

Appendix A

Cathedral City

Active Transportation Plan

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Cathedral City Active Transportation Plan

CATHEDRAL CITY, CALIFORNIA

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LIST OF ABBREVIATED TERMS

CALTRANS	California Department of Transportation
CAMUTCD	California Manual on Uniform Traffic Control Devices
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
CV	Coachella Valley
CVAG	Coachella Valley Association of Governments
DIB 89	Design Information Bulletin Number 89 (CALTRANS)
EIR	Environmental Impact Report
FHWA	Federal Highway Administration
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LSEV	Low Speed Electric Vehicle
NACTO	National Association of City Transportation Officials
NEV	Neighborhood Electric Vehicle
OPR	Governor's Office of Planning and Research, California
Project	Cathedral City Active Transportation Plan
RivTAM	Riverside County Transportation Analysis Model
SB 743	California Senate Bill 743 (Steinberg, 2013)
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
VMT	Vehicle Miles Travelled

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1. INTRODUCTION

This report presents the Active Transportation Plan (ATP) for Cathedral City that's been developed to work with the General Plan Circulation and Mobility Element to provide transportation alternatives via modal layers, resulting in a broader range of options for travel. Layered networks of bike, pedestrian, and low speed electric vehicle (LSEV) routes that allow for use of outdoor and active transportation choices can often be provided in an efficient manner without diminishing the availability of access for automobile travelers.

"Active transportation" refers to human powered transportation and low-speed electric assist devices. For the purposes of this report, the ATP will generically refer to active transportation trips as bicycle, LSEV, and pedestrian trips, since these represent the majority of active transportation trips, and a growing body of data and research is available to support the analysis of the effects of these trips on the broader transportation system.

A robust sidewalk, bikeway, and low speed electric vehicle network provides an alternate to the automobile. Thoughtful and strategic investment can help to reduce emission-related pollution, congestion and improve overall community character. Effective linkages for alternatives to automobile travel result in vehicle trip reduction, alternate mode attraction and vehicle miles travelled (VMT) benefits.

This Plan identifies the layered transportation networks, discusses their respective roles in personal mobility and provides a framework for a cohesive and comprehensive local transportation system. A thoughtful approach toward future transportation modal layers also addresses legislative requirements, provides a basis for future strategic transportation investment and ensures a vibrant community through active mobility options. With this approach, the city is able to plan balanced infrastructure needs to maximize limited resources. In addition, development of layered transportation networks will allow the City to access various local, state and federal funding sources.

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2. SUBREGIONAL CONTEXT

This section documents recent regional plans and programs that shape the context of the system in which the Cathedral City ATP is developed. Additional information on surrounding area plans and programs is provided in the Cathedral City General Plan Update Transportation Analysis (Urban Crossroads, Inc. January, 2019).

2.1. SCAG REGIONAL TRANSPORTATION PLAN / SUSTAINABILITY COMMUNITIES STRATEGY

Southern California Association of Governments maintains a Regional Transportation Plan / Sustainability Communities Strategy (RTP/SCS), which was most recently adopted in 2016. Trips of less than three miles represent 38 percent of all trips in the SCAG region. Increasing the percentage of these short trips made by bicycling and walking can potentially have a significant impact on greenhouse gas emissions and public health. SCAG proposes to invest \$7.6 billion in short-trip strategies.

Short trip strategies are designed to provide active transportation options to a broader segment of the population by increasing the quality and density of sidewalks and bikeways. Land use is interrelated with the transportation options that residents have to access nearby destinations, whether they be transit stations, schools, parks or local destinations. The short- trip strategies outlined in the SCAG RTP/SCS are designed to complement transit integration strategies, and they help further integrate active transportation into the context of local land uses.

Land use and transportation options are also interrelated with the health of residents. Walking or bicycling regularly can reduce the chances for obesity or other diseases related to a sedentary lifestyle, such as diabetes and high blood pressure. While incorporating the short trip strategies in the 2016 RTP/SCS is anticipated to increase the number of walking and biking trips, there is most notably the public health benefit. More people walking or bicycling daily helps individuals meet the minimum activity requirements to maintain health.

Local governments implement most transportation infrastructure. Just over 3,900 miles of local bikeways existed in the SCAG region in 2012, and local governments have proposed an additional 8,850 miles. This density of bikeways is likely to have an increasingly positive impact on the number of bicyclists and bicyclist trips. Anecdotal evidence from various cities indicates that an increased density of bikeways increases transportation safety.

While a significant portion of the region has access to bikeways, only a small percentage uses bikeways for their daily work commutes (less than one percent). The lack of bicycling commute trips may be attributed to the type of bikeways, confidence of the rider, adequate facilities at their destination (bicycle parking, showers, etc.), and accessibility to their desired destinations.

2.2. CV LINK

The “core” phase of the CV Link Master Plan envisions a multi-modal transportation facility which could ultimately connect eight of the nine cities in the Coachella Valley and three tribal land reservations. The CV Link project was approved by CVAG in 2017. Bicycles, pedestrians, and low-speed electric vehicles (LSEVs) will use the corridor to access employment, shopping, schools, friends, and recreational opportunities. LSEVs include golf carts and Neighborhood Electric Vehicles (NEVs) that can travel up to 25 mph.

The addition of an integrated and safe option for bicycle travelers, LSEV users, and pedestrians in Coachella Valley is projected to induce travel by these modes and reduce vehicle miles traveled in conventional automobiles, compared to conditions without the CV Link accommodations for these alternative modes of travel. By addressing current deficiencies in the existing walking and bicycling network in Coachella Valley, and creating an iconic new multimodal corridor, CV Link will help achieve goals relating to public health and safety by providing safer infrastructure for people to walk and ride bicycles and utilize LSEVs for transportation and recreation. It will also provide transportation options that are more economical than automobiles, thereby improving the mobility of all income populations.

2.3. COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS ACTIVE TRANSPORTATION PLAN

The Coachella Valley Association of Governments (CVAG) Active Transportation Plan (ATP) was developed in 2016 as an update to previous non-motorized transportation plans. It envisions bike, walk, and neighborhood electric vehicle (NEV) access throughout the CVAG region.

Bicycle and pedestrian facilities are shown in the CVAG ATP along Varner Road, Valley Center Road, Ramon Road, Landau Boulevard, Date Palm Drive, Da Vall Drive, Highway 111, and various other locations in Cathedral City (see Exhibit 2-1).

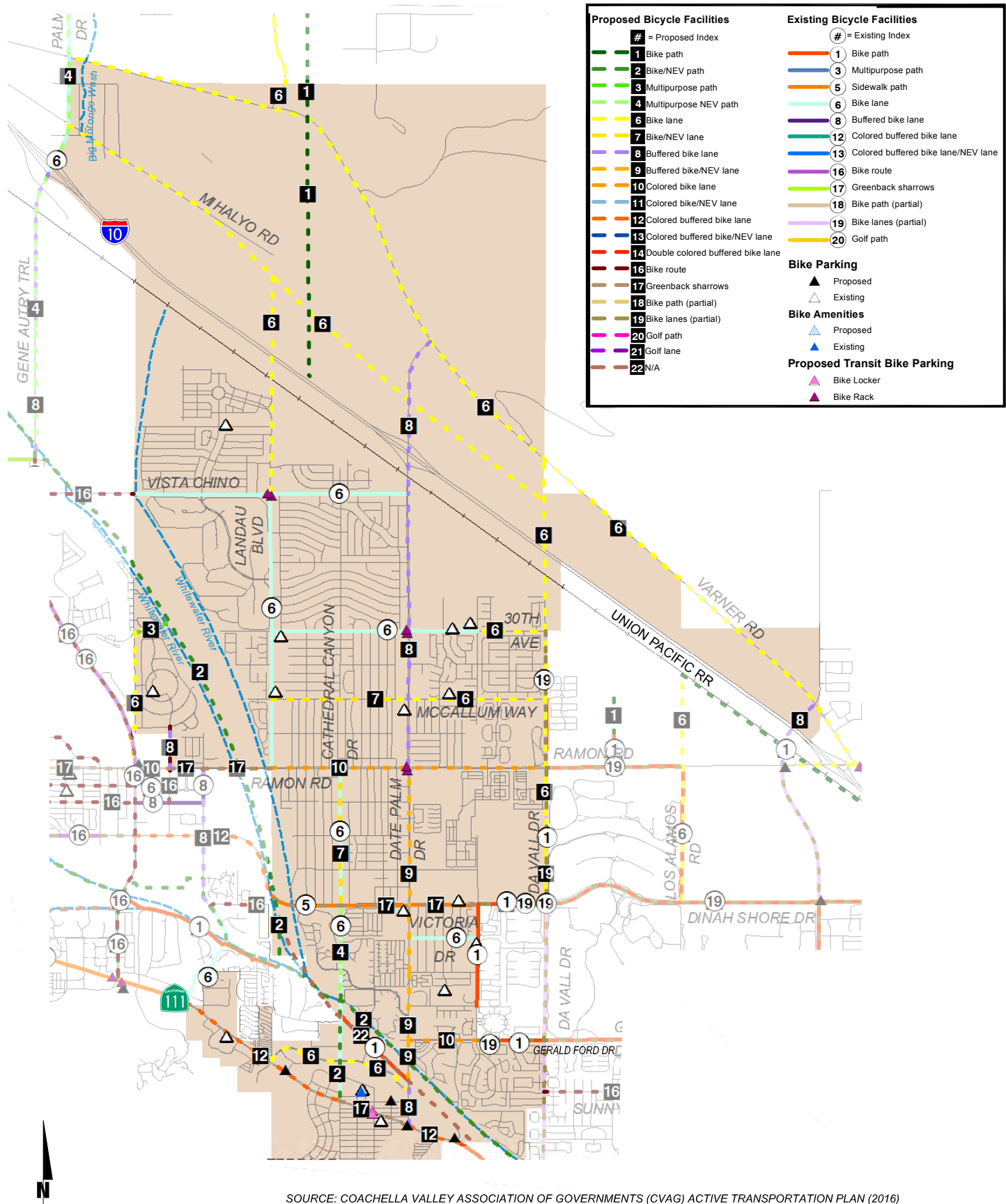
The proposed Cathedral City ATP (see Chapter 3 of this report) represents a comprehensive evaluation of local bicycle and pedestrian facilities for both existing and future General Plan conditions. Table 2-1 indicates the changes in route classifications for the proposed Cathedral City ATP (in comparison to the 2016 CVAG ATP).

