trenches for new utility routing, backfilling, and reconstructing the concrete pavement. Cut-and-cover box construction involves demolishing existing structures, constructing supporting utilities, piling and decking, excavating, hauling materials, and constructing temporary roadway decking. All stations except the Wilshire Boulevard/Metro D Line Station would be constructed as cut-and-cover box structures. The groundwater depth in the vicinity of the Santa Monica Boulevard Station, UCLA Gateway Plaza Station, and the Ventura Boulevard Station, generally ranges from 40 to 310 feet bgs. The depth of excavation for these stations would vary between 140 to 255 feet bgs. There is the potential that groundwater may be encountered during excavation activities for these stations; therefore, dewatering would be required.

The sequential excavation method (SEM) would be used for constructing underground stations where surface structures cannot be demolished. SEM involves excavation, shoring, and underpinning and would be performed at the Metro E Line Station and the Wilshire/Metro D Line Station. The groundwater level in the vicinity of the Metro E Line Station varies between 30 and 40 feet bgs and between 35 and 80 feet bgs in the vicinity of Wilshire Boulevard/Metro D Line Station. The excavation would occur between 110 and 150 feet bgs for the Wilshire Boulevard/Metro D Line Station at approximately 100 feet bgs for the Metro E Line Station. There is the potential that groundwater may be encountered during excavation activities for these stations; therefore, dewatering would be required. However, project stations would be constructed with a watertight system (e.g., secant pile, slurry wall) to prevent groundwater intrusion.

The tunnel alignment would be constructed over three segments. The majority of the tunnel invert along the proposed alignment is below groundwater level. However, from Burbank Boulevard in the vicinity of the Metro G Line Station to the Van Nuys Metrolink Station, the tunnel invert is above the

groundwater level. There is the potential that groundwater may be encountered during tunnel boring activities for the areas where the tunnel invert is below groundwater level; however, dewatering is expected to be minimal during pressurized-face TBM operations for bored soft-ground and bored rock tunnel segments. Pressurized-face TBMs are designed to maintain the pressure at the tunnel face to equal or slightly higher than the surrounding groundwater pressure. This balance in pressure prevents groundwater from flowing into the tunnel excavation. As the TBM advances, it would install pre-cast concrete segments (tunnel liners) behind the shield to form the tunnel's structural lining. The tunnel liners would be fitted with waterproof gaskets at the joints to seal the tunnel and prevent groundwater intrusion. Tunneling with pressurized, closed-faced TBMs and use of tunnel liners with waterproof gaskets would minimize or eliminate groundwater intrusion into the tunnel excavations and thus reduce groundwater depletion.

The Stone Canyon vent shaft would be constructed using a vertical shaft sinking machine. The tunnel depth at the vent site would be greater than approximately 600 feet deep; therefore, removal of nuisance water as well as excavated material may be required during the excavation activities. However, shafts would be constructed with a watertight system to prevent groundwater intrusion.

If dewatering is required, dewatering activities would be conducted in compliance with the LARWQCB NPDES dewatering permits, *Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* (Order R4-2018-0125) and *Waste Discharge Requirements for Specified Discharges to Groundwater in the Santa Clara River and Los Angeles River Basins* (Order No. 93-010), as applicable. The watertight systems (e.g., secant pile, slurry wall) to be employed during station construction would minimize groundwater intrusion, and any residual impacts would be managed under the established regulatory framework. In such cases, temporary pumps and filtration systems would be used in compliance with the applicable NPDES permits. The temporary system would be required to comply with all relevant NPDES requirements related to construction and discharges from dewatering operations. Water removed from the boreholes would be containerized and analyzed to determine the proper disposal method or possible treatment and re-use on-site. The treatment and disposal of the dewatered water would occur in accordance with the requirements of NPDES Order R4-2018-0125 and Order No. 93-010, as applicable. The WDRs require that waste be analyzed prior to being discharged in order to determine if it contains pollutants in excess of the applicable Basin Plan water quality objectives. Or if possible, the dewatered water would potentially be treated and reused on-site (e.g., for dust control or cleaning equipment) rather than being disposed.

Volatile organic compounds such as TCE, PCE, petroleum compounds, chloroform, nitrate, sulfate, and heavy metals have been detected in groundwater of the San Fernando Valley groundwater basin. Although the groundwater quality in the remainder of the Project Study Area is not specifically known, it may contain elevated levels of constituents such as petroleum hydrocarbons and solvents resulting from commercial and industrial discharges, in addition to potentially elevated TDS and metals related to natural conditions. Uncontrolled discharge of groundwater carrying these potential pollutants would result in degradation of groundwater and surface water if it is not properly managed during construction activities. If groundwater containing contaminants such as VOCs, heavy metals, or petroleum hydrocarbons is encountered during dewatering activities, additional treatment or special disposal methods would be required to comply with applicable regulatory requirements and prevent contamination of receiving waters.

