



# ACTIVE LE

DRAFT PLAN - AUGUST 2019



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# INTRODUCTION



## INTRODUCTION

The Active LE Plan (the “Plan”) will lay the foundation for improving mobility for all modes of travel, particularly for pedestrians and bicyclists, within the City of Lake Elsinore. As part of the mobility improvements proposed, the Plan will identify ways to improve connectivity and safety for all users of the roadway environment, inclusive of age and ability.



## 1.1 PLAN SUMMARY AND PURPOSE

In 2017, the City was awarded a Caltrans Sustainable Communities Grant for the development of an Active Transportation Plan (ATP). Active transportation facilities and regional connections are essential to a community's ability to reduce vehicular use and related emissions, and encourage a healthy, active lifestyle. To achieve the City's stated vision of becoming "the ultimate lake destination where all can live, work, and play, build futures and fulfill dreams," this planning process leverages existing planning documents to foster, develop, and grow the City's bicycle, sidewalk, and trail related network.

This represents the City's inaugural Active Transportation Plan, building upon recommendations set forth in numerous previous and ongoing plans, including:

- City of Lake Elsinore Circulation Element (Ongoing)
- Downtown Elsinore Specific Plan (2018)
- East Lake Specific Plan (2017)
- City of Lake Elsinore Climate Action Plan (2011)
- Lake Elsinore General Plan District Plans (sixteen total)
- RTA First & Last Mile Mobility Plan (2017)
- Western Riverside Active Transportation Plan (2015)
- SCAG 2016-2040 RTP/SCS (2016)
- WRCOG and SCAG Sustainability Frameworks (2012, 2016)

This Plan also embodies a "Complete Streets" mindset that is compatible with the State of California's Complete Streets Act, California Assembly Bill 1358, which went into effect on January 1, 2011. The act requires the legislative body of a city or a county to plan for a balanced, multimodal transportation network that meets the needs of all roadway users, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan.

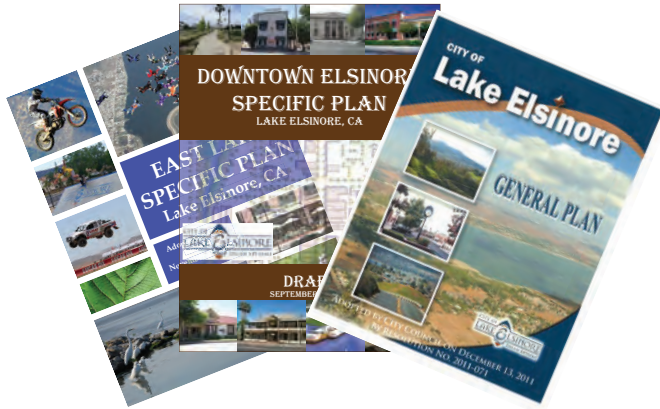
In addition to Assembly Bill 1358 – The Complete Streets Act, other key planning efforts and legislative actions that have redefined the way community transportation planning is carried out include Senate Bill 375, requiring California metropolitan planning organizations (MPO) to formulate a "sustainable communities strategy" (SCS) as part of their

regional transportation plans, specifically identifying how the region will achieve targeted reductions in greenhouse gas emissions from automobiles and light trucks. To this end, the Southern California Association of Governments (SCAG) has implemented a combined Regional Transportation Plan and Sustainable Communities Strategy, adopted in 2016.

In summary, the primary purpose of this Plan is to build upon these efforts and mandates, identifying a system of pedestrian and bicycle routes and programs that will serve as a tool for implementing future active transportation facilities and multimodal roadway improvements.







To fully understand the mobility environment in Lake Elsinore, a series of analyses were performed. These analyses were supplemented by community outreach – people who live, work and play in Lake Elsinore know how the City operates and add valuable firsthand insight to inform an optimal future mobility network. Together, the synergy of relevant guiding literature, technical analyses, and community participation have created a Plan that meets and complies with the State of California's complete streets plan requirements and is intended to provide a fair assessment of current and future active transportation needs, implementation costs, and funding opportunities for bicycle and pedestrian facilities.

### 1.2 PROJECT CONTEXT

The regional setting of Lake Elsinore is displayed in **Figure 1-1**. The City of Lake Elsinore is located in western Riverside County in Southern California, approximately 60 miles south of Downtown Los Angeles and approximately 60 miles north of Downtown San Diego. Lake Elsinore is bordered by the unincorporated Riverside County to the north, the Santa Ana Mountains to the west and southwest, the Cities of Canyon Lake and Menifee to the east, and the City of Wildomar to the southeast. Interstate 15 traverses the City in a north-south direction, providing the primary north-south freeway access to Lake Elsinore,

while California State Route 74 connects Lake Elsinore with Orange County to the west, and the City of Perris located to the northeast.

As of the 2017 American Community Survey 5-year Estimates, the US Census Bureau estimated the population as 62,229, an increase of 20% since 2010's Census population of 51,821. Lake Elsinore is the twelfth largest city in Riverside County.

The City of Lake Elsinore has several qualities contributing to the potential for an ideal walking and cycling environment, including a temperate Southern California climate, an active



population, region-drawing recreation with the lake and mountains forming the backdrop of the City, and wide streets in many newer parts of the City that can, or already do, accommodate active transportation infrastructure. In addition, the City has embraced its community health initiative, called Healthy LE, which guides programming, infrastructure improvements, and community input strategies to promote a healthy active lifestyle.

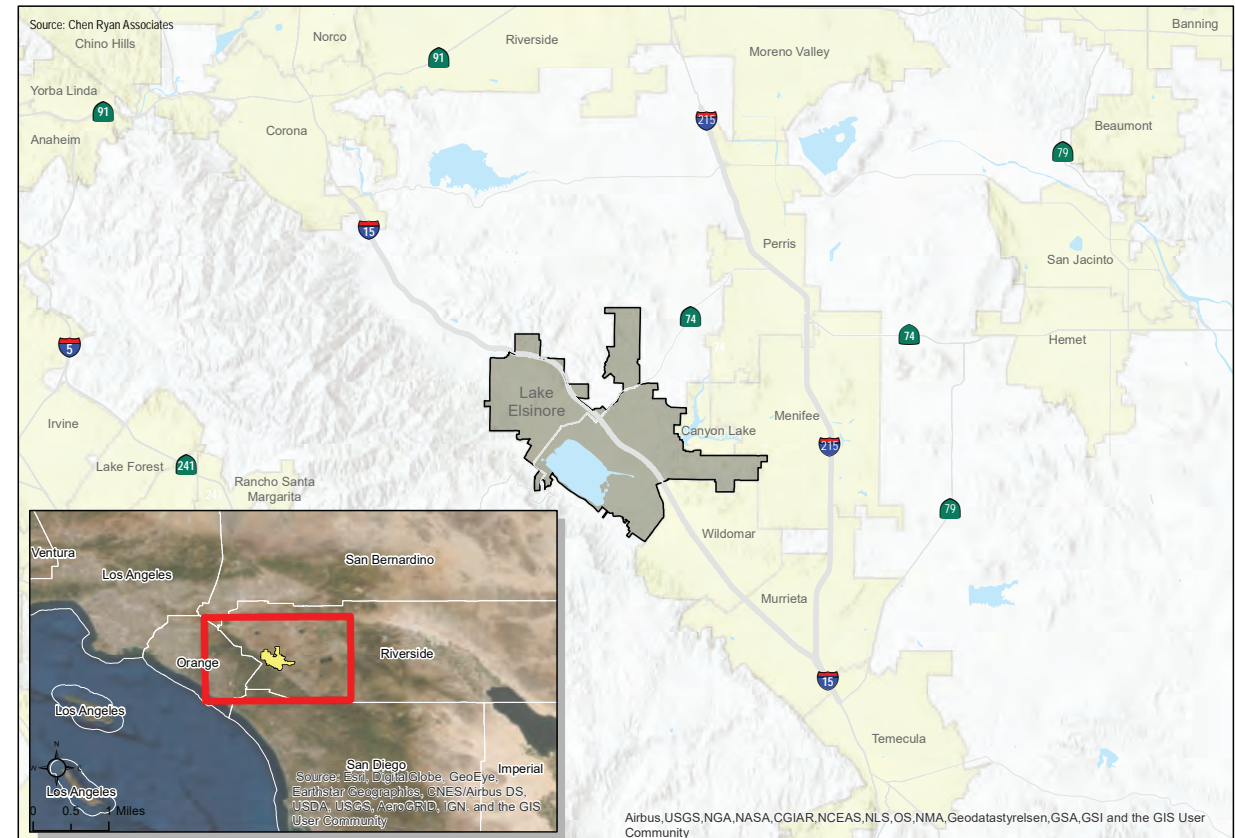
The project study area falls within the incorporated boundaries of the City. Interstate 15 traverses the City in a north-south direction, providing the primary interstate access to Lake Elsinore. Further connectivity is provided by several major roadways, including Riverside Drive, Lakeshore Drive, Collier Avenue, Grand Avenue, Central Avenue, Main Street, Machado Street, Railroad Canyon Road, and Mission Trail. While most of these streets are local roadways, portions of Grand Avenue, Riverside Drive, Collier Avenue, and Central Avenue serve as SR-74, and fall under Caltrans' jurisdiction. Each of these roadways provides major connectivity to vehicular, pedestrian and bicycle traffic, and also support transit routes – this Plan seeks to organize and

ensure safe, multi-modal travel along these corridors.

