# 4 Circulation

Circulation is how we get around the city and it has great influence on the quality of our daily lives and the strength of the local economy. An efficient and safe system of getting around by car, bus, train, bicycle, and walking will help support productive and healthy lifestyles and a prosperous economy. As Moreno Valley and the surrounding region continue to grow, circulation systems in the city will focus on maintaining and enhancing a complete transportation network, including automobile travel, transit, non-motorized transportation, and goods movement; these circulation aspects, as well as parking and emergency access, are addressed in this chapter.

This chapter satisfies the statutory requirements for the General Plan Circulation Element and provides a circulation diagram identifying major thoroughfares; transportation routes for vehicles, transit, bicycles, and pedestrians; and also a military airport. This chapter includes policies for "complete streets," which provide a balanced, multimodal transportation network serving all users and abilities and supports other chapters of the General Plan by providing and enhancing multimodal transportation options and supporting adjacent land uses.

Citywide development patterns, public services/facilities, and the economy are discussed in the Land Use and Community Character, Parks and Public Services, and Economic Development Elements, respectively. Promotion of healthy and active lifestyles that include getting around and experiencing the city outside of the car are addressed in the Environmental Justice and Healthy Community Elements, and ensuring accessible housing to transit dependent populations is addressed in the Housing Element.

## Regional Connectivity

The City of Moreno Valley is located in the western part of Riverside County. Interstate 215 (I-215) lies west of the city and State Route 60 (SR-60) runs through the northern portion of the city. These highways are accessed by multiple on/off ramps throughout Moreno Valley and intersect in the western portion of the city (west of the Moreno Valley Mall) just outside of the city limits. The northern border of Moreno Valley backs up to the Reche Canyon/Box Springs Mountain Reserve, which is just south of the Riverside/San Bernardino County line. To the east of Moreno Valley lies the City of Beaumont, to the south is the City of Perris, and to the west is the City of Riverside.

The City of Moreno Valley's public transit commuter modal share is about the same as Riverside County (approximately 1 percent). The Riverside Transit Agency (RTA) provides the majority of available public transportation via fixed route bus and para-transit services. Sunline Transit Agency (STA) provides a commuter link bus route connecting the cities of Riverside, Moreno Valley, Beaumont, and Palm Desert; this route connects to the Riverside Metrolink Station. Metrolink is a commuter rail program operated by the Southern California Regional Rail Authority (SCRRA), providing service from outlying suburban communities to employment centers such as Burbank, Irvine, and downtown Los Angeles. For Moreno Valley, the Moreno Valley/March Field Metrolink Station is located less than one-half mile west of the city limits.

### TRANSPORTATION AGENCIES

The transportation agencies highlighted below influence local and regional transportation planning in and around Moreno Valley.

- *United States Department of Transportation (USDOT)* – The US DOT coordinates all federal transportation work. Under the USDOT, the Federal Highway Administration (FHWA) builds and maintains the National Highway System; the Federal Railroad Administration (FRA) invests in and enforces safety regulations along rail corridors throughout the United States; the Federal Transit Administration provides financial and technical assistance to local public transit systems and oversees transit safety; and the National Highway Traffic Safety Administration (NHTSA) works to improve safety on roadways.
- *California Department of Transportation (Caltrans)* – Caltrans is responsible for the state highway system, including more than 50,000 miles of California's highway and freeway lanes. Moreno Valley is part of Caltrans District 8.
- *Southern California Association of Governments (SCAG)* – SCAG is the transportation planning, financing, and coordinating agency for six counties in Southern California. The agency develops long-range regional transportation plans including sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and a portion of the South Coast Air Quality management plans.
- *Riverside County Transportation Commission (RCTC)* –RCTC is responsible for managing and spending Measure A sales tax dollars, which fund transportation improvements in Riverside County.
- *Western Riverside Council of Governments (WRCOG)* – WRCOG is a centralized agency setting policy for 18 cities, the Riverside County Board of Supervisors, the Eastern and Western Municipal Water Districts, and the Morongo Band of Mission Indians. WRCOG's Economic Development & Sustainability Framework has served as a roadmap for implementing the Agency's regional programs and projects. The Framework calls for the preservation and advancements of inter-related goal areas (Economy,

Education, Energy & Environment, Health, Water & Water Waste, and Transportation), which are critical to achieve and maintain a high quality of life in Western Riverside County. WRCOG developed and administers the Transportation Uniform Mitigation Fee (TUMF).

- *Riverside Transit Agency (RTA)* – RTA is the Consolidated Transportation Service Agency for western Riverside County and is responsible for coordinating transit services throughout the approximate 2,500 square mile service area, providing driver training, assistance with grant applications and development of Short Range Transit Plans (SRTPs).

## REGIONAL TRANSPORTATION NETWORK

The projects listed below have broad regional significance and would reduce congestion in the City of Moreno Valley by increasing capacity of the system.

- *State Route 60 (SR-60) Truck Lanes Project* – 4.5-mile widening project on SR-60 between Gilman Springs Road and 1.4 miles west of Jack Rabbit Trail in the unincorporated Riverside County Badlands. This project will enhance the mobility and safety of SR-60 through the Badlands and improve trucking accessibility from Moreno Valley to the east. This project is anticipated to be completed in 2021.
- *Interstate 215 (I-215) High Occupancy Vehicle (HOV) Lanes Project* – 11-mile widening project on I-215 to add HOV lanes in each direction from Box Springs Road in Moreno Valley to Nuevo Road in Perris. This project is anticipated to improve travel time on I-215.
- *Mid County Parkway Project* – Also known as Community and Environmental Transportation Acceptability Process (CETAP) East, a 16-mile transportation corridor to relieve traffic congestion in southwestern Riverside County near San Jacinto and Perris. This project is anticipated to improve travel time between SR-79 and I-215 and provide connections that support multimodal transportation.
- *CETAP West* – 16-mile westerly extension of Mid County Parkway between I-15 in Corona and I-215 in Perris. This proposed project will provide an additional alternative east-west corridor from SR-91 between I-15 and I-215.
- *Cajalco Road Improvement Project* – 16-mile transportation corridor to relieve traffic congestion in southwestern Riverside County near Corona and Perris. This project will provide an alternative east-west corridor to SR-91 between I-15 and I-215.
- *The Ethanac Road Improvement Project* – 10-mile widening and realignment of the Ethanac corridor from I-15 in Lake Elsinore to I-215 in Perris. This project will provide additional east-west capacity and ease congestion on I-215.

High occupancy vehicle lanes incentivize carpooling by providing faster travel to cars with more people.

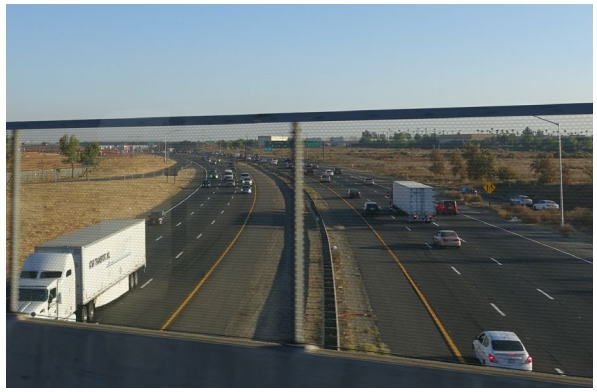
**Goal C-1:** **Strengthen connections to the regional transportation network.**

**POLICIES**

**C.1-1:** Support regional infrastructure investments for all modes to relieve congestion and support healthy communities in the City of Moreno Valley.

**C.1-2:** Maintain ongoing relationships with all agencies that play a role in the development of the City's transportation system.

**C.1-3:** Cooperatively participate with SCAG, RCTC, WRCOG, and the TUMF Central Zone Committee to facilitate the expeditious construction of TUMF Network projects, and planning for a transportation system that anticipates regional needs for the safe and efficient movement of goods and people, especially projects that directly benefit Moreno Valley.



**ACTIONS**

**C.1-A:** Advocate for the completion of proposed and planned regional transportation projects as they will alleviate congestion on I-215 and SR-60, and will improve traffic conditions on City streets.

**C.1-B:** Work with property owners, in cooperation with RCTC, to reserve rights-of-way for freeways, regional arterial projects, transit, bikeways, and interchange expansion and potential Community and Environmental Transportation Acceptability Process (CETAP) corridors through site design, dedication, and land acquisition, as appropriate.

**C.1-C:** Pursue grant funding, including for major projects that enhance connectivity to the regional network.

## Comprehensive, Layered Network

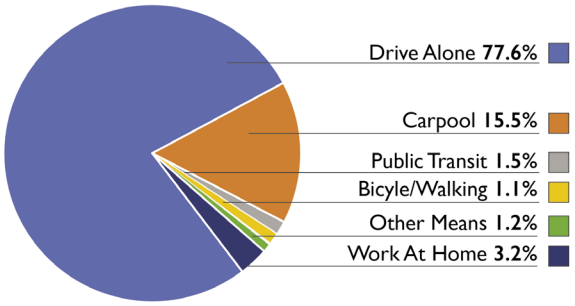
A comprehensive transportation network gives residents and visitors multiple options for getting around Moreno Valley and connecting to its many nearby destinations. By providing a variety of safe and attractive transportation options, the City can ensure that all residents have equitable access to transport, including youth, seniors, persons with disabilities, and low-income residents.