Alternative 6 would be required to comply with all applicable water quality protection laws and regulations at the federal, state, regional, and local levels, as well as commonly used industry standards.

These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Policies, NPDES CGP requirements, the MS4 Permit, Caltrans NPDES Statewide Stormwater Permit, and the City of Los Angeles and County of Los Angeles LID Ordinance.

Alternative 6 would be required to comply with the CGP in effect at the time of construction. In accordance with the CGP, Alternative 6 would be required to prepare and submit a construction SWPPP, which must be submitted to the SWRCB prior to construction and adhered to during construction. Proper implementation of the construction SWPPP would avoid potential impacts to water quality. The construction SWPPP would identify the BMPs that would be in place to protect water quality prior to the start of construction activities and during construction. BMP categories would include erosion control, sediment control, tracking control, wind erosion, stormwater and non-stormwater management, and materials management with regular monitoring. Although specific temporary construction-related BMPs would be selected at the time of SWPPP preparation, potential BMPs would likely include fiber rolls, bonded-fiber matrix hydroseeding, soil furrowing, water bars, and check dams for erosion control, inlet protection (sand/gravel bags and geotextiles), silt fencing, sediment traps/basins for sediment controls, soil berming around disturbed areas, and phasing of soil disturbance during the wet season (i.e., limiting widespread grading) for effectively managing erosion and pollutant discharge during significant rainfall events.

With adherence to existing laws and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or WDRs or the degradation of surface or groundwater quality during construction activities of Alternative 6 would be less than significant.

Maintenance and Storage Facilities

Maintenance of vehicles and equipment would occur at the MSF, which would include multiple buildings, including a multi-level maintenance-of-way building, track storage area, wash bays, ancillary storage buildings, and TPSS structures (Metro, 2025). The MSF would be constructed on parcels containing existing impervious surfaces and would actually increase pervious surface material on existing impervious surface. Therefore, the MSF would not increase the existing impervious surface area. The MSF design for Alternative 6 would comply with the same regulatory requirements previously described for the MSF Base Design for Alternatives 1 and 3, and applicable regulatory requirements are presented in that discussion.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to the violation of any water quality standards or WDRs or substantial degradation of surface or groundwater quality during construction of the MSF would be less than significant.

9.2.17.2 Impact HWQ-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Construction activities associated with foundations would include excavation and concrete work, installation of drilled piles, and tunneling. As previously discussed, excavations for station and other underground structures would occur at depths ranging between 60 and 255 feet and tunnel depth would range from 40 feet to 730 feet deep. Groundwater levels in the Project Study Area generally range from depths of approximately 40 to 310 feet bgs, with deeper groundwater depths occurring at the base of the Santa Monica Mountains.

The Alternative 6 alignment may encounter groundwater in shallower areas and would require the removal of nuisance water that seeps into boreholes during construction. Nuisance water and seepage encountered during construction would be removed from the boreholes, containerized, and analyzed consistent with existing applicable regulations to determine the proper disposal method or reuse on-site.

The tunnel alignment would be constructed over three segments. The majority of the tunnel invert along the proposed alignment is below groundwater level. However, from after Burbank Boulevard in the vicinity of the Metro G Line Station to the Van Nuys Metrolink Station, the tunnel invert is above the groundwater level. There is the potential for groundwater to be encountered during tunnel boring activities for the areas where the tunnel invert is below groundwater level; however, dewatering is expected to be minimal during pressurized-face TBM operations for bored soft-ground and bored rock tunnel segments. Pressurized-face TBMs are designed to maintain the pressure at the tunnel face to equal or slightly higher than the surrounding groundwater pressure. This balance in pressure prevents groundwater from flowing into the tunnel excavation. As the TBM advances, it would install pre-cast concrete segments (tunnel liners) behind the shield to form the tunnel's structural lining. The tunnel liners would be fitted with waterproof gaskets at the joints to seal the tunnel and prevent groundwater intrusion. Tunneling with pressurized, closed-faced TBMs and use of tunnel liners with waterproof gaskets would minimize or eliminate groundwater intrusion into the tunnel excavations and thus reduce groundwater depletion. In addition, project stations and shafts would be constructed with a watertight system (e.g., secant pile, slurry wall) to prevent groundwater intrusion.

Any dewatering would be limited to the construction phase only. The volume of groundwater extracted during construction would not be expected to decrease groundwater supplies. The volume of groundwater removed during construction would be monitored and documented. Therefore, construction activities are not anticipated to interfere substantially with groundwater recharge or groundwater resource supplies.