The proposed Cathedral City ATP network also incorporates a system of Shared Low Speed Vehicle Routes that provide an important function for neighborhood-to-neighborhood interaction involving autos, bikes, pedestrians, and NEVs/golf carts. These two-lane, low-to-moderate speed connections should be protected and expanded where feasible.

2.4 COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS NEIGHBORHOOD ELECTRIC VEHICLE PLAN

This 2014 report provides a potential network concept for future NEV routes in the Coachella Valley, and was developed in conjunction with planning and design of CV Link, with the expectation that the CV Link would become the backbone for further pathways throughout the valley. Existing conditions are documented, and design guidelines are presented. Implementation strategies are also proposed.

EXHIBIT 2-1: CVAG 2016 ACTIVE TRANSPORTATION PLAN (ATP) NETWORK



SOURCE: COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS (CVAG) ACTIVE TRANSPORTATION PLAN (2016)

TABLE 2-1: CATHEDRAL CITY ATP CHANGES (IN COMPARISON TO THE 2016 CVAG ATP)

Roadway	Segment	CVAG ATP	CCGP ATP
Landau Bl.	<ul style="list-style-type: none"> s/o Vista Chino 	<ul style="list-style-type: none"> Bike Lane 	<ul style="list-style-type: none"> Bike Lanes and Off-Road NEV/Bike/Ped Trail
Cathedral Cyn. Dr.	<ul style="list-style-type: none"> b/w Ramon Rd. & Dinah Shore Drive b/w Dinah Shore Drive & Whitewater River b/w Whitewater River & E. Palm Canyon Dr. 	<ul style="list-style-type: none"> Bike/NEV Lane Multipurpose NEV Path Bike/NEV Path 	<ul style="list-style-type: none"> Class II Multi-Modal Lanes Class I Multi-Modal Path Class II Multi-Modal Lanes
Date Palm Drive	<ul style="list-style-type: none"> s/o Varner Road 	<ul style="list-style-type: none"> Buffered Bike/NEV Lane 	<ul style="list-style-type: none"> Class I Multi-Modal Path On-Street Bike Lanes
Plumley Road	<ul style="list-style-type: none"> s/o Dinah Shore Drive 	<ul style="list-style-type: none"> Bike Path 	<ul style="list-style-type: none"> Shared Low Speed Vehicle Route
Varner Rd.	<ul style="list-style-type: none"> b/w Palm Dr. & Bob Hope Dr. 	<ul style="list-style-type: none"> Bike Lane 	<ul style="list-style-type: none"> Off-Road Ped/Bike Trail
Valley Center Bl.	<ul style="list-style-type: none"> b/w Palm Dr. & Da Vall Dr. Da Vall Dr. & Bob Hope Dr. 	<ul style="list-style-type: none"> Bike Lane Unclassified 	<ul style="list-style-type: none"> Off-Road Ped/Bike Trail Off-Road Ped/Bike Trail
Vista Chino	<ul style="list-style-type: none"> east of Date Palm Dr. 	<ul style="list-style-type: none"> Unclassified 	<ul style="list-style-type: none"> On-Street Bike Lanes
McCallum Wy.	<ul style="list-style-type: none"> b/w Landau & Da Vall Dr. 	<ul style="list-style-type: none"> Bike Lane 	<ul style="list-style-type: none"> Shared Low Speed Vehicle Route
Ramon Rd.	<ul style="list-style-type: none"> within City Limits 	<ul style="list-style-type: none"> Colored Bike Lane 	<ul style="list-style-type: none"> Off-Road Ped/Bike Trail
Dinah Shore Drive	<ul style="list-style-type: none"> within City Limits 	<ul style="list-style-type: none"> Greenback Sharrows 	<ul style="list-style-type: none"> Off-Road Ped/Bike Trail
Perez Rd.	<ul style="list-style-type: none"> b/w Hwy. 111 & Date Palm Dr. 	<ul style="list-style-type: none"> Bike Lane 	<ul style="list-style-type: none"> Class I Multi-Modal Path
Whitewater River	<ul style="list-style-type: none"> Cathedral Canyon Dr. to Frank Sinatra Dr. (North side of channel) 	NA	<ul style="list-style-type: none"> Class I Multi-Modal Path

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NEV parking spaces can be smaller than those used for automobiles, if appropriately signed. A typical dimension for NEV parking is 15' x 7' (in comparison to 18' x 8.5' for autos). NEV parking spaces and charging stations should be located within functional reach of one-another (i.e. a NEV should be able to be plugged in while parked in the space).

It is important to note that in 2016, the neighboring jurisdiction of Rancho Mirage adopted Ordinance 1099, prohibiting LSEVs and NEVs in certain areas and on certain streets within the jurisdiction of the City of Rancho Mirage, so the CV Link does not formally connect easterly from Cathedral City into Rancho Mirage. However, bicycle and pedestrian facility connections are available.

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3 LOCAL ACTIVE TRANSPORTATION PLAN

The Cathedral City ATP has been developed in conjunction with the General Plan Update, which includes a scaled evaluation of transportation modes. As shown on Exhibit 3-1, the shared infrastructure accommodates motorists, delivery services, cyclists, LSEV users, pedestrians, transit riders, and freight operators. Environmental impact considerations, personal preference and economic situations all drive the need to accommodate “layered” networks. Various modal layers provide the framework for the relationship between the ATP and the Cathedral General Plan Circulation and Mobility Element.

Enabling the use of transportation alternatives with modal layers provides a broader range of options for travel. Investment in layered networks that allow for use of active transportation choices can often be provided in an efficient manner without diminishing the availability of access for the automobile mode.

Mode choice is influenced by sidewalk/pathway connectivity and proximity of buildings, bike accommodations, transit stop density and service characteristics, electric vehicle charging stations, and availability of interconnected low speed routes. Layered transportation networks have been created to serve this demand. Alternative mode choices will also contribute to sustainable development by allowing users to satisfy their functional travel needs while supporting their environmental, social, and recreational interests.

Cathedral City has a pleasant walk / bicycle environment, especially during the winter and shoulder (spring/fall) seasons. Such activities tend to occur mostly in the morning during summer months – terrain is flat, it rarely rains, and temperatures are ideal for exercise. However, the peak heat during summer months and periodic high winds in certain areas can limit outdoor activity or even present a safety risk.

Although conditions during certain time periods on some summer days increase relative desirability of enclosed travel modes, there are time periods of most days which are suitable for the average outdoor traveler. During summer months, many long term residents have adapted their outdoor recreation, exercise, and commute travel to early morning and late night hours to avoid uncomfortable weather patterns. Some particularly hardy cyclists are not deterred by most weather, and the advent of electric assist bicycles and improving battery technologies will help minimize the impact of wind on usage for other travelers. During the most intense heat of summer, it is likely that travelers may choose enclosed travel modes more often than at other times of the year; they will also travel less. For shorter trips and those when non-automobile modes are more convenient, travelers may choose their preferred mode regardless of weather conditions.

3.1 BIKEWAYS AND SHARED LOW SPEED ROUTES

Bikes can be accommodated through thoughtful street design, striped lanes and separate off-street paths. The proposed overall new Cathedral City General Plan bikeways and shared low speed routes (Exhibit 3-2) work in conjunction with the proposed Cathedral City General Plan Roadway Network to provide a framework for key routes and facilities that will enhance connectivity for all users.

