4.16 TRANSPORTATION

This chapter describes the potential impacts to the transportation system associated with the adoption and implementation of the proposed project. The impact discussion examines the vehicular, transit, bicycle, and pedestrian components of the city's overall transportation system in the Environmental Impact Report (EIR) Study Area, which includes the Downtown Precise Plan Area.

The proposed General Plan 2040 includes transportation policies related to taking a leadership role in developing regional transportation solutions, sustaining an efficient network that provides mobility and accessibility, reducing greenhouse gas (GHG) emissions and vehicle miles traveled (VMT), supporting high-quality affordable transit, providing safe streets that connect the community, encouraging walking and bicycling as safe ways to travel, and managing parking to meet future needs while supporting the City's goal of a more sustainable transportation system.

The transportation impact analysis is based on data and information collected in 2019 plus analysis performed to test alternatives and develop the final project description for environmental review. The 2019 data represents baseline conditions for the purpose of the transportation impact analysis. Impacts are determined based on long-term growth from 2019 to 2040.

The COVID-19 pandemic has dramatically changed the demand for travel in the Bay Area since March 2020. The effects of the initial shutdown (March 2020) were a significant decline in VMT and transit ridership, resulting in significant cuts to transit service levels. VMT has increased over time and is approaching pre-pandemic levels, but transit ridership levels have increased at a slower pace. The existing conditions described in this section were based on data collected in spring 2019 prior to the onset of the pandemic. The forecasts for year 2040 conditions are based on regional forecasts prepared by the Association of Bay Area Governments (ABAG) and were not adjusted to reflect any lasting effects of COVID-19 on travel. It is ABAG's belief at this time that the current pandemic would have an impact on the economy over the next few years but not in the long term.

The VMT analysis in this chapter, a primary California Environmental Quality Act (CEQA) transportation metric, is based on buildout of the proposed project, as modeled using the Transportation Authority of Marin Demand Model (TAMDM). For this effort, the 2015 base year for TAMDM was updated and validated for a new 2019 base year for the City of San Rafael (City) to be consistent with the data collected for this evaluation. This analysis includes a 2040 No Project scenario that is based on the TAMDM horizon year and a 2040 Plus Project scenario that reflects land use changes and transportation improvements consistent with the proposed project.

4.16.1 ENVIRONMENTAL SETTING

4.16.1.1 TERMINOLOGY

The following are definitions for terms used in this chapter.

- Vehicle Miles Traveled (VMT). A measure of network use or efficiency that accounts for the number of daily vehicle trips generated times the length or distance of those trips. VMT is generally expressed as

VMT per capita for a typical weekday. For instance, the 2013 average daily residential VMT per capita for the nine county Bay Area region was 15.3 miles per person per day.1

- Greenhouse gases (GHG). Gases in the atmosphere that absorb infrared light, thereby retaining heat in the atmosphere and contributing to a greenhouse effect

4.16.1.2 REGULATORY FRAMEWORK

This section summarizes key federal, state, regional, and local regulations and programs related to GHG emissions resulting from the proposed project.

Federal Regulations

Applicable federal regulations pertaining to transportation are addressed in other chapters of this EIR, including Chapter 4.3, Air Quality, Chapter 4.8, Greenhouse Gas Emissions, and Chapter 4.9, Hazards and Hazardous Materials. The federal Clean Air Act, the Fixing America's Surface Transportation Act, and Americans with Disabilities Act may have some relevance or influence for individual projects or actions as part of potential future projects in the EIR Study Area.

State Regulations

Senate Bill (SB) 743

With the passage of SB 743 (September 2013) and the subsequent adoption of revised CEQA Guidelines in (December 2019, level of service can no longer be used as a criterion for identifying significant transportation impacts for most projects under CEQA. Level of service is the measure of the average amount of delay experienced by vehicle drivers at an intersection or along a road segment during the most congested time of day, while the new CEQA metric (VMT) measures the total number of daily miles traveled by vehicles on the roadway network and thereby the impacts on the environment from those miles traveled. Level of service is a measure of local vehicle congestion at an intersection or on a road segment and VMT is a measure of the total miles of vehicle travel measured at an area-wide or project-level scale. In other words, SB 743 changed the focus of transportation impact analysis in CEQA from measuring quality-of-life impacts *to* drivers, to measuring the physical impacts on the environment *of* driving. Land use projects with one or more of the following characteristics would have lesser VMT impacts:

- Higher land use densities
- Mix of project uses
- Support of a citywide jobs-housing balance (i.e., provide housing in a job rich area, or vice versa)
- Proximity to the core of a region
- Proximity to high quality transit service
- Located in highly walkable or bikeable areas

[1] Source: Metropolitan Transportation Commission (MTC) Travel Model One.

This shift in transportation impact criteria is expected to better align transportation impact analysis and mitigation outcomes with the State's goals to reduce GHG emissions, encourage infill development, and improve public health through more active transportation. Specific to SB 743, Section 15064.3(c) of the revised Guidelines states that, "a lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide." However, CEQA Section 21099(b)(2) states that, "upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the Guidelines."

Although the Governor's Office of Planning and Research (OPR) provides recommendations for adopting new VMT analysis guidelines, lead agencies have the final say in designing their methodology. Lead agencies must select their preferred method of estimating and forecasting VMT, their preferred significance thresholds for baseline and cumulative conditions, and the mitigation strategies they consider feasible. Lead agencies must prove that their selected analysis methodology aligns with SB 743's goals to promote infill development, reduce GHGs, and reduce VMT.

California Complete Streets Act, AB 1358 (States of 2008)

The California Complete Streets Act requires the legislative body of a city or county, upon revision of the circulation element of their general plan (after January 1, 2011), to identify how the jurisdiction will provide for the routine accommodation of all users of the roadway (i.e., complete streets) including motorists, pedestrians, bicyclists, individuals with disabilities, seniors, and users of public transportation. San Rafael's existing General Plan 2020 was previously amended and meets this requirement.

California Department of Transportation

Caltrans is responsible for operating and maintaining the State highway system. In the Project vicinity, US-101 and I-580 fall under Caltrans jurisdiction. Caltrans provides administrative support for transportation programming decisions made by the California Transportation Commission for State funding programs. The State Transportation Improvement Program is a multiyear capital improvement program that sets priorities and funds transportation projects envisioned in long-range transportation plans.

Transportation Impact Study Guide

The TISG replaces the Guide for the *Preparation of Traffic Impact Studies* for use with local development projects and went into effect July 1, 2020. The TISG was prepared by Caltrans to provide guidance to lead agencies regarding Caltrans review of a land use project or plan's transportation analysis using a VMT metric. This guidance is not binding and is intended to be a reference and informational document.

Deputy Directive DD-64-R1 – Complete Streets – Integrating the Transportation System

Caltrans provides for the needs of travelers of all ages and abilities in all programming, planning, design, construction, operations, and maintenance activities and products on the State highway system. Caltrans views all transportation improvements as opportunities to improve safety, access, and mobility for all

travelers in California and recognizes bicycles, pedestrians, and transit modes as integral elements of the transportation system.

Caltrans develops multimodal projects in balance with community goals, plans, and values. Implicit in these objectives is addressing the safety and mobility needs of bicyclists, pedestrians, and transit users in all projects, regardless of funding. Bicycle, pedestrian, and transit travel is facilitated by creating "complete streets," beginning early in the system planning process and continuing through project delivery and maintenance and operations.

California Public Utilities Commission

The California Public Utilities Commission sets guidelines for interactions between railroad facilities and ground transportation facilities. This includes location and type of crossing guards, design of railroad crossings, and other design criteria in and around railroad facilities. The guidelines come in the form of general orders.

General Order NO. 75-D – Regulations Governing Standards for Warning Devices for At-Grade Highway-Rail Crossings in the State of California.

The general order provides regulations that govern the standards for warning devices for at-grade highway-rail crossings for motor vehicles, pedestrians, and/or bicycles. All warning devices shall be in substantial conformance with the applicable Standards, Guidance and Options set forth in the Manual on Uniform Traffic Control Devices adopted by Caltrans.

Regional Plans and Regulations

Plan Bay Area

As discussed in Chapter 4, Environmental Analysis, of this Draft EIR, *Plan Bay Area* is the Regional Transportation Plan (RTP)/Sustainable Community Strategy (SCS), as mandated by the Sustainable Communities and Climate Protection Act (Senate Bill 375). *Plan Bay Area* lays out a development scenario for the nine-county Bay Area that works to align transportation and land use planning in order to reduce VMT through modified land use patterns. The current *Plan Bay Area* projects growth and development patterns through 2040 and is currently being updated to extend to 2050.

As described in Chapter 4, Environmental Analysis, part of the implementing framework for *Plan Bay Area*, local governments have identified Priority Development Areas (PDAs) and Transit Priority Areas (TPAs) to focus growth. PDAs are areas along transportation corridors which are served by public transit that allow opportunities for development of transit-oriented, infill development within existing communities that are expected to host the majority of future development. TPAs are similar in that they are formed within one-half mile around a major transit stop such as a transit center or rail line. Overall, over two-thirds of all regional growth by 2040 is allocated to PDAs and TPAs. As shown on Figure 4-1, the EIR Study Area has three PDAs and three TPAs. The PDAs include the North San Rafael PDA, Civic Center Smart Station TPA, Southeast San Rafael / Canal PDA, Downtown San Rafael SMART Station PDA and TPA, and a very small

portion of the Larkspur TPA. General Plan 2040 is anticipating that these areas will absorb most of the City's future growth.

Bay Area Clean Air Plan

As described in Chapter 4.3, Air Quality, of this Draft EIR, the Bay Area Air Quality Management District (BAAQMD) adopted the 2017 *Clean Air Plan: Spare the Air, Cool the Climate* (Clean Air Plan) on April 19, 2017. The 2017 Clean Air Plan also lays the groundwork for reducing GHG emissions in the Bay Area to meet the state's 2030 GHG reduction target and 2050 GHG reduction goal. It also includes a vision for the Bay Area in a postcarbon year 2050 that encompasses the following:

- Walk, bicycle, and use public transit for the majority of trips and use electric-powered autonomous public transit fleets.
- Incubate and produce clean energy technologies.

A comprehensive multipollutant control strategy has been developed to be implemented in the next three to five years to address public health and climate change and to set a pathway to achieve the 2050 vision. The control strategy includes 85 control measures to reduce emissions of ozone, particulate matter, toxic air contaminants, and GHG from a full range of emission sources. These control measures cover eight sectors that contribute to GHG emissions, including transportation. The control strategy includes the following relevant priorities related to the transportation sector:

- Decrease demand for fossil fuels (gasoline, diesel, and natural gas).
- Increase efficiency of the energy and transportation systems.
- Reduce demand for vehicle travel and high-carbon goods and services.
- Electrify the transportation and building sectors.

Bay Area Commuter Benefits Program

Under Air District Regulation 14, Model Source Emissions Reduction Measures, Rule 1, Bay Area Commuter Benefits Program, employers with 50 or more full-time employees within the BAAQMD are required to register and offer commuter benefits to employees. In partnership with the BAAQMD and the MTC, the rule's purpose is to improve air quality, reduce GHG emissions, and decrease the Bay Area's traffic congestion by encouraging employees to use alternative commute modes, such as transit, vanpool, carpool, bicycling, and walking. The benefits program allows employees to choose from one of four commuter benefit options including a pre-tax benefit, employer-provided subsidy, employer-provided transit, and alternative commute benefit.

Local Regulations

San Rafael General Plan 2020

The City of San Rafael 2020 General Plan goals, policies, and programs that are relevant to transportation are primarily in the Circulation Element. As part of the proposed project, this Element is being retitled the Mobility Element and its policies and programs are being comprehensively updated. A comprehensive list of policy changes is provided in Appendix B, Proposed General Plan Goals, Policies, and Programs, of this Draft EIR. Applicable goals, policies, and programs are identified and assessed for their effectiveness and

potential to result in an adverse physical impact later in this chapter under Section 4.8.4, Impact Discussion.

San Rafael Municipal Code

The San Rafael Municipal Code (SRMC) includes various directives pertaining to transportation. The SRMC is organized by title, chapter, and section. Most provisions related to transportation impacts are in Title 5, Traffic Regulations, Title 11, Public Works, and Title 14, Zoning.

- Chapter 5.52, Restricted Use of Certain Streets. This chapter designates truck routes in the city.
- Chapter 5.81, Trip Reduction and Travel Demand Requirements. Requires the City to implement a trip reduction and travel demand ordinance (Ordinance 1657 Section 1 (part), 1994).
- Chapter 11.04, Encroachments in the Public Right-of-Way. Requires any persons encroaching in the public right-of-way that involves temporary closures for construction or other purposes to obtain a permit that describes how traffic will be safely managed during the closure.
- Chapter 14.18, Parking Standards. Requires the provision of off-street parking as specified by land use type and specifies parking design parameters.

San Rafael Bicycle and Pedestrian Master Plan

The San Rafael *Bicycle and Pedestrian Master Plan* (BPMP), updated in 2018, has a goal of connecting the entire city of San Rafael through a continuous biking and walking transportation network. The BPMP inventories existing active transportation infrastructure and identifies constraints, including gaps in pathways, neighborhoods lacking pathways, and safety issues. The BPMP then provides and ranks priorities for the active transportation network and identifies projects and programs that can help the City achieve its goal of having continuous biking and walking pathways.

San Rafael Climate Action Plan

As discussed in Chapter 4.8, Greenhouse Gas Emissions, of this Draft EIR, the current San Rafael Climate Change Action Plan (2019 CCAP) focuses on mitigation measures aiming to reduce GHG emissions and establishes targets similar to the State's GHG emission goals, to reduce emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. Actions provided in the 2019 CCAP to meet the City's reduction targets involve initiatives focused on low carbon transportation, amongst others. Low carbon transportation actions would provide 38 percent of the total GHG reductions, with that reduction allocated as follows:

- Zero Emission Vehicles: 83%
- Bicycling: 5%
- Walking: 2%
- Safe Routes to School: 1%
- Public Transit: 3%
- Employee Trip Reduction: 3%
- Parking Requirements: <1%
- Traffic System Management and Vehicle Idling: 3%
- Electric Landscape Equipment: <1%

4.16.1.3 EXISTING CONDITIONS

Based on the 2013–2017 American Community Survey, most residents in San Rafael, Marin County, and the State of California commute by automobile (drive alone or in carpool) to get to work. The share of commuters driving to work is slightly higher in San Rafael (about 74 percent) compared to Marin County (about 73 percent) and lower than California (about 84 percent). Public transportation accounted for the next highest share (about 11 percent). In San Rafael, more residents use public transportation to get to work compared to Marin County (about 10 percent) and California (about 5 percent). Walking and biking accounted for seven percent of the mode share in San Rafael. In San Rafael, more residents walk or bike to work compared to Marin County (about six percent) and California (about five percent). About eight percent of San Rafael residents worked from home at the time this data was collected. Chart 1 displays the method of travel to work for residents of San Rafael.