Alternative 6 would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, as well as commonly used industry standards. These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Policies, NPDES CGP, the MS4 Permit, Caltrans NPDES Statewide Stormwater Permit, and the City of Los Angeles and County of Los Angeles LID Ordinance.

Due to the limited amount of nuisance seepage water anticipated to be encountered and because most of the existing surfaces at the Alternative 6 alignment component sites are currently covered with impervious surfaces, and because Alternative 6 would result in a net increase in pervious area, construction activities are not anticipated to interfere substantially with groundwater recharge or groundwater resource supplies. Construction activities, including construction of underground structures, are not anticipated to decrease groundwater supplies such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts to groundwater supply and recharge during construction of Alternative 6 would be less than significant.

Maintenance and Storage Facilities

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts to groundwater supply and recharge during construction of the MSF would be less than significant.

9.2.17.3 Impact HWQ-3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on- or off-site

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv) impede or redirect flood flows?

Construction activities such as demolition of existing site structures and excavation for foundations would temporarily expose bare soil, which would be at increased risk for erosion. Exposed or stockpiled soils would also be at increased risk for erosion. Sediments resulting from erosion might accumulate, blocking storm drain inlets and causing downstream sedimentation. Uncontrolled erosion and discharge of sediments and other potential pollutants would be carried by stormwater runoff into storm drain inlets and would affect water quality in Alternative 6 receiving waters (e.g., Pacoima Wash, Tujunga Wash, and Los Angeles River) if not appropriately managed.

Even though Alternative 6 would result in a net decrease in impervious area, the construction of any new impervious surfaces would increase the rate of runoff, pollutant concentrations, and pollutant loading from these new impervious surfaces. Construction activities would temporarily increase the potential for stormwater to contact other construction-related contaminants creating additional sources of pollutant runoff. Additionally, placement of construction equipment and materials may temporarily impact localized drainage patterns.

Construction activities associated with Alternative 6, such as excavation near Santa Monica Mountains and Baldwin Hills, and tunneling through the Eastern Santa Monica Mountains, would temporarily impact the drainage course of these natural channels. However, any impacts to channels would be temporary and would be minimized with implementation of a SWPPP, which would help to maintain existing drainage patterns and control stormwater runoff from construction areas.

The TPSS structures, the deep vent shaft structure at Stone Canyon Reservoir, additional vent shafts, and parking facilities adjacent to stations would be constructed on parcels that currently contain existing asphalt and concrete pavement on and/or adjacent to the road ROW and surrounded by existing development and structures. Construction of the Stone Canyon Reservoir vent shaft and other ancillary facilities near the Stone Canyon Reservoir may temporarily affect the natural drainage pattern.

Drainage facilities at the westbound I-10 loop off ramp to southbound Bundy Drive and the drainage facilities along the station box section of Santa Monica Boulevard would be impacted by Alternative 6. Placement of construction equipment and materials may temporarily affect existing drainage patterns.

To address these temporary impacts, Alternative 6 would implement runoff control measures and pollution prevention practices in compliance with the construction SWPPP to control runoff rates/amounts and the discharge of potential pollutants. Existing drainage systems would be modified where applicable and the existing drainage patterns would be maintained as much as possible and monitored throughout construction. In addition, drainage facilities would be replaced in kind at the end

of the construction activities. At curb inlets on Santa Monica Boulevard, trash collection devices would be installed as part of water quality features of Alternative 6.

Alternative 6 would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, as well as commonly used industry standards. These include the CWA, Porter-Cologne Water Quality Control Act, State of California Antidegradation Polices, NPDES CGP regulations, Caltrans NPDES Statewide Stormwater Permit, Basin Plan, City of Los Angeles Municipal Code, the City of Los Angeles and County of Los Angeles LID Ordinance, and all other applicable regulations for all construction activities.

In accordance with the CGP, Alternative 6 would be required to prepare and submit a construction SWPPP, which must be submitted to the SWRCB prior to construction, and adhered to during construction. Proper implementation of the construction SWPPP would avoid potential impacts to water quality. The construction SWPPP would identify the BMPs that would be in place to protect water quality prior to the start of construction activities and during construction. BMP categories would include erosion control, sediment control, non-stormwater management, and materials management BMPs. Although specific temporary construction-related BMPs would be selected at the time of SWPPP preparation, potential BMPs would likely include fiber rolls, bonded-fiber matrix hydroseeding, soil furrowing, water bars, and check dams for erosion control, inlet protection (sand/gravel bags and geotextiles), silt fencing, sediment traps/basins for sediment controls, soil berming around disturbed areas, and phasing of soil disturbance during the wet season (i.e., limiting widespread grading) for effectively managing erosion and pollutant discharge during significant rainfall events.