EXHIBIT 3-1: CITY OF CATHEDRAL CITY LAYERED TRANSPORTATION NETWORKS

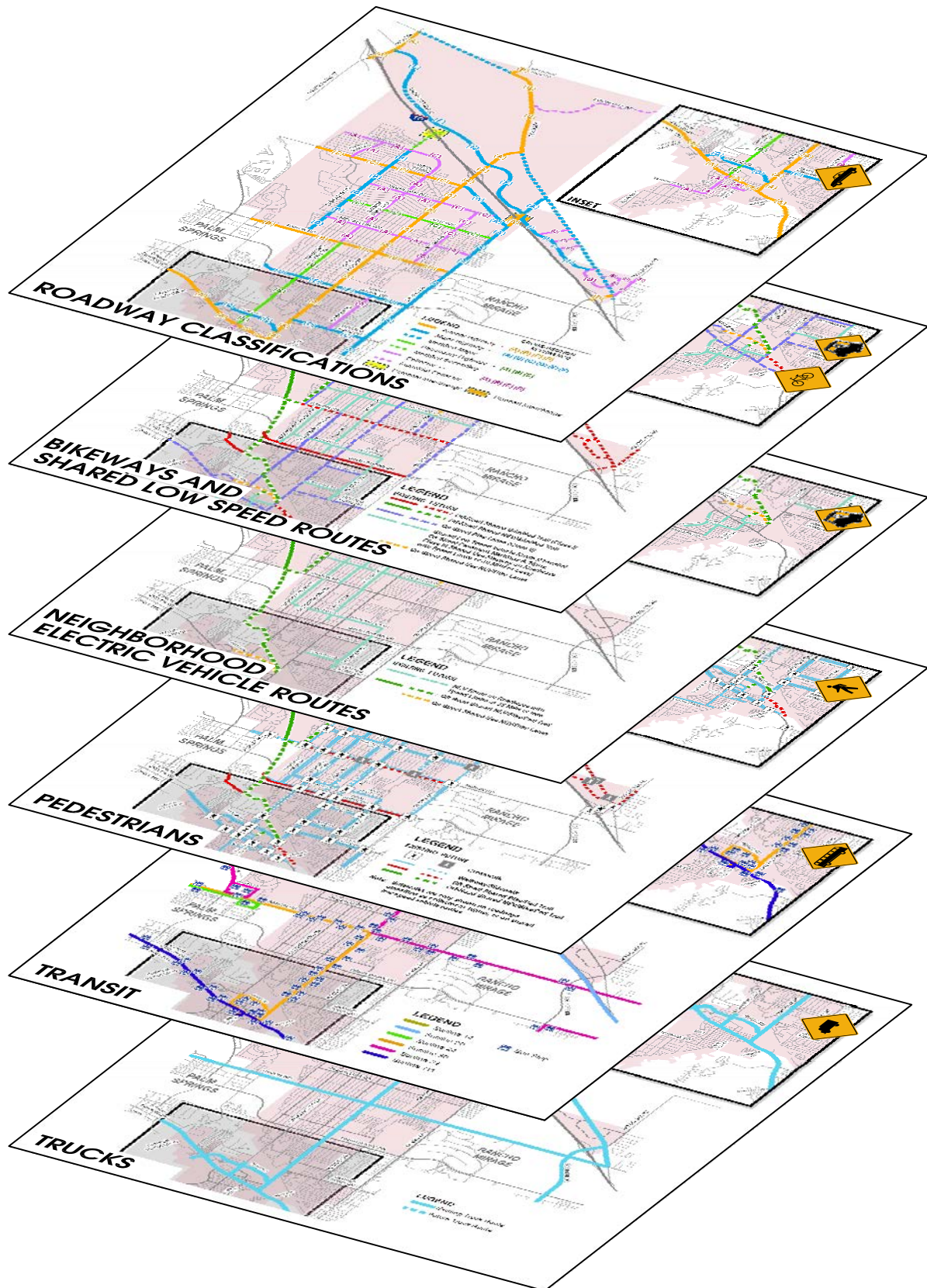
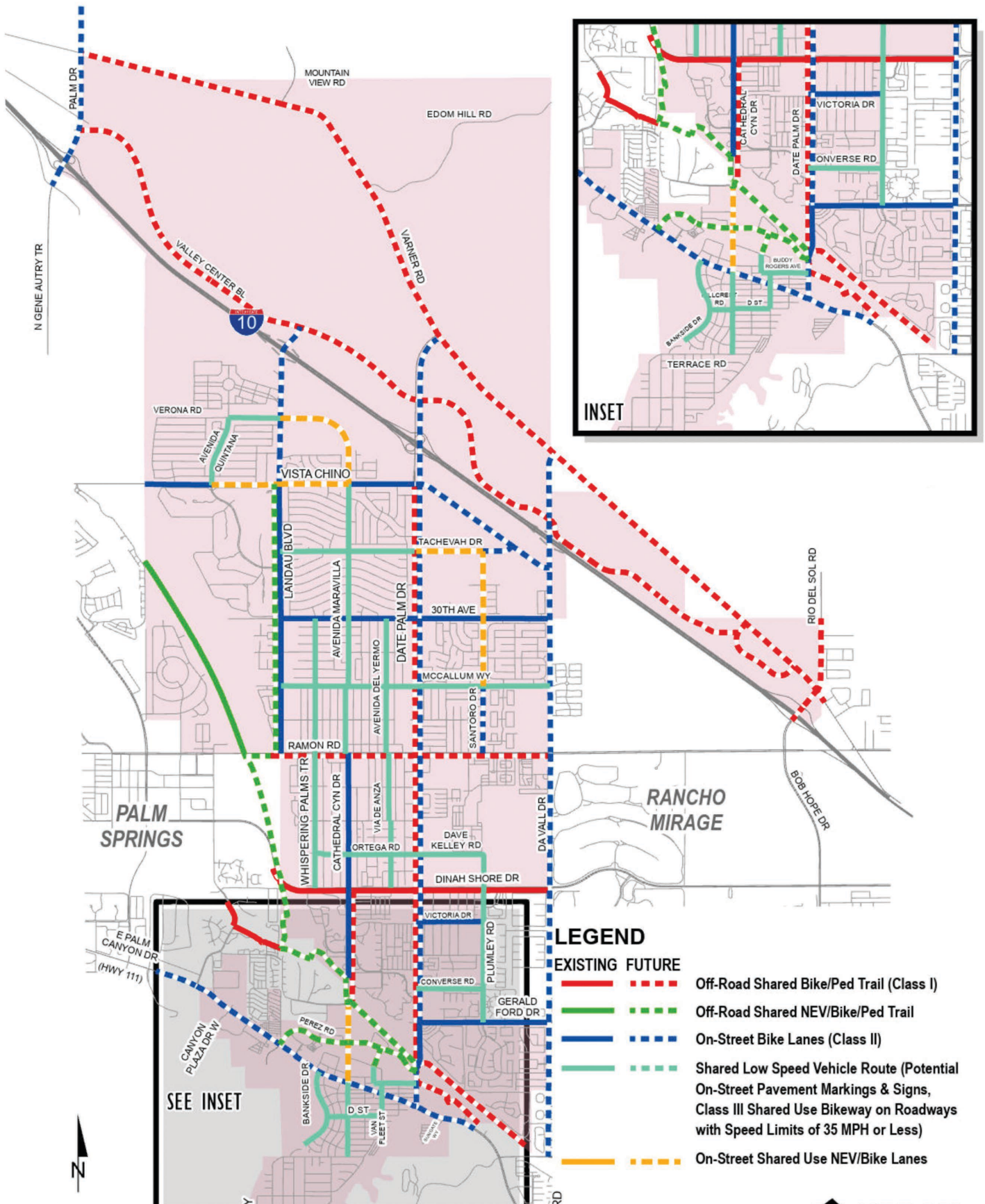


EXHIBIT 3-2: OVERALL NEW CATHEDRAL CITY GENERAL PLAN BIKEWAYS AND SHARED LOW SPEED ROUTES



The proposed Cathedral City ATP incorporates a system of Shared Low Speed Vehicle Routes that provide an important function for neighborhood-to-neighborhood interaction involving autos, bikes, pedestrians, and NEVs/golf carts. These two-lane, low-to-moderate speed connections provide an alternative to traveling on higher capacity and higher speed roads in order to navigate through existing areas of Cathedral City for short trips.

Bikeway classifications are illustrated on Exhibit 3-3. A Class I Bikeway is a bike path that provides for bicycle travel on a right-of-way completely separated from any street or highway. The paths may be located along alignments parallel to streets or unrelated alignments as long as there is no encroachment from motor vehicle or pedestrian traffic except at grade intersections. The minimum paved width of travel way for a two-way bike path shall be 8 feet, 10-foot preferred. A minimum 2-foot wide shoulder, composed of the same pavement material as the bike path or all weather surface material that is free of vegetation, shall be provided adjacent to the traveled way of the bike path when not on a structure.

A Class II Bikeway is a bike lane that provides a striped lane for one-way bike travel within the paved area of a street or highway. These bike lanes are within an exclusive right-of-way designated and signed for use by bicyclists. However, cross traffic is permitted for driveway access.

A Class III Bikeway is a bike route in which both bicycle and motor vehicle traffic share the same roadway surface area. The route is marked with signs or stenciled lettering on the pavement identifying the roadway as part of a bikeway system, but does not provide a separate striped on-street lane.

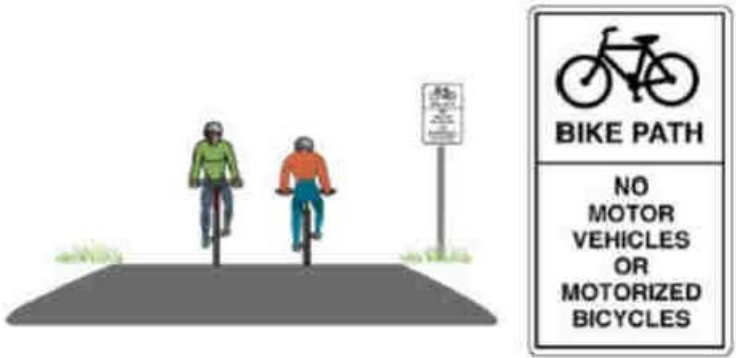
A Class IV Bikeway (separated bikeway) is an on-street bikeway for the exclusive use of bicycles and includes a separation required between the separated bikeway and the through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking. Separated bikeways typically operate as one-way bikeway facilities in the same direction as vehicular traffic on the same side of the roadway. However, two-way separated bikeways can also be used, usually in lower speed (35 miles per hour or less) environments.

Cathedral City ATP off-road shared bike and pedestrian trails are presented on Exhibit 3-4. The off-road pedestrian and bike trails generally connect northwest to/from southeast through Cathedral City, near Varner Road, Valley Center Boulevard, Ramon Road, Dinah Shore Drive, and the CV Link alignment. The CV Link and Landau Boulevard trails are shared with NEVs as well.

On-street bike lanes and shared low speed vehicle routes are shown on Exhibit 3-5. Shared low speed vehicle routes are 2-lane roadways that are shared between the automobile, bicycle, and LSEV travel modes. On-street bike lanes are shown on Palm Drive, Landau Boulevard, Date Palm Drive, Da Vall Drive, Vista Chino, 30th Avenue, Ramon Road, Gerald Ford Drive, and Highway 111 (aka East Palm Canyon Drive). On-street shared use NEV / bike lanes are shown along portions of Avenida Maravilla, Cathedral Canyon Drive, Santoro Drive, and portions of Vista Chino and Tachevah Drive.