Currently, a significant number of the City's roadways lack sidewalks on one or more sides of the street. This pattern of missing sidewalks is consistent throughout the City. In certain locations, particularly in

Downtown Lake Elsinore, sidewalks are sometimes found in front of individual parcels, but do not run along roadways in a continuous manner.

### Figure 1-1 Regional Context



A segment of Class I multi-use path runs along the water channel in the central portion of the City that connects to the lake. Generally, however, bicyclists primarily utilize existing streets and sidewalks, and lock their bikes around trees, parking meters, fences, or light standards if no rack is available. The City recognizes that, once implemented, an effective active transportation network can offer convenience for commuters and recreationalists alike, increase safety for cyclists and pedestrians, enhance personal health, increase tourism, improve quality of life, and reduce the number of vehicles on local roads. The Plan recommendations

will connect existing and developing residential areas to destination points for both commuter and recreational bicyclists, as well as connect to the planned active transportation facilities in neighboring Riverside County jurisdictions.

### 1.3 CALTRANS ACTIVE TRANSPORTATION PROGRAM CHECKLIST

This Plan responds to the provisions of the State of California Active Transportation Program (ATP) administered by Caltrans, which defines specific requirements to be

included in an Active Transportation Plan. An Active Transportation Plan must comply with the program guidelines as set forth in Section 890-894.2 of the Streets and Highways Code in order to be eligible for ATP grant funds for construction of active transportation facilities. To meet Caltrans requirements, the Active Transportation Plan must include the following elements as identified in **Table 1-1**, which are followed by notations indicating the location within this Plan where each item is addressed:

**Table 1-1 Caltrans Active Transportation Program Checklist**

Item	Location
The estimated number of existing bicycle trips and pedestrian trips in the plan area, both in absolute numbers and as a percentage of all trips, and the estimated increase in the number of bicycle trips and pedestrian trips resulting from implementation of the plan.	Chapter 6.2
The number and location of collisions, serious injuries, and fatalities suffered by bicyclists and pedestrians in the plan area, and a goal for collision, serious injury, and fatality reduction after implementation of the plan.	Chapter 2.4; Chapter 3
A map and description of existing and proposed land use and settlement patterns which must include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, major employment centers, and other destinations.	Chapter 1.4, Figure 1-2
A map and description of existing and proposed bicycle transportation facilities, including a description of bicycle facilities that serve public and private schools and, if appropriate, a description of how the five Es (Education, Encouragement, Enforcement, Engineering, and Evaluation) will be used to increase rates of bicycling to school.	Chapter 5.2.1, Figure 5-1, Chapter 5.8
A map and description of existing and proposed end-of-trip bicycle parking facilities.	Chapter 3, Chapter 5.6, Figure 5-14
A description of existing and proposed policies related to bicycle parking in public locations, private parking garages and parking lots and in new commercial and residential developments.	Chapter 3
A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These must include, but not be limited to, bicycle parking facilities at transit stops, rail and transit terminals, ferry docks and landings, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles or ferry vessels.	Chapter 5.6, Figure 5-14



Table 1-1 Caltrans Active Transportation Program Checklist

Item	Location
A map and description of existing and proposed pedestrian facilities, including those at major transit hubs and those that serve public and private schools and, if appropriate, a description of how the five Es (Education, Encouragement, Enforcement, Engineering, and Evaluation) will be used to increase rates of walking to school. Major transit hubs must include, but are not limited to, rail and transit terminals, and ferry docks and landings.	Chapter 5.2.2, Figure 5-2, Figure 5-3, Chapter 5.7, Appendix C
A description of proposed signage providing wayfinding along bicycle and pedestrian networks to designated destinations.	
A description of the policies and procedures for maintaining existing and proposed bicycle and pedestrian facilities, including, but not limited to, the maintenance of smooth pavement, ADA level surfaces, freedom from encroaching vegetation, maintenance of traffic control devices including striping and other pavement markings, and lighting.	Chapter 6.3
A description of bicycle and pedestrian safety, education, and encouragement programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the law impacting bicycle and pedestrian safety, and the resulting effect on collisions involving bicyclists and pedestrians.	Chapter 5.8
A description of the extent of community involvement in development of the plan, including disadvantaged and underserved communities.	Chapter 4
A description of how the active transportation plan has been coordinated with neighboring jurisdictions, including school districts within the plan area, and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but not limited to, general plans and a Sustainable Community Strategy in a Regional Transportation Plan.	Chapter 1.5
A description of the projects and programs proposed in the plan and a listing of their priorities for implementation, including the methodology for project prioritization and a proposed timeline for implementation.	Chapter 5.3, Chapter 5.4
A description of past expenditures for bicycle and pedestrian facilities and programs, and future financial needs for projects and programs that improve safety and convenience for bicyclists and pedestrians in the plan area. Include anticipated revenue sources and potential grant funding for bicycle and pedestrian uses.	Chapter 6.4, Table 6-2
A description of steps necessary to implement the plan and the reporting process that will be used to keep the adopting agency and community informed of the progress being made in implementing the plan.	Chapter 6
A resolution showing adoption of the plan by the city, county or district. If the active transportation plan was prepared by a county transportation commission, regional transportation planning agency, MPO, school district or transit district, the plan should indicate the support via resolution of the city(s) or county(s) in which the proposed facilities would be located.	To be created at council adoption

## 1.4 LAND USE

Lake Elsinore is truly unique in terms of its land use characteristics, particularly in relation to its neighboring communities. The City's heritage is evident in its range of built environments, which span development eras that include a compact, walkable Downtown, midcentury hillside vista residential neighborhoods, modern master-planned communities, and region-drawing retail.

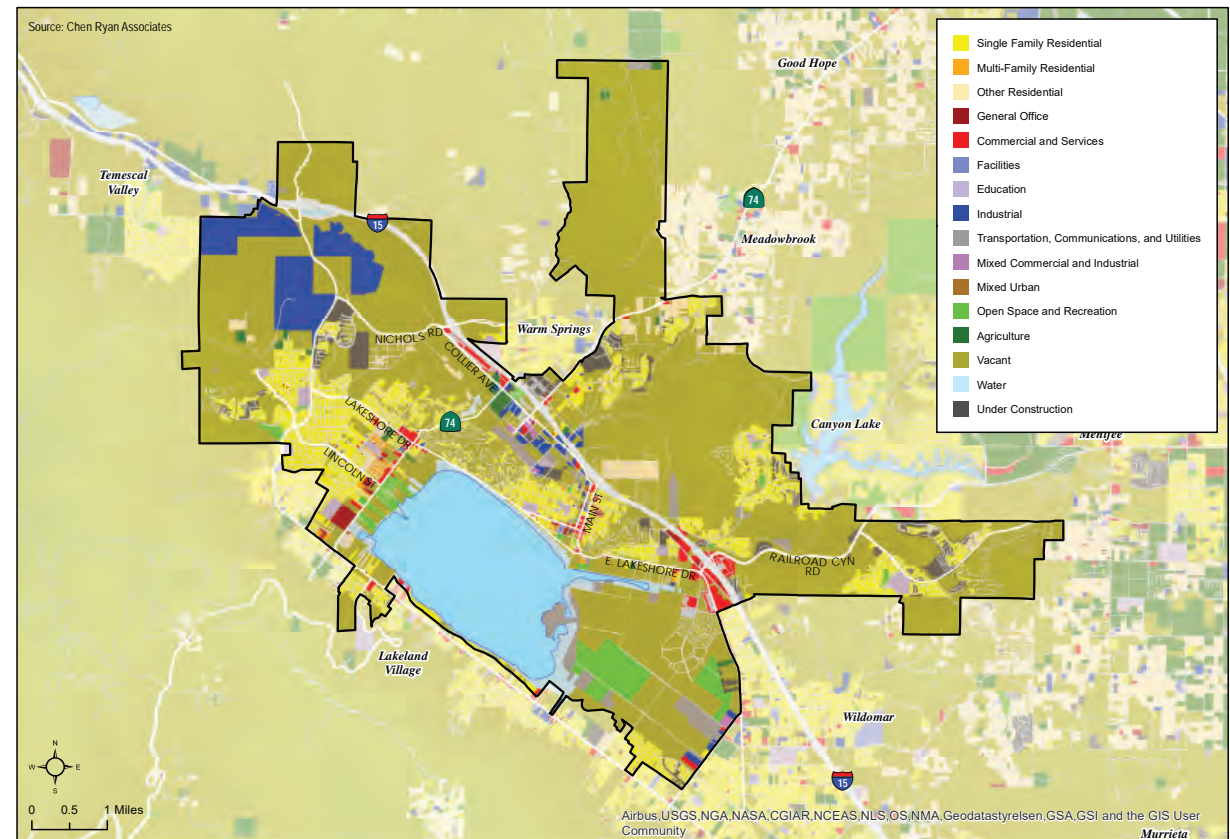
Additionally, the City is home to popular extreme recreational activities, such as skydiving, water sports, motor sports, mountain biking and trail use, and skydiving. As with commercial centers, the City's recreation destinations draw visitors from the region and beyond. Lake Elsinore has 19 parks within its City limits, as well as a Senior Center, Library, Cultural Center, a Channel Walk which includes a Class I multi-use path along a landscaped park-like water channel, and the recently reopened Launch Pointe RV Destination and Campground.