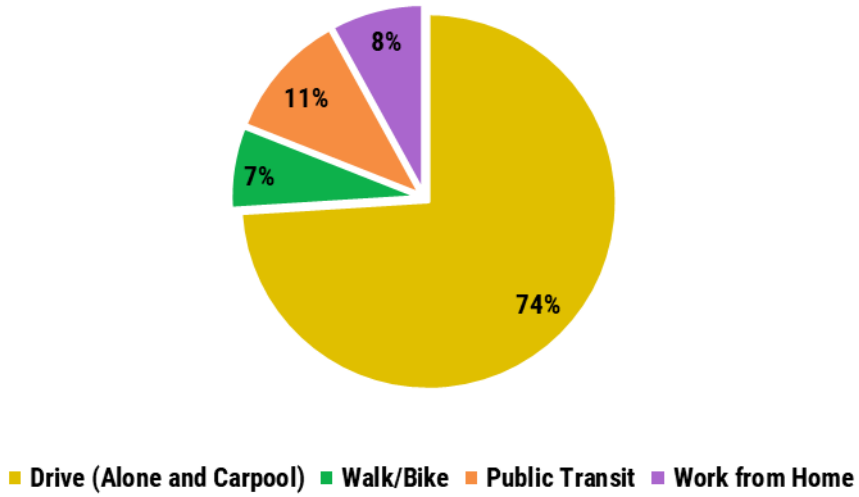


Chart 1: Method of Travel to Work

Source: American Community Survey, 2013-2017.

Marin County travel data collected for the Transportation Authority of Marin (TAM) indicate that the average daily trip length[2] for San Rafael, according to the TAM data, is 8.2 miles, slightly higher than the overall county average of 8.1 miles and 19 percent higher than the Bay Area average of 6.9 miles.

The TAM travel data also shows that a large share of Marin County workers reside outside Marin County and thus have long commutes, a reflection of the high cost of housing. About 35 percent of the approximately 125,000 employees who work in Marin County live outside the county, with the highest share of imported workers coming from Sonoma, Contra Costa, and San Francisco counties.

Street System

The City's street system (totaling about 172 miles)[3] serves as the primary channel for all modes of travel. Roadways are organized using a hierarchical system, whereby individual roadways are classified by their intended function within the overall roadway network. These classifications – highways, arterials, and

[2] Average daily trip length represents the average trip length for a single trip as opposed to VMT, which represents the distance traveled by one or more trips.

[3] *California Public Road Data*, California Department of Transportation, Released November 2019.

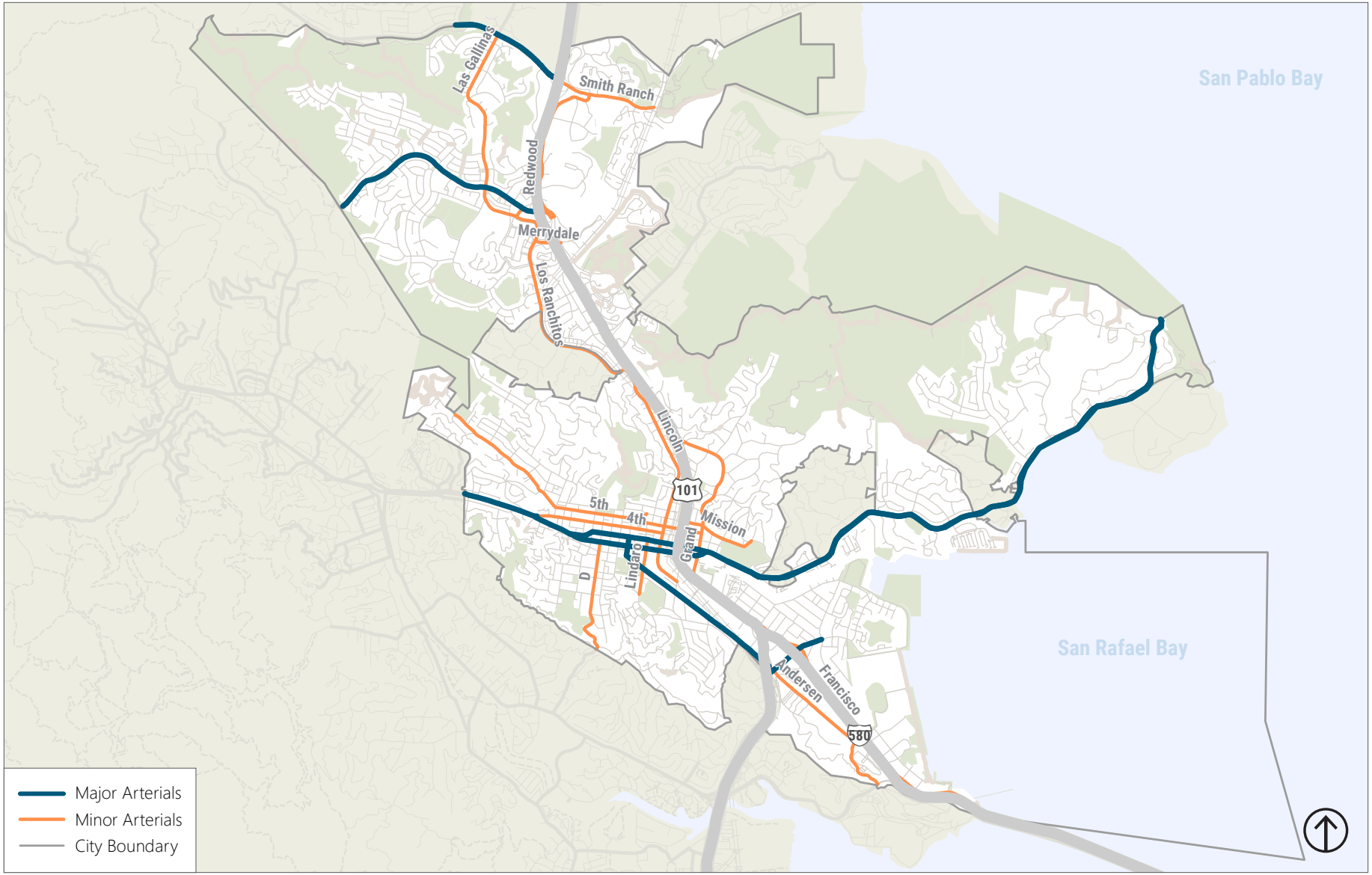
collectors – define the desired functional and operational characteristics of a roadway, such as traffic volume capacity and level of service. Figure 4.16-1 presents the location of important roadways within the City of San Rafael.

United States Highway 101 (US-101) and Interstate 580 (I-580) provide regional access in, to, and out of the city of San Rafael. Both highways are owned, operated, and maintained by Caltrans. US-101 is a major north-south highway that runs through the states of California, Oregon and Washington. US-101 has four lanes in each direction in San Rafael and carries approximately 202,000 vehicles per day. I-580 is a freeway that extends from San Rafael east across the San Francisco Bay, via the Richmond-San Rafael Bridge, and through the East Bay to its eastern terminus at I-5 east of Livermore. I-580 has two lanes in each direction through San Rafael and carries about 77,000 vehicles per day just east of US-101.

Congestion levels on US-101 as well as at the junction of US-101/I-580 can cause freeway traffic to detour onto city streets during peak travel periods or when incidents occur on the freeway. This can increase congestion levels on parallel city street such as Las Gallinas Avenue, Los Ranchitos Road, Lincoln Avenue, Grand Avenue, Andersen Drive, Francisco Boulevard East, and Francisco Boulevard West. As there is not currently a direct connector between northbound US-101 and eastbound I-580, freeway traffic along this route must use local city streets including the Bellam Boulevard interchange. The Transportation Authority of Marin (TAM) in collaboration with Caltrans and the cities of San Rafael and Larkspur has recently launched a study to plan and design a grade-separated connector between northbound US-101 and eastbound I-580 (US-101/I-580 connector project). The US-101/I-580 connector project will provide a direct ramp connection that avoids local streets. A number of alternative alignments are being considered for the new ramp, each with varying environmental impacts and costs. The US 101/I-580 connector project includes bicycle and pedestrian improvements along Bellam Boulevard, and new transit connections. The US-101/I-580 connector project is being coordinated with efforts to reduce bottlenecks on the eastbound I-580 approach to the Richmond-San Rafael Bridge. A third eastbound lane was opened on the Richmond-San Rafael Bridge in 2018 for afternoon commuters. The US-101/I-580 connector project includes a new lane on eastbound I-580 from the new US-101 ramp to the existing on-ramp at Sir Francis Drake Boulevard.

The location and layout of development within the City of San Rafael have resulted in a primarily east-west roadway network. Major east-west roadways include Lucas Valley Road, Manuel T. Freitas Parkway, Second Street, Third Street, Bellam Boulevard, and Andersen Drive. Lincoln Avenue, Point San Pedro/N. San Pedro Roads, and D Street are other important facilities that provide cross-town access.

The Downtown Precise Plan Area is served by an extensive system of regional and local streets. Within Downtown San Rafael, the roadway network is a grid-based network of lettered north-south streets and numbered east-west streets. Many of the core Downtown blocks are 360 feet by 360 feet with roadway widths ranging from about 40 to 52 feet. The Downtown Precise Plan Area contains 53 signalized intersections and one rapid rectangular flashing beacon (RRFB) at the Fifth Avenue/Cottage Avenue intersection to facilitate safe pedestrian crossings. The Downtown Precise Plan Area roadways serve a variety of users, including people traveling by foot, bike, bus, and vehicle, as well as delivery trucks serving Downtown Businesses and residences. The multimodal roadway network proves to be a dynamic environment for users of all types.



Source: Fehr & Peers, 2020.

Figure 4.16-1
Existing Street System

The following streets and portions thereof in or adjacent to The Downtown Precise Plan Area are designated as truck routes: Francisco Boulevard, Jordan Street, Lincoln Avenue from the north line of Third Street to its intersection with Irwin Street, San Pedro Road, Second Street, Third Street, DuBois Street from Irwin Street to Woodland Avenue, Fourth Street from its westerly terminus to Second Street, Irwin Street from Third Street to Woodland Avenue, Lindaro Street from Third Street to Jordan Street, Lovell Avenue from Irwin Street to Jordan Street, and Woodland Avenue from its easterly terminus to Irwin Street.

Existing Road Segment Data

To provide a baseline for the transportation analysis, traffic counts were collected at 41 roadway segments within the city during a weekday in May 2019. The roadway counts were collected for 24 hours. During the counts, weather conditions were generally dry, no unusual traffic patterns were observed, and the San Rafael City Schools were in full session. Figure 4.16-2 displays the observed daily traffic volumes for the 41 study roadway segments.

Existing Vehicle Miles Traveled

VMT is a measure of traffic flow, determined by multiplying the number of automobile trips within a given geography by the average trip length. Unlike level of service, which is a measure of automobile delay, VMT is a measure of automobile travel and the resulting emissions. For the purposes of this EIR, VMT is estimated for a typical weekday. The efficacy of this measure is a result of several factors:

- VMT is relatively easy to measure by counting traffic on roadways at different locations. It is one of the few measures of transportation performance that has been consistently and comprehensively monitored and documented over time, primarily for the purpose of estimating air quality and GHG emissions.
- VMT bears a direct relationship to vehicle emissions, although this relationship is becoming more complex as vehicular technologies evolve. State and federal policies pertaining to vehicle efficiency and formulation of vehicle fuels suggest that on a per capita basis, emissions for most pollutants and GHG emissions will decline relative to today. However, even with emission reductions due to fuel and vehicle technology changes, future reductions in VMT per capita will result in lower air quality and GHG emissions.
- VMT can be influenced by policy in a number of different ways. Land use projects that are close to high quality transit service, located in highly walkable or bikeable areas, have higher densities, include a mix of project uses, support a better citywide jobs-housing balance (i.e., provide housing in a job rich area, or vice versa), and/or are close the core of the city (shorter trip distances to services) would generate less VMT than projects that do not have these characteristics.

Pedestrian Facilities

Sidewalks exist on most roadways within the city of San Rafael. Portions of Downtown San Rafael, particularly along Fourth Street and Fifth Avenue from Lincoln Avenue to the West End, are walkable, pedestrian-friendly streets.

Source: Fehr & Peers, 2020.

Figure 4.16-2
Existing Road Segment Average Daily Volumes

Most signalized intersections have standard crosswalk treatments, which consist of two 12-inch-wide white stripes that delineate the sides of the pedestrian walking area. Several intersections have high-visibility crosswalks that are marked using the continental pattern of crosswalk striping, which consists of a series of wide strips parallel to the curb for the length of the crossing. This includes intersections around the Transit Center/SMART station, along Fourth Street in the West End, on Second Street, Grand Avenue, Fifth Avenue, and Mission Avenue.

Within some areas, especially in older areas of San Rafael, sidewalks are nonexistent or discontinuous. Narrow sidewalks, sidewalks with traffic signals or utility poles centered in the sidewalks, and sidewalks that do not have wheelchair ramps prevent some users from accessing the existing sidewalks. Additionally, portions of sidewalk are used by both pedestrians and bicyclists due to the limited bicycle network. Overgrown vegetation and illegal parking can also inhibit access to sidewalks in some areas.

Streets that have higher traffic volumes, vehicle speeds, greater vehicle turning volumes, and/or attached sidewalks without a buffer present a less comfortable pedestrian environment. Examples of these streets include Second Street, Third Street, Hetherton Street, Irwin Street, Andersen Drive, Francisco Boulevard West, and Francisco Boulevard East.

The BPMP identified pedestrian network gaps and difficult crossing locations (i.e., crossing length, pedestrian visibility, signal timing, lack of curb ramps, etc.) based on public comments. These locations include intersections near the Transit Center (Hetherton Street, Irwin Street, Second Street, and Mission Avenue), along Grand Avenue, and at several locations in the West End.