As in many communities throughout California, in Moreno Valley, the automobile, especially the single-occupant vehicle, is the primary mode of travel. More than 90 percent of total commute travel in Moreno Valley is by car,[1] as depicted in Figure C-1 Commute outflows on the regional network make up a large share of vehicle trips in Moreno Valley. Outflow refers to those who live in Moreno Valley but are employed outside of the city whereas inflow includes people who are employed in Moreno Valley but live outside of the city. About 86 percent of Moreno Valley's working population is employed outside of the city, and almost half of employed residents travel 25 miles or more to work. About 90 percent of Moreno Valley residents work in Riverside, Orange, Los Angeles, or San Bernardino Counties. Moreno Valley residents traveling to work experience heavy levels of morning and evening congestion on freeways such as Interstate 10, Interstate 15, State Route 60, State Route 91, and Interstate 215.[2] A focus on creating more jobs locally, supported by a comprehensive, multimodal circulation network, can help reduce the need for long commutes and allow Moreno Valley residents to spend more time with family and friends.

1 U.S. Census Bureau, American Community Survey 5-Year Estimates, 2017.

2 U.S. Census Bureau, OnTheMap Application, 2017.

**Figure C-1: Commuter Mode Split**




Moreno Valley has a relatively flat terrain and rectilinear grid patterns of streets that makes it generally well-suited for walking and biking. However, over time development patterns in the city have resulted in a separation of residential, commercial, and employment uses that do not facilitate walking, and hot weather particularly in the summer months can make getting around by walking and biking less desirable. Through the General Plan Update process, community input has strongly supported the notion of a future development pattern that facilitates getting around by driving less and walking and biking more. The Plan seeks to foster a compact development pattern and a mix of uses in centers and corridors within Moreno Valley to help create pockets of walkable areas and facilitate connections by bicycle and transit. See Chapter 2, Land Use and Community Character, for additional discussion. The comprehensive, layered transportation network described in this chapter supports Moreno Valley's continued growth and evolution.

## COMPLETE STREETS

In 2008, the State passed the California Complete Streets Act (Assembly Bill 1358), requiring circulation elements to include a "Complete Streets" approach that balances the needs of all users of the street. Complete Streets are streets designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. The precise definition of a Complete Street can vary depending on the context and primary roadway users, but there are some common elements found in successful Complete Streets policies. These policies consider the needs of all users of the street in the planning, design, construction, operation, and maintenance of transportation networks.[3] This framework allows policymakers to shift the goals, priorities, and vision of local transportation planning efforts by emphasizing a diversity of modes and users. Many of Moreno Valley's roads were designed primarily for car travel when they were first built. Rethinking Moreno Valley's roads as Complete Streets will allow people to safely walk, bicycle, drive, and take transit, sharing the street with other users.

## ROADWAY CLASSIFICATIONS AND CIRCULATION DIAGRAM

### Roadway Classifications

The roadway network in Moreno Valley consists of freeways, boulevards, arterials, collectors, and local streets. The roadway classifications of the network, described below, have been developed to guide long range transportation planning in Moreno Valley to balance access and capacity.

3 National Complete Streets Coalition, 2017

***"Complete Streets"*** *are streets that have been designed to safely and comfortably accommodate all users, regardless of age, ability, or mode of travel. Many street designs historically privileged private vehicle travel above other transport modes; Complete Streets aim to correct past imbalances and ensure that roadways are safe and friendly for pedestrians, bicyclists, and transit riders, too.*

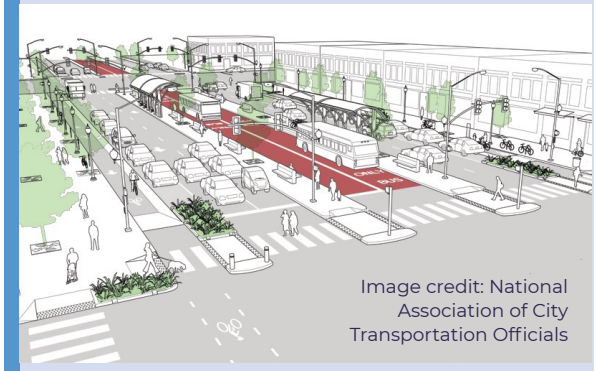


Image credit: National Association of City Transportation Officials

#### FREEWAYS

Freeways generally provide high speed, high capacity inter-regional access. Their primary function is to move vehicles through or around the city; thus, there is no access to adjacent land, and limited access to arterial streets. Freeways contain anywhere from four to 12 lanes with recommended design volumes from 80,000 to 210,000 vehicles per day. The City has no direct control over freeways as they are maintained by Caltrans and improvements are programmed through RCTC.

#### ARTERIALS

Arterial streets carry the majority of traffic traveling through the City. They serve two primary functions: to move vehicles into and through the city, and to serve adjacent commercial land uses. They provide access to freeways as well as major activity centers and residential areas. Driveways and other curb cuts along arterials are designed to minimize disruption to traffic flow. Sidewalks are typically included along arterials, and protected Class I or IV bike lanes are recommended. Truck routes are designated along arterials. The desired maximum roadway capacity on arterials averages from 30,000 to 55,000 vehicles per day depending on number of lanes, type and width of directional separation, presence of on-street parking or bicycle facilities, configuration and frequency of access to adjacent land uses, and intersection configurations. Moreno Valley has several designations of varying ROW, the widest Divided Major Arterial (134' ROW), Divided Arterial (110' ROW), Arterial (100' ROW) and down to a Minor Arterial (88' ROW).

#### BOULEVARDS

Boulevards are a type of arterial designed to connect major destinations within the City, and are highly visible and aesthetically landscaped with shade trees and wide sidewalks. Mixed-Use Boulevards in Moreno Valley provide for high volumes of vehicle flow (40,000-55,000 vehicles per day) including trucks, while providing a wide pedestrian parkway with access to residences along the length of the corridors and shops and services primarily at intersections.

#### COLLECTORS

Collectors are intended to carry traffic between the arterial street network and local streets or directly from the access drives of higher intensity land uses. Collectors serve commercial, residential, or public uses, and are generally two-lane roadways with sidewalks and bicycle facilities. The desired roadway capacity on a collector street is less than 12,000 vehicles per day. Moreno Valley has designated Industrial Collectors and Neighborhood Collectors. Industrial Collectors are designed primarily for access

**Figure C-2: Illustrative Mixed Use Boulevard Cross Section**

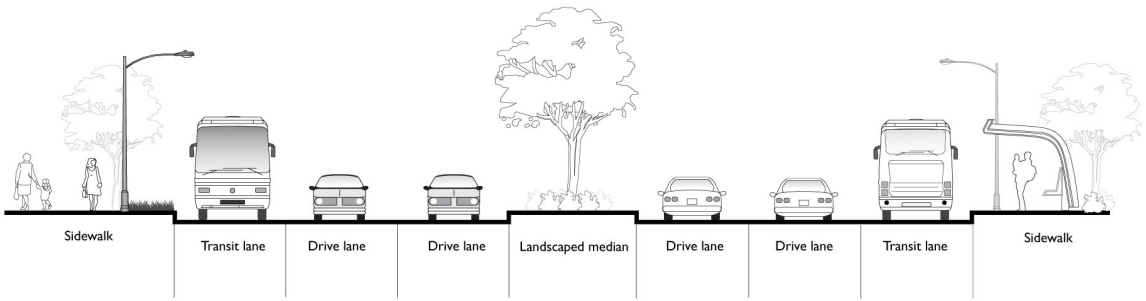
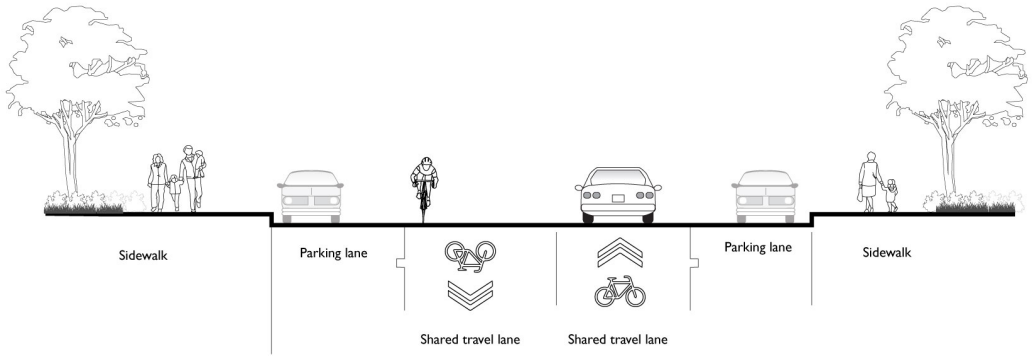



**Figure C-3: Illustrative Neighborhood Collector Cross Section**




to industrial and logistics uses that emphasize tuck access. Bike facilities on these roads are preferred off-street or with additional protective buffers and/or barriers. Neighborhood Collectors are residential streets that prioritize low vehicle speeds and low-stress bicycle and pedestrian use on parallel routes to arterials.