As presented in **Figure 1-2**, land uses can generally be described as commercial near major transportation facilities, such as along I-15 and SR-74; and primarily single-family residential uses dispersed around the lake, as well as near Downtown and into the canyons east of I-15.



**Figure 1-2 Existing Land Uses (2016)**



## 1.5 COMPATIBILITY WITH LOCAL AND REGIONAL PLANS

A number of planning documents were researched and referenced to ensure that the Active LE Plan is compatible. Documents include the following:

- City of Lake Elsinore Circulation Element (Ongoing)
- Downtown Elsinore Specific Plan (2018)
- East Lake Specific Plan (2017)
- City of Lake Elsinore Climate Action Plan (2011)
- Lake Elsinore General Plan District Plans (sixteen total)
- RTA First & Last Mile Mobility Plan (2017)
- Western Riverside Active Transportation Plan (2015)
- SCAG 2016-2040 RTP/SCS (2016)
- WRCOG and SCAG Sustainability Frameworks (2012, 2016)

### City of Lake Elsinore Circulation Element (Ongoing)

The upcoming Lake Elsinore Circulation Element, currently under development, offers an exciting opportunity to reinforce the Active LE Plan's multi-modal planning recommendations. As this Plan continues

forward, project staff will perform regular check-ins with the progression of the mobility element to ensure that goals, policies, implementation measures, network development, and planned future conditions serve as a well-integrated platform upon which future mobility options are fostered.

### Downtown Elsinore Specific Plan (2018)

The Downtown Elsinore Specific Plan (Specific Plan) provides a vision and strategic

framework to guide future development in the City's historic Downtown. It capitalizes on the City's unique assets with the overarching goal of vitalizing Downtown and implementing the City's vision that "The City of Lake Elsinore will be the ultimate destination where all can live, work, and play, build futures and fulfill dreams." The Specific Plan will draw residents and visitors to the City's historic Main Street corridor by encouraging a mixed-use Downtown area that has a variety of commercial and residential uses, including restaurants with outdoor dining, entertainment, hotel, office, retail, service, high density and affordable housing, cultural and civic uses. The Specific Plan

reimagines the previous 2011 Master Plan, and pursues the following mobility-related visions and objectives:

- Create a "park-once-and-walk" district.
- Enhance connectivity from the Downtown to the lake with a realignment of Main Street, Lakeshore Drive, and Library Street.
- Create walkable streets, with new sidewalks, streetscaping, and quality lighting.
- Provide adequate parking.

The Specific Plan embraces a complete streets approach, laying groundwork for a pedestrian-friendly Downtown core with a multimodal streetscape where accessible and equitable transportation options exist for people who live, work, or shop in Downtown.





Specific design elements from the Specific Plan include:

- Pedestrian circulation routes that are clearly defined.
- Mid-block street crossings to avoid conflicts with the turning movements of vehicles at intersections.
- Limited number and width of sidewalk curb cuts, particularly on Main Street, to minimize pedestrian-vehicular conflicts.
- Spaces between the sides of buildings should incorporate seating areas for enhanced pedestrian connections where appropriate.
- Pedestrian access from residential facilities into commercial areas through the use of restricted access pedestrian gates that facilitate access for residents to commercial services.
- Right-sizing of streets to reduce the number of vehicle travel lanes that a pedestrian must cross. If infeasible, then landscaped pedestrian refuge areas provided at mid-crossing.
- Bike racks at accessible, safe, well-lighted locations.
- Further encouragement for development of a bikeshare program and trolley service to connect Downtown to the Outlet Center, the Diamond Stadium, the Launch Pointe Recreation Destination & RV Park, and other points of interest in the City.

Recently, Class II bike lanes were installed along Graham Avenue and Main Street in the Downtown area. The California Natural Resources Agency Urban Greening Grant will provide for the construction of Class II bike lanes along Sumner Avenue and Pottery Street, as well as pedestrian and urban greening improvements along Heald Avenue, Sumner Avenue, Pottery Street, and the Riverwalk, which will complement the existing bike infrastructure. The City's currently adopted General Plan highlights future goals to further extend Class II bike lanes along Pottery Street and south of Limited Avenue along Main Street and Lakeshore Drive, offering additional connections to the other areas of the City.

### East Lake Specific Plan (2017)

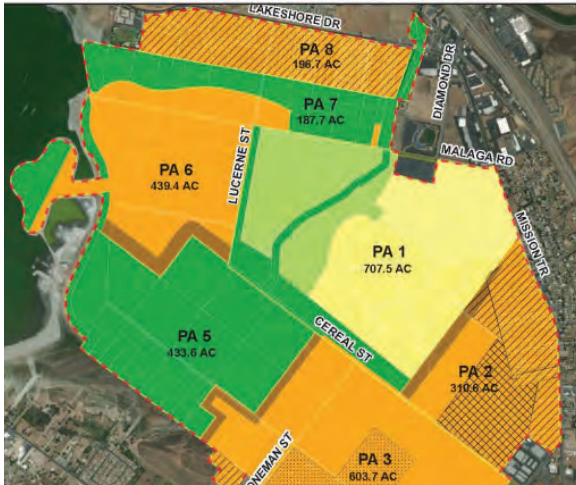
The East Lake Specific Plan, adopted by City Council in November 2017, is a blueprint guide for the development of



approximately 2,977 acres at the southern end of the City of Lake Elsinore. Adjacent to both the southeasterly shore of Lake Elsinore and Diamond Stadium, it has become home to active sports facilities such as skydiving, hang-gliding, motocross, as well as an 18-hole golf course. The document, which encompasses nine planning areas, provides typical cross-sections and street standards for area roadways.

An important component of the Circulation Plan for East Lake is the provision of pedestrian and bicycle trails throughout the community. This non-vehicular system complements the overall circulation system and includes Class II bikeway lanes within the roadbed of Urban Arterial and Major streets, pedestrian pathways within street parkways, and completely separate off-road trails for pedestrian and bicyclist use. Class II Bike Lanes are identified for Cereal Street, Corydon Road, Diamond Drive, Lakeshore Drive, Lucerne Street, Malaga Road, Mission Trail, and Stoneman Street.

Within and near the Specific Plan Boundary, the Murrieta Creek Regional Trail and Levee Trail complement on-street facilities with recreational soft-surface trails. Additionally, a number of community trails connect to the



surrounding regions such as the Cleveland National Forest.

### City of Lake Elsinore Climate Action Plan (2011)

The City of Lake Elsinore Climate Action Plan (CAP) is a long-range plan to reduce communitywide greenhouse gas (GHG) emissions from activities that occur within the City limits. Specifically, the CAP is designed to accomplish each of the following large-scale goals:

- Benchmark Lake Elsinore's existing (2008) GHG emissions and projected emissions relative to statewide emissions targets.
- Establish GHG emissions reduction strategies and measures to reduce the City's proportionate share of emissions to meet the statewide targets identified in Assembly Bill (AB) 32 and Executive Order S-3-05.

- Set forth procedures to monitor and verify the effectiveness of the CAP and require amendments if the CAP is not achieving targeted levels of emissions.
- Mitigate Lake Elsinore's GHG emissions impacts (by reducing GHG emissions consistent with the State of California via the California Environmental Quality Act [CEQA] Guidelines, AB 32, and Executive Order S-3-05).
- Serve as the programmatic tiering document for the purposes of CEQA within the City of Lake Elsinore for GHG emissions, by which applicable projects will be reviewed.

The City has made a considerable effort to select emissions reduction targets that are both ambitious and practical, and consistent with AB 32 and Executive Order S-3-05. For local governments, there are several types of reduction targets that may be supported by substantial evidence and be consistent with the AB 32 and Executive Order S-3-05 targets, such as:

- A reduction to 1990 emissions levels
- A performance standard (% reduction) or an efficiency metric (e.g., emissions per capita or service population) (California Air Pollution Control Officers Association [CAPCOA], 2008).

In Lake Elsinore, the City selected efficiency-based targets for the years governed by the General Plan to reduce community-wide emissions by 2020.

The Climate Action Plan also identifies strategies and measures to reduce municipal and community-wide GHG emissions in several categories, including transportation. Pertinent to active transportation are the following measures:

- Measure T-1.2: Pedestrian Infrastructure - Through the development review process, require the installation of sidewalks along new and reconstructed streets. Also require new subdivisions and large developments to provide sidewalks or paths to internally link all uses where applicable and provide connections to neighborhood activity centers, major destinations, and transit facilities contiguous with the project site; implement through conditions of approval.
- Measure T-1.3: Street and Sidewalk Maintenance and Improvements - Continue, through the Pavement Management and Curb, Gutter, and Sidewalk Repair programs, to preserve the pedestrian and bicycle circulation system by annually identifying and scheduling street and sidewalk improvement and maintenance projects.





- Measure T-1.4: Bicycle Infrastructure - Through the development review process, require new development, as applicable, to implement and connect to the network of Class I, II and III bikeways, trails and safety features identified in the General Plan, Bike Lane Master Plan, Trails Master Plan and Western Riverside County Non-Motorized Transportation plan; implement through conditions of approval. The City will also continue to pursue and utilize funding when needed to implement portions of these plans.
- Measure T-1.5: Bicycle Parking Standards - Through the development review process, enforce short-term and long-term bicycle parking standards for new non-residential development (consistent with 2010 California Green Building Code [CalGreen], Section 5.106.4).