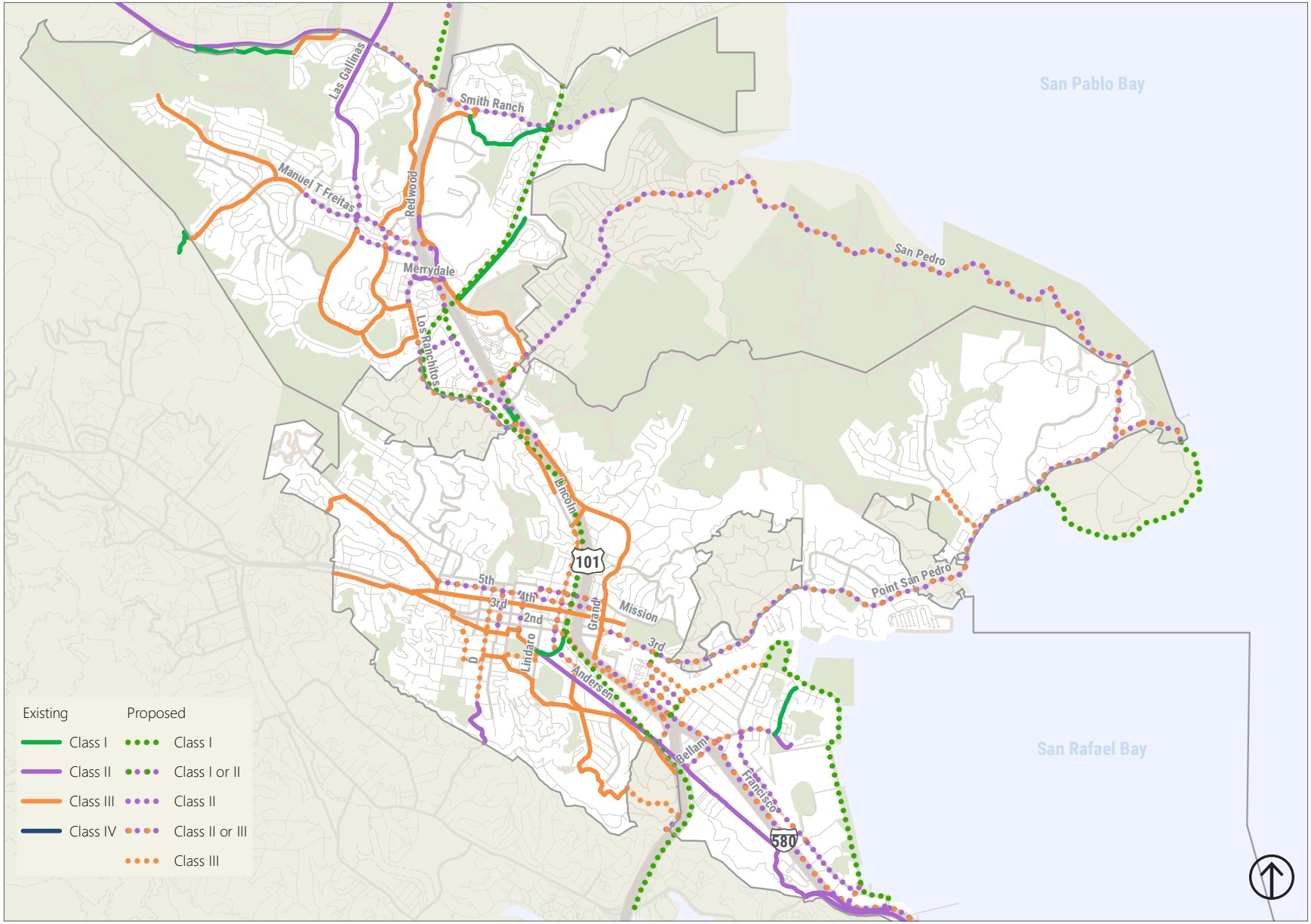
San Rafael had the second highest frequency of pedestrian collisions of 104 comparably sized cities in California, based on 2016 rankings by the state Office of Traffic Safety. According to data analyzed for the BPMP, 1 in 10 collisions in San Rafael involves a pedestrian, and 65 percent of pedestrian-involved collisions in San Rafael occurred in the Downtown Precise Plan Area.

Bicycle Facilities

Caltrans recognizes four classifications of bicycle facilities.

- Class I. Commonly referred to as a bike path or bikeway, is a facility separated from automobile traffic for the exclusive use of bicyclists.
- Class II. Commonly referred to as bike lanes, are dedicated facilities for bicyclists immediately adjacent to automobile traffic.
- Class III. Commonly referred to as bike routes, are on-street routes where bicyclists and automobiles share the road.
- Class IV. Commonly referred to as cycle tracks or protected bike lanes, are facilities that combine elements of Class I and Class II facilities to offer an exclusive bicycle route immediately adjacent to a roadway similar to a Class II facility, but provides a physical separation from traffic with raised curb, plastic delineators, or parked automobiles.

Figure 4.16-3 displays the locations of existing and proposed bicycle facilities within the City of San Rafael, as designated in the BPMP.



Source: Fehr & Peers, 2020.

Figure 4.16-3
Existing Bicycle Facilities

The City of San Rafael has a limited number of Class I (paths) or Class II (dedicated on-street lanes) facilities in the existing bicycle network. Most existing facilities are designated as Class III where bicyclists and automobiles share a travel lane. There are no existing Class IV (cycle track) facilities. Of the 172 road miles in the City, about 8 percent or 13.4 of these road miles have space dedicated for the use of bicycles. The City also has 9.27 miles of multi-use path and 18.05 miles of bicycle routes.

Outside of the Downtown Precise Plan Area, primary bicycle facilities include a Class I facility parallel to the SMART rail line that connects the northern portions of San Rafael with the Downtown Precise Plan Area; several Class II facilities, including along Las Gallinas Avenue, Lucas Valley Road, Los Ranchitos Road, Northgate Drive, and Manuel T. Freitas Parkway; and Class III facilities along several local roadways, including Los Gamos Drive, Civic Center Drive, and Point San Pedro Road. There are no existing Class IV facilities within the City of San Rafael.

Through the Downtown Precise Plan Area, bicycle facilities are limited to Class III shared routes on Fourth Street, Fifth Avenue, D Street, and Grand Avenue. Bicycle access to and from the Downtown area is limited due to a combination of topographic challenges and limited bicycle infrastructure. The primary bicycle routes to and from the Downtown Precise Plan Area are described below.

- To/from the north: North-south bicycle routes are provided by a Class I path adjacent to the SMART rail line and a Class III route along Grand Avenue. There are no alternate north-south bicycle routes due to the hills and lack of roadways and paths north of the Downtown Precise Plan Area.
- To/from the west: An east-west bicycle route is provided via a Class III shared facility on Greenfield Avenue. Greenfield Avenue runs parallel to Second Street, the major arterial providing access into San Rafael from San Anselmo.
- To/from the south: North-south bicycle access to/from the south of the Downtown Precise Plan Area is provided by a Class II lane on Andersen Avenue or a Class III shared route on D Street. Andersen Avenue provides access to the major north-south regional bikeway via the Cal Park Tunnel. D Street is the only roadway that continues over Wolfe Grade into Larkspur and Greenbrae. The hilly terrain of Wolfe Grade is used by road cyclists who often share the lane with auto traffic in both directions.
- To/from the east: A combination of Class II lanes and Class III shared route facilities are provided on Point San Pedro Road, which becomes Third Street just east of the Downtown Precise Plan Area. This route is the only major east-west bicycle route connecting to downtown. There are some bicycle facility gaps between Point San Pedro Road, Third Street and Downtown Precise Plan Area, primarily due to the demand for multiple lanes along the same route to provide auto access to and from US-101 and lack of sufficient space for dedicated bicycle facilities along those major auto routes.

According to data analyzed for the BPMP, 1 in 10 collisions in San Rafael involves a bicyclist. The City of San Rafael has the eighth highest frequency of bicycle collisions of 104 comparably sized cities in California, based on 2016 rankings by the state Office of Traffic Safety. For bicycle collisions involving cyclists younger than 15, San Rafael ranks in the top 10 of the 104 comparably sized cities. The highest collision density occurs on roadways adjacent to the Transit Center/SMART Station/Highway 101 area and within the core of the Downtown Precise Plan Area.

Public Transit

The City of San Rafael's transit network includes rail service, regional bus service, and local bus service. Figure 4.16-4 displays the City of San Rafael's existing transit facilities and network. Transit service within San Rafael is concentrated in the Downtown Precise Plan Area.

Rail Service

Sonoma-Marin Area Rail Transit (SMART) provides passenger rail service in Marin and Sonoma counties. SMART's initial 43 miles of rail corridor includes 10 stations, from the Downtown Precise Plan Area to the Sonoma County Airport. Each two-car SMART train has spaces for up to 24 bikes. SMART stations also have bike storage including bike racks and secured bike lockers. SMART also provides rail transit service that is accessible to passengers with disabilities. SMART offers a 31-Day Pass for unlimited rides for 31-consecutive days from the date of first use. The 31-Day Pass is available through Clipper and costs $200 for adults and $100 for seniors, youth, and persons with disabilities. SMART's Eco Passes are unlimited, flat rate passes available only to employers, colleges or institutions to load onto Clipper cards for their employees, students, or members. Eco Passes qualify as an employer-sponsored transit benefit, which means employees can use pretax wages to purchase them. Passes are available in four, six, or twelve month increments. One-way fares can be purchased either through Clipper or a SMART eTickets app. One-way fares range from $3.50 to $11.50 depending on trip distance, with 50 percent discounts provided for seniors, youth, and persons with disabilities.

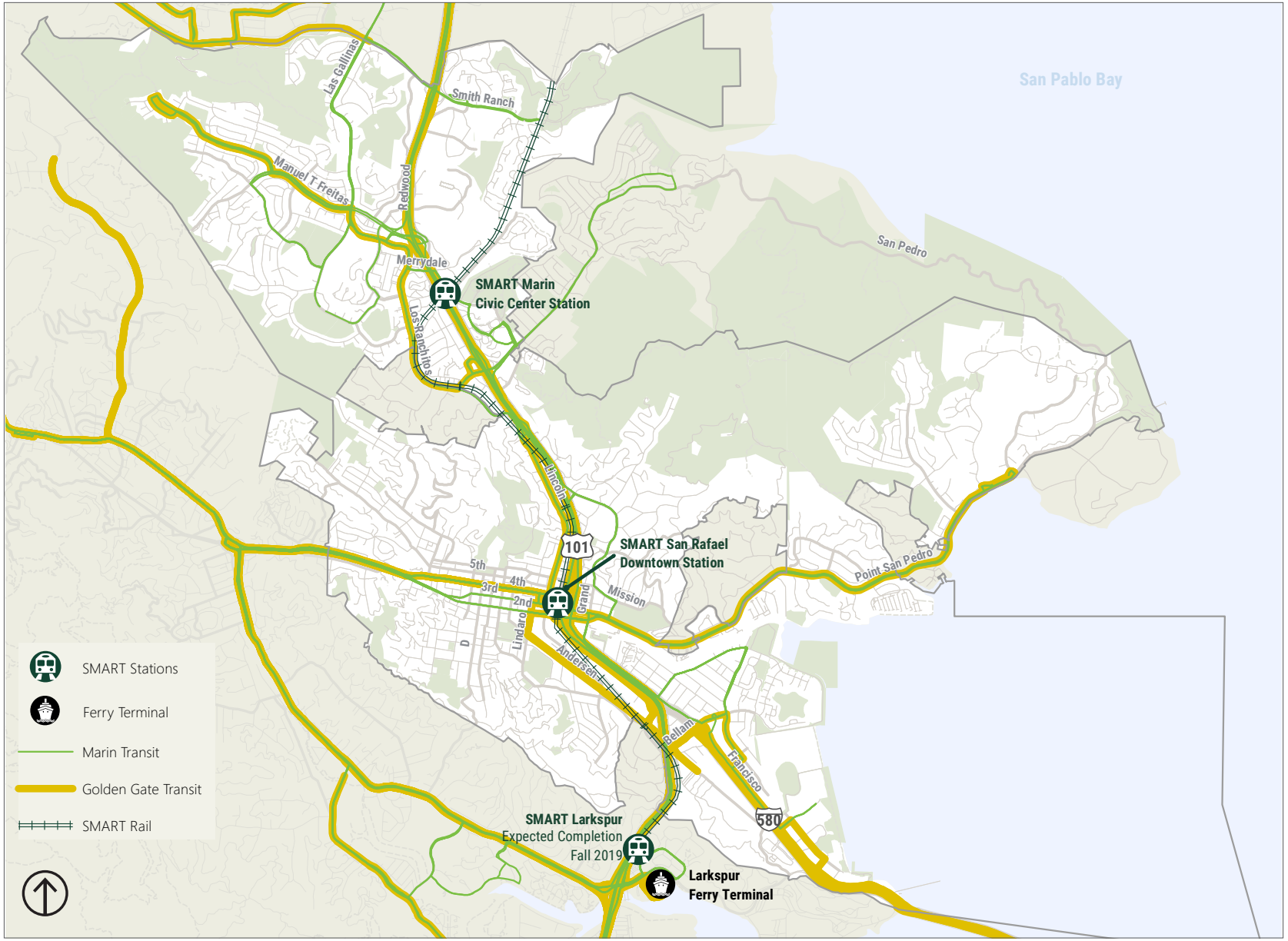
SMART served about 723,000 passengers during its first year of operations beginning on August 25, 2017. Twenty-nine (29) percent of all passengers boarded at the San Rafael Downtown Station, which equates to about 700 daily passenger boardings on weekdays. Since 2017, the Transportation Authority of Marin (TAM) and Lyft have offered a $5 discount for all "Lyft Line" rides to and from SMART stations in Marin County. The program is designed to support access to and from Marin's SMART stations and encourage carpooling options to reduce congestion and pollution. TAM has also partnered with Whistlestop to ensure this service is available to all users, including providing rides with wheelchair accessible vehicles.

A southern extension of SMART rail to the Larkspur Ferry Terminal opened in 2019. The station is located north of Sir Francis Drake Boulevard and west of Larkspur Landing Circle.

Regional Bus Service

The Golden Gate Bridge and Highway Transportation District (GGBHTD) directly operates two fixed-route transit services: Golden Gate Transit regional bus service and Golden Gate Ferry. Regional bus service began in 1972 and is provided on 26 fixed routes. These routes fall into three categories:

- Basic routes provide daily service throughout the day and evening between San Francisco, Marin, Sonoma, and Contra Costa counties.
- Commute routes provide weekday service primarily during morning and afternoon peak periods between San Francisco, Marin, and Sonoma Counties.
- Commute Shuttle routes provide weekday service primarily during morning and afternoon peak periods and are designed to supplement other GGBHTD services.



Source: Fehr & Peers, 2020.

Figure 4.16-4
Existing Transit Facilities and Network

Basic routes that stop at the San Rafael Transit Center include routes 30 (San Rafael to San Francisco), 40 and 40X (San Rafael to El Cerrito, as well as El Cerrito BART Station), 70 (Novato to SF) and 101 (Santa Rosa to San Francisco). Commute routes that stop at the San Rafael Transit Center include routes 27 (San Anselmo to San Francisco) and 44 (Lucas Valley to San Francisco).

Local Bus Service

Marin Transit provides a total of 29 fixed routes, including nine local routes, six community shuttle routes, eleven supplemental school routes, two rural fixed routes, and one Muir Woods shuttle service within Marin County. Marin Transit also offers Connect, an on-demand service available within Northern San Rafael. Marin Transit bus and shuttle services carried over 3.2 million passenger trips in 2017.

Marin Transit owns 95 vehicles including 32 paratransit vehicles, 18 hybrid diesel-electric buses, 12 community shuttles, ten Muir Wood shuttle vehicles, ten articulated vehicles, nine Stagecoach vehicles, two battery electric (zero emission) buses, and two supplemental school vehicles. Marin Transit acquired the two battery electric buses, which can seat 32 passengers, in September 2018. Staff are evaluating performance, reliability, cost, and scalability.

Marin Transit offers a 31-Day Pass for unlimited rides for 31-consecutive days from the date of first use. The 31-Day Pass costs $80 for adults and $40 for seniors, youth, and persons with disabilities. A 7-Day Pass costs $20 for adults and $10 for seniors, youth, and persons with disabilities. A 1-Day Pass costs $5 for adults and $2.50 for seniors, youth, and persons with disabilities. A one-way cash fare costs $2 for adults and $1 for seniors, youth, and persons with disabilities.

Marin Transit offers a six month or annual Youth Pass through participating Marin County schools. With the pass, registered Marin County students and youth ages 18 and under ride on local routes in Marin without paying any additional fare. The Youth Pass costs $175 per six-month period or $325 for a year.