### LOCAL STREETS

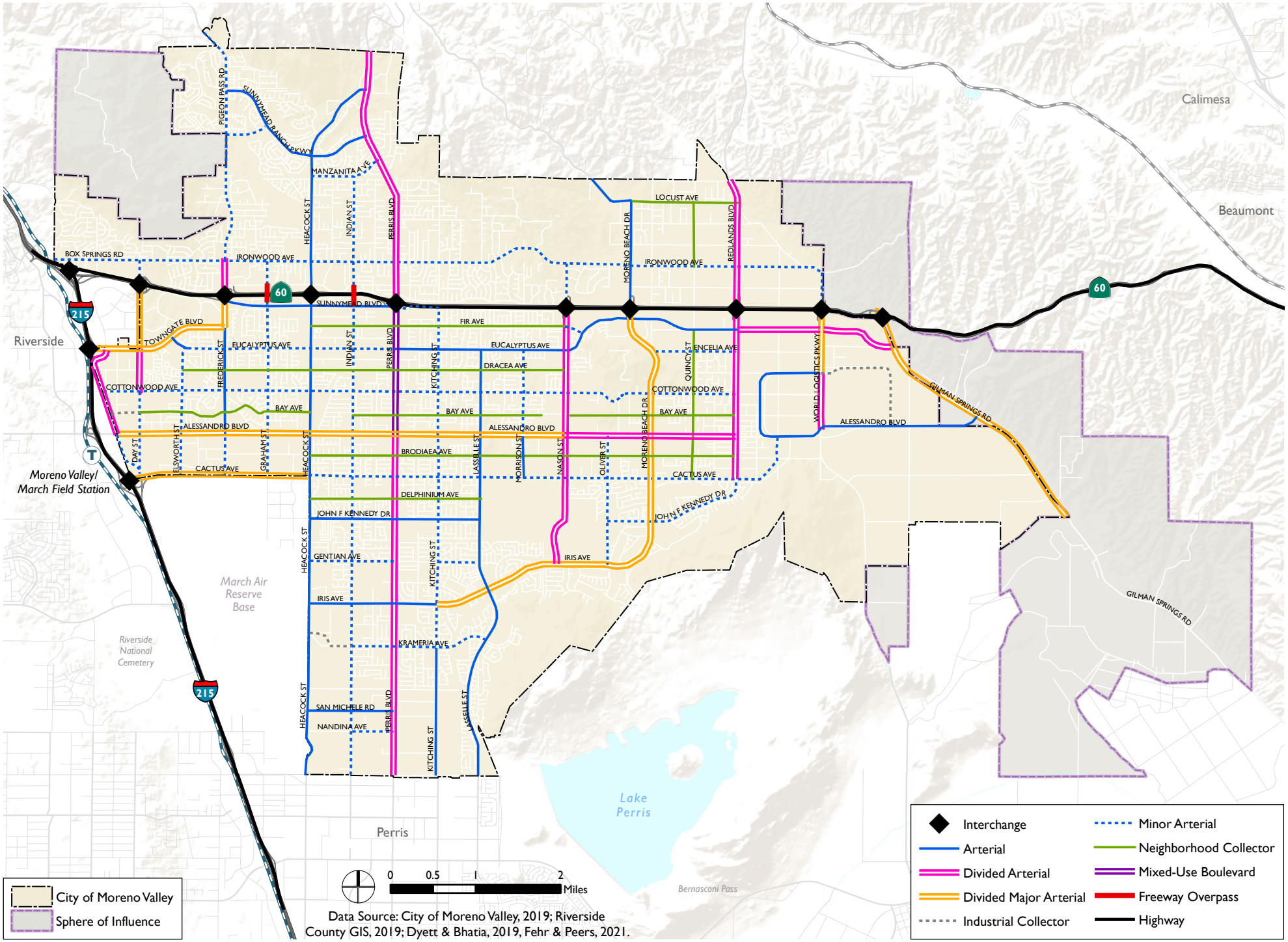
Local streets are designed to serve adjacent land uses only. They allow access to residential driveways and often provide parking for the neighborhood. They are not intended to serve through traffic traveling from one street to another, but solely local traffic. Sidewalks and shared bicycle facilities are appropriate on local streets. The desired roadway capacity on a residential street should not exceed about 2,500 vehicles per day and 200-300 vehicles per hour during peak periods. The maximum residential traffic volume that is acceptable to persons living along a street may vary from one street to another depending on roadway width, type of dwelling units (i.e., high density apartments versus single-family homes), presence of schools and other factors. The maximum volume of 2,500 is, therefore, to be used as a guide only, and a neighborhood's sensitivity to potential impacts need to be carefully considered.

## Circulation Diagram

The Circulation Diagram shown in Map C-1 depicts the proposed circulation system to support development under the Land Use Map (see Map LCC-4 in Chapter 2, Land Use and Community Character). As Moreno Valley continues to experience residential, employment, and commercial growth, a connected, multi-modal street network will be essential to ensure efficient commutes for work and goods movement, safe active transportation, and easy access to retail and entertainment.

The General Plan proposes a "layered network" approach, where traffic demands of Moreno Valley and system-wide needs of different modes can be used as inputs as streets are redesigned and configured to better meet the needs of bicyclists, pedestrians, and transit, and enable everyone to efficiently and safely navigate through the city. Considering system-wide needs means assessing whether the system as a whole is able to meet the needs of travelers. The layered network approach designates modal emphasis by street to create a comprehensive street network. The layered network approach recognizes the need to accommodate all forms of traffic, but with the understanding that certain streets will emphasize certain forms of transportation. Layered networks balance vehicular transportation with "active transportation," which is human-powered transportation that includes walking, cycling, using a wheelchair, in-line skating, or skateboarding. The layered network approach recognizes that not all modes can be accommodated acceptably on all streets within this city, but bicycle and pedestrian movement can be emphasized on specific streets. It also helps ensure consistency with the California Complete Streets Act, passed in 2008.

# Map C-1: Circulation Diagram




Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019, Fehr & Peers, 2021.

## Planned Improvements

An efficient circulation system ensures that Moreno Valley residents can choose the transportation mode that works best for the trip they want to take; that improvements to bicycle and pedestrian systems conform to national standards; that residents are not unduly delayed due to traffic congestion; that emergency vehicles can reach emergencies in as little time as possible; and that greenhouse gases are not being generated by unnecessary car trips. An array of major roadway improvement projects underway or planned are listed below. This is not an exhaustive list of all improvement projects identified in the Circulation Diagram, but highlights significant local improvement projects critical to the City's success.

- *Eucalyptus Avenue Extension* – Eucalyptus Avenue is the existing connection between Redlands Boulevard and World Logistics Parkway. The planned changes include the construction of three through lanes (two lanes in the westbound direction and one lane in the eastbound direction), the addition of medians, left-turn pockets, dedicated right-turn lanes, drainage improvements, landscaping, sidewalks, and a Class I bike path.
- *Widening of Alessandro Boulevard* – Alessandro Boulevard is planned to be widened from two to four lanes between Nason Street and Redlands Boulevard and then approximately a half mile east of Redlands Boulevard to Gilman Springs Road, a project over five miles long. The improvements include medians, traffic signals, channelization, left-turn pockets, dedicated right turn, drainage, landscaping, sidewalks, bike lanes, and trails.
- *Widening of Gilman Springs Road* – Gilman Springs Road is planned to be widened from two to six lanes between SR-60 and Alessandro Boulevard, a project over five miles long. The improvements include medians, traffic signals, channelization, left-turn pockets, dedicated right-turn lanes, drainage, landscaping, sidewalks, and bike lanes.
- *Gilman Springs Interchange Improvement* – The Gilman Springs Road/SR-60 interchange improvement plans include the realignment of Gilman Springs Road and the removal of the existing eastbound and westbound ramps. The plans include widening the overcrossing from two to six through lanes, the westbound exit ramp from one to two lanes and then to three lanes at the arterial, and the westbound loop and eastbound on-ramps from one lane to two lanes with a HOV (High-Occupancy Vehicle) lane. The improvements also include the addition of an auxiliary lane to the west of the interchange.
- *SR-60 Interchange Improvements* – Interchange improvements are proposed, in design and/or going to construction at Redlands Boulevard, World Logistics Center Parkway and Moreno Beach Drive.

**Goal C-2:** **Plan, design, construct, and maintain a local transportation network that provides safe and efficient access throughout the city and optimizes travel by all modes.**

**POLICIES**

| | |
|---|---|
| **C.2-1:** | Design, plan, maintain, and operate streets using complete streets principles for all types of transportation projects including design, planning, construction, maintenance, and operations of new and existing streets and facilities. Encourage street connectivity that aims to create a comprehensive, integrated, connected network for all modes. |
| **C.2-2:** | Implement a layered network approach by prioritizing conflicting modes, such as trucks and bicyclists, on alternative parallel routes to provide safe facilities for each mode. |
| **C.2-3:** | Work to eliminate traffic-related fatalities and severe injury collisions by developing a transportation system that prioritizes human life on the roadway network. |
| **C.2-4:** | Space Collectors between higher classification roadways within development areas at appropriate one-quarter mile intervals. |

**C.2-5:** Prohibit points of access from conflicting with other existing or planned access points. Require points of access to roadways to be separated sufficiently to maintain capacity, efficiency, and safety of the traffic flow.