### Lake Elsinore General Plan District Plans

The City of Lake Elsinore is divided into a total of sixteen distinct districts that form a subset of the Lake Elsinore General Plan. The General Plan recognizes adopted Specific Plan land uses, as well as other existing neighborhoods in the City, through a series of District Plans. These Plans address the unique neighborhoods and planning areas in the City. These District Plans aid the growth and development of Lake Elsinore, while honoring and preserving the City's physical environment, which contains a wide range of land uses, spanning from a traditional Downtown, to rural estate residential, to modern master-planned commercial and residential development.

Each District Plan provides an invaluable guide to local land uses and sense of place, and provides tailored goals and policies to ensure that larger-scale plans, such as the Active LE Plan, honor the unique needs, preferences, history, and desired future direction for each District.

### Western Riverside Active Transportation Plan (2015)

The Western Riverside Council of Governments (WRCOG) strives to support all residents and visitors of WRCOG

whether they choose to walk, bike, take transit, or drive. The Western Riverside Active Transportation Plan (ATP) focuses on enhancing non-motorized infrastructure throughout the region, in hopes of developing a robust network for people who choose or need to walk and/or bike. Improvements to the active transportation network will ultimately benefit all users of the transportation system by providing more transportation choices. This plan serves as a resource for WRCOG member jurisdictions and stakeholders to help identify important active transportation facilities they would like to see in their community and provides guidance on how each individual project can be achieved.

The ATP identifies facilities at the county level to enhance and increase active transportation options in the region. It builds forward from the preceding Western Riverside County Non-Motorized Transportation Plan (NMTP) published in June 2010, by significantly updating active transportation network improvement projects, implementation strategies, and funding opportunities found in that plan. The NMTP was helpful in identifying the gaps in the regional active transportation network, and few of the proposed projects were implemented. The goal and purpose of the Western Riverside ATP is to provide guidance to WRCOG and its member



agencies in identifying projects, planning for them, and being able to successfully implement them.

In this vein, the Western Riverside ATP identifies several regional facilities within Lake Elsinore and its sphere of influence:

- Bautista Creek/Mission Trail Route (including regionally-significant on-road facilities along Mission Trail in Lake Elsinore),
- Lake Elsinore-Murrieta Creek Route,
- Alberhill Ranch-Ramona Expressway Route,
- Butterfield Overland Trail, and
- Lake Elsinore Loop (including regionally-significant on-road facilities along Grand Avenue and Riverside Drive in Lake Elsinore).

## SCAG 2016-2040 RTP/SCS and Sustainability Framework (2016)

Approved by the Southern California Association of Governments (SCAG) Board of Directors in April 2016, the 2016-2040 Regional Transportation Plan (RTP/SCS) serves as the overarching vision for the majority of Southern California over the next two and a half decades.

Developed in close partnership with the region's 191 cities, six counties, and tribal governments, the RTP/SCS proposes a transportation network that will provide sustainable mobility choices and planning to support a sustainable and healthy region, a vibrant economy, and an outstanding quality of life for all. It includes greater investments in public

transportation, bike paths, and pedestrian improvements and allows the region to meet and exceed GHG reduction targets. The primary objectives of the Regional Plan are to:

- Preserve the existing transportation system,
- Expand the regional transportation system to give people more alternatives to driving alone,
- Expand passenger rail,
- Improve highway and arterial capacity,
- Manage demands on the transportation system through Transportation Demand Management (TDM),
- Optimize the performance of the transportation system,
- Promote walking, biking, and other forms of active transportation,



## CHAPTER 1 - Introduction

- Strengthen the regional transportation network for goods movement,
- Leverage new advances in technology,
- Improve airport access, and
- Focus new growth around transit through support of High-Quality Transit Areas (HQTAs), promotion of livable corridors, and strategies to bolster Neighborhood Mobility Areas (NMAs).

The Regional Plan includes a transportation network that identifies a number of public transit, highway, goods movement, bikeway, pedestrian, and supportive program projects to be implemented by 2040.

The RTP/SCS includes a financially constrained plan and a strategic plan. The constrained plan includes transportation projects that have committed, available or reasonably available revenue sources, and thus are probable for implementation. The strategic plan is an illustrative list of additional transportation investments that the region would pursue if additional funding and regional commitment were secured. Such investments are potential candidates for inclusion in the constrained RTP/SCS through future amendments or updates.



SCAG is anticipating it will obtain approximately \$556.5 billion in revenue through 2040. Of this, approximately 50% would be utilized for operations and maintenance of the existing regional transportation system, 44% for transportation capital improvements, and 6% for servicing debt. Of the 50% of revenues earmarked for operation and maintenance, approximately 28% of revenue would be utilized for transit operations and maintenance, 12% for highway operation and maintenance, 7% for the operation and maintenance of locally significant roads, and 3% for the operation and maintenance of passenger rail. Because not all revenues will be available at once, transportation projects

and programs will be phased over the life of the plan. Revenues are projected to flow from local sales tax (46%), countywide taxes (12%), core and additional federal funds (20%), and core and state funding (23%).

### WRCOG Sustainability Framework (2012)

WRCOG's Sustainability Framework is the beginning point in a longer process to establish, implement, and continuously refine a subregional sustainability plan.

The Framework serves four broad objectives:

- Provide a starting point for dialogue about sustainability and its importance to the region, and articulate a framework for the development of a subregional sustainability plan,
- Provide a vision for a sustainable Western Riverside County and establish goals to inform and guide regional collaboration and local action until the subregional sustainability plan is prepared,
- Define and prioritize short-term actions that WRCOG can pursue in the interim to begin realizing the Framework's vision and goals for sustainability, and
- Define initial indicators, benchmarks, and targets by which WRCOG can measure the effectiveness of efforts to create a more sustainable subregion.
- The Framework establishes a work plan by which WRCOG can seek funding and implement new projects and programs that support the vision without having to wait until the subregional sustainability plan is prepared, fully vetted, and adopted.

Pertinent to active transportation, the Framework responds to and catalyzes a local cooperation with legislation such as AB 1358, the Complete Streets Act, placing a focus on local planning processes and ensuring the provision of local roadway

infrastructure that is designed and operated to accommodate all roadway users, including bicyclists, public transit riders, and pedestrians of all ages and abilities.

### RTA First & Last Mile Mobility Plan (2017)

This document, prepared as a collaboration between by the Riverside Transit Agency (RTA) and SCAG, establishes a goal of increasing transit ridership through developing strategies that address first and last mile barriers to transit use.

In addition to summarizing ridership characteristics, the First & Last Mile Mobility Plan highlights the future needs of RTA customers, station typologies in the RTA system, and provides an implementation plan for these strategies. The Plan's premise is that more people would take transit if it were more convenient, safe, and attractive to ride. Thus, the objective of the Plan is to provide improved access to transit to both retain existing and add potential new transit users.

In Lake Elsinore, stations fall primarily within the "Suburban" typology, which carries a framework of recommendations that include wayfinding, bicycle network

improvements, pedestrian network improvements (including crossing treatments), bus stop enhancements, carsharing, transit-oriented development, and placemaking efforts. The document also identifies the Lake Elsinore Outlet Center as a primary transit connection point on the RTA system.



## 1.6 ORGANIZATION OF THE PLAN

Following this introductory chapter, this Plan continues as follows:

**Chapter 2** presents an overview of Lake Elsinore's walking, cycling, and transit environments under existing conditions, documented as part of this effort. Safety and needs analyses are presented, which were used to direct the improvements recommended in this Plan.

**Chapter 3** discusses guiding goals, objectives, and policies that establish the high-level vision for the Plan, and ensure a rootedness to other City efforts and policies preceding this Plan.

**Chapter 4** provides a summary of the public outreach process that was undertaken in support of this Plan to establish a positive link between the community's vision, and the infrastructure, programs, and plans set forth in this document.

**Chapter 5** identifies recommended pedestrian/bikeway networks and support facilities, as well as an overview of a Design Guidelines Document and Toolkit, developed in tandem with this Plan, for use by the City when implementing the features of this Plan.

**Chapter 6** details implementation factors and ongoing considerations, such as project prioritization, costing, and phasing. This chapter also outlines ongoing maintenance considerations and potential sources for securing funding for implementation of the infrastructure and support facilities outlined in this Plan.





2

## LAKE ELSINORE TODAY



# 2

## LAKE ELSINORE TODAY

This chapter describes the process used to understand cycling and pedestrian needs in Lake Elsinore. The core analyses in this chapter focus on identifying areas of high demand and deficiency in order to understand where proposed improvements are needed most, as well as for developing a baseline against which to measure the potential for improvements in usage and safety.



## 2.1 PEDESTRIAN ENVIRONMENT

Current sidewalk coverage is most robust near Downtown and in new master-planned developments. A completion of the City's sidewalk network along all Circulation Element (CE) roadways will provide the City with a major milestone toward achievement of a balanced pedestrian network. A known deterrent to pedestrian mobility is a lack of space for the pedestrian that places him or her at a safe, comfortable distance from passing vehicles. Sidewalk infill will become an important step toward building a robust pedestrian mobility network, particularly where land use characteristics or regional draws encourage pedestrian trips.