Local transit routes that stop at the San Rafael Transit Center include nine fixed route, four community shuttle, and one West Marin Stagecoach route. Fixed routes 22, 23, 23X, and West Marin Stagecoach route 68 connect the San Rafael Transit Center to destinations to the west via Fourth Street and Red Hill Avenue. Fixed route 23, 23X, 29, 35, and 36 connect the San Rafael Transit Center with the Canal Neighborhood to the southeast. Fixed route 35 and Community Shuttle route 257 connect the San Rafael Transit Center with destinations to the north via Lincoln Avenue. Marin Transit Community Shuttle routes 233 and 257 connect the San Rafael Transit Center to destinations to the north via Grand Avenue.

Transit Centers

Downtown San Rafael SMART Station

The Downtown San Rafael SMART Station is bounded by Fourth Street, Third Street, and Tamalpais Avenue. It is located just north of the San Rafael Transit Center located between Third Street and Second Street. The Downtown San Rafael SMART Station serves more boardings than any other station along the SMART line. For current SMART riders using a Clipper card, free shuttle service to the Larkspur Ferry Terminal is available.

Civic Center SMART Station

The Civic Center SMART station is bounded by Civic Center Drive and Merrydale Road and located underneath US-101. It is located just west of the Marin County Civic Center. This station is less utilized than the San Rafael SMART Station with only six percent of total boardings along the SMART line.

San Rafael Transit Center

The San Rafael Transit Center serves as the regional transit hub for Marin County. It connects rail service, bus service, airporter service, and taxi service. Transfers are provided to San Francisco, Sonoma and Contra Costa counties.

The current 17-bay transit center serves 9,000 boardings and alightings on over 500 buses on a typical weekday. Nearly half of the trips made by weekday riders have origins or destinations within the Downtown Precise Plan Area. Just over half are transferring between buses or between bus and rail at the transit center. With 16 bus bays occupied during peak times, the San Rafael Transit Center is currently operating at or beyond its capacity.

A multi-year process to develop a relocated transit center for San Rafael has been underway since early 2018. The current transit center is affected by the extension of Sonoma Marin Area Rail Transit (SMART) system to Larkspur. Five alternative station concepts were developed initially as part of the planning process. The planning process subsequently narrowed the number of station concepts to three alternatives that are being evaluated in the environmental review. Golden Gate Transit is leading the relocation analysis, environmental clearance, and preliminary design process. The environmental impact study for the relocated transit center is anticipated to be complete in mid-2022, allowing for the selection of a preferred alternative. This environmental assessment assumes a relocated transit center in close proximity to the existing transit center will be operational by 2040.

Mobility Services and Programs

Shared Mobility Options

According to the Shared-Use Mobility Center, shared mobility is defined as transportation services and resources that are shared among users, either concurrently or one after another. The services are grouped into five different shared mobility typologies:

- Bikesharing/Scooter-sharing
- Carsharing
- Ridesharing/Ridehailing
- Public Transit
- Microtransit (e.g., shared scooters)/Shuttles

Bikesharing, scooter-sharing, or microtransit services are not currently provided in San Rafael. They are, however, provided in many other Bay Area cities. SMART received an $800,000 grant from the Metropolitan Transportation Commission (MTC) to fund a pilot for bikeshare stations at SMART stations. The bikeshare bikes will provide SMART riders with an alternative for the “last mile” of their journey

beginning in 2021. A minimum of 300 GPS-enabled e-bikes will initially be allocated at designated SMART stations.

Carsharing and ridesharing/ridehailing activities are generally concentrated in the Downtown Precise Plan Area. Limited carsharing options are provided by several ZipCar spaces near the San Rafael Transit Center.

Traditional ridesharing includes carpooling, vanpooling, and real-time matching of drivers and passengers through mobile apps in which the passenger pays a share of the trip cost. Ridehailing providers such as Uber and Lyft use online platforms to connect passengers with drivers who use personal, non-commercial, vehicles. UberPOOL and Lyft Line are ridesharing options that allow drivers to carry multiple passengers who split the cost of a trip.

Taxis and limos are regulated for-hire vehicles. Numerous companies provide these services in San Rafael.

Safe Route to School (SR2S) Program

The Transportation Authority of Marin (TAM) administers a Safe Routes to School (SR2S) Program[4], which works to relieve traffic congestion around schools by promoting alternatives to commuting to school, such as walking, biking, taking the bus and carpooling. In addition, the program helps improve safety, promote a healthy lifestyle for youth and enhance the sense of community in neighborhoods. It does this through classroom education, special events, infrastructure improvements, a crossing guard program, and other strategies.

To address the unique needs of each school district, a Task Force is formed to bring together SR2S staff, parent leaders, elected officials and staff from the local jurisdiction, traffic engineers, school district representatives, law enforcement personnel and neighborhood leaders.

The TAM SR2S program has been in operation since 2000 and involves 58 schools and more than 26,500 students in Marin County.

Transportation Demand Management

SRMC Chapter 5.81 details the City's Trip Reduction Ordinance, including trip reduction and travel demand requirements. The trip reduction requirements are imposed upon employers within the City with more than 100 employees at an individual work site. The ordinance requires these employers to disseminate trip reduction information regarding alternative modes of travel (e.g., carpools, vanpools, transit, bicycling, telecommuting, flexible work hours, etc.), conduct an annual employee trip survey that shall be submitted to the City, and designate an employee transportation coordinator to be responsible for administering the requirements of the Trip Reduction Ordinance. Should another agency (such as the BAAQMD) impose more stringent requirements on employers with the City, then any employer within the city that meets those requirements is deemed in compliance with this ordinance.

[4] https://www.tam.ca.gov/projects-programs/safe-routes-to-school/

Transportation Safety

The 2018 Marin Travel Safety Plan[5] was a collaborative effort between unincorporated Marin County and all 11 incorporated cities and towns. The purpose was to provide a systemic safety analysis for motorists, motorcyclists, bicyclists, and pedestrians on non-state arterial and collector roadways. The Marin Travel Safety Plan was funded through a Systemic Safety Program grant provided by Caltrans. The intent was to provide a proactive collision analysis, identify high risk locations and collision patterns, develop a list of systemic low-cost and longer-term countermeasures, and help secure funding to address key safety issues.

During the five-year period in which crashes were evaluated, 35 percent of all crashes in the county occurred in the City of San Rafael, higher than the city's 23 percent share of the total county population. Notable collision profiles in San Rafael include high rates of pedestrian collisions involving seniors or youth under 15, bicycle collisions involving youth under 15, speed related collisions, and driving under the influence with drivers under the age of 21. In these categories, the City of San Rafael has consistently ranked among the top 10 cities in victims killed and injured, among 105 California cities with similar-sized populations, according to the California Office of Traffic Safety.

The 2018 Marin Travel Safety Plan identified safety countermeasures for 20 corridors and 8 intersections in the City of San Rafael. Marin County received $2.8 million in Highway Safety Improvement Program grant funds from Caltrans in the most recent funding cycle to implement safety countermeasures identified in the plan at 51 signalized intersections in unincorporated Marin County and within 11 incorporated cities.

Transportation Network Disruptions

This section provides a description of transportation network disruptions that may result from natural hazards including wildfires and flooding from sea level rise. The natural hazards described in this section are discussed elsewhere in this EIR and the following provides context for how the natural hazard relates to the transportation network.

Wildfires

As described in Chapter 4.18, Wildfire, the wildland-urban interface (WUI) is defined is defined as any area where structures and other human development meet or intermingle with wildland vegetation.[6] Many San Rafael neighborhoods along the periphery of urban development are located within the WUI (see Figure 4.18-2). Access to these neighborhoods is commonly limited to one or two locations due to topographic features. These access constraints can impede evacuation during uncontrolled wildfire events.

[5] Marin Travel Safety Plan, 2018. https://www.marincounty.org/userdata/dpw/Marin%20County%20Travel%20Safety%20Plan%20-%20Final%20Report.pdf, accessed November 2020.

[6] Cal California Office of Emergency Services. 2018. California State Hazard Mitigation Plan.

San Rafael Wildfire Prevention and Protection Action Plan—conditionally approved in March 2019 and formally adopted in August 2020 following review by a steering committee—provides a series of prescriptions, programs, and ordinance updates to make the city more fire and disaster resistant. Action 32 of the Wildfire Prevention and Protection Action Plan states that the City shall "review Countywide evacuation plans and expand existing plans to address San Rafael's unique needs, neighborhoods and resources, including possible water evacuations." This effort would establish additional transportation network redundancies and potentially reduce the burden on a single egress artery during an emergency.

Flooding

As discussed in Chapter 4.10, Hydrology, of this Draft EIR, San Rafael is subject to flooding of which the effects of sea level rise are expected to exacerbate these flood risks for San Rafael in the coming decades. Most shoreline damage from sea level rise will occur as a result of coastal storms in combination with higher sea levels, which can temporarily raise sea levels by an additional two feet. The key factors that contribute to coastal flooding include high tides, storm surge, high waves, and high runoff rates from rivers and creeks.[7] The projected sea level rise for the year 2050 (the approximate time horizon of the General Plan) and 2100 with and without the 100-year storm surge, for the city is shown on Figures 4.10-4 through 4.10-7, and a focused look at the Downtown Precise Plan Area for these scenarios is shown on Figures 4.8-10 through 4.8-13. As shown, the effects of sea level rise without additional flooding caused by storm surge would inundate significant portions of Francisco Boulevard East and Andersen Drive east of Bellam Boulevard, in addition to isolated portions of roadways within the Canal District. Alternatively, a scenario with sea level rise plus additional flooding from a storm surge would inundate most roadways north of I-580, including those within the Canal District, as well as significant portions of Point San Pedro Road (Peacock Gap and Marin Yacht Club areas), North San Pedro Road (China Camp area), Andersen Drive, Irwin Street, Lindaro Street, and most roadways in the Downtown Precise Plan Area east of A Street.

4.16.2 METHODOLOGY

This transportation evaluation was prepared in accordance with the requirements of CEQA to determine if significant transportation impacts are likely to occur in conjunction with future development that would be accommodated by the proposed project.

Analysis Scenarios

The transportation modeling and analysis was conducted for the following scenarios.

- Existing Conditions. The existing setting is based on traffic counts collected in the spring of 2019. This scenario serves as the baseline or point of comparison for environmental impact significance determinations related to the 2040 General Plan scenario.

[7] San Francisco Bay Conservation and Development Commission, 2011, *Living with a Rising Bay: Vulnerability and Adaptation in San Francisco Bay and on its Shoreline.*

- **2040 No Project.** This scenario assumes conditions with 2040 land use forecasts and transportation infrastructure assumptions for the City of San Rafael based on Plan Bay Area 2040 as developed by MTC.
- **2040 General Plan**. This scenario assumes conditions with 2040 land use forecasts and transportation infrastructure assumptions for the City of San Rafael based on the proposed 2040 General Plan policies including the preferred land use plan.

2040 No Project Transportation System

The following roadway improvements or transportation programs, as provided by Transportation Authority of Marin (TAM) staff, are incorporated in the 2040 No Project scenario.

- **Minor Highway Improvements.** Highway interchange improvements, Bellam Boulevard improvements, bicycle/pedestrian crossings, and auxiliary lanes
- **Minor Roadway Projects.** 3rd and 2nd Street improvements, Highway Safety Improvement Program projects, and sea level rise improvements
- **Minor Transit Improvements.** Fleet expansion/facilities, Access to Transit, and Transit Service Expansion, New Bicycle & Pedestrian Facilities, North South Greenway Projects, SMART Multi Use Path, Cross Marin Bikeway, 2nd to Anderson Path, Grand Avenue, East Francisco Boulevard, Approaches to Richmond San Rafael Bridge, Safe Pathways Projects, Small Safety Projects, and Safe Route to Transit Projects
- **Management Systems.** Ramp Metering Phase 1 & 2, and Innovative Technology
- **Safety and Security.** Safe Routes to School Program and Crossing Guard Program
- **Travel Demand Management.** TDM Program, Alternative Fuels Program, and Traveler Information Programs
- **Multimodal Streetscape Improvements.** Local Road Improvements

2040 General Plan Transportation System

The roadway improvements and programs shown in Table 4.16-1 are included in the 2040 General Plan scenario.

TABLE 4.16-1 MAJOR PLANNED MOBILITY IMPROVEMENTS, 2020-2040

1. Interchange Projects (*)	
Includes modifications to interchanges for capacity, safety, access, and improved circulation.	
1A	**US-101/Freitas Parkway Interchange West.** Reconfigure the US-101 off-ramp / Freitas Parkway (Del Presidio) and Northgate Rd/ Freitas Parkway intersection to address safety, circulation, and capacity issues. Improvements would be coordinated with ongoing development plans and Northgate PDA Specific Plan/ Precise Plan process where appropriate.
1B	**US-101/ Freitas Parkway Interchange East.** Reconfigure the US-101 NB off-ramp/Civic Center Drive intersection to address safety, circulation, and capacity issues. Improvements would be coordinated with ongoing development plans and Northgate PDA, and future planning process where appropriate.
1C	**Smith Ranch Road/Lucas Valley Road Multimodal Improvements at US-101.** Road widening and additional lane capacity from Los Gamos to Redwood Highway. Improve pedestrian and bicycle access across the US-101 underpass by reconstructing the bridge to provide dedicated bicycle facilities and wider pedestrian sidewalks.
2. Downtown Area Improvements	

TABLE 4.16-1 MAJOR PLANNED MOBILITY IMPROVEMENTS, 2020-2040

Includes multimodal improvements identified by the Downtown Precise Plan. Projects and improvements may include projects from other adopted City plans but are intended to achieve the vision, goals and objectives of the Downtown Plan. Also includes first/last mile improvements for SMART Station/Transit Center area (pedestrian, bicycle, lighting, wayfinding).	
2A	Downtown roadway and intersection improvements (traffic signals, roundabouts, pedestrian/bicycle, ADA, and/or turn lane modifications) and improvements to gateway streets to Downtown, including: ▪ Downtown San Rafael Remaining One-Way Street Conversions, per Downtown Precise Plan ▪ New Signal at Fifth/H St ▪ New Signal at First/C St ▪ New Signal at First/D St ▪ New Signal at Fourth/Union St ▪ New Signal or Roundabout at Mission/Court St
2B	**US-101/ Downtown San Rafael Interchange.** Improvements to Irwin St, Hetherton Ave, 2nd St, and 3rd St in the vicinity of the NB off-ramp and SB on-ramp.
2C	**Fourth Street (West End) Intersection Realignment**. Re-align Fourth Street/Second Street/Marquard Avenue intersection.
2D	**Second Street Multimodal Improvements.** Improve Second Street corridor operations while addressing pedestrian and bicycle safety at crossing locations, and widen sidewalks and remove parking where feasible
2E	**Fourth Street Multimodal Improvements.** Improve pedestrian and bicycle connections while maintaining high quality transit route along 4th Street. Improvements include converting parking to loading, widening sidewalks, and improving the bus and bike experience. Also Includes 4th Street signal and ADA upgrades.
3. Active Transportation Projects	
Includes multimodal improvements and programs with a focus on pedestrian and bicycle improvements identified in the Bicycle and Pedestrian Master Plan.	
3A	Includes various projects identified in the 2018 BPMP, consistent with the priorities expressed in that Plan.
4. Complete Streets and Corridors (**)	
Corridor level improvements including reconstruction of sidewalks, streets, pavement, signing, striping, and crossing improvements, with the objective of improving peak hour traffic flows and accommodating modes other than just motorized vehicles.	
4A	**Lincoln Avenue Peak Period Lanes/Parking Restrictions.** Extend the existing PM peak period parking restrictions, to allow for two lanes in each direction during both AM and PM peak periods, from Hammondale Court/SB US-101 ramps to Mission Ave. Provide additional parking in corridor. Include ADA upgrades, crossing improvements, and other multimodal improvements/accommodations
4B	**Northgate Area Intersection and Complete Streets Improvements.** Includes Las Gallinas/Northgate and Las Gallinas/Del Presidio intersections. Also includes improvements to Las Gallinas Avenue and Los Ranchitos Road, Northgate Drive, and Del Presidio Blvd, and continued development of North San Rafael Promenade. Additional improvements to be identified through future PDA planning process.
4C	**Francisco Boulevard East Corridor Improvements.** Increase capacity from Bellam to Grand Avenue bridge and install signal, ADA, and pedestrian improvements at Harbor St. Additional improvements to be identified through future PDA planning process.
5. Intersection Improvements (**)	
Intersection improvements including traffic signals, intersection realignments/reconfigurations, and other major changes to spot locations that are outside the Downtown Precise Plan area.	
5A	**Fourth Street (Miracle Mile) Intersection Improvement**. Improve performance of Fourth Street signal at Ross Valley Dr and Santa Margarita Dr, including ADA upgrades.
5B	**Lincoln/DuBois/Irwin.** Consider new signal, roundabout, or other intersection improvement to improve safety and traffic flow; right-of-way required.
6. Smart Infrastructure (Technology)	
Traffic signal and communication infrastructure upgrades, including monitoring equipment, fiber optic/communication systems, and other technology enhancements to facilitate smart management of transportation system.	
6A	**Intersection Technology.** Traffic signal equipment, cameras, modems, wireless, Bluetooth, automated data collection, etc.
6B	**Corridor Communication System.** Fiber optic cable and conduit along major arterials and central City system upgrades.