Construction activities would temporarily impact localized drainage patterns; however, these impacts would not substantially increase the rate or volume of stormwater flows. Construction activities would comply with all applicable federal and local floodplain regulations, including the *Los Angeles County Comprehensive Floodplain Management Plan*. Furthermore, implementation of runoff control measures and pollution prevention practices would control stormwater runoff from construction areas and would minimize construction-related flooding impacts, erosion, and pollutant discharge.

With adherence to existing laws and regulations and proper implementation of stormwater compliance requirements, potential impacts related to substantial erosion or siltation, a substantial increase in the rate or amount of surface runoff resulting in flooding, creation of runoff that would exceed drainage system capacity or provide additional sources of polluted runoff, or impede or redirect flood flows during construction of Alternative 6 would be less than significant.

Maintenance and Storage Facilities

The MSF would comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, as well as commonly used industry standards.

Construction activities would comply with all applicable federal and local floodplain regulations. Any impacts to existing drainage patterns would be temporary. Implementation of runoff control measures and pollution prevention practices in compliance with the construction SWPPP would control stormwater runoff from the MSF construction areas to minimize construction-related flooding impacts, erosion, and the discharge of potential pollutants, including sedimentation/siltation.

With adherence to existing regulations and proper implementation of stormwater compliance requirements, potential impacts related to substantial erosion or siltation, a substantial increase in the rate or amount of surface runoff that would cause flooding, creation of runoff that would exceed

drainage system capacity or provide additional sources of polluted runoff, or impede or redirect flood flows during construction of the MSF would be less than significant.

9.2.17.4 Impact HWQ-4: Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The majority of the Alternative 6 alignment would be constructed outside of the FEMA-designated 100-year floodplain and would be in an inland area that is not in proximity to the ocean; therefore, the risk of inundation by a tsunami is considered low.

Given the distance of Alternative 6 from the Encino Reservoir and Stone Canyon Reservoir, any oscillation and subsequent release of water in the reservoirs as part of a seiche would not inundate Alternative 6. Therefore, there would be low potential for risk of release of pollutants due to inundation by seiche.

Construction activities during construction of the Stone Canyon Reservoir vent shaft and other ancillary facilities near the Stone Canyon Reservoir may temporarily increase the potential for a release of construction-related pollutants during inundation. However, the risk related to flooding would be considered low as the Alternative 6 alignment would extend along well-developed areas that maintain storm drainage and water runoff control.

The Alternative 6 alignment would not result in impacts to the hydrology, hydraulics, and connectivity of natural watercourses, including floodways. Alternative 6 would not alter the ability of floodways to convey the 100-year flows and there would be negligible change to the floodplain extents.

Alternative 6 would have no impacts related to risk of release of pollutants due to inundation by flood, tsunami, or seiche, and potential impacts during construction would be less than significant.

Maintenance and Storage Facilities

The MSF would be located outside of the FEMA-designated 100-year floodplain and would be in an inland area that is not in proximity to the ocean; therefore, the risk of inundation by a tsunami is considered low.

Given the distance of the MSF construction site from the Encino Reservoir and Stone Canyon Reservoir, any oscillation and subsequent release of water in the reservoirs as part of a seiche would not inundate the MSF. Therefore, there would be low potential for risk of release of pollutants due to inundation by seiche.

The Los Angeles River and Ballona Creek are the major flood control measures for draining stormwater from the Project Study Area and directing it safely to the San Pedro Bay and Santa Monica Bay, respectively. The risk related to flooding would be considered low as the MSF is within a well-developed area that maintains storm drainage and water runoff control.

Construction of the MSF would not result in impacts to the hydrology, hydraulics, and connectivity of natural watercourses, including floodways.

The MSF would have no impacts related to risk of release of pollutants due to inundation by flood, tsunami, or seiche, and potential impacts during construction or operation of the MSF would be less than significant.

9.2.17.5 Impact HWQ-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Construction of the Alternative 6 components would be conducted in several phases, including site preparation and installation of foundations and columns; erection of stations; construction of tunnels; and construction of ancillary components, including replacement or restoration of paving, sidewalk, and landscaping.

Construction of Alternative 6 has the potential to impact the water quality of downstream receiving waters if applicable and appropriate BMPs are not implemented. Construction activities such as demolition of existing site structures and excavation for foundations would temporarily expose bare soil and would temporarily increase erosion. Exposed or stockpiled soils would also be at increased risk for erosion. Uncontrolled erosion and discharge of sediments and other potential pollutants would affect water quality in Alternative 6 receiving waters (e.g., the Pacoima Wash, Tujunga Wash, and Los Angeles River) if not appropriately managed by proper implementation of the construction SWPPP.