EXHIBIT 3-3: ILLUSTRATIONS OF BIKEWAY CLASSES

CLASS I - BIKE PATH



CLASS II - BIKE LANE

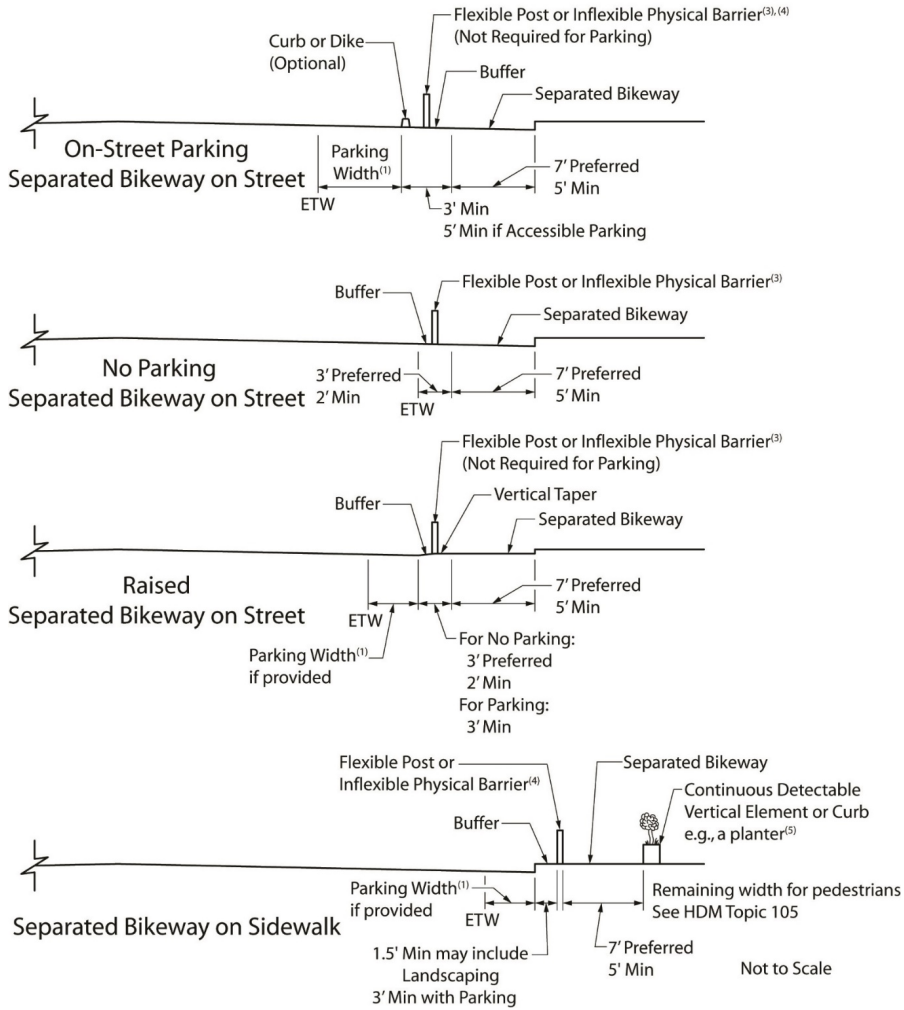


CLASS III - BIKE ROUTE



SOURCE: CVAG ACTIVE TRANSPORTATION PLAN

CLASS IV - BUFFERED BIKE LANE



SOURCE: CALTRANS DESIGN INFORMATION BULLETIN (DIB) 89

EXHIBIT 3-4: OFF-ROAD SHARED BIKE/PEDESTRIAN TRAILS

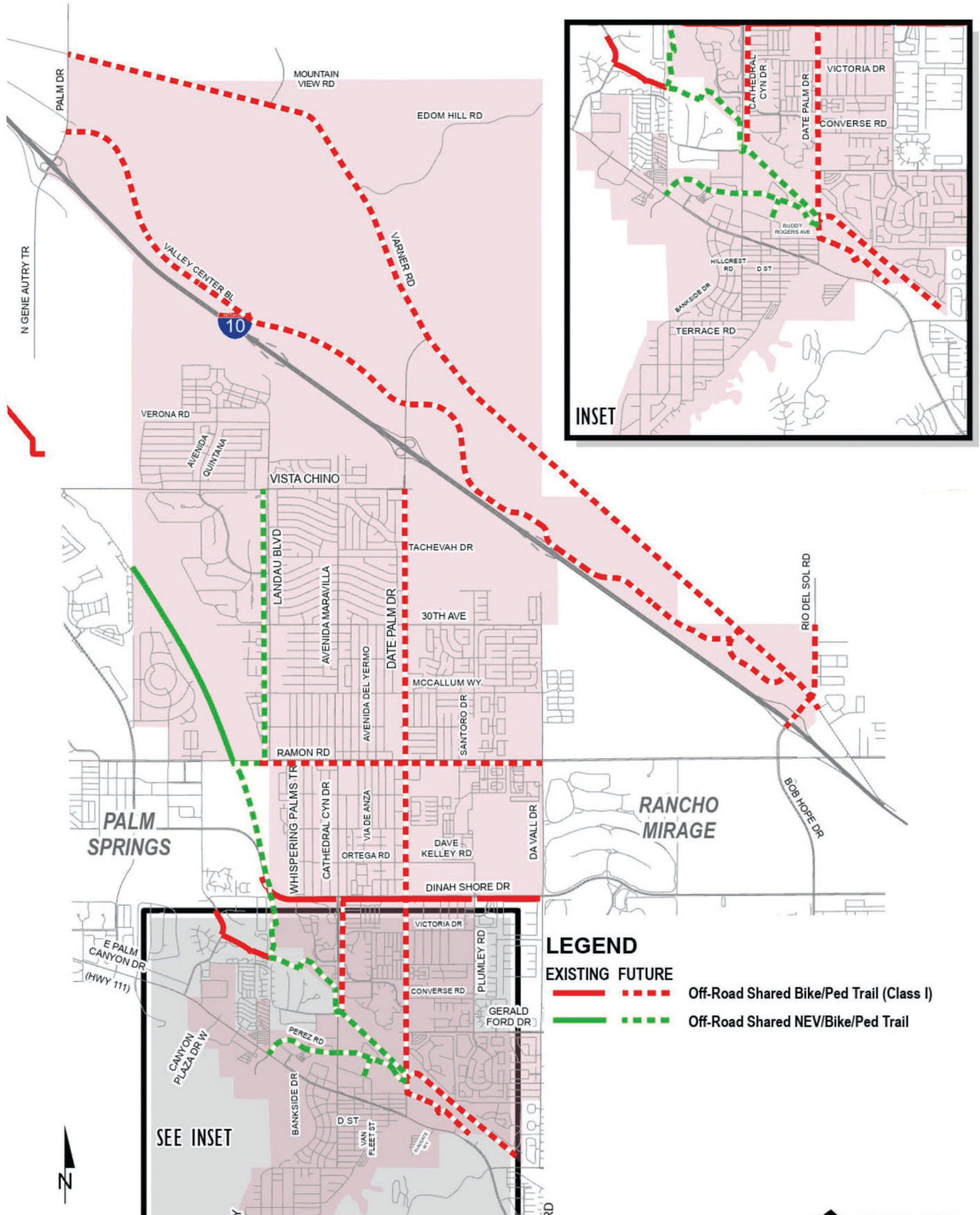
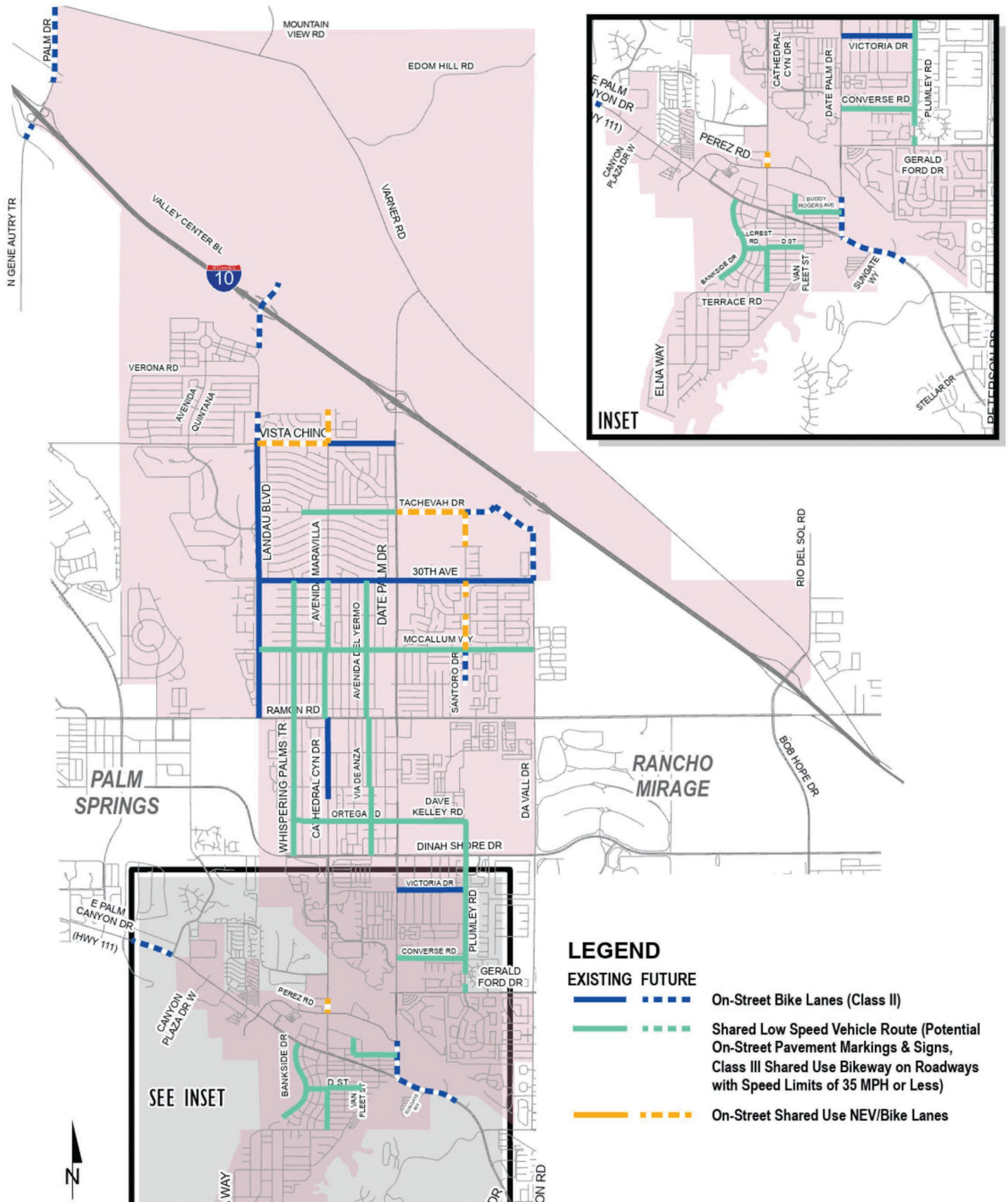


EXHIBIT 3-5: ON-STREET BIKEWAYS AND SHARED LOW SPEED ROUTES



Key bicycle planning considerations include:

- Bicyclists need streets and paths to ride on where they feel safe and visible.
- Bikeway types are planned according to rights-of-way, traffic volumes, destination points and other factors.
- A comprehensive network will contain closely spaced parallel routes and connections to accommodate trips of all lengths.
- Bicyclists need secure parking at their destinations. Commuters often need longer term parking such as lockers. Neighborhood travelers may find simple bike racks sufficient.
- Bicycle education should be actively promoted through K-12 schools, community centers and other public outlets.