**C.2-6:** Wherever possible, minimize the frequency of access points along streets by the consolidation of access points between adjacent properties on all circulation element streets, excluding collectors.

**C.2-7:** Plan access and circulation of each development project to accommodate vehicles (including emergency vehicles and trash trucks), pedestrians, and bicycles.

**C.2-8:** For developments fronting both sides of a street, require that streets be constructed to full width. Where new developments front only one side of a street, require that streets be constructed to half width plus an additional 12-foot lane for opposing traffic, whenever possible. Additional width may be needed for medians or left and/or right turn lanes.

**C.2-9:** Require connectivity and accessibility to a mix of land uses that meets residents' daily needs within walking distance. Typically, this means creating walkable neighborhoods with block lengths between 330 feet and 660 feet in length, based on divisions of the square mile grid on which the city is laid out.

Photo credit: the Press-Enterprise

**C.2-10:** Ensure that complete streets applications integrate the neighborhood and community identity into the street design and retrofits. This can include special provisions for pedestrians and bicycles that complement the context of each community.

**C.2-11:** Incorporate traffic calming design into local and collector streets to promote safer streets.

**C.2-12:** Recognize the need for modified sidewalk standards for local and collector roads within low density areas to reflect the rural character of those areas.

**ACTIONS**

**C.2-A:** Update Standard Plan cross-sections consistent with best practices and to address new cross-sections adopted in the Circulation Diagram (Neighborhood Collector and Mixed-Use Boulevard).

**C.2-B:** Continue to implement the Bicycle Master Plan to provide low-stress bicycle network improvements citywide, and update the plan periodically as needed.

**C.2-C:** Develop curb space management guidelines that incorporate best practices and strategies for deliveries and drop-offs in commercial and mixed-use areas.

**C.2-D:** Invest in critical infrastructure and implement pilot programs to leverage new transportation technology.

**C.2-E:** Establish uniform, transparent and anonymized data-sharing to assist mobility informed decision-making while maintaining people's privacy.

**C.2-F:** As new transportation technologies and mobility services, including connected and autonomous vehicles, electric vehicles, electric bicycles and scooters, and transportation network companies (e.g., Uber and Lyft) are used by the public, review and update City policies and plans to maximize the benefit to the public of such technologies and services without adversely affecting the City's transportation network. Updates to the City's policies and plans may cover topics such as electric vehicle charging stations,

curb space management, changes in parking supply requirements, shared parking, electric scooter use policies, etc.

**C.2-G:** Research best management practices for new designs, improvements, and infrastructure upgrades such as Autonomous Vehicle (AV) sensors in the roadway and lane striping to promote safety, smart infrastructure that can communicate with vehicles and vice versa, and in road electrification of vehicles. Consider developing standards to designate AV parking areas separate from standard parking areas, where AVs have the ability to stack park when not in use.

**C.2-H:** Evaluate opportunities to implement roundabouts as traffic control as new development projects are proposed, considering safety, traffic calming, cost, maintenance and greenhouse gas reduction related to idling.


# Efficient Circulation

Within the planning horizon of the General Plan, automobiles are expected to remain the dominant mode of transportation. Moreno Valley residents have expressed concerns with vehicular congestion on the city's roadways. For these reasons, ensuring smooth vehicular circulation will continue to be an important effort for the foreseeable future in Moreno Valley.

## LEVEL OF SERVICE (LOS) AND VEHICLE MILES TRAVELLED (VMT)

### Level of Service (LOS)

Given Moreno Valley's overall development pattern and that the city's vehicular mode share is anticipated to remain relatively high, Level of Service (LOS) continues to be a useful measure of the potential localized effects of development and land use changes on the transportation network and on the efficiency of vehicular travel. Thus, LOS continues as an important measure of mobility in Moreno Valley even as the General Plan seeks to balance LOS with other considerations and measures.

LOS represents a qualitative description of the traffic operations experienced by the driver at an intersection or along a roadway segment. It ranges from LOS "A", with no congestion and little delay, to LOS "F", with excessive congestion and delays. Table C1 provides definitions for different LOS levels.

**Table C-1: Level of Service Definitions**

| LOS | DEFINITION |
|---|---|
| **Level of Service A** | Free-flow travel with freedom to maneuver. |
| **Level of Service B** | Stable operating conditions, but the presence of other road users causes a noticeable, though slight, reduction in convenience, and maneuvering freedom. |
| **Level of Service C** | Stable operating conditions, but the operation of individual users is substantially affected by the interaction with others in the traffic stream. |
| **Level of Service D** | High-density, but stable flow. Users may experience restriction in speed and freedom to maneuver, with poor levels of convenience. |
| **Level of Service E** | Operating conditions at or near capacity. Speeds are reduced to a low but relatively uniform value. Freedom to maneuver is difficult with users experiencing frustration and poor convenience. Unstable operation is frequent, and minor disturbances in traffic flow can cause breakdown conditions. |
| **Level of Service F** | Forced or breakdown conditions. This condition exists wherever the volume of traffic exceeds the capacity of the roadway. Long queues can form behind these bottleneck points with queued traffic traveling in a stop-and-go fashion. |

### COMMUNITY CHARACTER TRADEOFFS

With a commitment to Complete Streets and a desire to accommodate other users such as pedestrians and bicyclists, it is particularly important that LOS thresholds, which are commonly evaluated to determine the size and design of the roadway system or the feasibility of development, are balanced with other metrics that seek to reduce vehicle travel and enhance community values. This approach requires consideration of the following tradeoffs associated with different LOS thresholds, which ensures that the policy will represent clear community priorities and provide specific exceptions when other community values are considered more important than LOS:

1. *Costs* – Because LOS policies influence the size and type of transportation infrastructure investments, maintaining a higher LOS (e.g., LOS A, B, or C) may be an inefficient use of public funds when considering the cost to build, operate, and maintain the roadway network.

2. *Safety* – Higher LOS thresholds are often associated with higher vehicle speeds for peak and non-peak hours, which increases the potential for and severity of collisions between vehicles and bicyclists or pedestrians.

3. *Alternative Transportation Modes* – Traditional LOS policy measures driver comfort and convenience, which means that considerations for pedestrians or bicyclists using the same facility are not always incorporated. Transit in Moreno Valley is also tied directly to standard vehicle LOS.

4. *Physical Space* – The goal of an efficient transportation network is to increase the capacity for person-trips, not just vehicle-trips. Maintaining a higher LOS policy typically focuses on using the public right-of-way or road space to move automobiles through the network instead of people.

5. *Air Quality and Greenhouse Gas (GHG) Emissions* – LOS thresholds influence travel speeds and may induce vehicular travel in the case where driving is made easier. Cut-through traffic is an example of induced travel in Moreno Valley. Higher speeds and induced vehicle travel can both result in higher levels of air pollutant and GHG emissions.

6. *Community Character* – Achieving LOS thresholds may require changes to the roadway, such as road widening, that can influence the character of neighborhoods by changing the building-to-street relationship, or removing opportunities for green infrastructure and wide sidewalks alongside streets. Some of the proposed mixed-use areas in the General Plan have streets that would need to have additional pedestrian crossings, trees, pedestrian-scaled lighting and other features to enable them to be more comfortable for pedestrians, rather than widened to accommodate additional traffic flow.

The policy tradeoffs listed above can be used to make decisions about LOS thresholds on specific roadways should the road conditions change during the implementation of this General Plan. When the tradeoffs for meeting the LOS standard conflict with competing goals, city intersections or roadway segments can be exempted from the LOS policy on a case-by-case basis, as determined by the City Engineer.

## Vehicle Miles Travelled (VMT)

Vehicle Miles Travelled (VMT) is the State mandated performance metric for environmental analyses pursuant to the California Environmental Quality Act (CEQA) to describe the overall amount of travel

in the city based on distance and is directly related to fuel consumption, air pollution, and GHG emissions. VMT is defined as the total mileage traveled by all vehicles. Although VMT relates specifically to automobiles, it is able to capture the effects of development patterns such as land use mix and density along with transit, bike, and pedestrian infrastructure improvements by reflecting their impacts on vehicle trip generation and trip lengths. The City will use a combination of LOS and VMT metrics to ensure the efficient movement of people and goods as well as reductions in GHG emissions.

Efforts to reduce VMT may include locating housing and jobs near transit stations, implementing Transportation Demand Management (TDM) strategies such as commute trip reduction programs, transit system improvements, or providing facilities for modes of transportation other than single occupant vehicles. Introducing a greater mix of land uses can also reduce VMT in that residents may have better access to resources and opportunities such as entertainment, shopping, parks and recreation, and jobs, thus reducing the length of their trips.

## TECHNOLOGY & THE FUTURE OF TRANSPORTATION

Moreno Valley is preparing for emerging transportation technologies. A wave of recent advancements has changed the mobility landscape and the City desires to be prepared for the next wave of unforeseen and disruptive trends. The following transportation technologies have recently changed mobility options and choices or are anticipated to change future mobility options.