In addition to sediments, other pollutants including trash, concrete waste, and petroleum products (e.g., heavy equipment fuels, solvents, and lubricants) would contribute to stormwater pollution if not appropriately managed. The use of construction equipment and other vehicles during Alternative 6 construction would result in spills of oil, brake fluid, grease, antifreeze, or other vehicle-related fluids, which would contribute to water quality impacts if not appropriately managed. Improper handling, storage, or disposal of fuels and vehicle-related fluids or improper cleaning and maintenance of equipment would result in accidental spills and discharges that would contribute to water pollution.

Nuisance groundwater may be encountered during installation of piles for each of the components, which may result in degradation of groundwater quality if not addressed properly. Additionally, potentially impacted groundwater may result in degradation of surface water if it is not properly managed during construction activities. Although construction activities are not anticipated to interfere substantially with groundwater recharge, groundwater resource supplies, or groundwater quality, any accidental interference would be handled in accordance with applicable federal, state, regional, and local laws and regulations, groundwater management plans, and WDRs for groundwater discharge.

As discussed previously, Alternative 6 would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, and water quality control and/or sustainable groundwater management plans, including the Basin Plan, as well as commonly used industry standards. Alternative 6 would comply with the Caltrans NPDES Statewide Stormwater Permit; the NPDES CGP; the MS4 Permit; the City of Los Angeles and County of Los Angeles LID Ordinance; the City of Los Angeles Municipal Code, and all other applicable regulations for all construction activities.

In accordance with the CGP, Alternative 6 would be required to implement a construction SWPPP, which must be submitted to the SWRCB prior to construction and adhered to during construction. Proper implementation of the construction SWPPP would avoid potential impacts to water quality. The construction SWPPP would identify the BMPs that would be in place to protect water quality prior to the start of construction activities and during construction Alternative 6. The BMP categories would include erosion control, sediment control, non-stormwater management, and materials management BMPs. Although specific temporary construction-related BMPs would be selected at the time of SWPPP preparation, potential BMPs would likely include fiber rolls, bonded-fiber matrix hydroseeding, soil furrowing, water bars, and check dams for erosion control, inlet protection (sand/gravel bags and geotextiles), silt fencing, sediment traps/basins for sediment controls, soil berming around disturbed

areas, and phasing of soil disturbance during the wet season (i.e., limiting widespread grading) for effectively managing erosion and pollutant discharge during significant rainfall events.

With adherence to existing laws and regulations and with proper implementation of stormwater compliance requirements, potential impacts related to conflict with implementation of a water quality control plan or sustainable groundwater management plan during construction of Alternative 6 would be less than significant.

Maintenance and Storage Facilities

The MSF would be required to comply with all applicable federal, state, regional, and local agency water quality protection laws and regulations, and water quality control and/or sustainable groundwater management plans. The MSF would not be expected to result in a decrease in groundwater supplies or interfere substantially with groundwater recharge to the extent that the MSF may impede sustainable groundwater management of the basin. Dewatering would be limited to the construction phase only. Extracting large volumes of groundwater that would decrease groundwater supplies would not be expected during construction.

With adherence to existing regulations and with proper implementation of stormwater compliance requirements, potential impacts related to conflict with implementation of a water quality control plan or sustainable groundwater management plan during construction of the MSF would be less than significant.

9.2.17.6 Mitigation Measures

Construction Impacts

No mitigation measures are required with adherence to all existing local, regional, and federal regulations, guidelines, and standards. As such, all water-related impacts are less than significant.

Impacts After Mitigation

No mitigation measures are required; impacts are less than significant.

10 PREPARER OF THE TECHNICAL REPORT

Name	Title	Experience (Years)
Katherine Lee	Transportation Planner	12

11 REFERENCES

Bell, A. 2023. Paleontological Record Search for the Sepulveda Corridor Transit Project. *Natural History Museum of Los Angeles County*.

California Department of Conservation (DOC). 2022. *California Important Farmland Finder.* maps.conservation.ca.gov/DLRP/CIFF/. Accessed April 3, 2024.

California Department of Forestry and Fire Protection (CAL FIRE). 2017. Skirball Fire. fire.ca.gov/incidents/2017/12/6/skirball-fire/. Accessed Jan 23, 2025.

California Department of Forestry and Fire Protection (CAL FIRE). 2019. 2019 Incidents. fire.ca.gov/incidents/2019. Accessed April 9, 2024.

California Department of Forestry and Fire Protection (CAL FIRE). 2025a. Palisades Fire. fire.ca.gov/incidents/2025/1/7/palisades-fire. Accessed Jan 23, 2025.

California Department of Forestry and Fire Protection (CAL FIRE). 2025b. Sepulveda Fire. fire.ca.gov/incidents/2025/1/23/sepulveda-fire. Accessed Jan 23, 2025.