Notes:
(*) Excludes northbound US-101 to eastbound I-580 connector, as this is a regional transportation improvement sponsored by TAM.
(**) Additional improvements may be identified through anticipated future plans to be prepared for the North San Rafael Town Center PDA and Southeast San Rafael PDA.

VMT Forecasts

This section describes the methodology for VMT forecasts developed for this transportation assessment and as supporting data for other assessments in the CEQA document including the GHG assessment. The CEQA Guidelines Section 15064.3(b)(4) establish that the lead agency has discretion to choose the most appropriate methodology to evaluate a project's VMT, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's VMT and may revise those estimates to reflect professional judgment based on substantial evidence.

The VMT forecasts generated for this CEQA assessment were produced using the Transportation Authority of Marin Demand Model (TAMDM). For this CEQA assessment, the 2015 base year for TAMDM was updated and validated for a new 2019 base year for the City of San Rafael to be consistent with the data collected for this evaluation. This analysis includes a 2040 No Project scenario that is based on the TAMDM horizon year and a 2040 Plus Project scenario that reflects land use changes and transportation improvements consistent with the proposed General Plan 2040 and Downtown Precise Plan. The 2019 base year model developed for the San Rafael General Plan was validated based on model confidence thresholds defined in the California Transportation Commission 2017 RTP guidelines. The model validation measures in the RTP guidelines were met for all 53 study road segments in the City of San Rafael as shown in Table 4.16-2 below.

TABLE 4.16-2 2017 CALIFORNIA REGIONAL TRANSPORTATION PLAN GUIDELINES MODEL VALIDATION RESULTS

Validation Measure	AM Peak Period (4-Hour)	PM Peak Period (4-Hour)	Daily	Threshold
Volume-to-Count Ratio (Sum of all Location)[1] =	1.01	1.01	0.97	None Specified[2]
Percent of Links within Caltrans Deviation Allowance[1] =	87.8%	92.7%	78.0%	At Least 75%
Percent Root Mean Square Error (RMSE)[1] =	32.1%	34.6%	31.3%	Below 40%
Correlation Coefficient[1] =	0.90	0.89	0.91	At Least 0.88
Number of Links/Validation Locations =	53	53	53	

Notes:
[a.] Static Validation Criteria and Thresholds, *2017 California Regional Transportation Plan Guidelines*, California Transportation Commission.
[b.] Although no specific threshold is specified, a threshold of "within 10%" of the sum of all locations was applied.

The VMT estimates were produced using the updated 2019 TAMDM model for all 1,400 analysis zones within Marin County as well as for the entire Bay Area. Consistent with recommendations in the OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA*, three different VMT quantification methodologies were developed in conjunction with development of TAMDM to produce measures of VMT to provide a range of VMT quantification options depending on the type of project being evaluated.

- Total VMT-Daily VMT of all vehicle trips, vehicle types, and trip purposes for all project land uses. This metric is typically used for evaluation of area plans and transportation projects. This metric may also be provided on a per service population (i.e., sum of residents and employees) basis.

- Partial Home VMT Per Resident-Daily VMT by light-duty vehicles for all trips that begin or end at a residential land use, divided by residents. This metric is used for evaluation of residential land uses.
- Partial Work VMT Per Employee-Daily VMT by light-duty vehicles for work trips (that is, trips that have one end at a workplace and one end at a residence), divided by employees. This metric is used for evaluation of office or other employment land uses.

4.16.3 STANDARDS OF SIGNIFICANCE

Pursuant to Appendix G, Environmental Checklist Form, of the CEQA Guidelines, implementation of the proposed project would result in significant transportation impact if it would:

1. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

2. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

4. Result in inadequate emergency access.

5. Result in cumulative impacts related to wildfire.

4.16.3.1 CITY OF SAN RAFAEL SIGNIFICANCE CRITERIA

This section describes the specific criteria that will be applied to determine project impacts related to conflicting with applicable plans addressing the circulation system or being inconsistent with CEQA Guideline Section 15064.3(b).

Vehicle Miles Traveled

The San Rafael City Council approved the above CEQA VMT thresholds of significance on July 6, 2020, to implement SB 743 and subsequent changes to CEQA Guidelines. The VMT thresholds are consistent with guidance provided by OPR[8] for evaluating transportation impacts in CEQA. For residential uses, OPR provides the option of using either regional VMT per resident or citywide VMT per resident as the CEQA threshold. The City Council selected the regional VMT per resident baseline as the threshold for residential uses because the 2019 citywide Home VMT Per Resident baseline value is lower than the 2019 regional Home VMT Per Resident value as measured using the new Marin County travel model developed by TAM, and using the regional baseline value would align the CEQA threshold with the City's policy objectives of supporting new housing in the Downtown Precise Plan Area and Downtown San Rafael SMART Station PDA and TPA, as well as the City's other PDAs and TPAs including the North San Rafael PDA,

[8] *Technical Advisory on Evaluating Transportation Impacts in CEQA*, OPR, April 2018.

Civic Center Smart Station TPA, and Southeast San Rafael / Canal PDA. As described throughout this EIR, the General Plan 2040 is anticipating that these areas will absorb most of the City's future growth.

VMT impacts would be significant if:

- Total VMT Per Service Population exceeds 15 percent below average baseline rate for full nine-county Bay Area
- Home VMT Per Resident exceeds 15 percent below average baseline rate for full nine-county Bay Area
- Work VMT Per Employee exceeds 15 percent below average baseline rate for full nine-county Bay Area

Bicycle/Pedestrian

Bicycle/pedestrian impacts would be significant if the proposed project:

- Caused a substantial inconvenience or substantial reduction in quality of service for users of existing bicycle or pedestrian travel facilities
- Substantially reduced bicycle or pedestrian access
- Substantially reduced safety for bicyclists or pedestrians

Transit

Transit impacts would be significant if the proposed project:

- Increased substantial growth or concentration of population beyond the capacity of existing or planned public transit facilities
- Increased demand for public transit service to such a degree that accepted service standards are not maintained
- Reduced availability of public transit to users, or interfered with existing transit users

4.16.4 IMPACT DISCUSSION

TRAN-1	**Implementation of the proposed project could generate an increase in Vehicle Mile Traveled that may have a significant impact on the environment.**

General Plan 2040

Land Use VMT Impact

The California Air Resources Board recognizes that reducing VMT is a key objective to meeting California's GHG emission reduction goals. The San Rafael 2019 CCAP indicates that 62 percent of GHG emissions in the city of San Rafael in 2016 came from vehicle trips generated by San Rafael residents and businesses (i.e., the transportation sector). Future potential development and the planned expansion of the roadway system under the proposed General Plan 2040 would contribute to an increase in VMT in the EIR Study Area.

Table 4.16-3 provides a comparison of the change in VMT and VMT efficiency metrics (i.e., per service population, per capita, or per employee) for the EIR Study Area between the CEQA baseline year (2019) and the General Plan horizon year (2040) conditions. Forecasts for the four scenarios Total VMT, Total VMT Per Service Population, Home VMT per resident, and Work VMT Per Employee are shown in Table 4.16-3. The final row in Table 4.16-3 shows the percent change when comparing the VMT in 2040 to the corresponding average baseline (2019) rates for the nine-county Bay Area Region for the baseline year (2019), as recommended by OPR for CEQA transportation assessments. The citywide VMT presented in Table 4.16-3 includes VMT for the entire sphere of influence area including the Downtown Precise Plan Area. The VMT forecasts for the proposed General Plan 2040 were extracted from an updated version of the TAM travel demand model with planned General Plan land use growth.

TABLE 4.16-3 DAILY VEHICLE MILES TRAVELED (VMT) FOR CITY OF SAN RAFAEL (INCLUDING SPHERE OF INFLUENCE AREA)

SCENARIO	Total VMT	Total VMT Per Service Population	Home VMT Per Resident	Work VMT Per Employee
Baseline (2019)	3,614,000	30.1	12.2	18.1
2040 No Project	3,812,000	29.5	11.4	17.5
2040 General Plan	3,738,000	28.5	11.3	16.9
REGIONAL BASELINE				
Bay Area Region (2019)	313,500,000	27.2	13.4	16.9
PERCENT CHANGE – San Rafael 2040 VMT Rates Compared to Baseline Rate for Bay Area Region				
2040 General Plan		+3.2%	-15.7%	+0.3%

Notes:
[a] Service Population = San Rafael residents plus employees.

As shown in Table 4.16-3, the Total VMT Per Service Population for the City of San Rafael (including the SOI area) is forecast to decline from baseline to 2040 conditions with the proposed General Plan 2040, but would be 3.2 percent above the corresponding average baseline (2019) rate for the full nine-county Bay Area. The VMT threshold established by the City Council in July 2020, consistent with OPR guidance, calls for a reduction by 2040 of 15 percent below the baseline regional average. As such, while the proposed General Plan 2040 results in a reduction in VMT Per Service Population by 2040, the VMT threshold of 15 percent below the current regional average would not be met.

As recommended by OPR, partial VMT data was also developed for vehicle trips generated by housing (Home VMT) and employment uses (Work VMT) and are also evaluated against the 15 percent VMT reduction threshold.

As shown in Table 4.16-3, Home VMT Per Resident in San Rafael is forecast to decline from baseline to 2040 conditions with the proposed General Plan 2040 and would be 15.7 percent below the corresponding average baseline (2019) rate for the full nine-county Bay Area. As such, residential development proposed with the proposed General Plan 2040 would meet the VMT threshold for Home VMT. Most residential growth, under the proposed General Plan 2040, would be multi-family units in the Downtown Precise Plan Area with access to the SMART rail station and the San Rafael Transportation Center that is served by 19 Marin Transit and Golden Gate Transit bus routes. Residential units in the Downtown Precise Plan Area would be within walking distance of jobs, retail uses, and services. As such,

the VMT generated by these units would be substantially lower than the overall VMT for current residential units in San Rafael and contribute to meeting VMT reduction goals for residential uses in San Rafael. As such, the project impact on Home VMT Per Resident is considered *less than significant*.

Work VMT Per Employee in San Rafael is forecast to decline from baseline to 2040 conditions with the proposed General Plan 2040 but would be 0.3 percent above the corresponding average baseline (2019) rate for the full nine-county Bay Area, which does not meet the threshold of reducing Work VMT Per Employee to 15 percent below the regional average. As such, while the proposed General Plan 2040 results in a reduction in Work VMT Per Employee by 2040, the VMT threshold for employment uses would not be met.

General Plan 2040 Policies

Growth within the EIR Study Area would contribute to VMT impacts and the proposed General Plan 2040 includes goals, policies, and programs to reduce VMT.

As described in Chapter 4.8, Greenhouse Gas Emissions, of this Draft EIR, the proposed General Plan 2040 includes over 200 goals, policies, and programs to contribute to reducing GHG Emissions, but does not include quantified VMT reduction programs. However, because the transportation sector is the largest source of GHG emissions (62 percent), many of the GHG policies in General Plan 2040 would also result in VMT reductions as a means of reducing GHG emissions.

GHG emission and related policies that would reduce VMT in General Plan 2020 are in the Land Use (LU) Element; Conservation and Climate Change (C) Element; Mobility (M) Element; Community Services and Infrastructure (CSI) Element; Housing (H) Element; Economic Vitality (EV) Element; Equity, Diversity, and Inclusion (EDI) Element; and Parks, Recreation, and Open Space (PROS) Element. (See Chapter 4.8, Greenhouse Gas Emissions).

The following list of General Plan goals, policies and programs from the Mobility (M) Element would directly and indirectly result in the reduction of VMT by incentivizing alternate modes of transportation, creating safe environments for pedestrians and bicyclists, and establishing parking spaces for more sustainable modes of travel. contain goals, policies, and programs that require local planning and development decisions to reduce GHG emissions.

Goal M-1: Regional Leadership in Mobility. Take a leadership role in developing regional transportation solutions.

- Policy M-1.1: Regional Transportation Planning. Actively coordinate with other jurisdictions, agencies, and service providers to improve the local and regional transportation system and advocate for the City's interests. Work cooperatively to improve transit and paratransit services, achieve needed highway improvements, and improve the regional bicycle and pedestrian networks.
- Policy M-2.3: Cost-Benefit Considerations. Consider the relative costs and benefits of transportation improvement projects, including the amount and source of funding, the potential number of people who will benefit, the expected impact on vehicle miles traveled and climate goals, the cost and time impacts on all travelers, the social and equity impacts, the effects on the environment and public safety, and similar factors.

- Program M-2.3A: Cost-Benefit Analysis. Conduct cost-benefit analyses as part of the design process for proposed transportation projects, including the criteria listed above and other factors that may be relevant.
- Program M-2.4B: Reducing Vehicle Idling. Support transportation network improvements to reduce vehicle idling, including synchronized signal timing.

Goal M-3: Cleaner Transportation. Coordinate transportation, land use, community design, and economic development decisions in a way that reduces greenhouse gas emissions, air and water pollution, noise, and other environmental impacts related to transportation.