Bicycles are used for recreation and commute trips to schools, jobs, parks, activity centers, and other social activities. There are 5 elementary schools, 2 middle schools, 2 high schools, and 1 private school in Cathedral City. There is one private college in Cathedral City, and three public colleges or universities are located in nearby Palm Desert, with a new community college campus anticipated in Palm Springs in 2020. Exhibit 3-6 shows points of interest for access via the ATP networks.

The proposed Cathedral City General Plan Bikeways and Shared Low Speed Routes provide linkages to these key destinations, and connections to local transit options. Destinations can encourage bicycle trips through careful parking lot design to avoid conflicts with cars and pedestrians, security (racks/lockers), comfort stations including drinking fountains, benches and restrooms where practical, and well maintained surfaces.

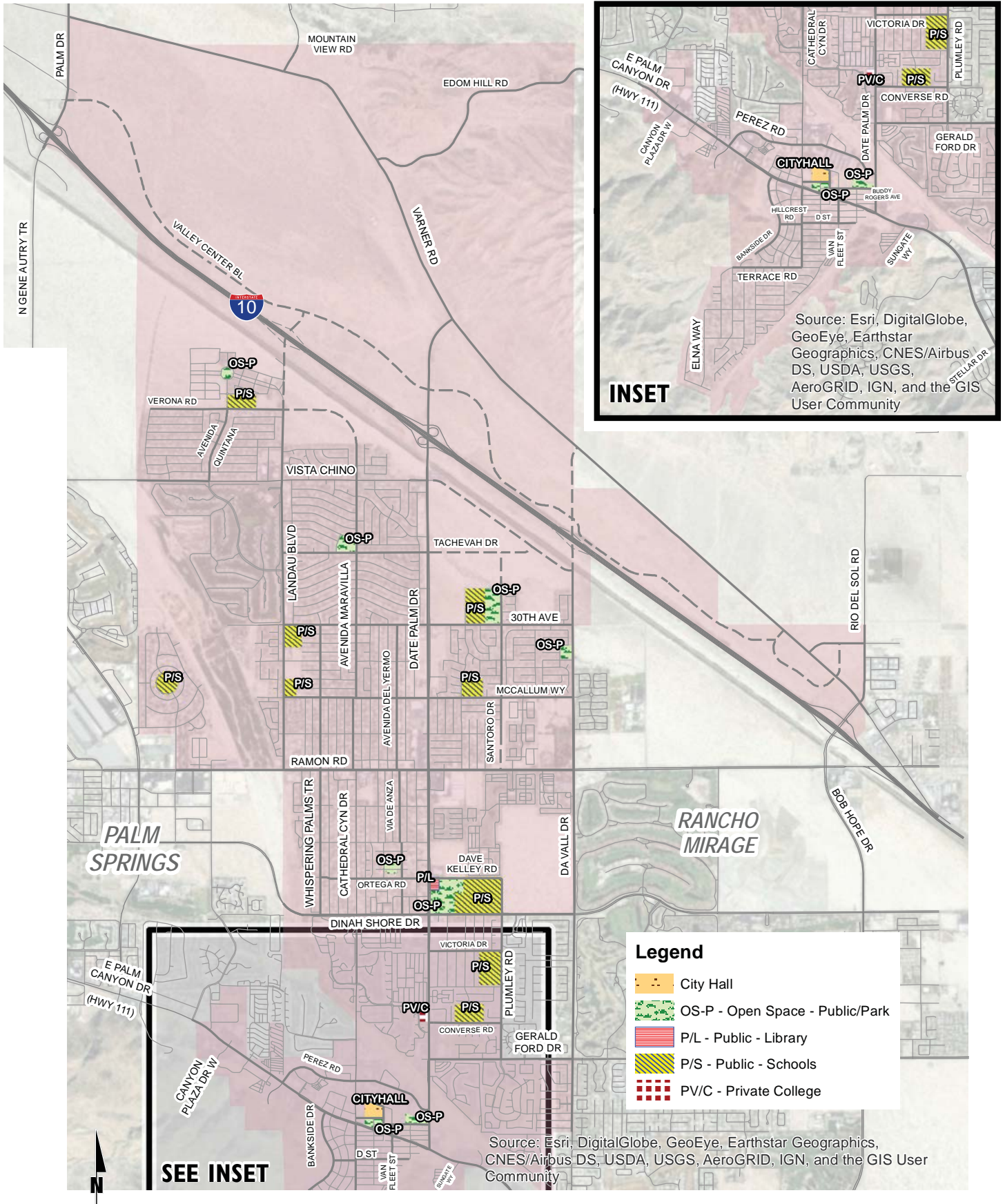
Design guidance for Class I bikeways (bike paths), Class III bikeways (bike routes) and Trails are provided in Chapter 1000 of the California Highway Design Manual (HDM). Design guidance that addresses the mobility needs of bicyclists on all roads as well as on Class II bikeways (bike lanes) is distributed throughout the California Highway Design Manual where appropriate. Design guidance for Class IV bikeways (separated bikeways) is provided in DIB 89.

The AASHTO Guide for the Development of Bicycle Facilities and the National Association of City Transportation Officials (NACTO) Urban Street Design Guide also provide additional bikeway guidance not included in the California Highway Design Manual.

3.2 PEDESTRIANS / MOBILITY DEVICE USERS

Walking is the simplest form of transportation available. Sidewalks, paths and trails serve as the pedestrian roadway, and are therefore an integral part of the roadway network discussed above. Walking trips are made out of necessity, preference or for exercise. Walking trips are traditionally shorter in length (less than one mile) in comparison to other modes. Typical walking trips are to neighborhood shopping, school, parks/recreation, visit friends, or to a transit stop. Without a formal structure in place, walkers will forge a new path, follow unsafe routes or seek out less convenient or more costly alternatives. Neighborhoods and activity centers (such as schools, parks, retail, employment, etc.) should be accessible by foot wherever practical.

EXHIBIT 3-6: EXISTING POINTS OF INTEREST FOR NON-MOTORIZED AND LSEV ACTIVITY



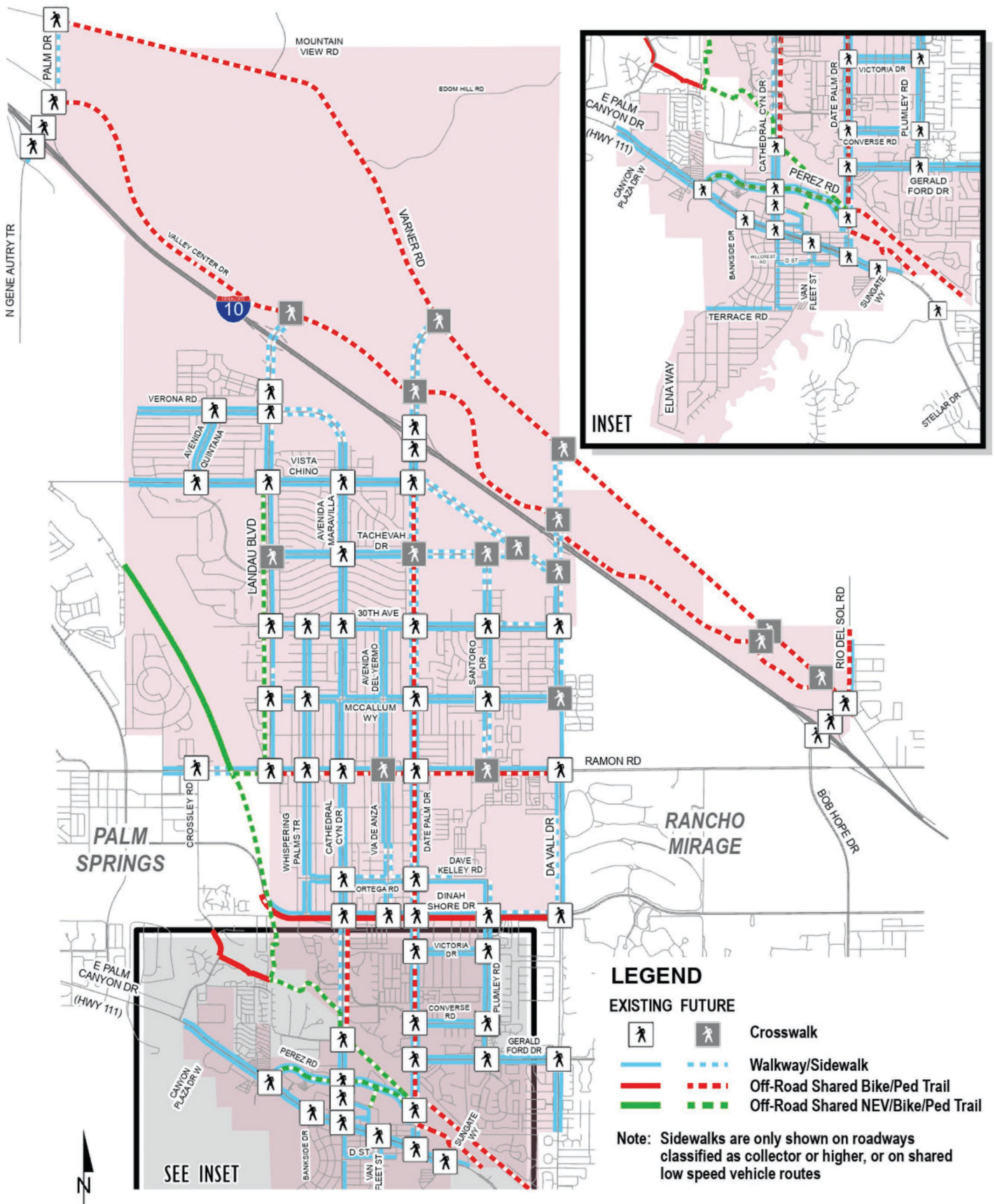
Walking is the least expensive transportation mode, so building and maintaining a high quality pedestrian infrastructure is advisable to help ensure that the community will be a safe, convenient, and attractive place to walk, emphasizing safe routes to school, core area paths, and connections to transit. Everyone is a pedestrian at some point during the day. We all walk with or without mobility aids (including wheelchairs, walkers, crutches, canes, scooters, and service animals used by people with disabilities), whether to a school, transit stop, to a parked car, to work, or for exercise.