- Transportation Network Companies (TNCs): also called a ride-hailing service, are companies like Uber and Lyft that provide on-demand rides for passengers with mobile apps or websites. TNCs tend to increase demand for curb space but can decrease the demand for parking.
- Autonomous Vehicles (AVs): are vehicles that are capable of driving with limited or no human involvement. There are six levels of autonomy (0-5) that range from issuing warnings and momentary interventions with the human driver to a fully automated machine which requires no human involvement to operate.
- Connected Vehicles (CVs): are vehicles that can interact with one another and/or with infrastructure. Some CVs can also be autonomous vehicles; however, CVs can be human operated.
- Car sharing services are services that allow consumers access to a vehicle without owning a personal car. Car share services typically charge a monthly or yearly membership fee and an hourly rate for access to its shared vehicle fleet.
- Micromobility: is a combination of emerging trends including bike share, e-scooters, and e-bikes.
  - Bike Sharing Services: bike sharing services operate like car sharing services in that consumers can rent from a shared bicycle fleet.
  - Electric Scooters and Bikes: E-scooters and e-bikes are powered by an electric motor to propel riders along streets and up hills.
- Microtransit: is defined as a privately-operated transit system, which in many cases mirrors the operations of public transit agencies along select routes. Microtransit operators can be highly flexible, tailoring their operations to match short-term or long-term changes in travel behavior.

## INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

Intelligent Transportation Systems (ITS) refers to a set of tools that facilitates a connected, integrated transportation system. Applications of ITS include adaptive traffic prioritization signals aimed at congestion management and improving traffic flow, and the collection and dissemination of real-time travel information such as transit arrivals or traffic incident alerts. Other applications of ITS to be considered as transportation patterns change and emerging technologies come online may include connected and autonomous vehicles and smart city integration.


ITS allows the City to monitor different locations strategically and adjust traffic signals to improve flow.

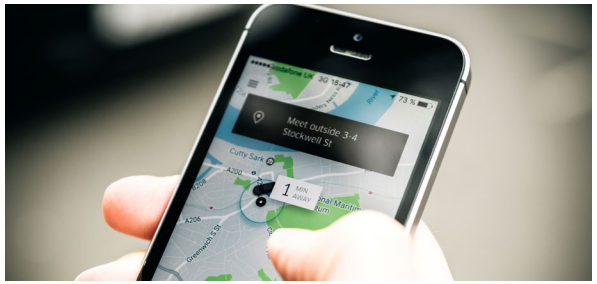
The City of Moreno Valley currently has an Advanced Traffic Management System (ATMS) that allows staff to monitor traffic at strategic locations throughout the city. The system allows for the transportation system to work more effectively and efficiently by providing the ability to adjust critical traffic signals from the City's Transportation Management Center (TMC). These tools allow the City of Moreno Valley to effectively monitor and address congestion issues.

In addition, the City's Intelligent Transportation System incorporates innovative field infrastructure including fiber-optic communication media and end equipment, CCTV cameras, permanent Dynamic Message Signs (DMS), advanced transportation controllers, and video and radar traffic signal detection. The City is able to differentiate between vehicles, bicyclists and pedestrians, helping traffic to flow more efficiently and improving safety for all road users. The City also has the ability to provide signal priority for buses on heavy transit corridors.

## CURBSIDE MANAGEMENT

Curbside management is a crucial aspect of any transportation network. The curbside is the public space in a transportation network "where movement meets access." Curb space has traditionally been used to accommodate private vehicle storage or on-street parking; however, cities are increasingly recognizing the need to accommodate demand for curbside use generated by transit boarding, emergency vehicle access, Americans with Disabilities Act (ADA) access, bicycles, bicycle infrastructure, taxis, transportation network companies (TNCs), and delivery vehicles. The development of a set of curbside management guidelines could help Moreno Valley balance the needs of these different curbside users. Examples of curbside management best practices include the following:

- Collecting data to create a curb use data inventory;
- Ensuring that pick-up/drop-off areas are in appropriate locations;
- Configuring roadways to ensure that they do not interfere with bike lanes;
- Accounting for loading and parking needs; and
- Incorporating "flex spaces" that can allow a curb space to play many roles (such as loading, parking, or public space) over time depending on demand.




Rideshares decrease the need for parking, but increase the demand for curb space.

## PARKING

Parking goals and policies reflect both the necessity of providing for adequate and appropriately located vehicle and bicycle parking in existing and new development, and priorities related to safety, urban design/community character, and transportation demand management. More flexible parking standards for projects that provide VMT reduction and TDM measures such as shared parking lots, subsidized transit passes, or carshare help to reduce development costs, remove pedestrian barriers, and create a more pedestrian-friendly and attractive built environment. Parking requirements are implemented primarily through the City's Zoning Ordinance (Moreno Valley Municipal Code Title 9, Planning and Zoning).

## LOCAL ISSUES: BYPASS TRAFFIC AND SCHOOL DROP-OFFS/PICK-UPS

Moreno Valley experiences cut-thru traffic by vehicles during peak commute hours on the SR-60 and I-215 freeways. Drivers use city streets to bypass freeway congestion, thereby creating higher levels of congestion and greenhouse gas emission in the process. Traffic calming measures can improve the safety of vulnerable users on city streets, such as older adults and children who may use active modes of travel, while at the same time reducing the desirability of cut-thru traffic on roads with reduced speeds. The City already deploys several well-known traffic calming measures on applicable street classifications such as speed humps, lane and road diets, and speed feedback signs. The City can revisit existing traffic calming policies and other recommended methods by the Institute of Transportation Engineers (ITE) in order to strategize for additional discouragement of cut-thru traffic.

Congestion related to school drop-offs/pick-ups is an issue of concern for Moreno Valley residents. The General Plan includes policies and actions to work with the two school districts in the city (Moreno Valley and Val Verde Unified School Districts) to develop measures that mitigate congestion related to student drop-off and pick-up. Additionally, the City will continue to maintain and seek opportunities to enhance programs such as Safe Routes to School that promote cycling and walking as healthy, affordable, and viable transportation options.

## EMERGENCY ACCESS

Adequate emergency vehicle access is crucial in terms of protecting the safety and well-being of Moreno Valley's residents. Emergency access to individual buildings is regulated by the adopted California Fire Code. Emergency access can also be facilitated through roadway design standards that allow for emergency vehicle movement, as well as the identification of evacuation routes should residents need to leave in the event of a disaster. See Chapter 6, Safety, regarding goals and policies related to emergency access.

Speed humps are a common traffic calming measure in residential areas.

**Goal C-3:** **Manage the City's transportation system to minimize congestion, improve flow and improve air quality**

**POLICIES**

**C.3-1:** Strive to maintain Level of Service (LOS) "C" on roadway links, wherever possible, and LOS "D" in the vicinity of SR 60 and high employment centers. Strive to maintain LOS "D" at intersections during peak hours.

**C.3-2:** Allow for a list of locations to be exempt from the LOS policy based on right-of-way constraints and goals and values of the community. The City Engineer shall update the exempted intersections and roadway segments list periodically to be included with the traffic impact study guidelines and adopted by ordinance.

**C.3-3:** Where new developments would increase traffic flows beyond the LOS C (or LOS D, where applicable), require appropriate and feasible improvement measures as a condition of approval. Such measures may include extra right-of-way and improvements to accommodate additional left-turn and right-turn lanes at intersections, or other improvements.

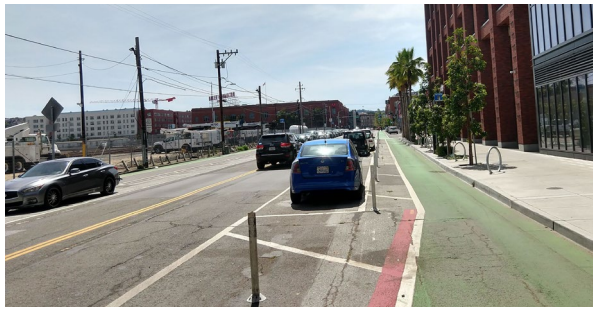
**C.3-4:** Require development projects to complete traffic impact studies that conduct vehicle miles traveled analysis and level of service assessment as appropriate per traffic impact study guidelines.

**C.3-5:** Manage freeway bypass traffic during peak commute hours from SR-60 and I-215 through traffic signal timing coordination and Intelligent Transportation Systems (ITS) to limit impact on City streets.

**C.3-6:** Require new developments to participate in Transportation Uniform Mitigation Fee Program (TUMF), the Development Impact Fee Program (DIF) and any other applicable transportation fee programs and benefit assessment districts.

**C.3-7:** Support regional efforts for the development of a VMT mitigation impact fee program.

**C.3-8:** Ensure that new development pays a fair share of costs to provide local and regional transportation improvements and to mitigate cumulative traffic deficiencies and impacts.



**C.3-9:** Employ parking management strategies, such as shared parking in mixed use areas, on-street residential parking, and spill-over parking to avoid construction of unnecessary parking.

**C.3-10:** Require traffic and parking management plans for major events to utilize travel demand management strategies encouraging transit and other alternatives to single occupant vehicles to limit the impact to City Streets.

**C.3-11:** Implement National Pollutant Discharge Elimination System Best Management Practices relating to construction of roadways to control runoff contamination from affecting water resources.

**C.3-12:** Evaluate opportunities to incorporate new materials, technologies or design features that improve performance of the circulation system.