- Policy M-3.1: VMT Reduction Standard. Achieve State-mandated reductions in Vehicle Miles Traveled by requiring development and transportation projects to meet specific VMT metrics. In the event a proposed project does not meet these metrics, require measures to reduce the additional VMT associated with the project, consistent with thresholds approved by the City Council.
  - Program M-3.1A: VMT Analysis Guidelines. Develop local guidelines for calculating the projected VMT associated with future development projects and transportation improvements. The guidelines also should cover administration, screening criteria, and appropriate Transportation Demand Management measures and monitoring procedures. All VMT metrics should be reassessed at least once every four years and revised as needed to reflect changing conditions.
- Policy M-3.2: Using VMT in Environmental Review. Require an analysis of projected Vehicle Miles Traveled (VMT) as part of the environmental review process for projects with the potential to significantly increase VMT. As appropriate, this shall include transportation projects and land use/ policy plans as well as proposed development projects.
  - Program M-3.2C: Mitigation Measures for VMT Impacts. Develop and implement mitigation measures that can be applied to projects with potentially significant VMT impacts in order to reduce those impacts to less than significant levels.
- Policy M-3.3: Transportation Demand Management. Encourage, and where appropriate require, transportation demand measures that reduce VMT and peak period travel demand. These measures include, but are not limited to, transit passes and flextime, work schedules, pedestrian and bicycle improvements, ridesharing, and changes to project design to reduce trip lengths and encourage cleaner modes of travel.
  - Program M-3.3A: Develop TDM Program Guidelines. Develop TDM Program Guidelines – or work in partnership with other local governments to develop Guidelines-- than can be used to mitigate potential VMT increases in new development and encourage reductions in existing development.
- Policy M-3.7: Design Features that Support Transit. For projects located in or near transit hubs such as Downtown San Rafael, incorporate design features that facilitate walking, cycling, and easy access to transit.
- Policy M-3.8: Land Use and VMT. Encourage higher-density employment and residential uses near major transit hubs such as Downtown San Rafael, recognizing the potential for VMT reduction in areas where there are attractive alternatives to driving, concentrations of complementary activities, and opportunities for shorter trips between different uses.

Goal M-7: Well-Managed Parking. Manage parking in a way that meets resident, business, and visitor needs while supporting the City's goal of a more sustainable transportation system.

- Policy M-7.6: Off-Street Parking Standards. Maintain off-street parking standards that adequately respond to demand, minimize adverse effects on neighborhoods, and sustain local businesses.
  - Program M-7.6A: Adjustments to Parking Standards. Periodically adjust off-street parking requirements to respond to data on parking needs, and trends in vehicle design, car ownership, and travel behavior.
  - Program M-7.6B: Parking Reductions. Allow reduced parking subject to findings that a project will have lower vehicle ownership rates (for example, for senior housing or housing adjacent to a SMART station).
- Policy M-7.8: Parking for Alternative Modes of Transportation. Designate parking spaces to incentivize and encourage carpooling, electric vehicles, and other more sustainable modes of travel.

The City considered the OPR guidance when developing the policy direction of the General Plan 2040. The City recognizes that VMT reductions may be achieved through the implementation of individual projects in the future and has included General Plan Policy M-3.1, which requires future development and transportation projects to meet specific VMT metrics. City Council action in July 2020 identified a 15 percent reduction in the applicable VMT efficiency metric from baseline conditions as the current VMT threshold, consistent with OPR guidance.

By implementing the policies described above, the proposed project would result in a transportation system that allows greater utilization of the roadway system, which would minimize the need to expand existing capacity, so that the City can focus on building complete streets, improving walking and biking as viable travel options, and making transit more effective. These goals are directly related to the City's desires to improve community health, create livable neighborhoods, reduce air pollution, and reduce greenhouse gas emissions. A key part of these changes is a shift in CEQA from automobile level-of-service standards to VMT embedded in Policy M-3.1, which will require new development projects to reduce VMT.

New land use plans or development projects must demonstrate that VMT produced by the proposed project meets the applicable VMT reduction threshold. Table 4.16-4 describes candidate VMT reduction strategies, informed by VMT reduction measures identified in the California Air Pollution Control Officers Association's 2010 *Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures*, that individual projects can use to achieve additional reductions beyond those incorporated in the proposed project. Table 4.16-4 focuses on strategies for employment uses, as most residential development projects would be presumed to result in a less-than-significant VMT impact based on the data and analysis described above.

TABLE 4.16-4 VMT REDUCTION MEASURES

CATEGORY	DESCRIPTION OF VMT REDUCTION MEASURE
Land Use/Location	Land use-related measures such as project land use mix, density, location, and efficiency related to other housing and jobs; and diversity of uses within the project. Also includes access and proximity to destinations, transit stations, and active transportation infrastructure.
Site Measures	Establishing or connecting to a pedestrian/bike network; traffic calming within and in proximity to the project; car sharing programs; shuttle programs.
Transit System Improvement Measures	Improvements to the transit system including expansion, service frequency, types of transit, access to stations, station safety and quality, parking (park-and-ride) and bike access (to transit itself and parking), last-mile connections. (Can be achieved through Travel Demand Management program measures.)
Commute Trip Reduction Measures	Transit fare subsidies, parking cash-outs, paid parking, alternative work schedules/telecommute, education/training of alternatives, rideshare programs, shuttle programs, bike share programs, end of trip facilities. (Can be achieved through Travel Demand Management program measures.)
In-Lieu Fee	A fee is levied that is used to provide non-vehicular transportation services that connect project residents to areas of employment or vice versa. This service may be provided by the project applicant in cooperation with major employers.

Source: Fehr & Peers 2020

While implementation of these goals, policies and programs in the proposed General Plan 2040 would support VMT reduction, and as shown in Table 4.16-3, the forecast VMT reduction in Total VMT Per Service Population or Work VMT Per Employee by 2040 for the proposed General Plan 2040 would be 5 to 7 percent respectively below 2019 baseline conditions and 3 percent below 2040 No Project conditions, buildout under the proposed General Plan 2040 would not be 15 percent below the corresponding average baseline rates for the full nine-county Bay Area. As such, the project impact on Total VMT Per Service Population and Work VMT Per Employee is considered *potentially significant*.

Impact TRAN-1a: Implementation of the proposed project would result in a significant land use VMT impact for Total VMT and Work VMT due to forecast land use growth through 2040, based on a comparison of the VMT rate increment for Total VMT Per Service Population and Work VMT Per Employee to the corresponding average baseline rates for the full nine-county Bay Area.

Mitigation Measure TRAN-1a*:* To reduce vehicle miles traveled the City shall modify Program M-3.3A (TDM Program Guidelines) to support achievement of the VMT reduction Standard:

- Modified Program 3-3A: Update Trip Reduction Ordinance. The City of San Rafael shall modify the Trip Reduction Ordinance (TRO) to reflect General Plan 2040 Policy M-3.1 and focus on VMT reduction measures. The amended TRO shall include the City's VMT reduction thresholds, VMT reduction measures and program guidelines, and a VMT trip reduction monitoring process. The TRO shall be updated a minimum of every five years to reflect changes in baseline VMT values, VMT thresholds, VMT reduction measures, and the monitoring process. The modified TRO shall reflect the process and methodology for conducting the VMT analysis for development projects as described in the City's Transportation Analysis (TA) Guidelines.

Significance with Mitigation: Significant and unavoidable. While impacts would be less than significant for citywide Home VMT Per Resident for residential use without mitigation, impacts with mitigation for citywide Total VMT Per Service Population and for Partial Work VMT per employees for

employment uses are considered significant and unavoidable. This is because even with the proposed General Plan 2040 policy measures and application of the relevant VMT mitigation measures, the City of San Rafael may not achieve the overall VMT threshold reduction level as the effectiveness of VMT reductions strategies is not certain. Disruptive changes to transportation such as transportation network companies (i.e., Uber, Lyft), increased delivery services (Amazon, UPS, FedEx, food, etc.), and autonomous vehicles may increase VMT beyond forecast levels. This program-level land use VMT impact for both Total VMT and Partial Work VMT, does not preclude the finding of less-than-significant impacts for subsequent development projects that achieve applicable VMT thresholds of significance. However, due to the programmatic nature of the proposed project, no additional mitigation measures are available, and the impact is considered *significant and unavoidable*.

Road Network VMT Impact

Table 4.16-1 lists the major planned mobility improvements that would be implemented between 2020 and 2040 as listed in General Plan 2040 Policy M-2.7. These improvements include road widening projects that would add approximately 3.8 new lane miles to the existing road system. Building new roadways or adding lanes to existing roadways that increase roadway capacity in congested areas increase network wide VMT by a nearly equivalent proportion within about 10 years. This increase in VMT is called long-term "induced vehicle travel." The magnitude of induced vehicle travel is measured as the elasticity of VMT with respect to lane miles. The National Center for Sustainable Transportation (NCST) recently developed a tool to estimate induced VMT. The 3.8 new lanes miles of added roadway capacity that would be implemented with the proposed project would induce approximately 15.2 million additional VMT per year, or about 50,500 VMT on a daily basis.

The induced vehicle travel effect due to roadway system expansion is not fully accounted for in travel demand models, so for purposes of this evaluation the induced VMT is considered separately from the VMT shown in Table 4.16-3. In general, travel demand models lack sensitivity to how roadway capacity expansion affects trave speeds that then influence long-term vehicle trip generation and land use growth allocations. As such, the Roadway Network VMT impact would be separate from the Land Use VMT impact described in Impact Discussion TRAN-1a. The project impact on VMT due to road network expansion is considered *potentially significant* in regard to meeting the VMT threshold.

Impact TRAN-1b: Implementation of the proposed project would result in a significant road network VMT impact due to the planned capacity of the roadway system.

Mitigation Measure TRAN-1b: Implement Mitigation Measure TRAN-1a.

Significance with Mitigation: Significant and Unavoidable. Even with the implementation of General Plan policies and application of Mitigation Measure TRAN-1a, because the effectiveness of VMT reduction strategies is not certain, the City of San Rafael may not achieve the overall VMT threshold reduction level. Disruptive changes to transportation such as transportation network companies (i.e., Uber, Lyft), increased delivery services (Amazon, UPS, FedEx, food, etc.), and autonomous vehicles may increase VMT beyond forecast levels. This program-level impact does not preclude the finding of less-than-significant impacts for subsequent development projects that achieve applicable VMT thresholds of significance. However, due to the programmatic nature of the proposed project, no

additional mitigation measures are available, and the impact is considered *significant and unavoidable*.

Downtown Precise Plan

The Downtown Precise Plan Area is an existing urban area where roughly half of the anticipated development by 2040 is expected to occur. Potential future development would occur on a limited number of vacant parcels and in the form of infill/intensification on sites either already developed and/or underutilized, and/or in close proximity to existing development. Approximately half of the Downtown Precise Plan Area is located in a PDA and TPA, which are designated in areas that are in close proximity to major transit stops or terminals. One primary goal of the *Plan Bay Area* PDA and TPA designations is to encourage transit-oriented development which would in turn reduce VMT.

Table 4.16-5 provides a comparison of the change in VMT and VMT efficiency metrics (i.e., per service population, per capita, or per employee) in the Downtown Precise Plan Area between the CEQA baseline (2019) and the General Plan horizon year (2040) conditions. Forecasts for Total VMT, Total VMT Per Service Population, Home VMT Per Resident, and Work VMT Per Employee are provided. The final row shows the percent change when comparing the three VMT rates for the Downtown Precise Plan Area to the corresponding average baseline rates for the full nine-county Bay Area.

As shown in the Table 4.16-4, the forecast VMT reduction in Total VMT Per Service Population by 2040 for the Downtown Precise Plan Area would be 12 percent below 2019 baseline conditions and nine percent below 2040 No Project conditions but would not be 15 percent below the average (2019) baseline rate for the full nine-county Bay Area. As such, while Total VMT Per Service Population for the Downtown Precise Plan Area is forecast to decline by 2040, due to the effects of added residential and employment uses that would reduce current Total VMT per service population, the VMT threshold of 15 percent below the current regional average would not be met.

TABLE 4.16-4 DAILY VEHICLE MILES TRAVELED (VMT) FOR DOWNTOWN SAN RAFAEL

SCENARIO	Total VMT	Total VMT Per Service Population	Home VMT Per Resident	Work VMT Per Employee
Baseline (2019)	1,129,000	39.7	13.7	16.6
2040 No Project	1,243,000	38.8	9.7	16.3
2040 General Plan Preferred Alternative	1,227,000	35.1	9.7	16.2
REGIONAL BASELINE				
Bay Area Region (2019)	313,500,000	27.2	13.4	16.9
PERCENT CHANGE – San Rafael 2040 VMT Rates Compared to Baseline Rate for Bay Area Region				
Downtown San Rafael - 2040 General Plan Preferred Alternative		+28.7%	-28.2%	-3.8%

Notes:
a. Service Population = San Rafael residents plus employees.

As recommended by OPR, partial VMT data was developed for VMT generated by housing (Home VMT) and employment uses (Work VMT) in the Downtown Precise Plan Area and are also evaluated against the VMT reduction target of 15 percent.

Home VMT Per Resident in the Downtown Precise Plan Area is forecast to decline from baseline (2019) to 2040 conditions and would be 28.2 percent below the corresponding average baseline rate for the full nine-county Bay Area. As such, residential development in the Downtown Precise Plan Area would meet the VMT threshold for Home VMT.

Work VMT Per Employee in San Rafael is forecast to decline from baseline to 2040 conditions but would be 3.8 percent below the corresponding average baseline (2019) rate for the full nine-county Bay Area. As such, while the combination of existing and new employment uses in the Downtown Precise Plan Area would result in a reduction in Work VMT Per Employee by 2040, the VMT threshold for employment uses would not be met. As the Work VMT Per Employee is lower in 2040 with the proposed General Plan than with the 2040 No Project condition or the 2019 baseline, this indicates that adding employees to the Downtown Precise Plan Area as proposed has a beneficial impact on reducing VMT levels. However, it is not enough to achieve the 15 percent threshold.

The proposed Downtown Precise Plan has no specific policies, and the Downtown Code has no specific regulations to reduce VMT; therefore, the impacts and mitigation described for the proposed General Plan 2040 would also apply in the Downtown Precise Plan Area. Accordingly, like the General Plan 2040, impacts would be *significant and unavoidable with mitigation.*

TRAN-2	**Implementation of the proposed project could result in potential conflicts with adopted policies, plans, or programs regarding bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities, that may have a significant impact on the environment.**

General Plan 2040

Future potential development under the proposed General Plan 2040 would contribute to and increase use of bicycle and pedestrian facilities in the EIR Study Area. The purpose of the City's adopted BPMP is to improve safety, act on community needs, and improve mobility options for San Rafael residents, workers and visitors. The BPMP provides a prioritized list of 124 projects within each of 7 designated geographic areas. The top three priority projects are identified for each geographic area.

General Plan 2040 Policies

While growth within the EIR Study Area would contribute to and increase use of bicycle and pedestrian facilities, the proposed Mobility (M) Element includes goals, policies, and programs that require local planning and development decisions to consider impacts to bicycle and pedestrian facilities. The following General Plan goals, policies, and programs would directly and indirectly result in improving the bicycle and pedestrian network and supporting programs such as Safe Routes to School to increase bicycle and pedestrian travel.