Cathedral City ATP pedestrian facilities are shown on Exhibit 3-7. Off-road trails are typically shared with other uses, such as bicycles and NEVs. Walkways and sidewalks are generally indicated along collector and larger facilities, resulting in a generalized grid pattern in Cathedral City. The citywide network is supplemented by neighborhood pathways that generally consist of sidewalks along local streets.

Safe pedestrian crossings are critical components of the pedestrian network. Although the California Vehicle Code states that a crosswalk implicitly exists on every leg at every intersection, it is important to recognize that visibility and safety are important factors that determine where people will attempt to cross a street. The following guidelines are recommended for pedestrian crossings, including both signalized and unsignalized crosswalks:

- Crosswalks should meet MUTCD standards and criteria, with wide crosswalks considered in areas of high pedestrian volumes.
- The City should use high-visibility crosswalks, especially along busy streets, in school zones, along pedestrian-oriented streets, and where a significant number of pedestrians are present. "Zebra" style crosswalks are most visible.
- Unsignalized pedestrian crosswalks should be adequately lighted, have clear sight distances, and be free from obstructions, such as landscaping and poles.
- Appropriate pedestrian crossing signs should be displayed in advance of, and adjacent to, all marked unsignalized crosswalks in order to enhance visibility of pedestrians by motorists.
- Mid-block crosswalks should be designated only in areas with relatively high pedestrian activity and crossing patterns, or where the distance to the nearest crosswalk is greater than 600 feet.
- At signalized intersections, efforts should be made to install marked crosswalks at every leg of the intersection where feasible, given traffic and other considerations.
- ADA-compliant curb ramps should be provided at all corners. Where physically feasible, every corner should have two perpendicular ramps.
- Where feasible, pedestrian crossing islands should be considered where pedestrians are required to cross a wide multi-lane street.
- Curb extensions should be considered at intersection corners as a way to minimize the crossing distance of pedestrians and to increase visibility.
- Raised crosswalks also contribute to pedestrian safety through catching the attention of drivers, slowing automobiles, and they provide a more comfortable walking environment. According to the Federal Highway Administration (FHWA), raised crosswalks increase pedestrian visibility and eliminate the need for curb ramps, which improves access for people with mobility impairments and increases the sidewalk area available to pedestrians waiting to cross the street.

EXHIBIT 3-7: PEDESTRIAN FACILITIES



3.3 LOW SPEED ELECTRIC VEHICLES

LSEVs include any electrically powered or assisted mobility device (e.g. electric longboards, bicycles, trikes, golf cars, and NEVs). NEVs and golf carts have similar characteristics but also contain important differences.

The California Vehicle Code (CVC) defines golf carts as vehicles designed to operate at a maximum speed of 15 mph and states that golf carts can be driven only on roadways with posted speed limits of up to 25 mph except in cases where travel on roadways with higher speed limits is permitted by ordinance or resolution of a local authority. Golf carts are restricted to private property, golf courses or with one mile of a golf course if the street is identified in an approved Golf Cart Plan.

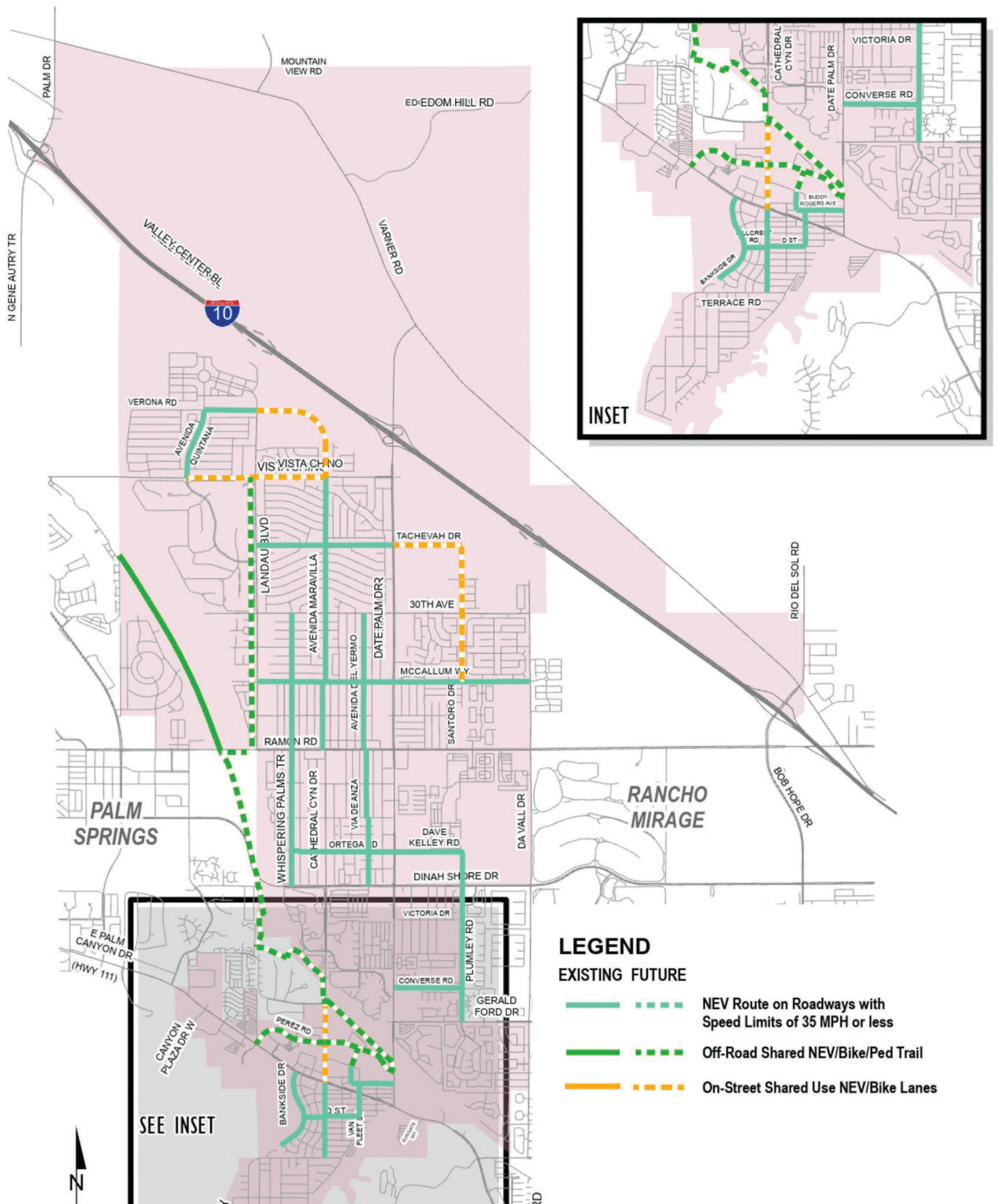
The CVC defines NEVs as vehicles that can reach speeds of 20 to 25 mph within one mile. NEVs may be operated on any roadway with a posted speed limit of 35 mph or less unless specifically prohibited by an adopted NEV plan and may cross at intersections that have a higher speed limit. NEVs are permitted to operate in separate lanes on roads with posted speed limits of 40 MPH or greater when included in an approved NEV Plan.

Neighborhood electric vehicles (NEVs) are a street legal, low cost, energy efficient, zero emissions mode of local travel that is currently available – but current impediments to widespread usage include the following: (1) lack of interconnected low speed routes, and (2) driver confusion regarding where these vehicles can safely be operated. These problems can be addressed in Cathedral City by the implementation of a local NEV plan which overcomes connection issues, identifies safe routes, and enable clear communication about where residents can go in low speed vehicles.

The proposed Cathedral City low speed electric vehicle routes are shown on Exhibit 3-8, and provide a network of on-road shared NEV/bike routes and shared off-road NEV lanes or trails. Cathedral City off-road LSEV routes are primarily oriented to CV Link and a segment of Landau Boulevard. On-street NEV/bike lanes are indicated on segments of Santoro Drive, Tachevah Drive, Vista Chino, and Avenida Maravilla / Verona Road. Low Speed Vehicle Routes are also identified and NEVs may be legally operated on these routes where there is a posted speed limit of 35 MPH or less.

Although some level of NEV ownership and operation will occur regardless of the city's attention to the matter, Cathedral City can proactively address conflicting mode issues and encourage safe NEV operations by identifying the suitable NEV backbone routes, implementing street signage and striping of lanes for appropriate operation of low speed vehicles, providing parking incentives and low cost charging stations, and promoting the NEV plan to the public – activities that are essential to acceptance and use of NEVs by residents and businesses.

EXHIBIT 3-8: LOW SPEED VEHICLE ROUTES



3.3.1 SHARED NEV/BIKE LANE DESIGN CONSIDERATIONS

A 4-seat LSEV is approximately 5.5' wide with a 7' minimum design envelope. The updated General Plan roadway cross-sections accommodate 8' shared NEV/bike lane widths on segments of Santoro Drive, Tachevah Drive, Vista Chino, and Avenida Maravilla / Verona Road where needed to accommodate the on-street lanes. NEV classifications are illustrated on Exhibit 3-9.

Perez Road is an east/west roadway which currently exists as 4-lane major roadway and accommodates on-street parking for both the north and south side of the roadway. The existing curb to curb width of Perez Road is approximately 64 feet immediately west of Cathedral Canyon Road and widens to 76 feet west of Kyle Road. East of Cathedral Canyon Road, Perez Road has approximately 76 feet of curb to curb width.