**Figure 2-1** displays the location of missing sidewalks along the City's CE roadways. As shown, a significant number of the City's CE roadways lack sidewalks on one or more sides of the street. Roadways with missing sidewalks are also found distributed throughout the City, rather than in a particular portion of the community. Note that in certain locations, particularly in Downtown, sidewalks are sometimes found in front of individual parcels, but are generally not continuous. In these cases, the block was noted as missing sidewalks to identify that a need still remains.

**Figure 2-2** identifies the posted speed limits. The vast majority of Lake Elsinore's residential streets have a speed limit of 25 miles per hour which create a pedestrian- and bicycle-friendly environment along those streets. Many other roadways have a speed limit of between 35 and 40 miles per hour. Although these roadways are primarily designed for higher volumes of traffic, residential frontage is common along some of these higher speed streets, which detracts from the walking or bicycling environment once a pedestrian or cyclist leaves the interior of a neighborhood. The highest-speed roadways in Lake Elsinore have a speed limit generally between 45 and 50 miles per hour with some speed limits of 60 miles per hour. Roadways with speed limits of 45 miles per hour or above include portions of:

- Auto Center Drive
- Camino Del Norte
- Canyon Hills Road
- Collier Avenue
- Corydon Road
- Dexter Avenue
- El Toro Road
- Grand Avenue



- Grape Street
- Lake Street
- Lake Street
- Lakeshore Drive
- Minthorn Street
- Mission Trail
- Mission Trail
- Nichols Road
- Railroad Canyon Road
- SR-74/Central Avenue
- Summerhill Drive
- Temescal Canyon Road

Figure 2-1 Missing Sidewalks on Circulation Element Roadways

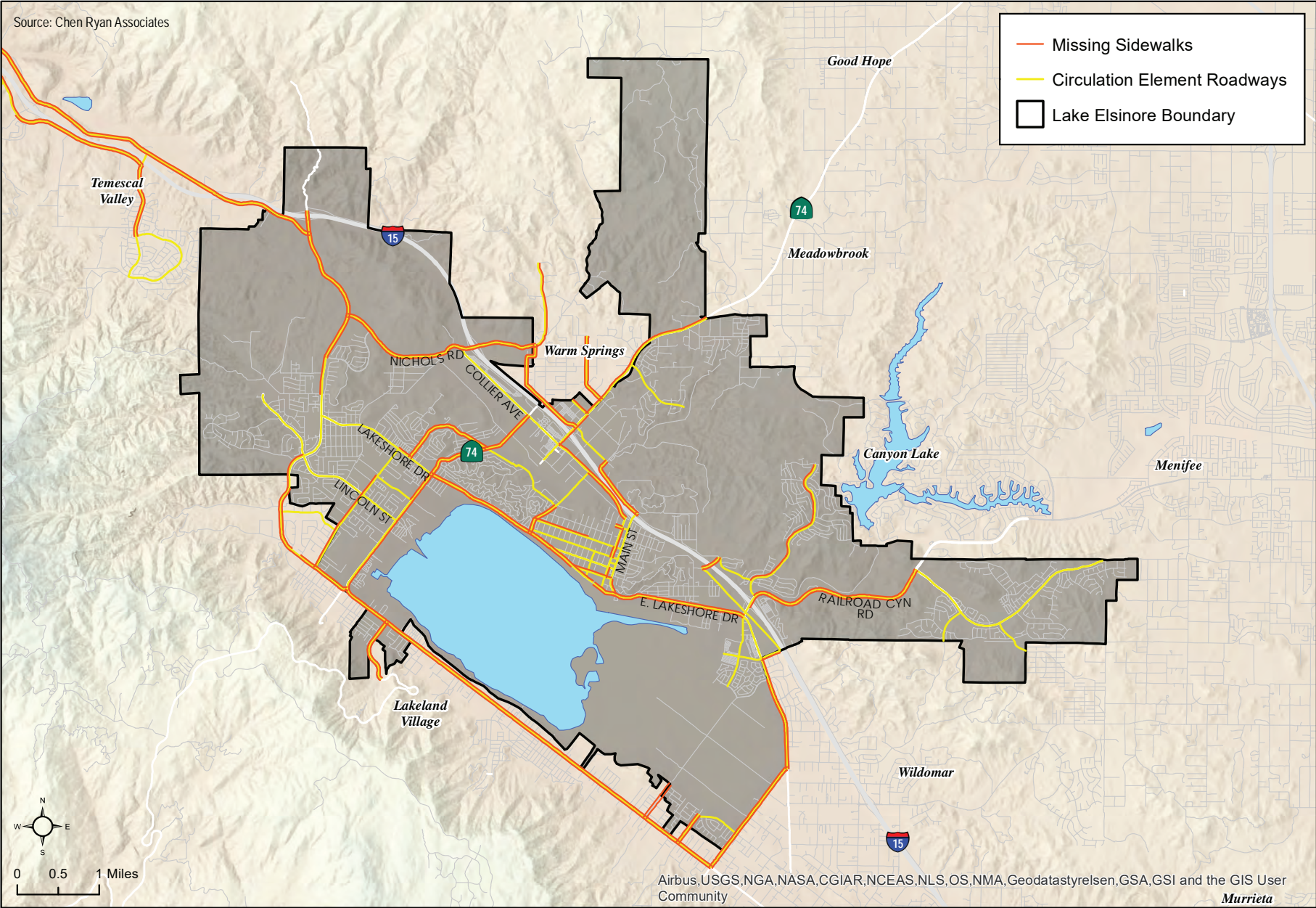
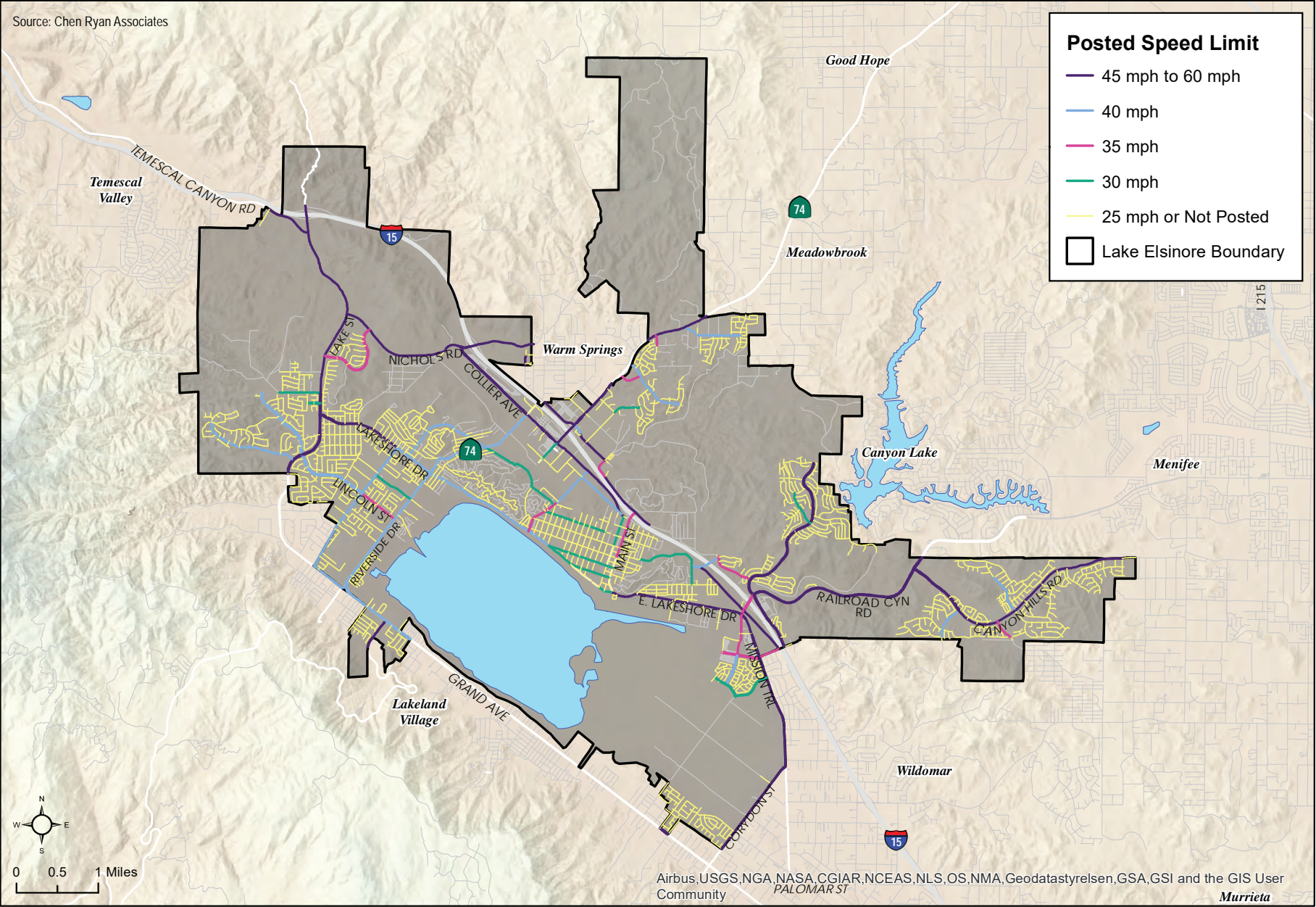




Figure 2-2 Posted Speed Limits





## 2.2 BICYCLE ENVIRONMENT

As shown in Table 2-2, Caltrans currently recognizes four classifications of bicycle facilities, including Class I multi-use paths, Class II bike lanes, Class III bike routes, and Class IV cycle tracks. Lake Elsinore currently hosts a combination of multi-use path, bike lane, and bike route facilities citywide. A summary of existing mileage per facility type is provided alongside each facility's respective Caltrans classification, along with an explanatory image. As shown, there are about 31 miles of bicycle facilities citywide.