California Department of Industrial Relations. 2023. California Occupational Safety and Health Program (Cal/OSHA) Guidance for Construction Employers. dir.ca.gov/dosh/construction-guide-summary.html. Accessed April 19, 2024.

California Department of Industrial Relations. 2024. Department of Industrial Relations – Office of Director, Title 8 regulations. dir.ca.gov/samples/search/query.htm. Accessed April 19, 2024.

California Department of Transportation (Caltrans). 2017. *Construction Site Best Management Practices (BMP) Manual*. dot.ca.gov/-/media/dot-media/programs/construction/documents/environmental-compliance/csbmp-may-2017-final.pdf.

California Department of Transportation (Caltrans). 2024. *California Manual on Uniform Traffic Control Devices, Revision 8*. January 11. dot.ca.gov/programs/safety-programs/camutcd. Accessed August 2023 and April 2024.

California Energy Commission (CEC). 2021. *California's Oil Refineries*. energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/californias-oil-refineries. Accessed July 2, 2024.

California Geological Survey (CGS). 2021. Updated Mineral Resource Zones for Portland Cement Concrete Aggregate in the San Fernando Valley and Saugus-Newhall Production-Consumption Regions. conservation.ca.gov/cgs/Documents/Publications/Special-Reports/SR_254-MLC-SanFernandoValleySaugusNewhallPCR-2021-Plate01-MRZs-a11y.pdf.

Campbell, R. H., C. J. Wills, P. J. Irvine, and B. J. Swanson. 2014. Preliminary geologic map of the Los Angeles 30' x 60' quadrangle, California: Version 2.0 [Superseded by Campbell and others, 2014, California Geological Survey, Preliminary Geologic Maps Version 2.1], California Geological Survey, series unknown, 1:100,000.

City of Los Angeles. 2023a. Zone Information and Map Access System (ZIMAS). Available at: zimas.lacity.org/.

City of Los Angeles. 2023b. *City of Los Angeles Base Emergency Operations Plan*. emergency.lacity.gov/sites/g/files/wph1791/files/2023-10/Emergency%20Operations%20Base%20Plan_2023.pdf.

City of Los Angeles Department of City Planning (DCP). 1999. *West Los Angeles Community Plan.* July 27. planning.lacity.gov/odocument/f6f2e01c-7383-4e75-8547-7ac98810a917/West_Los_Angeles_Community_Plan.pdf.

City of Los Angeles Department of City Planning (DCP). 2006. *Van Nuys Airport Plan*. January. lawa.org/-/media/lawa-web/environment/files/vny-master-plan-with-alt-j-map.ashx. Accessed May 24, 2023.

City of Los Angeles Department of City Planning (DCP). 2016. *Mobility Plan 2035, An Element of the City of Los Angeles General Plan*. September 7. planning.lacity.gov/odocument/523f2a95-9d72-41d7-aba5-1972f84c1d36/Mobility_Plan_2035.pdf.

City of Los Angeles Department of City Planning (DCP). 2019. *Citywide Design Guidelines*. planning.lacity.org/odocument/f6608be7-d5fe-4187-bea6-20618eec5049/Citywide_Design_Guidelines.pdf.

City of Los Angeles Department of Water and Power (LADWP). 2020. *Urban Water Management Plan – Mid-Valley Water Facility Project*. ladwp.com/community/construction-projects/east-valley/mid-valley-water-facility-project. July 18, 2024.

Farmer, A.M. 1993. The Effects of Dust on Vegetation — A Review. *Environmental Pollution* 79:63-75.

Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual*. September.

ICF. 2022a. Sepulveda Environmental Data Resources (EDR) Alternative 1-3. Prepared for the Los Angeles County Metropolitan Transportation Authority (Metro). December 23.

ICF. 2022b. Sepulveda Environmental Data Resources (EDR) Alternative 4-5. Prepared for the Los Angeles County Metropolitan Transportation Authority (Metro).

ICF. 2023. Sepulveda Environmental Data Resources (EDR) Alternative 6. Prepared for the Los Angeles County Metropolitan Transportation Authority (Metro).

Imlay, R. W. 1963. "Jurassic Fossils from Southern California." *Journal of Paleontology*, 37(1):97-101, pl. 14.

Los Angeles County Airport Land Use Commission (ALUC). 2003a. *Van Nuys Airport Influence Area.* May 13. case.planning.lacounty.gov/aluc/airports#anc-apm. Accessed May 24, 2023.

Los Angeles County Airport Land Use Commission (ALUC). 2003b. *Santa Monica Municipal Airport Influence Area*. May 13. case.planning.lacounty.gov/aluc/airports#anc-apm. Accessed May 24, 2023.