**C.3-13:** Promote efficient circulation planning at schools, partnering with the local school districts to optimize school drop-off/pick-ups.

**ACTIONS**

**C.3-A:** Periodically review and update traffic impact study guidelines for vehicle miles traveled and level of service assessment.

**C.3-B:** Periodically collect traffic count data to support existing traffic operations and future infrastructure.

**C.3-C:** Update the City's standard roadway cross-sections and standard plans to reflect state-of-the-practice in safe and efficient roadway design.

**C.3-D:** Update ITS Master Plan to include latest technology and innovations, and continue investment to expand ITS and citywide camera system.

## Local Connectivity and Roadway Safety

Convenient and safe connections between neighborhoods and destinations throughout the city are a priority for Moreno Valley decision-makers and community members, with strong support for more ways of getting around and experiencing all the great things the city has to offer outside of using a car. The General Plan contains policies and actions to facilitate greater bus, train, automobile, bike, and pedestrian connections and address barriers. The existing and planned bicycle and pedestrian network is depicted in Map C-2.

## PEDESTRIAN AND BICYCLE CIRCULATION

To help people choose to walk and bike, all legs of the journey should feel safe and pleasant. Moreno Valley can enhance pedestrian and bike connections to important community destinations between parks, schools, commercial centers, and neighborhoods, making sure that there are continuous routes and direct connections. New developments should provide direct connections between neighborhoods as well, with pathways and streets designed for walkers and bikers. These safe, pleasant, and universally accessible paths, routes, and lanes will all be part of an integrated multi-use system within Moreno Valley and connecting beyond.

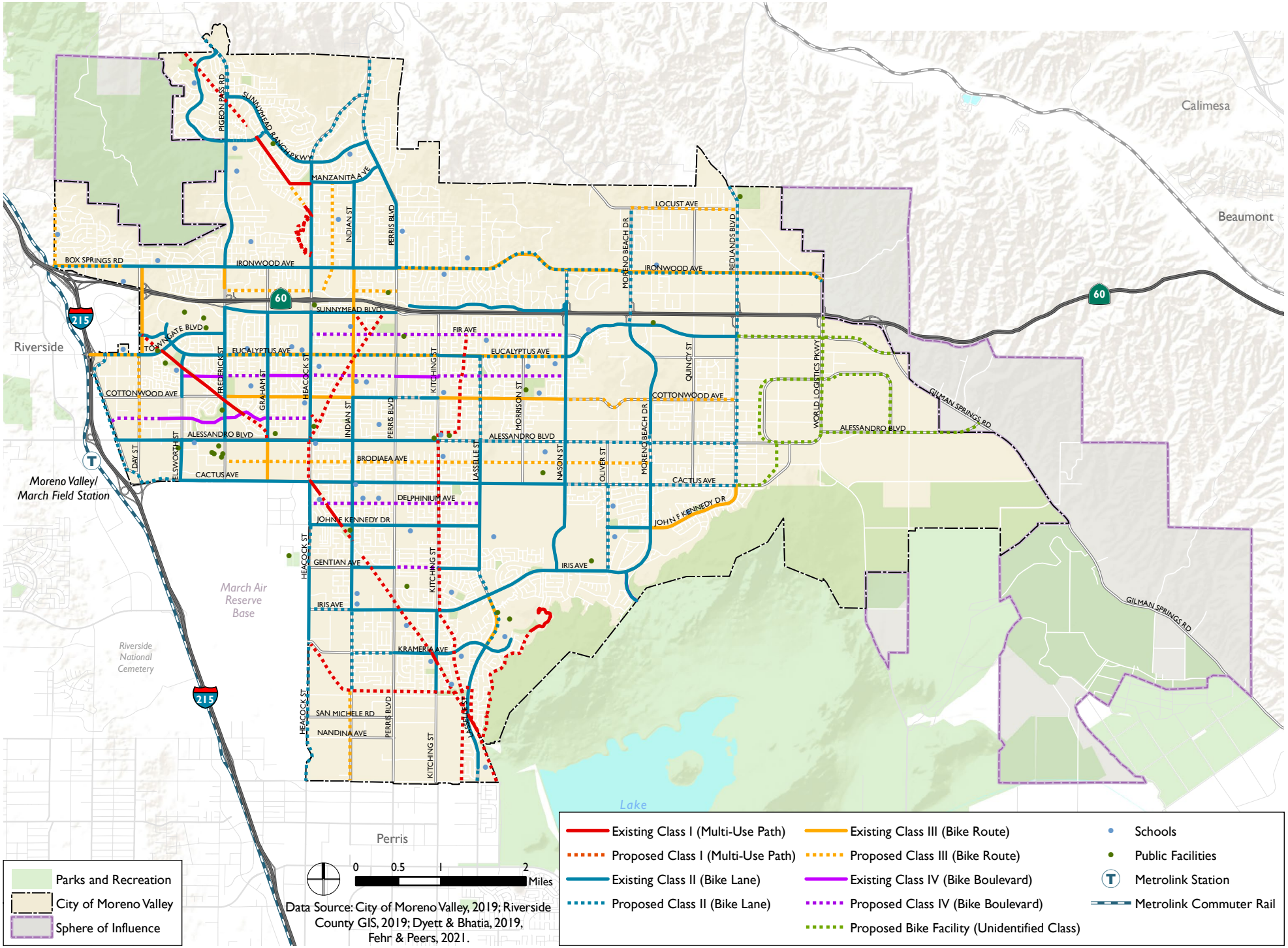
Non-motorized modes of transportation are environmentally-friendly alternatives to motor vehicles that enhance both personal and social well-being through opportunities for exercise and social interaction. These alternatives to motorized transportation are important parts of a complete transportation system that offers residents of Moreno Valley a suite of options for moving around their city. In addition to acting as alternatives to single-occupant vehicle travel, these modes of travel provide many public access, health, and economic benefits, and are therefore recognized as integral components of Moreno Valley's transportation system. Safe, convenient, attractive, and well-designed pedestrian and bicycle facilities are essential if these modes are to be properly accommodated and encouraged.

### Pedestrian Facilities

Nearly everyone is a pedestrian at one time or another. Walking or use of a wheelchair is part of almost every trip, whether it is from the parking lot to a building or from one's home to a bus stop, work, or store. The pedestrian environment is thus a crucial part of an accessible transportation network, while also playing an important role in the public realm where attractive pedestrian environments can spur activity. Factors that affect walkability and the pedestrian experience in Moreno Valley are described below.

- *Direct, Fine-Grained Pedestrian Networks.* Walking is more efficient and desirable as a means of transportation if direct pedestrian travel, rather than circuitous routes, are available. This is achieved through the development of fine-grained networks of pedestrian pathways that allow for direct access to destinations.
- *Sidewalk Continuity.* Communities are more walkable if sidewalks do not end abruptly and are present on the entire segment and both sides of a roadway. This is especially important for the mobility-impaired or those pushing small children in strollers.
- *Sidewalk Conditions.* This refers to the physical condition of sidewalk surfaces. Sidewalks that are broken or cracked can deter walkability and impede mobility, particularly for persons with disabilities, such as those in wheelchairs and persons using walkers or strollers.

# Map C-2: Existing and Planned Bicycle and Pedestrian Network



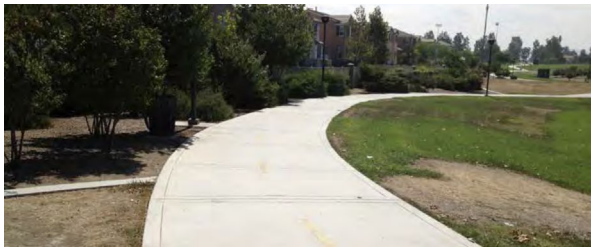

Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019, Fehr & Peers, 2021.

- *Shading.* People are more inclined to walk in areas where there is shade present, particularly in Southern California with its relatively warm weather and limited rainfall as compared to other locations. Additionally, shade trees and/or canopies create an aesthetic value that is pleasing to the pedestrian.
- *Grade.* People are more inclined to walk in areas that are relatively flat or have limited grade changes.
- *Amenities.* All else being equal, people are more inclined to walk in areas that are interesting environments with shopping, retail, restaurants, and other similar uses. Pedestrian-friendly amenities include street furniture, attractive paving, way-finding signage, enhanced landscaping, public art and enhanced lighting.
- *Buffers.* A more walkable environment is one in which there is some degree of separation between the pedestrian and the motorist. This typically includes wider sidewalks, street parking and sidewalk bulb-outs at intersections where feasible. Crosswalks with appropriate signage serve as an important buffer as well.

## Bicycle Facilities

The City of Moreno Valley has made a concerted effort to expand the ease of alternative transportation options for residents, recognizing both health and environmental benefits. This includes existing and proposed bicycle facilities, with the majority of existing facilities in the western portion of the city where most people live, and proposed, connecting networks of bicycle facilities in the eastern portion of the city. With relatively flat terrain and a rectilinear street grid, Moreno Valley is an inherently bikeable community. Improving bicycle facilities can increase the likelihood and desirability of this active transportation mode for short distance trips, school trips, and recreational activities. The different types of bicycle facilities designated in Moreno Valley are described below.