**Figure 2-3** displays the location of these existing bicycle facilities within Lake Elsinore. As shown in conjunction with Table 2-2, bike lanes make up the bulk of the network, accounting for approximately 17 of the 31 miles of bikeway in Lake Elsinore. There are approximately 13 miles of multi-use paved path or trails in the City of Lake Elsinore. In all, the City's major facilities include:

- Multi-use path facilities along Nichols Road, the Lake Elsinore Canal, and along portions of the lakefront.
- Bike lane facilities along Graham Avenue, McVicker Canyon Park Road, Lake Street/Grand Avenue, Lincoln Street, portions of Lakeshore Drive, Ardenwood Way, Rosetta Canyon Drive, portions of Mission Trail, portions of Railroad Canyon Road, Canyon Hills Road, Limited Avenue, Diamond Drive, and Lost Road.
- Bike route facilities along portions of Lakeshore Drive and Main Street in Downtown Lake Elsinore.

As shown, few segments of network currently intersect, and no facility provides connectivity across the entirety of the city limits or around the lakefront. Connectivity is key in enabling utilitarian (non-recreational) trips to be made by bike, as utilitarian riders have a destination in mind when making a trip. To build upon the current bicycle network, citywide connectivity will be placed as a primary focus in future network development.



Table 2-2 Bicycle Facility Design Classifications

Example	Description	Current Mileage
	Class I Multi-Use Path – Also referred to as a bike paths or shared-use paths, Class I facilities provide a completely separated right-of-way designed for the exclusive use of bicycles and pedestrians with crossflows by motorists minimized. Multi-use paths can provide connections where roadways are non-existent or unable to support bicycle travel. The minimum paved width for a two-way multi-use path is considered to be eight-feet, with a two-foot wide graded area adjacent to the pavement.	12.1
	Class II Bike Lane – Provides a striped lane designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited. Bike lanes are one-way facilities located on either side of a roadway. Pedestrian and motorist crossflows are permitted. Additional enhancements such as painted buffers and signage may be applied. The minimum bike lane width is considered to be five-feet.	15.2
	Class III Bike Route – Provides shared use of traffic lanes with cyclists and motor vehicles, identified by signage and/or street markings such as “sharrows”. Bike routes are best suited for low-speed, low-volume roadways with an outside lane of 14 feet or greater. Bike routes provide network continuity or designate preferred routes through corridors with high demand.	1.2
	Class IV Cycle Track – Also referred to as separated or protected bikeways, cycle tracks provide a right-of-way designated exclusively for bicycle travel within the roadway and physically protected from vehicular traffic. Cycle tracks can provide for one-way or two-way travel. Types of separation include, but are not limited to, grade separation, flexible posts, or on-street parking.	0.00

Total Mileage: 28.5



### Figure 2-3 Existing Bicycle Facilities





## 2.3 TRANSIT ENVIRONMENT

Lake Elsinore is served by the Riverside Transit Agency (RTA), which offers fixed-route service, commuter bus routes, select long-distance service, and dial-a-ride service. In total, RTA's service area covers approximately 2,500 square miles, offering a combination of local and regional connectivity, as well as transfers to Metrolink, Coaster, and Sprinter regional rail service in neighboring metropolitan areas north and south of the City.

Within Lake Elsinore city limits, local bus service is provided by Route 8, Route 22, and Route 40. These local routes are supplemented by CommuterLink Express Route 205/206, which offers connectivity for long-distance commuters between Temecula and the City of Orange, by way of Lake Elsinore and the Corona Transit Center/Metrolink commuter rail station. RTA routes that serve Lake Elsinore are presented in **Figure 2-4**. As shown, transit coverage encircles the lake, provides access to and between several of the City's residential communities, and to major roadways that link Lake Elsinore to neighboring jurisdictions, such as Menifee, Meadowbrook, Wildomar, and points north along Interstate 15. There are no transit services in some of the hilly,

recently-developed portions of the City, such as those generally located around the periphery of the City.

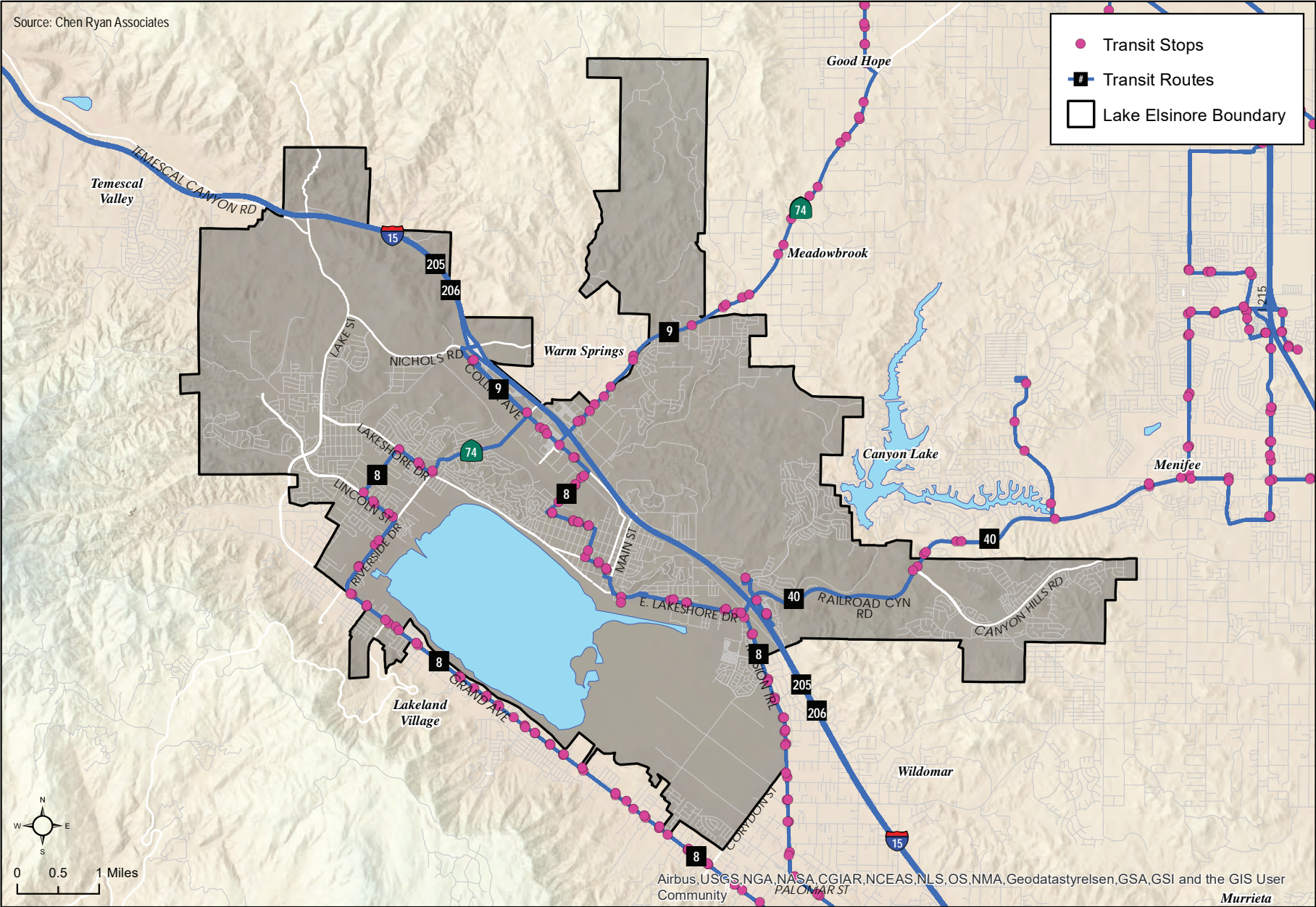
Sidewalk connectivity can be a key attractor to or deterrent from using transit, since the majority of transit users arrive on foot. As discussed in the aforementioned Pedestrian Environment section of this Plan, sidewalk infill and safe crossings are lacking in many parts of the City, which also hampers transit use. Sidewalk infill and crossing upgrades will also bolster transit in Lake Elsinore, along with improving transit stop amenities. Common amenities at transit stops include shelters,

benches, and trash cans. Amenities are maintained by RTA, and are located at stops with relatively higher ridership.

Currently, all RTA vehicles have bike racks onboard. Since local transit provides accommodation for bicycles, an important corollary focus should be to promote the provision of convenient bicycle parking in all major destinations, allowing a transit/bicycle trip to become seamless and competitive with driving. Bicycle parking is also preferable near transit stops, since on-board bike accommodations often reach capacity.