Los Angeles County Airport Land Use Commission (ALUC). 2023. A-NET Interactive geographical information system (GIS) Map. lacounty.maps.arcgis.com/apps/webappviewer/index.html. Accessed May 24, 2023.

Los Angeles County Department of Regional Planning (LA County Planning). 1991. Los Angeles County Airport Land Use Plan. Amended October 2004. planning.lacounty.gov/wp-content/uploads/2022/10/Los-Angeles-County-Airport-Land-Use-Plan.pdf.

Los Angeles County Metropolitan Transportation Authority (Metro). 2008. *Measure R Expenditure Plan*. Amended July. metro.net/about/measure-r/, dropbox.com/scl/fi/jzu11yppo8g1eeh16nzcl/2009-MeasureR-expenditure-plan.pdf.

Los Angeles County Metropolitan Transportation Authority (Metro). 2011. *Green Construction Policy*. July 21. libraryarchives.metro.net/DB_Attachments/BP-Links/policy-2011-07-28-green-construction-policy.pdf.

Los Angeles County Metropolitan Transportation Authority (Metro). 2016. *Measure M Los Angeles County Traffic Improvement Plan. Attachment A, Measure M Expenditure Plan.* libraryarchives.metro.net/dpgtl/MeasureM/201609-proposed-ordinance-16-01-county-traffic%20improvement-plan.pdf.

Los Angeles County Metropolitan Transportation Authority (Metro). 2019. *Sepulveda Transit Corridor Project Final Feasibility Report*. November. libraryarchives.metro.net/dpgtl/pre-eir-eis-reports-and-studies/sepulveda-transit-corridor/2019-sepulveda-transit-corridor-final-feasibility-report.pdf.

Los Angeles County Metropolitan Transportation Authority (Metro). 2020. *Long Range Transportation Plan (LRTP).* metro.net/about/plans/long-range-transportation-plan/.

Los Angeles County Metropolitan Transportation Authority (Metro). 2021. *Sepulveda Transit Corridor Project Notice of Preparation.* November 30, 2021. ceqanet.opr.ca.gov/2021110432. Accessed October 1, 2024.

Los Angeles County Metropolitan Transportation Authority (Metro). 2023. *Sepulveda Transit Corridor Project Final Draft Geotechnical Design Memorandum.*

Los Angeles County Metropolitan Transportation Authority (Metro). 2024a. *Sepulveda Transit Corridor Alternative 2 Update*. July 3. boardarchives.metro.net/BoardBox/2024/240703_Sepulveda_Transit_Corridor_Alternative_2_Update.pdf.

Los Angeles County Metropolitan Transportation Authority (Metro). 2024b. *Sepulveda Transit Corridor Project Detailed Geotechnical Exploration Plan*.

Los Angeles County Metropolitan Transportation Authority (Metro). 2024c. *Sepulveda Transit Corridor Project Preliminary Geotechnical Design and Data Report.*

Los Angeles County Metropolitan Transportation Authority (Metro). 2025a. *Sepulveda Transit Corridor Project Transportation Technical Report*.

Los Angeles County Metropolitan Transportation Authority (Metro). 2025b. *Sepulveda Transit Corridor Project Communities and Neighborhoods Technical Report.*

Los Angeles County Metropolitan Transportation Authority (Metro). 2025c. *Sepulveda Transit Corridor Project Visual Quality and Aesthetics Technical Report.*

Los Angeles County Metropolitan Transportation Authority (Metro). 2025d. *Sepulveda Transit Corridor Project Climate Change and Greenhouse Gas Emissions Technical Report.*

Los Angeles County Metropolitan Transportation Authority (Metro). 2025e. *Sepulveda Transit Corridor Project Growth Inducing Impacts Technical Report*.

Los Angeles County Metropolitan Transportation Authority (Metro). 2025f. *Sepulveda Transit Corridor Project Air Quality Technical Report*.

Los Angeles County Metropolitan Transportation Authority (Metro). 2025g. *Sepulveda Transit Corridor Project Water Resources Technical Report*.

Los Angeles County Metropolitan Transportation Authority (Metro). 2025h. *Sepulveda Transit Corridor Project Land Use and Development Technical Report*.

Los Angeles County Metropolitan Transportation Authority (Metro). 2025i. *Sepulveda Transit Corridor Project Real Estate and Acquisitions Technical Report*.

Los Angeles County Metropolitan Transportation Authority (Metro). 2025j. *Sepulveda Transit Corridor Project Noise and Vibration Technical Report*.

Los Angeles County Metropolitan Transportation Authority (Metro). 2025k. *Sepulveda Transit Corridor Project Ecosystems and Biological Resources Technical Report*.