- *Class I Bikeways (Multi-Use Paths).* Class I bikeways are facilities that are physically separated from vehicles, designated for the exclusive use of bicyclists and pedestrians with minimal vehicle crossings.
- *Class II Bikeways (Bike Lanes).* Class II bikeways are striped lanes designated for the use of bicycles on a street or highway. Vehicle parking and vehicle/pedestrian cross flow are permitted at designated locations.
- *Class III Bikeways (Bike Routes).* Class III bikeways, also referred to as bike routes, are only identified by signs or pavement markings. A bicycle route is meant for use by bicyclists and for motor vehicle travel (i.e., shared use).
- *Class IV Bikeways (Cycle Tracks).* Class IV bikeways, also referred to as cycle tracks, are protected bike lanes, which provide a right-of-way designated exclusively for bicycle travel within a roadway that is protected from vehicular traffic with devices such as curbs, flexible posts, inflexible physical barriers, or on-street parking.
- *Bicycle Boulevards.* Bicycle Boulevards are convenient, low-stress cycling environments on low traffic volume streets, typically parallel to higher traffic volume streets as an alternative to them. These roads prioritize bicyclists and typically include speed and traffic volume management measures, such as intersection ROW control, to discourage motor vehicle traffic.



Class I bikeway (bike path)

Class II bikeway (bike lane)


Class III bikeway (bike route)

The City's Bicycle Master Plan recommends bicycle programs to improve facilities that can make it safer for users of all ages and abilities to ride a bicycle on city streets. Existing high traffic volume arterials and truck routes can conflict with existing and proposed bicycle routes throughout the City. The City's Bicycle Master Plan and Circulation Element have identified parallel east-west corridors (Neighborhood Collectors) to provide low-stress alternatives to riding on arterials as part of the layered network. The City still provides bicycle facilities on most major arterials and additional buffers/protection is recommended on high speed/volume roadways, especially along truck routes to limit conflicts. Additional bicycle infrastructure in congested areas, such as bicycle signal heads, traffic signal bicycle detection, green bicycle lanes, and two-stage turn queue boxes can further enhance bicycle facilities on high-stress corridors.

## PUBLIC TRANSIT

Transit service can provide an alternative to automobile travel and is a critical mode of transportation for those who cannot drive (such as the elderly, youth, or disabled) or do not have access to a vehicle. The transit options in Moreno Valley are depicted in Map C-3. Within Moreno Valley, intercity buses, local buses, and demand-responsive service are provided, all of which help people get around. Existing public transportation offerings are described below.

- *Riverside Transit Agency (RTA)* – The majority of the available public transportation is provided by the Riverside Transit Agency (RTA) via fixed route and paratransit bus services. RTA provides routes within the City that connect to major destinations such the Moreno Valley/March Field Metrolink Station, Perris Station Transit Center, University of California, Riverside (UCR), and Moreno Valley Mall. Major Moreno Valley bus routes include routes 11, 16, 18, 19, 19A, 20, and 31. In addition, RTA has one commuter link express bus route. Route 208 connects the cities of Temecula, Murrieta, Perris, Moreno Valley, and Riverside. Commuter link express bus routes provide peak hour services for commuters in the morning and evening during weekdays. Route 31 also provides connections to Beaumont, Banning, Hemet and San Jacinto, and passengers can transfer in Beaumont to Sunline Route 10 for service to the Coachella Valley. RTA also provides Dial-A-Ride services for seniors and persons with disabilities.
- *Metrolink* – Metrolink is a commuter rail program operated by the Southern California Regional Rail Authority (SCRRA), providing service from outlying suburban communities to employment centers such as Burbank, Irvine, and downtown Los Angeles. For Moreno Valley, the Moreno Valley/March Field Metrolink Station is located less than one-half mile west of the city limits. The 91/Perris Valley Line (PVL) train services Metrolink stations in the cities of Perris, Riverside, Corona, Fullerton, Buena Park, Norwalk/Santa Fe Springs, and Los Angeles. The Metrolink 10-Year Strategic Plan (2015-2025) indicates that through a partnership with Metro, they will experiment with lower fares across the board and targeted discounts on shorter distance trips with the goal to increase ridership and revenue.

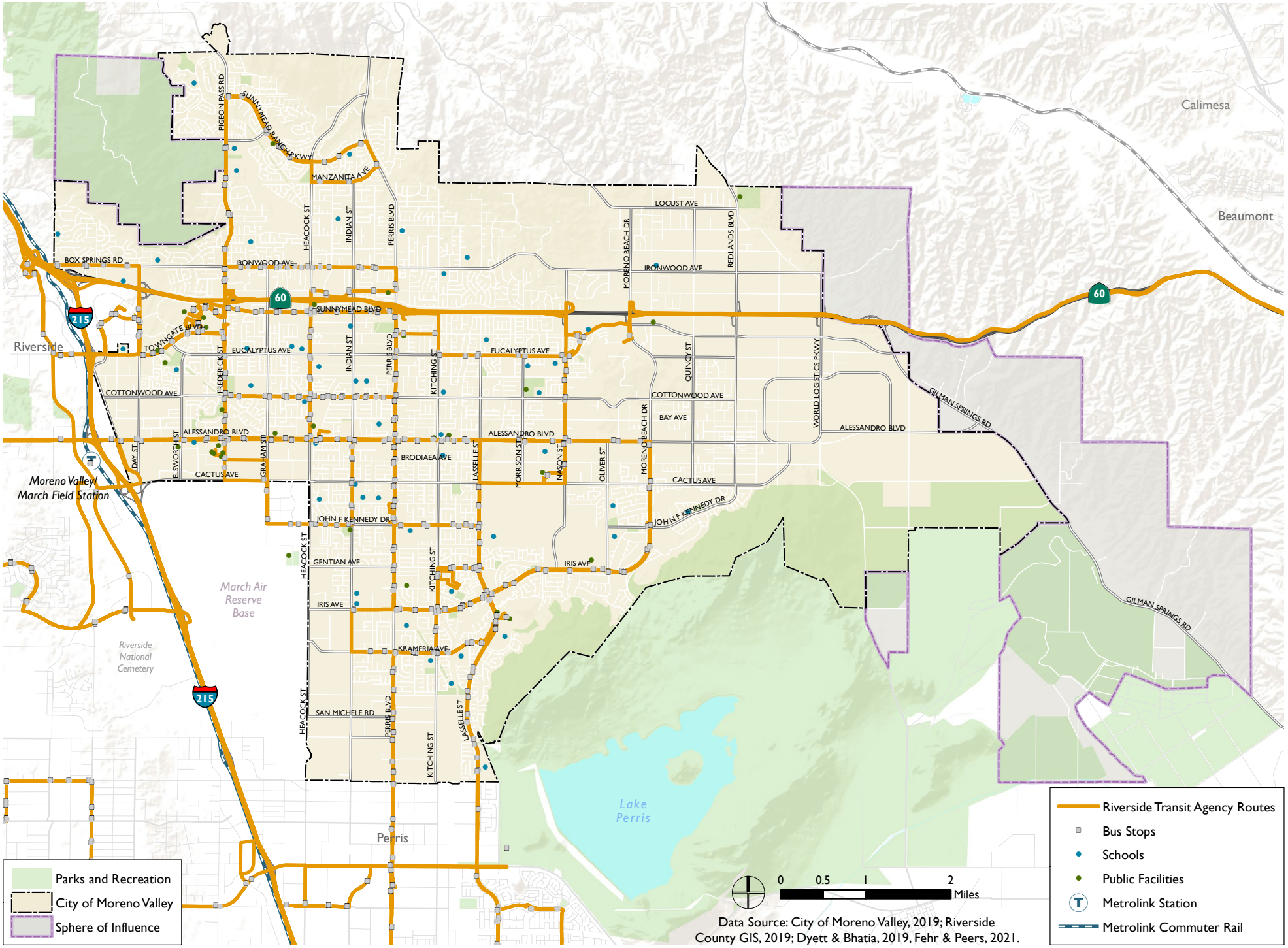
To improve transit connectivity, the City will work with other local agencies to increase transit access through a combination of new routes and/or higher service frequency, expanded hours, and making the public transit experience more user friendly and attractive, such as through improved bus shelters that offer cooling/shade from the sun during drier months and protection against rainy/cold conditions during wetter months. As Moreno Valley expands its transit offerings, the City will help support the prioritization of needs of seniors, minorities, low-income, disabled, and transit-dependent residents to ensure that everyone can make the trips they need to live, work, and play to their fullest potential in Moreno Valley.

Given that the majority of Moreno Valley is of a suburban, low-density character, expanding public transit routes within Moreno Valley would likely be an inefficient method of attracting greater transit ridership. Other methods of attracting ridership could include focusing on providing high-quality service between employment centers and mixed-use destinations along the major corridors of the city,

The Moreno Valley/March Field Metrolink station is an important connection to other cities in Southern California.


RTA operates commuter link bus routes between Moreno Valley and nearby cities.

# Map C-3: Transit Lines and Facilities




Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019, Fehr & Peers, 2021.

supplemented with features such as park-n-rides and pedestrian and bicycle infrastructure to create multi-modal transportation nodes, and coordinating with transit providers to promote bus user satisfaction through strategies such as reduced headways and improved on-time performance.