Figure 2-4 Transit Routes and Stops





## 2.4 SAFETY

Collision data can be used to identify potential deficiencies related to pedestrian and bicycle travel. The collision review draws from five years of data (January 2013 – December 2017) obtained from the California Statewide Integrated Traffic Records System (SWITRS). The analysis was used to identify trends and patterns related to collision locations, causes, time, party-at-fault and victim age.

### Pedestrian Collision Locations

A total of 64 pedestrian-involved collisions were reported in Lake Elsinore during the five-year analysis period. **Figure 2-5** displays the location of the pedestrian collisions across Lake Elsinore. As shown, the northwest shore of the lake, particularly along the Riverside Drive, Lincoln Street, and Lakeshore Drive corridors, are locations of multiple pedestrian-involved collisions. Downtown Lake Elsinore, as well as southeast Lake Elsinore also recorded several collisions in each respective location.

**Table 2-3** identifies the locations where multiple pedestrian involved collisions were reported.

**Table 2-4** reports pedestrian collisions by roadway location, differentiating between intersection and midblock locations. As shown, nearly two thirds of

pedestrian-involved collisions occurred at intersections, whereas approximately one third of pedestrian-involved collisions occurred at midblock locations.

**Table 2-3 Multiple Pedestrian Collision Locations (January 2013 – December 2017)**

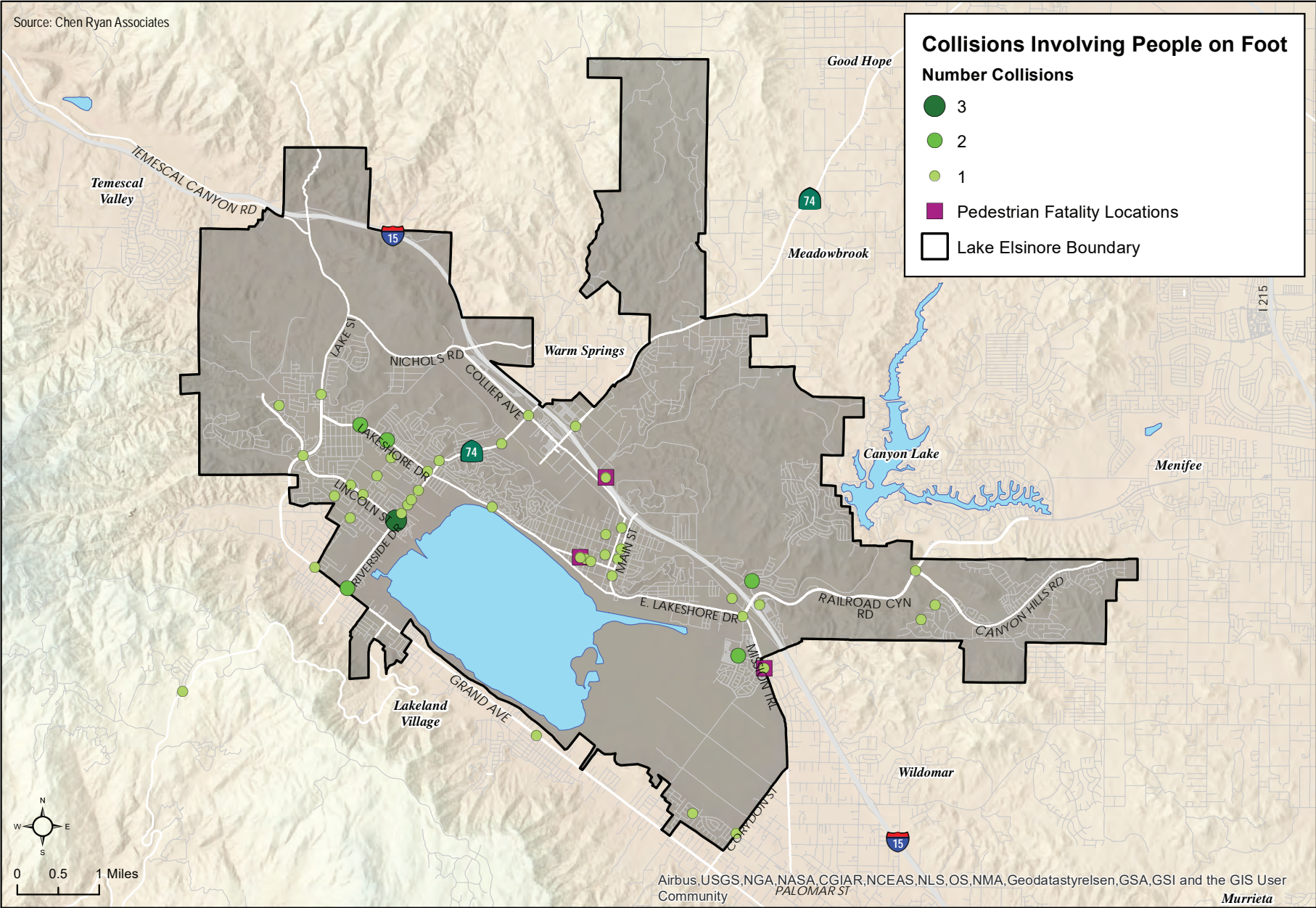
Rank	Intersection	Collisions
1	Riverside Drive and Joy Street	3
	Lakeshore Drive and Terra Cotta Road	3
2	Lakeshore Drive and Hursh Street	2
	Lincoln Street and Riverside Drive	2
	Riverside Drive and Grand Avenue	2
	Summerhill Drive and Canyon Estates Drive	2

**Table 2-4 Pedestrian Collisions by Roadway Location (January 2013 – December 2017)**

Collision Location	Collisions	Percent of Total
Intersection	42	65.6%
Midblock	22	34.4%
<b>Total</b>	<b>64</b>	<b>100%</b>



Figure 2-5 Collisions Involving People Walking (2013-2017)



**Table 2-5** identifies the single location where multiple bicycle involved collisions were reported, at the intersection of Central Avenue and Collier Avenue.



**Table 2-5 Multiple Bicycle Collision Locations (January 2013 – December 2017)**

Rank	Intersection	Collisions
1	Central Avenue and Collier Avenue	2

**Table 2-6 Bicycle Collisions by Roadway Location (January 2013 – December 2017)**

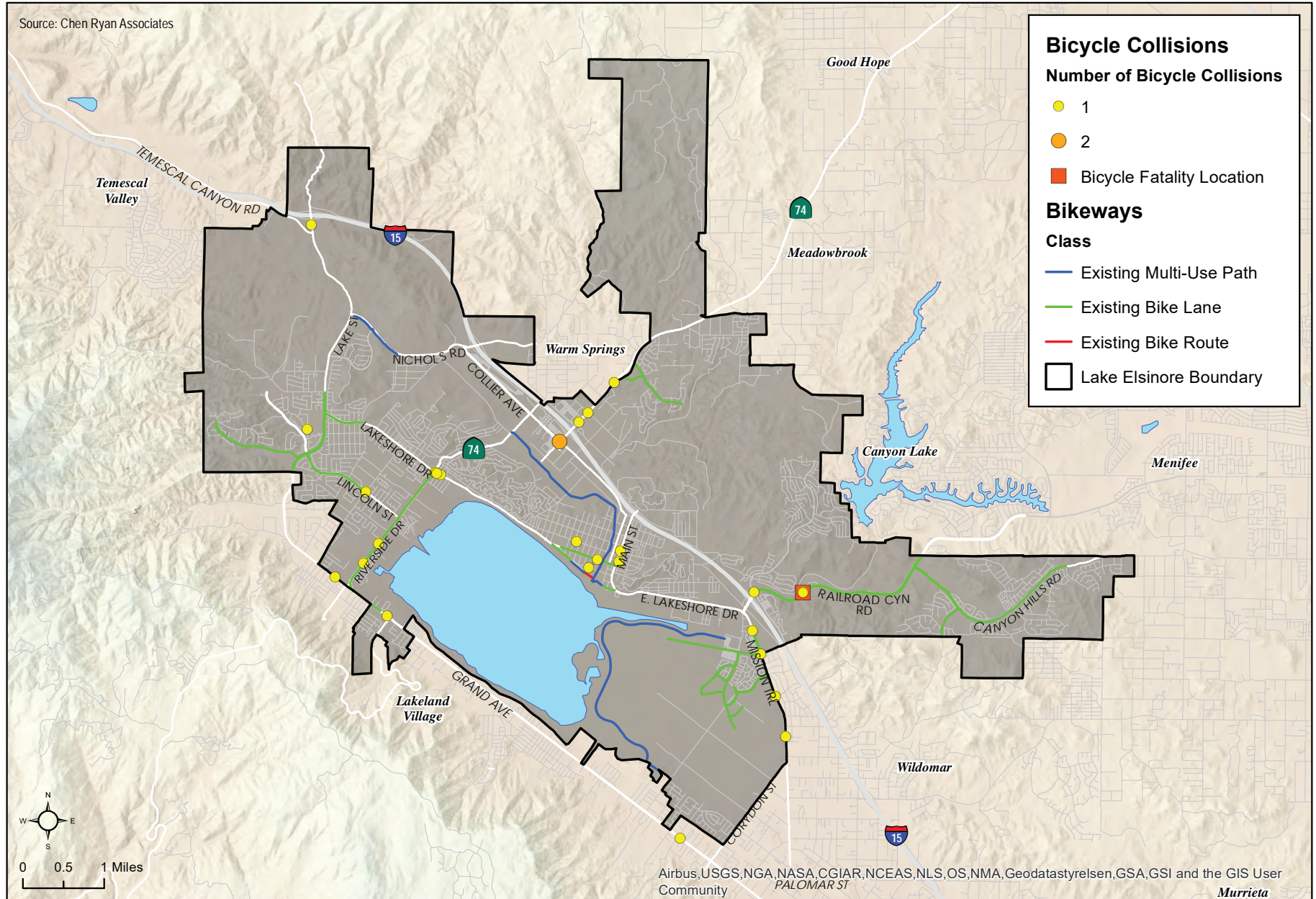
Collision Location	Collisions	Percent of Total
Intersection	15	45.5%
Midblock	17	51.5%
Not Specified	1	3.0%
<b>Total</b>	<b>64</b>	<b>100%</b>

**Table 2-6** displays bicycle-involved collisions by roadway location. As shown, approximately 46 percent of all bicycle collisions occurred at intersections. It is important to note that while some collisions may occur at midblock locations, a portion of the midblock collisions are within the influence area of major intersections, which likely affects collision factors. Note that one collision was not recorded as being at either an intersection or midblock location.