Goal M-1: Regional Leadership in Mobility. Take a leadership role in developing regional transportation solutions.

- Policy M-1.1: Regional Transportation Planning. Actively coordinate with other jurisdictions, agencies, and service providers to improve the local and regional transportation system and advocate for the City's interests. Work cooperatively to improve transit and paratransit services, achieve needed highway improvements, and improve the regional bicycle and pedestrian networks.
  - Program M-1.1A: Participation in Countywide and Regional Transportation Planning. Actively participate in the planning activities of the Transportation Authority of Marin, the Metropolitan Transportation Commission, SMART, and other transportation agencies and support implementation of cost-effective regional plans and programs.
  - Program M-1.1B: Public Information About Transportation. Provide timely information and opportunities for public input on transportation issues and projects through workshops, neighborhood meetings, social media, staff reports, and other means.
- Policy M-1.2: Regional Funding. Support a regional approach to the funding of transit, highway, bicycle, and pedestrian improvements by seeking a broad range of federal, State, and County funds. Use local funds to leverage and match outside funding sources.
  - Program M-1.2A: Transportation Project Grants. Work with governmental agencies, non-profits and community groups to secure grants for appropriate transportation projects.

Goal M-5: Safe, Attractive Streets that Connect the Community. Provide a transportation system that minimizes negative impacts on neighborhoods while maximizing access and connectivity in the community.

- Policy M-5.1: Traffic Calming. Protect residential areas from the effects of speeding traffic or traffic from outside the neighborhood through appropriate traffic "calming" solutions such as speed humps, bulb-outs, speed limits, stop signs, and chicanes. Traffic calming measures shall not conflict with emergency response capabilities.
- Policy M-5.5: School-Related Traffic. Actively encourage public and private schools to reduce congestion caused by commuting students and staff through improved provisions for pick-up and drop-off, parking management, staggered start and end times, and trip reduction.
  - Program M-5.5A: School Transportation. Implement measures to improve the safety and enjoyment of students walking, bicycling, or taking the bus to school. Examples include pedestrian crossing enhancements, transit passes or reduced rates for students, locating transit stops near school campuses, supporting increased funding for school buses and crossing guards, and staggering school hours.
- Policy M-5.6: Truck Impacts. Manage truck traffic and deliveries in residential areas to avoid conflicts with local auto traffic, pedestrian and bicycle safety, parking, and adjacent uses.
  - Program M-5.6A: Trucking Routes and Transportation Permits. Continue to designate specific streets as trucking routes and maintain permit requirements for vehicles that exceed weight limits on non-designated routes.
  - Program M-5.6B: Quarry Traffic. Continue, and periodically update, measures to mitigate the impacts of quarry-related truck traffic on Point San Pedro Road.

Goal M-6: Safe Walking and Cycling. Encourage walking and bicycling as safe, pleasurable, healthful ways to travel.

- Policy M-6.1: Encouraging Walking and Cycling. Wherever feasible, encourage walking and cycling as the travel mode of choice for short trips, such as trips to school, parks, transit stops, and neighborhood services. Safe, walkable neighborhoods with pleasant, attractive streets, bike lanes, and sidewalks should be part of San Rafael's identity.
  - Program M-6.1A: Bicycle and Pedestrian Master Plan Implementation. Maintain San Rafael's Bicycle and Pedestrian Master Plan (BPMP) and update the Plan as required to ensure eligibility for grant funding. The BPMP should be a guide for investment in pedestrian and bicycle infrastructure, and for programs to make walking and cycling a safer, more convenient way to travel.
  - Program M-6.1B: Station Area Plans. Implement the pedestrian and bicycle improvements in the 2012 Downtown Station Area Plan and the 2012 Civic Center Station Area Plan.
  - Program M-6.1C: Canal Community Based Transportation Plan (CBTP). Update the CBTP for the Canal neighborhood, including provisions to improve walking and cycling within the Canal and East San Rafael communities, and better connect the Canal area to Downtown, the waterfront, and the rest of the community.
  - Program M-6.1D: Funding. Seek grant funding for implementation of the BPMP and other plans proposing bicycle and pedestrian improvements.
- Policy M-6.2: Pedestrian and Bicycle Safety. Identify, prioritize, and implement pedestrian and bicycle safety improvements in order to reduce collisions and injuries, and eliminate fatalities.
  - Program M-6.2A: Implementation of Safety Measures. Implement pedestrian and bicycle safety measures as described in the 2018 BPMP, including ADA compliant curb ramps, curb extensions in business districts, median refuge islands, active warning beacons, painted bike "boxes" at intersections, and signal phasing adjustments in areas with high bicycle volumes.
  - Program M-6.2B: Vision Zero. Consistent with the BPMP, support a "Vision Zero" approach to safety among pedestrians and cyclists, with the goal of eliminating severe injuries and fatalities.
  - Program M-6.2C: Enforcement. Conduct enforcement activities to improve compliance with traffic safety laws, especially around intersections with frequent collisions.
  - Program M-6.2D: Safe Routes Programs. Work collaboratively with local schools to implement Safe Routes to School programs. Explore similar programs to promote safe routes to parks, work, services, and transit, as well as safe routes for seniors.
- Policy M-6.3: Connectivity. Develop pedestrian and bicycle networks that connect residents and visitors to major activity and shopping centers, existing and planned transit, and schools. Work to close gaps between existing facilities. Funding and prioritization for projects should consider relative costs and benefits, including such factors as safety, number of potential users, and impacts on parking.
  - Program M-6.3A: Implementation of Pathway Improvements. Implement the major pedestrian and bicycle pathway, intersection, and lane improvements included in adopted City plans, including:
    - Restoration of pedestrian paths, stairways, and rights-of-way, particularly in the "inner ring" neighborhoods around Downtown
    - An east-west bikeway across Downtown San Rafael

- A north-south greenway and separated bicycle-pedestrian facilities along West Tamalpais Avenue
- Improved crossings of the San Rafael Canal, including a potential new crossing east of Grand Avenue
- Additional Class I, II, and IV lanes, as identified in the BPMP
- Improved signage, pavement markings and sidewalk widening
- Closing gaps in the Bay Trail
- Bike lane improvements to Point San Pedro Road (Cross-Marin Bikeway)
- Pedestrian/ bicycle "promenades" along the San Rafael Canal and in North San Rafael (Civic Center Station to Terra Linda Community Center), including Freitas Parkway and North San Pedro Road
- Potential pedestrian crossing over 101 (in association with the I-580/101 reconstruction) and east-west pedestrian improvements under the 101 viaduct through Downtown.

- Program M-6.3B: Improvements in the Unincorporated Area. Integrate the recommendations of the Unincorporated Marin County Bicycle and Pedestrian Master Plan to create a seamlessly connected system that allows for easy bicycle travel between City and County neighborhoods. This includes improvements along Miller Creek Road and Las Gallinas Avenue in Marinwood.
- Program M-6.3C: Bicycle Parking. Create additional bicycle parking and storage capacity at the SMART stations and in Downtown San Rafael.
- Program M-6.3D: Electric Bicycles. Monitor and support the use of electric bicycles and periodically evaluate the need for standards, programs, and facilities that support their use.

- Policy M-6.4: Urban Trails Network. Identify, renovate, improve, and maintain an urban trails network to encourage walking and appreciation of historical and new pathways.
  - Program M-6.4A: Urban Trails Master Plan. As part of a citywide Trails Master Plan, include an "urban trails" component with maps and descriptions of existing and potential urban trails in San Rafael. Urban trails to be identified include, but are not limited to, historic neighborhood stairways and walkways, Downtown alleyways, park pathways, and creekside paths. Identify potential funding sources for projects identified in the Plan projects and include the projects in the Capital Improvements Program.

- Policy M-6.5: Pilot Projects. Support pilot projects that install removable pedestrian and bicycle improvements on a short-term basis to test their effectiveness and public reception before investing in permanent improvements.

- Policy M-6.6: Coordination. Work with other jurisdictions, transit agencies, and stakeholders to implement projects that reflect bicycle and pedestrian needs at the local and regional levels.
  - Program M-6.6A: Bikeshare Program. Partner with the Transportation Authority of Marin (TAM) in implementation of a bikeshare program in Downtown San Rafael and at the Civic Center station. Consider possible locations for bike sharing "pods" at destinations throughout San Rafael, especially Downtown.
  - Program M-6.6B: Monitoring. Maintain data on the effectiveness of pedestrian and bicycle improvements and use this data to adjust programs as needed.
  - Policy M-6.7: Universal Design. Design and construct bicycle and pedestrian facilities to serve people of all ages and abilities, including children, seniors, families, and people with limited mobility.

- Program M-6.7A: ADA Compliance. Continue efforts to improve access for those with disabilities, including compliance with Federal and State accessibility requirements.
- Program M-6.7B: Best Practices. Continue to construct bicycle and pedestrian facilities according to the most up-to-date local, state, and national best practices and design guidelines.

- Policy M-6.8: Pedestrian and Bicycle Programming. Continue programs and activities to encourage walking and cycling.
  - Program M-6.8A: Public Information. Maintain public information on pedestrian and bicycle projects, routes, data, and information on the City's website.
  - Program M-6.8B: Bike to Work Day. Encourage City employees, other San Rafael workers and residents to participate in Bike to Work Days and similar programs that encourage cycling as a viable commute alternative.
  - Program M-6.8C: Maintenance of Pedestrian and Bicycle Facilities. Develop a program for prioritizing and funding the maintenance of existing pedestrian and bicycle facilities based on use, connectivity, and facility conditions.

Implementation of these goals, policies and programs of the proposed General Plan 2040 would improve the bicycle and pedestrian network and support programs to increase bicycle and pedestrian travel. Implementation of General Plan 2040 would not result in conflicts with adopted policies, plans, or programs or otherwise decrease the performance or safety of bicycle or pedestrian facilities and impacts would be *less than significant.*

Significance without Mitigation: Less than Significant.

Downtown Precise Plan

About half of the new residents and employees envisioned by the proposed General Plan 2040 would be located in the Downtown Precise Plan Area, which is this where the greatest increase in demand for bicycle or pedestrian travel would occur. More than half of the Downtown Precise Plan Area is located in a *Plan Bay Area* PDA and TPA, which are designated in areas that are in close proximity to major transit stops or terminals. One primary goal of the *Plan Bay Area* PDA and TPA designations is to encourage transit-oriented development and multi-modal connectivity including pedestrian-friendly design and improved accessibility for all people.

The proposed Downtown Precise Plan lays out a future transportation vision for the downtown in which the network proves improved access, both internal to downtown and to surrounding areas, improves the interaction of transportation modes, and supports an appropriate amount of parking at the appropriate price levels. The future network would accommodate more trips using multiple travel modes. The proposed Downtown Precise Plan recommends a series of improvements based on a Pedestrian Priority Network and Bicycle Priority Network for the downtown.

While the proposed Downtown Precise Plan has no specific policies, and the Downtown Code has no specific regulations related to bicycle and pedestrian facilities, with implementation of the Pedestrian Priority Network and Bicycle Priority Network for the downtown and compliance with and implementation of the proposed General Plan 2040 goals, polices, and programs, the impacts described for the proposed

General Plan 2040 would also apply in the Downtown Precise Plan Area. Accordingly, like the General Plan 2040, impacts would be *less than significant.*

Significance without Mitigation: Less than significant.

TRAN-3	**Implementation of the proposed project could result in potential conflicts with adopted policies, plans, or programs regarding public transit, or otherwise decrease the performance or safety of such facilities, that may have a significant impact on the environment.**

General Plan 2040

Future potential development under the proposed General Plan 2040 would contribute to and increase use of transit in the EIR Study Area. The City's 2019 CCAP includes actions or measures meant to reduce GHG emissions by 40 percent below 1990 levels by 2030. Since 62 percent of GHG emissions originate from the transportation sector, the largest share of reductions from local mitigation measures in San Rafael would occur from transportation-related measures including supporting and promoting the increased use of public transit.

General Plan 2040 Policies

While growth within the EIR Study Area would contribute to and increase use of transit, the proposed Mobility (M) Element contains goals, policies and programs that require local planning and development decisions to consider impacts to transit. The following General Plan goals, policies and programs would directly and indirectly result in improving the transit network and supporting an increase in transit use.

Goal M-1: Regional Leadership in Mobility. Take a leadership role in developing regional transportation solutions.

- Policy M-1.1: Regional Transportation Planning. Actively coordinate with other jurisdictions, agencies, and service providers to improve the local and regional transportation system and advocate for the City's interests. Work cooperatively to improve transit and paratransit services, achieve needed highway improvements, and improve the regional bicycle and pedestrian networks.
  - Program M-1.1A: Participation in Countywide and Regional Transportation Planning. Actively participate in the planning activities of the Transportation Authority of Marin, the Metropolitan Transportation Commission, SMART, and other transportation agencies and support implementation of cost-effective regional plans and programs.
  - Program M-1.1B: Public Information About Transportation. Provide timely information and opportunities for public input on transportation issues and projects through workshops, neighborhood meetings, social media, staff reports, and other means.
- Policy M-1.2: Regional Funding. Support a regional approach to the funding of transit, highway, bicycle, and pedestrian improvements by seeking a broad range of federal, State, and County funds. Use local funds to leverage and match outside funding sources.

- Program M-1.2A: Transportation Project Grants. Work with governmental agencies, non-profits and community groups to secure grants for appropriate transportation projects.

Goal M-3: Cleaner Transportation. Coordinate transportation, land use, community design, and economic development decisions in a way that reduces greenhouse gas emissions, air and water pollution, noise, and other environmental impacts related to transportation.

- Policy M-3.7: Design Features that Support Transit. For projects located in or near transit hubs such as Downtown San Rafael, incorporate design features that facilitate walking, cycling, and easy access to transit.

Goal M-4: High-Quality Affordable Transit. Support accessible, reliable, cost-effective transit services that provide a convenient, affordable, efficient alternative to driving.

- Policy M-4.1: Sustaining Public Transportation. Support a level of transit service frequency and routing that promotes transit usage, avoids overcrowding, and makes transit an attractive alternative to driving.
  - Program M-4.1A: Transit Advocacy. Support State, County, and regional efforts to sustain and expand Marin County's transit network. Work with neighborhoods, employers, transit providers, transportation planning agencies and funding agencies to improve and expand transit and paratransit services.
  - Program M-4.1B: Evaluating Transit Needs. Support efforts to track, forecast, survey, and respond to changing transit and paratransit needs in order to meet the requirements of specific population groups. Advocate for meaningful public participation in meetings and discussions with transit providers and ensure that the needs of those in the community who are transit-dependent are well represented. Encourage the use of performance measures and regular reporting by transit agencies to ensure services are being delivered as efficiently as possible.
  - Program M-4.1C: Partnerships. Encourage partnerships between local transit service providers to avoid redundancy, maximize coverage and efficiency, and improve transfers between transit systems.
  - Program M-4.1D: Transit for Tourism. Support efforts to provide effective transit options for visitors to West Marin and other County tourist destinations, in order to reduce regional traffic flow through San Rafael.
  - Program M-4.1E: Transit Information. Encourage the development and dissemination of information to facilitate transit use. This includes real-time, multi-lingual information on bus arrivals, departures, transfers, and routes. In addition, the City should include information on transit access on notices of City meetings and provide links to transit websites from its own website
  - Program M-4.1F: Public Health. Work with transit service providers to effectively respond to service and design challenges associated with rider safety during and after public health emergencies.
- Policy M-4.2: Regional Transit Options. Encourage expansion of regional transit connecting Marin with adjacent counties, including basic and express bus service, rail, and ferry service.