Los Angeles County Metropolitan Transportation Authority (Metro). 2025l. *Sepulveda Transit Corridor Project Geotechnical, Subsurface, Seismic, and Paleontological Technical Report*.

Los Angeles County Metropolitan Transportation Authority (Metro). 2025m. *Sepulveda Transit Corridor Project Hazards and Hazardous Materials Technical Report*.

Los Angeles County Metropolitan Transportation Authority (Metro). 2025n. *Sepulveda Transit Corridor Project Cultural Resources and Tribal Cultural Resources Technical Report*.

Los Angeles County Metropolitan Transportation Authority (Metro). 2025o. *Sepulveda Transit Corridor Project Safety and Security Technical Report*.

Los Angeles County Metropolitan Transportation Authority (Metro). 2025p. *Sepulveda Transit Corridor Project Energy Technical Report*.

Los Angeles County Metropolitan Transportation Authority (Metro). 2025q. *Sepulveda Transit Corridor Project Parklands Technical Report*.

National Park Service (NPS). 2004-2019. Vegetation Mapping Inventory Project for Santa Monica Mountains National Recreation Area. *irma.nps.gov/DataStore/Reference/Profile/2177190*. Accessed December 14, 2023.

National Park Service (NPS). 2017. Wildland Fire Behavior. Last update February 17. *nps.gov/articles/wildland-fire-behavior.htm*. Accessed May 8, 2023.

Santa Monica Mountains Comprehensive Commission. 1979. *Santa Monica Mountains Comprehensive Plan.* Adopted February 1979; Revised for submission to the Secretary of the Interior, August 1979. *smmc.ca.gov/wp-content/uploads/2020/04/SMM-Comprehensive-Plan.pdf*.

Sawyer, J. O., K. Keeler-Wolf, and J. M. Evens. 2009. *A Manual of California Vegetation*. 2nd Edition. California Native Plant Society. *cnps.org/vegetation*. Accessed July 20, 2023.

Society of Vertebrate Paleontology (SVP). 1995. Assessment and mitigation of adverse impacts to nonrenewable paleontologic resources: standard guidelines. Society of Vertebrate Paleontology News Bulletin 163:22-27.

South Coast Air Quality Management District (SCAQMD). 2008. *Interim CEQA Greenhouse Gas (GHG) Significance Threshold for Stationary Sources, Rules and Plans*. December 5. *aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf*.

Southern California Association of Governments (SCAG). 2020a. *Connect SoCal, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).* September 3. scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf.

Southern California Association of Governments (SCAG). 2020b. *Connect SoCal, 2020-2045 RTP/SCS Final Connect SoCal Project List Technical Report.* scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_project-list_0.pdf.

Southern California Association of Governments (SCAG). 2021a. *Final 2021 Federal Transportation Improvement Program Technical Appendix*. Volume II of III. March. scag.ca.gov/sites/main/files/file-attachments/f2021-ftip-technical-appendix.pdf.

Southern California Association of Governments (SCAG). 2021b. Final 2021 Federal Transportation Improvement Program. Consistency Amendment #21-05 to the 2020 Connect SoCal (2020 RTP/SCS) Amendment #1. scag.ca.gov/sites/main/files/file-attachments/21-05-la-finalcomparison.pdf.

Southern California Association of Governments (SCAG). 2024a. *Connect SoCal, 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy.* April 4. scag.ca.gov/sites/main/files/file-attachments/23-2987-connect-socal-2024-final-complete-040424.pdf.

Southern California Association of Governments (SCAG). 2024b. *Connect SoCal, 2024-2050 RTP/SCS Final Connect SoCal Project List Technical Report.* April 4. scag.ca.gov/sites/main/files/file-attachments/23-2987-tr-project-list-final-040424.pdf.

U.S. Department of Agriculture, Forest Service (USDA). 2023. Forests and Grassland Map. fs.usda.gov/mapfinder/.

U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA). 2023. National Pipeline Mapping System (NPMS) Public Viewer. pvnpms.phmsa.dot.gov/PublicViewer/. Accessed June 14, 2023.

U.S. Environmental Protection Agency (EPA). 2023. *U.S. Ecology Nevada Inc.* epa.gov/pcbs/us-ecology-nevada-inc#about. Accessed June 7, 2023.

Attachment 1. Alternatives 1 and 3: Construction Methodology and Sequencing (Monorail)

Attachment 2. Alternative 4: Construction Methodology and Sequencing (Heavy Rail with Automated Train Operations)

Attachment 3. Alternative 5: Construction Methodology and Sequencing (Heavy Rail with Automated Train Operations)

Attachment 4. Alternative 6: Construction Methodology and Sequencing (Heavy Rail with Driver-Operated Train)