The updated General Plan considered modification of Perez Road roadway classification to provide one auto travel lane in each direction, a striped center median lane, directional NEV/bike lanes, and on-street parking (with buffers). Exhibit 3-10 depicts this alternative conceptual striping plan that could be considered in the future to address the needs of automobile, bicycle, and NEV users at the intersection of Cathedral Canyon Drive at Perez Road. This alternative concept is not currently recommended for implementation.

There will always be situations on our streets where cars, trucks, bikes, motorcycles, NEVs and pedestrians must cross the same space. Because motorized vehicles are generally becoming quieter in their designs, visual caution is necessary by all users of streets, drivers must be vigilant for the needs of visually impaired pedestrians, and all aspects of our transportation networks need to be professionally evaluated in terms of vehicle operations and pedestrian safety.

3.3 TRANSIT NETWORK

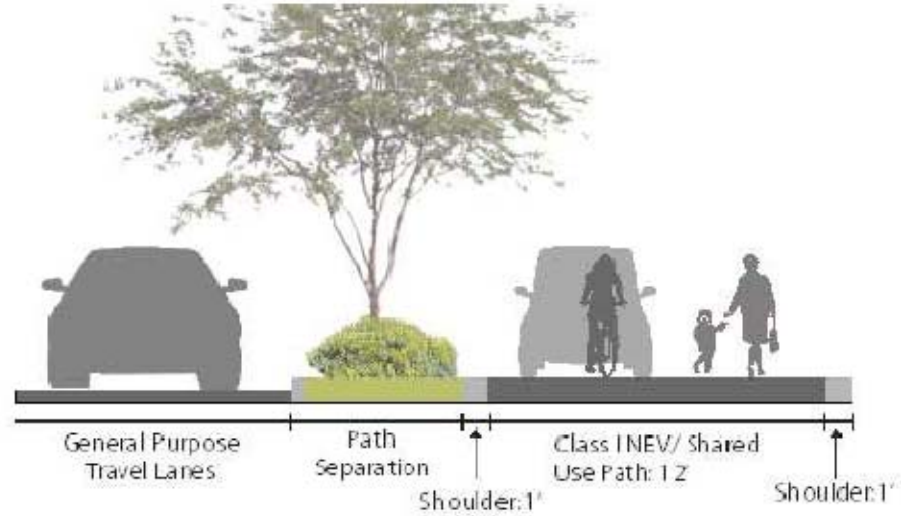
Coachella Valley is served by the SunLine Transit Agency, a Joint Powers Authority formed in 1977 to operate the Valley's public transportation system. SunLine Transit Agency offers fixed route and curb-to-curb paratransit service for people with disabilities. The Agency's fixed route and paratransit vehicles travel more than 4 million miles per year, carrying over 4.8 million riders. The network of existing transit services is shown on Exhibit 3-11.

The updated Cathedral City General Plan roadway network and ATP provide a framework for key routes and facilities that will further enhance connectivity for all users. Bicycle and pedestrian connections to transit serve to facilitate more travel options. The distance to/from transit is referred to as first mile or last mile. Typically transit users walk, bike, drive, or use a mobility aid for some distance to access transit. Providing transportation options for this first / last mile in destination-rich areas attracts additional transit users.

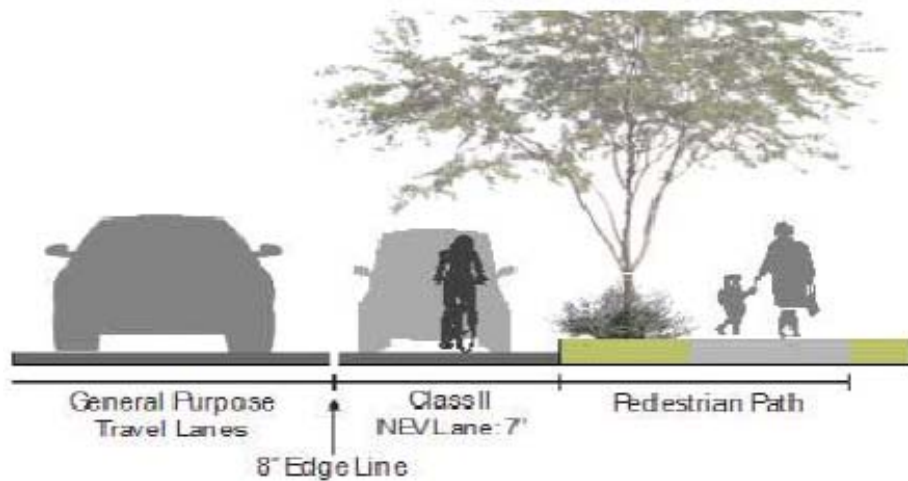
Transit routes in Cathedral City are provided on Palm Drive, Avenida Maravilla, Date Palm Drive, Vista Chino, 30th Avenue, Ramon Road, and Highway 111. Sunline 20 traverses Cathedral City on the I-10 freeway, with a connection to Palm Drive. Bus stops are generally placed by the SunLine Transit Agency on public rights of way. These stops may include signage only, bus bench, shelter or other amenities.

EXHIBIT 3-9: ILLUSTRATIONS OF NEV CLASSES

CLASS I - NEV/SHARED USE PATH



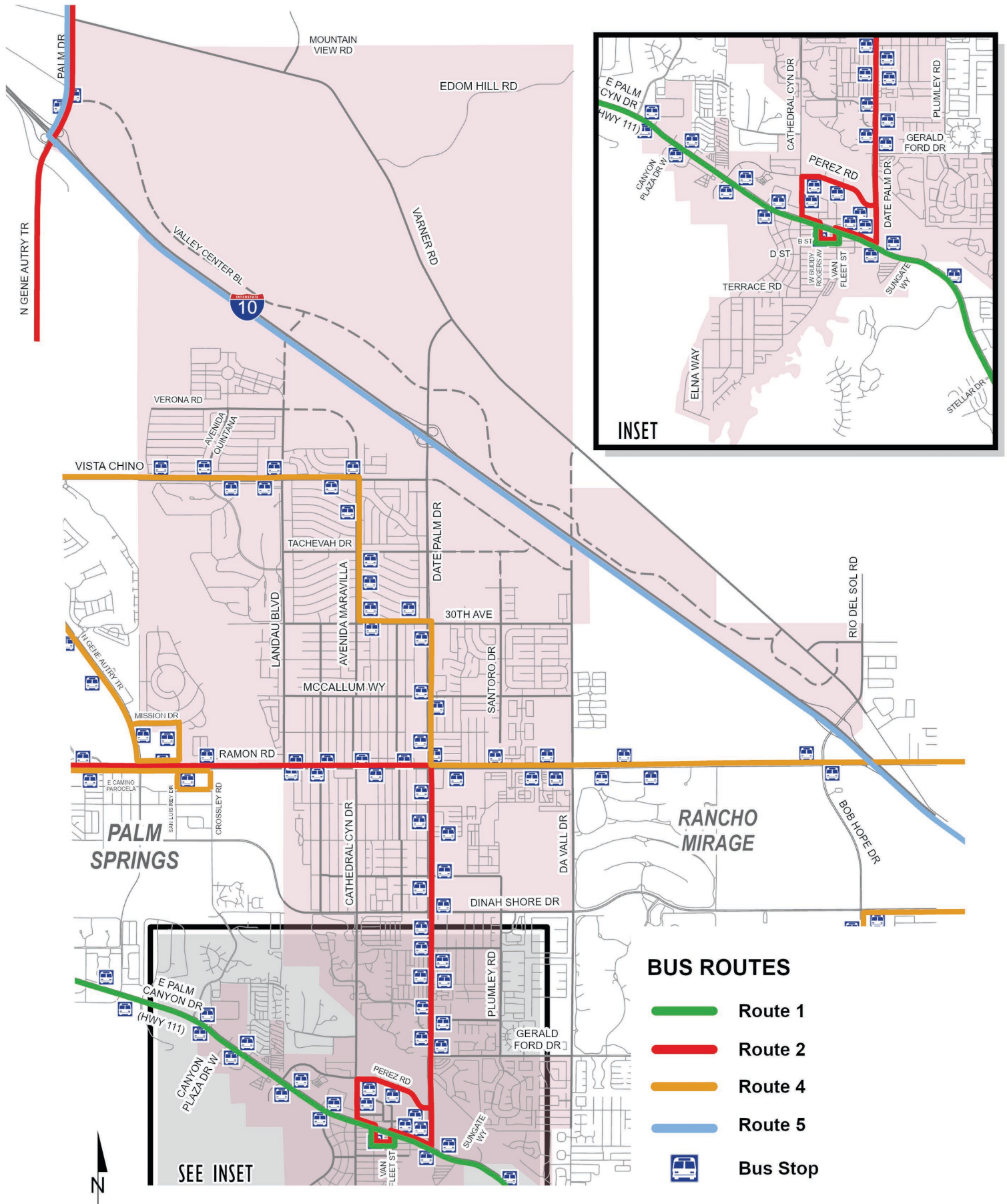
CLASS II - NEV LANE



SOURCE: CVAG NEIGHBORHOOD ELECTRIC VEHICLE TRANSPORTATION PLAN (Volume IV of CV Link Master Plan)



EXHIBIT 3-11: EXISTING TRANSIT SERVICE ROUTES AND BUS STOPS



SunDial provides origin-to-destination paratransit service in Cathedral City and throughout the Coachella. The purpose is to meet the requirements of the Americans with Disabilities Act (ADA), providing next day public transportation service for persons who are unable to use regular SunLine service. SunDial service is available within 3/4 of a mile on either side of any local SunLine route.

4 EXISTING CONDITIONS

The built areas of Cathedral City are generally located south of Interstate 10. A network of existing trails is provided in these areas. This section summarizes the 2018 facilities, and provides background on safety data and procedures already in place.