- Program M-4.2A: Regional Bus Service. Support expansion of regional bus service to and from other Bay Area counties, including expanded express bus service along the 101 and 580 corridors, and continued bus and shuttle service to the region's airports.
- Program M-4.2B: Rail Service. Advocate for reliable long-term funding sources to sustain and enhance North Bay rail service.
- Program M-4.2C: Ferry and Water Taxi Service. Work with the Golden Gate Bridge Highway and Transportation District and other regional agencies to support improved ferry service, additional ferry terminals, efficient connections between ferries and other transportation modes, new ferry routes (to Vallejo, the East Bay, San Francisco, and points south), autonomous buses, and other improvements that would increase ferry use and regional transit ridership. Consider the viability of water taxi service to supplement the ferry system and improve local connections.

- Policy M-4.3: SMART Improvements. Maximize the potential benefits of Sonoma Marin Area Rail Transit (SMART) while minimizing potential conflicts between SMART trains, adjacent land uses, bicycle and pedestrian movement, and vehicle traffic circulation. City plans and programs related to SMART should be periodically evaluated based on changes in funding, operating costs, ridership, and other factors impacting service levels.
  - Program M-4.3A: Rail Safety. Work with SMART to improve safety measures along the SMART tracks, reduce train noise, and avoid the blockage of intersections by trains.
  - Program M-4.3B: Passenger Pickup and Drop-Off. Work with SMART on plans to improve passenger pick-up and drop-off, connectivity between trains and buses, and provisions for passenger parking (see also Policy M-7.9 on parking for transit users).
  - Program M-4.3C: Arrival Experience. Create a welcoming experience for passengers arriving at the Downtown San Rafael and Civic Center stations, including wayfinding signage, easy transfers, and clearly marked, well lit pathways to nearby destinations.
  - Program M-4.3D: Service Reliability. Work with SMART to avoid disruptions of service during power outages and provide backup power to sustain operations during and after emergencies.
  - Program M-4.3E: Downtown Crossings. Continue to work with SMART to reduce congestion related to grade-level train crossings in Downtown San Rafael. Encourage SMART to assess the potential cost, as well potential funding sources, to elevate the tracks through Downtown.

- Policy M-4.4: Local Transit Options. Encourage local transit systems that connect San Rafael neighborhoods, employment centers, and other destinations.
  - Program M-4.4A: Local Bus Service. Support Marin Transit and Golden Gate Transit efforts to improve bus routing, frequency, and equipment, and to keep bus fares affordable.
  - Program M-4.4B: Improved Bus Stops. Support efforts to improve bus stops and shelters to provide a safe and pleasant experience for riders. Allow commercial advertising to fund bus shelter upgrades and maintenance.
  - Program M-4.4C: Local Shuttle Programs. Support efforts to create financially feasible shuttle, jitney, and circulator bus services to connect passengers arriving at the San Rafael Transit Center and SMART stations to their destinations.

- Policy M-4.5: Transit and the Environment. Encourage a less carbon-intensive transit system with reduced environmental impacts. This could include electrification of buses and trains, and the use of smaller vehicles in areas of lower demand.

- Policy M-4.6: Paratransit Options. Encourage expansion of paratransit and flexible route services as needed to serve specialized populations including seniors, students, and persons with disabilities.
  - Program M-4.6A: Other Local Transit. Support Dial-A-Ride, taxi, and transportation network company (TNC) services serving San Rafael.
  - Program M-4.6B: Paratransit Service. Support continued Whistlestop Wheels service and expanded regional paratransit services where needed.
- Policy M-4.7: Intermodal Transit Hubs. Support efforts to develop intermodal transit hubs in Downtown and North San Rafael to provide safe, convenient connections for all travelers. Such hubs should include secure bicycle parking, EV charging stations, and efficient drop-off and pick-up areas and create a positive experience for those arriving in San Rafael.
  - Program M-4.7A: Transit Center Relocation. Complete the relocation process for the San Rafael Transit Center. Design of the facility should consider the effects on local street congestion and the safety of those walking or bicycling to and from the facility. Continue to work with transit service providers to coordinate schedules, transfers, and routing in a manner that is convenient for San Rafael travelers.
  - Program M-4.7B: First Mile/ Last Mile Trips. Work with TAM, transit agencies, neighborhood groups, and the local business community to improve options for "first mile/ last mile" trips connecting regional transit hubs to nearby destinations.
  - Program M-4.7C: Implementation of Other Plans. Implement the recommendations of the Downtown Precise Plan, the Downtown Station Area Plan, and the Civic Center Station Area Plan for coordination of transit services and improvement of connections between travel modes.

Implementation of these goals, policies and programs of the proposed General Plan 2040 would improve the transit network and support programs to increase travel by transit. Implementation of General Plan 2040 would not result in conflicts with adopted policies, plans, or programs or otherwise decrease the performance or safety of transit facilities or services and impacts would be *less than significant.*

Significance without Mitigation: Less than significant.

Downtown Precise Plan

About half of the new residents and employees envisioned by the General Plan would be located in Downtown San Rafael. More than half of the Downtown Precise Plan Area is located in a *Plan Bay Area* PDA and TPA, which are designated in areas that are in close proximity to major transit stops or terminals. One primary goal of the *Plan Bay Area* PDA and TPA designations is to encourage transit-oriented development and multi-modal connectivity including pedestrian-friendly design and improved accessibility for all people. Therefore, while the proposed Downtown Precise Plan has no specific policies, and the Downtown Code has no specific regulations related to transit, potential future development that occurs as a result of the Downtown Precise Plan would be designed to increase transit access and safety as well as maximize the use of existing transit services. Furthermore, the multimodal street network illustrated in the Downtown Precise Plan would serve any of the locations being considered for a new San Rafael Transit Center. Accordingly, compliance with and implementation of the proposed General Plan 2040 goals, polices, and programs would ensure that the impacts described for the proposed General Plan

2040 would also apply in the Downtown Precise Plan Area and, like the General Plan 2040, impacts would be *less than significant.*

Significance without Mitigation: Less than significant.

TRAN-4	**Implementation of the proposed project could substantially increase hazards due to a design feature that may have a significant impact on the environment.**

General Plan 2040

Future potential development under the proposed General Plan 2040 would modify the existing transportation network to accommodate existing and future users that could change existing travel patterns or traveler expectations. The City requires the modification of existing public facilities or the construction of new facilities comply with the applicable design standards contained in the California Manual on Uniform Traffic Control Devices and the California Highway Design Manual, which have been developed to minimize the potential for conflicts or collisions.

General Plan 2040 Policies

While growth within the EIR Study Area would result in changes to the existing transportation network, the proposed Mobility (M) Element contains goals, policies and programs that require local planning and development decisions to consider impacts to transit. The following General Plan goals, policies and programs would support the design of a transportation system that is safe for all modes of travel. The following describes the goals, policies and programs that directly and indirectly result in improving the transportation network.

Goal M-2: Improved Transportation Efficiency and Access. Sustain an efficient, cost-effective transportation network that continuously improves mobility and accessibility for all users.

- Policy M-2.2: Safety. Design a transportation system that is safe and serves people using all modes of travel. Higher levels of congestion may be accepted at particular intersections if necessary to ensure the safety of all travelers, including pedestrians, bicycles, motorists, and transit users.
  - Program M-2.2A: Collision Data. Collect and analyze data on traffic collisions and use such data to inform decisions about capital improvements, enforcement, and traffic safety programs.
  - Program M-2.2B: Street Pattern and Traffic Flow. Support efforts by the City Traffic Engineer to configure or re-configure street patterns to improve traffic flow and turning movements while prioritizing safety.

Goal M-5: Safe, Attractive Streets that Connect the Community. Provide a transportation system that minimizes negative impacts on neighborhoods while maximizing access and connectivity in the community.

- Policy M-5.5: School-Related Traffic. Actively encourage public and private schools to reduce congestion caused by commuting students and staff through improved provisions for pick-up and drop-off, parking management, staggered start and end times, and trip reduction.

- Program M-5.5A: School Transportation. Implement measures to improve the safety and enjoyment of students walking, bicycling, or taking the bus to school. Examples include pedestrian crossing enhancements, transit passes or reduced rates for students, locating transit stops near school campuses, supporting increased funding for school buses and crossing guards, and staggering school hours.

- Policy M-5.6: Truck Impacts. Manage truck traffic and deliveries in residential areas to avoid conflicts with local auto traffic, pedestrian and bicycle safety, parking, and adjacent uses.
  - Program M-5.6A: Trucking Routes and Transportation Permits. Continue to designate specific streets as trucking routes and maintain permit requirements for vehicles that exceed weight limits on non-designated routes.
  - Program M-5.6B: Quarry Traffic. Continue, and periodically update, measures to mitigate the impacts of quarry-related truck traffic on Point San Pedro Road.

Implementation of these goals, policies and programs would promote the design of improvements to the transportation network that are safe for all modes of travel. As described above, the City of San Rafael also requires the modification of existing public facilities or the construction of new facilities comply with the applicable design standards contained in the California Manual on Uniform Traffic Control Devices and the California Highway Design Manual, which have been developed to minimize the potential for conflicts or collisions. This standard practice would minimize this impact. Implementation of General Plan 2040 would not result in conflicts with adopted policies, plans, or programs or otherwise increase hazards due to a design feature that may have a significant impact on the environment and impacts would be *less than significant.*

Significance without Mitigation: Less than Significant.

Downtown Precise Plan

The design of transportation improvements in the Downtown Precise Plan Area would be governed by the above General Plan 2040 policies and aforementioned design standards followed by the Department of Public Works in the development of improvement plans. As such, implementation of the Downtown Precise Plan would not result in conflicts with adopted policies, plans, or programs or otherwise increase hazards due to a design feature that may have a significant impact on the environment.

Significance without Mitigation: Less than significant.

TRAN-5 Implementation of the proposed project could result in inadequate emergency access that may have a significant impact on the environment.

General Plan 2040

Future potential development under the proposed General Plan 2040 would alter land use patterns and increase travel demand on the transportation network that may influence emergency access.

General Plan 2040 Policies

While growth within the EIR Study Area would result in changes to land use and the existing transportation network, the proposed Mobility (M) Element contains goals, policies and programs that require local planning and development decisions to consider improvements to transportation efficiency, mobility, and access including developing and updating emergency response plans. The following describes the goals, policies and programs that directly and indirectly result in providing emergency access.

Goal M-2: Improved Transportation Efficiency and Access. Sustain an efficient, cost-effective transportation network that continuously improves mobility and accessibility for all users.

- Policy M-2.8: Emergency Access. Identify alternate ingress and egress routes (and modes of travel) for areas with the potential to be cut off during a flood, earthquake, wildfire, or similar disaster.
  - Program M-2.8A: Highway Closures. Develop and update contingency plans for highway closures as part of the City's disaster preparedness and emergency response plans.
- Policy M-2.9: Narrow Streets. In new subdivisions, allow narrower streets to reduce travel speeds and accommodate multiple modes of travel, while still providing for emergency and service access.

Goal M-5: Safe, Attractive Streets that Connect the Community. Provide a transportation system that minimizes negative impacts on neighborhoods while maximizing access and connectivity in the community.

- Policy M-5.3: Connected Neighborhoods. Identify opportunities to better connect San Rafael neighborhoods to one another and to improve access to local destinations such as schools, shopping, and workplaces. Consider such connections as part of emergency response and evacuation planning.
  - Program M-5.3A: East San Rafael Improvements. Consider the potential for new or relocated roads in East San Rafael that would relieve local street congestion, increase efficiency, and improve access between the north and south sides of Interstate 580.

Implementation of these goals, policies and programs of the proposed General Plan 2040, as well as goals, policies, and programs in the Safety and Resilience Element, would address emergency access by considering new access routes for limited access neighborhoods, developing and updating emergency response plans, and incorporating emergency access considerations in the design of future street improvements. Implementation of General Plan 2040 would not result in inadequate emergency access that may have a significant impact on the environment and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

Downtown Precise Plan

Downtown San Rafael is served by the Public Safety Center (Station 51) at Fifth Avenue and D Street that houses San Rafael fire, police, and emergency services as well as Fire Station 52 located at Union Street and 4th Street. The transportation network in the Downtown Precise Plan Area is a grid configuration that provides several alternative east-west and north-south streets for emergency access routes.

Together, the new Public Safety Center and Fire Station 52 provide emergency services and access to both the west and east sides of US-101 and adjacent SMART rail line where peak hour congestion on weekdays is most concentrated. The potential future development in the Downtown Precise Plan Area would be infill development and because approximately half of the Downtown Precise Plan Area is located in a PDA and TPA, which are designated in areas that are in close proximity to major transit stops or terminals, development in this area would support transit-oriented development which would in turn reduce VMT and reduce roadway congestion. As described throughout this impact discussion, the proposed General Plan 2040 includes numerous goals, polices, and programs to reduce automobile use and VMT. As such, implementation of the Downtown Precise Plan would not result in inadequate emergency access that may have a significant impact on the environment. Therefore, the impacts described for the proposed General Plan 2040 would also apply in the Downtown Precise Plan Area. Accordingly, like the General Plan 2040, impacts would be *less than significant.*

Significance without Mitigation: Less than significant.

TRAN-6 Implementation of the proposed project could result in a cumulatively considerable impact to citywide VMT.

Future potential development under the proposed General Plan 2040 would contribute to an increase in VMT in the EIR Study Area as shown in Table 4.16-3. Buildout of the proposed General Plan 2040 is assumed over a 20-year project horizon. Implementation of the proposed General Plan 2040 by the horizon year of 2040 would result in a net increase of 8,910 people and 4,115 employees in the EIR Study Area. Development that would be accommodated by the proposed General Plan 2040 would generate a net increase of Total VMT at project buildout. As discussed under Impact TRAN-1, implementation of the proposed project would result in a decrease in citywide VMT per service population and Work VMT Per Employee in horizon year 2040 from existing baseline but would not be 15 percent below the baseline nine-county regional average. The home VMT per resident, a measure of VMT for residential uses, would be 15 percent below the baseline nine-county regional average, Therefore, the impact on VMT would be cumulatively considerable. Mitigation Measure TRAN-1a would apply.

Impact TRAN-6: Implementation of the proposed project would cumulatively contribute to regional VMT.

Mitigation Measure TRANS-6: Implement Mitigation Measure TRAN-1a.

Significance with Mitigation: Significant and unavoidable. Even with the General Plan policy measures and application of Mitigation Measure TRAN-1a, the City of San Rafael will not achieve the VMT rate reductions specified in Policy M-3.1 and the effectiveness of VMT reduction strategies is not certain. Disruptive changes to transportation such as transportation network companies (i.e., Uber, Lyft), increased delivery services (Amazon, UPS, FedEx, food, etc.), and autonomous vehicles may increase VMT beyond forecast levels. As such, the cumulative impact on VMT with mitigation is considered *significant and unavoidable.*