## TRANSPORTATION DEMAND MANAGEMENT (TDM)

Transportation Demand Management (TDM) refers to a comprehensive strategy to reduce driving and resulting VMT by promoting alternatives such as public transit, carpooling, bicycling, walking, and telecommuting. While some TDM measures can be undertaken by the City, such as investments in facilities and programs to encourage alternative modes of transportation, other TDM measures require collaboration with other jurisdictions, for example with transit providers to seek expanded service, or with employers to encourage flexible work schedules and the provision of on-site childcare, preferential carpool parking, and subsidized transit passes.

The Southern California Association of Governments (SCAG) has developed a long-range planning vision to balance future mobility and housing needs with economic, environmental, and public health goals. SCAG's 2020-2045 Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS), also called Connect SoCal, has allocated $7.3 billion through 2045 to implement TDM strategies throughout the region. There are three primary goals of SCAG's TDM program:

- Reduce the number of single-occupant vehicle (SOV) trips and per capita VMT through ride-sharing (which includes carpooling and vanpooling) and providing first/last mile services to and from transit;
- Redistribute or eliminate vehicle trips during peak demand periods by supporting telecommuting and alternative work schedules; and
- Reduce the number of SOV trips through use of other modes such as transit, rail, bicycling, and walking, or other micro-mobility modes.

In addition, the Western Riverside Council of Governments (WRCOG), of which the City of Moreno Valley is a member agency, has identified the following key strategies for TDM as most appropriate in the WRCOG subregion:

- Diversifying land use;
- Improving pedestrian networks;
- Implementing traffic calming infrastructure;
- Building low-stress bicycle network improvements;
- Encouraging telecommuting and alternative work schedules; and
- Providing ride-share programs.

**Goal C-4: Provide convenient and safe connections between neighborhoods and destinations within Moreno Valley.**

**POLICIES**

| | |
|---|---|
| **C.4-1:** | Support the development of highspeed transit linkages or express routes connecting major destinations within the city and beyond, including the Metrolink Station, that would benefit the residents and employers in Moreno Valley. |
| **C.4-2:** | Collaborate with major employers and other stakeholders to improve access and connectivity to key destination such as the Downtown Center, the Moreno Valley Mall, the hospital complexes, Moreno Valley College, and the Lake Perris State Recreation Area. |
| **C.4-3:** | Support the establishment of a Transit Center/Mobility Hub in the Downtown Center. |
| **C.4-4:** | All new developments shall provide sidewalks in conformance with the City's streets cross-section standards, and applicable policies for designated urban and rural areas. |

**C.4-5:** Recognize that high-speed streets, high-volume streets and truck routes can increase pedestrian and bicycle stress levels and decrease comfortability. Provide increased buffers and protected bicycle lanes in high-stress areas, where feasible. Provide landscaped buffers where feasible to separate pedestrian environments from the travel way adjacent to motor vehicles. Provide convenient and high-visibility crossings for pedestrians.

### ACTIONS

**C.4-A:** Prepare and maintain a Pedestrian Access Plan supporting a safer and more convenient network of identified pedestrian routes with access to major employment centers, shopping districts, regional transit centers, schools, and residential neighborhoods; the plan should address safer routes to schools, safer routes for seniors, and increase accessibility for persons with disabilities.

**C.4-B:** The City shall actively pursue funding for the infill of sidewalks in developed areas. The highest priority shall be to provide sidewalks on designated school routes.

**C.4-C:** Continue on-going coordination with transit authorities toward the expansion of transit facilities into newly developed areas.

**C.4-D:** Work with major employers, the hospital complexes, and Moreno Valley College to study alternatives to conventional bus systems, such as smaller shuttle buses (micro-transit), on-demand transit services, or transportation networking company services that connect neighborhood centers to local activity centers with greater cost efficiency.

**C.4-E:** Pursue regional, state and federal grant opportunities to fund design and construction of the City bikeway system.

**C.4-F:** Periodically review and update citywide wayfinding strategy that enhances access to key destinations, including Moreno Valley College, Riverside University Medical Center, Kaiser, and Lake Perris State Recreation Area.


## Goal C-5: Enhance the range of transportation operations in Moreno Valley and reduce vehicle miles travelled.

### POLICIES

**C.5-1:** Work to reduce VMT through land use planning, enhanced transit access, localized attractions, and access to non-automotive modes.

**C.5-2:** Encourage public transportation that addresses the particular needs of transit-dependent individuals, including senior citizens, the disabled, and low -income residents.

**C.5-3:** Encourage bicycling as an alternative to single occupant vehicle travel for the purpose of reducing fuel consumption, traffic congestion, and air pollution.


Offering wifi on public transit is one way to make ridership a more convenient option, as well as offering a valuable service to low-income riders.


**C.5-4:** Particularly in corridors and centers, work with transit service providers to provide first-rate amenities to support pedestrian, bicycle and transit usage, such as bus shelters and benches, bike racks on buses, high-visibility crossings, and modern bike storage.

**C.5-5:** Encourage local employers to implement TDM strategies, including shared ride programs, parking cash out, transit benefits, allowing telecommuting and alternative work schedules.

**ACTIONS**

**C.5-A:** Keep the City's traffic impact study guidelines current and revise the CEQA threshold of significance for VMT as appropriate.

**C.5-B:** Maintain a list of recommended Transportation Demand Management (TDM) strategies for employers and new developments.

**C.5-C:** Remain flexible in the pursuit and adoption of transportation funding mechanisms that fund innovative transportation solutions.

**C.5-D:** Work with RTA and Metrolink to increase transit service frequency, speed, and reliability and increase ridership. Strengthen linkages and access to the Metrolink Station.

**C.5-E:** Integrate transit access and information systems into employment centers, major destinations and new multi-family residential development.

**C.5-F:** Develop a Park Once strategy to promote walkability in mixed use centers and corridors.

**C.5-G:** Study the feasibility of implementing car-sharing program, working with established providers.

## Goods Movement

Moreno Valley benefits from ready access to the regional transportation network, with excellent rail, air, and freeway connections that make it a prime location for businesses active in goods movement. At 4,500 businesses strong and growing, Moreno Valley is home to many Fortune 500 and international companies. Top employers in the city have businesses in sectors such as fulfillment, retail distribution-retail, grocery distribution-grocery, and manufacturing. Industrial areas of Moreno Valley benefit from the robust transportation network and can distribute goods easily throughout the region and the world.

Goods movement is necessary for the vitality of Moreno Valley and the region as a whole. Goods movement in the city occurs primarily on major highways that bisect and border the city, including SR-60 and I-215. Truck traffic on City streets is restricted to specific routes that are designated for thru traffic of trucks over three tons; the truck network system is identified in the City's Municipal Code. These truck routes help to facilitate the movement of goods throughout the city, while providing a connection between major highway facilities (i.e., SR-60 and I-215) to local roadways, such as Alessandro Boulevard and Heacock Street. Moreover, truck traffic is restricted to these designated roadways, unless otherwise authorized by the California Vehicle Code, in order to minimize wear and tear on City streets and promote safety on residential streets. It is important that the City of Moreno Valley continue to designate roadways to support truck travel to facilitate the efficient transfer or loading/unloading of goods. In addition, the City supports improvements to regional goods movement facilities, such as the aviation cargo operations at March Air Reserve Base/March Inland Port.

Overall, goods movement plays an important role in both the circulation network and the economy of Moreno Valley. Often, it can be challenging to accommodate trucks and other vehicles without impeding other modes or the well-being of residents. The General Plan aims to continue to support local and regional solutions to long distance goods movement, allowing for both economic development and a high quality of life in Moreno Valley's residential communities.

Technological innovation is presenting opportunities to improve the efficiency of goods movement in the future, especially with the recent increase in online shopping and delivery due to COVID-19. The future of freight will involve autonomous and electric vehicles, and will also include drones, sidewalk robots and more. The increase in demand for freight will increase the loads on city streets and the demand for truck parking and may also merge into the pedestrian space and air space. The March Air Force Base is expected to increase its role as a logistics hub that links air and ground freight.

## Goal C-6: Provide for safe, efficient goods movement by road, air and rail.

### POLICIES

**C.6-1:** Strive to be the most technologically advanced freight hub in the Country, that maximizes efficiency and economic benefit, while minimizing impacts to residents and visitors.

**C.6-2:** Support implementation of new technologies and best practices that make logistics operations cleaner, greener, and more efficient, including electric truck charging stations, autonomous vehicle sensors and communications.

**C.6-3:** Support March Global Port in its effort to develop an aviation cargo center at March Air Reserve Base.

### ACTIONS

**C.6-A:** Evaluate opportunities to incorporate new materials, technologies, or design features that improve performance of the circulation system, including stronger concrete roads that will have a longer life cycle and require less maintenance.

**C.6-B:** Establish restrictions on vehicle weight limit near sensitive land uses such as schools and residential areas to discourage cut-through truck traffic.

**C.6-C:** Study options for accommodating increased demand for truck parking as logistics uses increase. Consider leasing City-owned land for short- and long-term parking as a form of revenue generation. Consider provisions that allow for shared parking in off-peak areas to maximize space utilization.

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