4.1 EXISTING BIKE AND PEDESTRIAN FACILITIES

Existing off-road trails (see Exhibit 3-3) are provided along the Ramon Wash (located between Vista Chino and Ramon Road near the western City boundary), Dinah Shore Drive, and a portion of the Whitewater River.

On-street bike lanes and shared LSEV routes (see previously presented Exhibit 3-4 and 3-6) generally exist as bike lanes along Landau Boulevard from Vista Chino to Ramon Road, Vista Chino west of Avenida Quintana and from Avenida Maravilla to Date Palm Drive, 30th Avenue, Avenida Maravilla, Cathedral Canyon Drive, Tachevah Drive west of Date Palm Drive, Whispering Palms Trail, Avenida Del Yermo, Via De Anza, McCallum Way, Ortega Road / Dave Kelley Road, Avenida Quintana, Plumley Road, Victoria Drive, Converse Road, Bankside Drive, Hillcrest Road, D Street, and Buddy Rogers Avenue.

In Cathedral City, bike parking is currently provided at City Hall, downtown, shopping centers (Cathedral City Marketplace, Golden Mile, and Canyon Plaza), Cathedral City High School, Rio Vista Elementary School, and 30th Avenue Soccer Park. At City Hall, a shower and locker facility is also provided for City employees who commute by bicycle.

Existing pedestrian facilities are shown on Exhibit 3-5, and generally are provided along the same facilities that also have existing on-street bike lanes and shared LSEV routes. Sidewalks are also provided along Highway 111. Crosswalks are available throughout much of the existing walkway / sidewalk network. HAWK crosswalks on Dinah Shore provide additional pedestrian accommodations.

4.2 TRANSPORTATION SAFETY

The California Office of Traffic Safety (OTS) maintains and publishes collision data for California cities. Cities are grouped by population range, with Cathedral City included in Group C (50,001 to 100,000 persons). Group C includes 104 California cities that are ranked with lower numbers being worse (1/104 would be worst).

The most recent published data is from 2016, and is included in Appendix 4.1. As shown in Attachment 1, OTS ranking is provided by type of collision (e.g. – hit and run, driver had been drinking, motorcycles, pedestrians, bicyclists, etc.) and number of victims killed or injured. Based on the 2016 OTS results and comparing collision data between 104 cities, Cathedral City is generally in the upper half for most types of collisions (rank ranges between 63 – 99 out of 104 cities). For collisions that involve bicyclists under the age of 15, Cathedral City ranks at 41 out of 104 cities which is worse than average.

On May 15, 2018, Cathedral City Police issued a memorandum regarding Bicycle Safety Month. Safety statistics were provided, and recommendations to cyclists include wearing a helmet, obeying rules of the road, riding in the same direction as traffic, wearing brightly colored clothing for visibility, and using lights / reflectors as required by law. The same memorandum provides recommendations to automobile drivers regarding sharing the road, being courteous, looking for and yielding to cyclists, and remaining outside of the bike lane until allowed for turning.

Safety education has been provided at Cathedral City public schools via assemblies, printed materials, special events (such as Walk to School Days, bike rodeos, Walking School Buses, etc.).

5. GOALS AND POLICIES

The Cathedral City General Plan Update Active Transportation Plan uses layered transportation networks to guide the provision of transportation facilities for users of all modes, such as bicycle, pedestrian, low speed electric vehicle, and transit.

Goal 1: ***A bikeway, pedestrian, and low speed electric vehicle network that provides safe and appealing transportation options.***

Policies

- 1.1 Require on- and off-street pathways to:
 - Comply with federal, state and local design and safety standards.
 - Meet the needs of many types of users / abilities (families, commuters, recreational beginners, exercise enthusiasts), and meet ADA standards and guidelines.
 - Be compatible with the streetscape and surrounding land uses.
 - Be maintained / repaired in accordance with best practices.
- 1.2 Consider active transportation facilities and traffic calming for public works projects and development projects.
- 1.3 Encourage safety of all travelers via well-designed facilities, regular maintenance / repair, education, and enforcement of laws.
- 1.4 Provide adequate access around or safely through construction projects to avoid impacting non-motorized travelers.
- 1.5 Establish a routine maintenance schedule for active transportation facilities to remove litter and obstacles, repaint striping, and replace aged signs and lighting.

Goal 2: ***Robust usage of an active transportation system that facilitates and encourages non-automobile travel throughout Cathedral City.***

Policies

- 2.1 Provide off-street multipurpose trails and on-street bike or shared lanes as primary paths of citywide travel, and explore the shared use of low speed roadways for connectivity wherever it is safe to do so.
- 2.2 Require walkways that promote convenient travel between residential areas, businesses, schools, parks, recreation areas, transit facilities, and other key destination points.

- 2.3 Support pedestrian activity by providing enhancements for locations with automobile interaction (such as high visibility cross-walk striping, crossing beacons, exclusive pedestrian signal phases, etc.).
- 2.4 Work with the Coachella Valley Association of Governments (CVAG) and adjacent cities to implement seamless transitions for active transportation facilities in areas that are not under Cathedral City jurisdiction.
- 2.4 Monitor use of non-automobile modes via routine collection of pedestrian, bicycle and LSEV data during traffic count programs.
- 2.5 Consider partnering with privately owned bike share and scooter share firms to provide short term transportation options on an as-needed basis within City acceptable parameters (such as parking locations, helmet use, etc.).

Goal 3: *Well-maintained facilities that are kept up-to-date with current design standards.*

Policies

- 3.1 Explore opportunities to expand the active transportation networks; this includes consideration of utility easements, drainage corridors, road right-of-ways and other potential options.
- 3.2 Review available funding sources and update City Capital Improvement Projects to incorporate Active Transportation Plan improvements.
- 3.3 Continue to engage community members and periodically update the Active Transportation Plan as traveler needs, technologies, and design standards evolve over time.
- 2.4 Provide supporting infrastructure where possible such as wayfinding signs, directional arrows, lighting, shade trees, bicycle / LSEV parking, restrooms, water fountains, etc.
- 3.5 Establish a routine maintenance schedule for active transportation facilities to remove litter and obstacles, repaint striping, and replace aged signs and lighting.
- 3.6 Facilitate user involvement in reporting maintenance needs and safety concerns to the appropriate City personnel (perhaps with a phone app).

Goal 4: ***A public transit system that is a viable alternative to automobile travel and meets basic transportation needs of the transit dependent.***

Policies

- 4.1 Maintain a proactive working partnership with Sunline to ensure that adequate public transit service is available.
- 4.2 Require new development to provide transit facilities, such as bus shelters, transit bays and turnouts, as necessary.
- 4.3 Provide additional development-related incentives to those inherent in the Land Use Plan for projects that promote transit use.
- 4.4 Require the future development of community-wide facilities, such as libraries, schools, parks, and community centers, to be sited in transit-ready areas that can be served and made accessible by public transit. Conversely, plan (and coordinate with other transit agencies to plan) future transit routes to serve existing community facilities.
- 4.5 Coordinate the transit network with active transportation networks to serve first / last mile trip by connecting trails to transit and providing bike parking.

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6 IMPLEMENTATION

To satisfy Cathedral City's goals and policies to provide for more circulation options, implementation measures were developed for the ATP. The proposed Cathedral City General Plan layered networks are designed to accommodate the range of travel modes, such as bicycle, pedestrian, transit, LSEV, automobiles and trucks. The roadway network has been evaluated in terms of long range future capacity requirements using the Riverside County Transportation Analysis Model (RivTAM), which takes into consideration the cumulative growth of adjacent Cities and unincorporated County areas. The proposed networks maintain connectivity with the plans of adjacent jurisdictions and regional plans at the Plan boundaries.

The layered networks of the ATP are intended to work in concert with components of the General Plan, such as the transportation networks and Land Use Element updates.

Cathedral City maintains a Capital Improvement Program (CIP) to identify and coordinate funding / timing of capital improvement needs. The CIP provides the City with a long-range program for major municipal capital construction projects. Development Impact Fees (DIFs) are collected based upon project size (number of units or square footage), and may be used for transportation improvements (such as the Transit Development Fee).

Riverside County and the Coachella Valley Association of Governments (CVAG) each maintain plans and programs for the region. The Riverside County Congestion Management Program (CMP) directly links land use, transportation, and air quality for all of Riverside County, providing recommendations for transportation level of service on major facilities in the region. Regional funding sources include the Transportation Uniform Mitigation Fee (TUMF) Program, Measure A (sales tax initiative), and the CV Link fund which manages grant funding for construction of the CV Link.

As the recognized transportation planning agency with the Riverside County Transportation Commission (RCTC), it is the responsibility of CVAG to identify and prioritize transportation projects in the Coachella Valley. This is accomplished through the Transportation Project Prioritization Study (TPPS). The TPPS serves as a methodological way to provide CVAG direction in determining funding for regional arterials by prioritizing the eligible study segments. The TPPS uses distinct evaluation criteria and scores to form a ranking list of the regionally significant roadway segments for the nine municipalities and the County of Riverside in the Coachella Valley area. The ranking list is used to determine which roadways have the greatest need evaluated from current conditions and is used in funding decisions.

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APPENDIX 4.1:
CALIFORNIA OFFICE OF TRAFFIC SAFETY
COLLISION RANKING RESULTS

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Agency	Year	County	Group	Population (Avg)	DVMT
Cathedral City	2016	RIVERSIDE COUNTY	C	54296	611254

TYPE OF COLLISION	VICTIMS KILLED & INJURED	OTS RANKING
Total Fatal and Injury	156	99/104
Alcohol Involved	27	65/104
Had Been Drinking Driver < 21	0	90/104
Had Been Drinking Driver 21 - 34	5	95/104
Motorcycles	13	76/104
Pedestrians	9	90/104
Pedestrians < 15	1	63/104
Pedestrians 65+	0	96/104
Bicyclists	7	91/104
Bicyclists < 15	2	41/104
Composite	90	96/104

TYPE OF COLLISION	FATAL & INJURY COLLISIONS	OTS RANKING
Speed Related	28	99/104
Nighttime (9:00pm - 2:59am)	17	91/104
Hit and Run	13	83/104

TYPE OF ARRESTS	ARRESTS	% RATE	OTS RANKING*
DUI Arrests	143		66/104

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