Figure 2-6 Collisions Involving People on Bicycles (2013-2017)



### Additional At-Fault Observations

The party at-fault is reported for pedestrian-involved and bike-involved collisions in **Table 2-7** and **Table 2-8**, respectively. The driver was reported at fault for the majority of pedestrian-involved collisions, while the bicyclist was reported as the party at-fault for the majority of bicycle-involved collisions. The City is currently commissioning a Systemic Safety Analysis Report Program to further investigate safety trends and identify potential remedies along City roads.



**Table 2-7 Pedestrian Collisions by Party At-Fault**  
(January 2013 – December 2017)

Rank	Intersection	Collisions
Pedestrian	29	45.3%
Driver	35	54.7%
<b>Total</b>	<b>64</b>	<b>100%</b>

**Table 2-8 Bicycle Collisions by Party At-Fault**  
(January 2013 – December 2017)

Collision Location	Collisions	Percent of Total
Bicyclist	22	66.7%
Driver	10	30.3%
Not Specified	1	3.0%
<b>Total</b>	<b>64</b>	<b>100%</b>



## 2.5 AN EIGHT-TO-EIGHTY APPROACH TO PLANNING

An “Eight-to-Eighty” city places a priority on both eight and eighty-year-old members of the community when planning. The intent of this approach is to produce planning outcomes that ensure a city functions properly and equitably for everyone’s ability. Youth and senior populations have more limited mobility options than the general adult population. As such, they are more vulnerable and reliant on alternative transportation modes and infrastructure. In particular, a young average citywide median age (30.3 years of age in 2018), underscores a need for school-related active travel.

Ensuring that safe, comfortable facilities are available for a range of users and abilities requires that facilities include adequate buffer and a balance of on-road with off-road facilities. To enhance the share of utilitarian, or non-recreational cyclists, it is important to ensure that a complete network provides access to popular destinations and schools throughout the City, and that entire trips can be made on facilities that people find comfortable.

When planning new bicycle facilities in particular, it should be acknowledged that riders form a highly diverse group of individuals whose cycling preferences and cycling skill is varied. Cyclists have been generally categorized as belonging to one of four types, based upon their comfort and interest in cycling (Dill, et al; Four Types of Cyclists? Examination of Typology for Better Understanding of Bicycling Behavior and Potential, Portland State University), as shown in **Table 2-9**.

In Lake Elsinore, the experience level of cyclists predominantly falls into the “interested but concerned” category, based upon the small but steady number of cyclists observed throughout the City where roadway conditions are calm and inviting. There are also more experienced cyclists that ride longer distances, making use of the region’s rural open spaces. Implementation of the recommended network will ultimately result in bicycle facilities that can improve mobility for varying levels and ages of users.

**Figure 2-7** presents the distribution of the senior citizen population within the City of Lake Elsinore by census block group (2016). As shown, a large number of the City’s census block group have senior

population rates of 9% or lower. Distinct clusters, including the northwest portion of the lake, and the eastern border near Canyon Lake, show higher rates of senior populations, including up to 16% and 22.5% senior citizens, respectively.

**Figure 2-8** displays the distribution of the youth population across the City, also by census block group (2016). Relative to senior populations, youth are more dispersed throughout the City. Though there are areas of slightly higher concentrations of youth populations, such as east of I-15, distinct population clusters do not exist as they do for senior citizens. Since walking and riding to school are two key aims of this Plan, this illuminates a need to ensure that safe, comfortable facilities are uniformly available for the school trip.



Table 2-9 Bicycle Facility Design Classifications

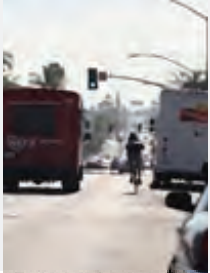
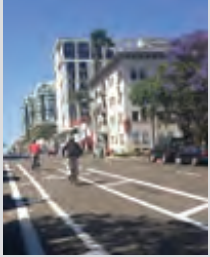


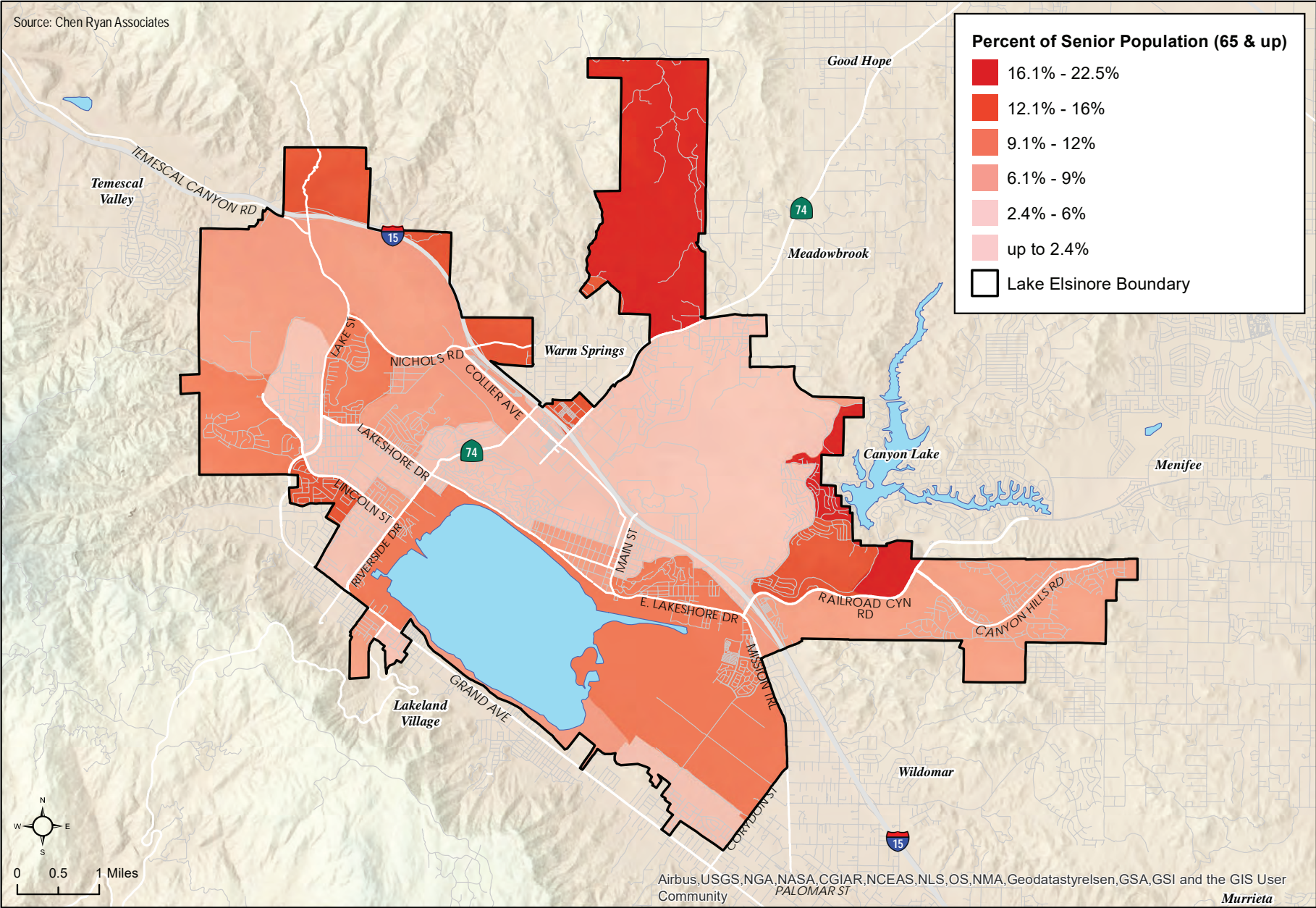
Example	Description
	<p>The “Strong and the Fearless” represent fewer than half of a percent of the population. These are the people who will ride regardless of roadway conditions. They tend to self-identify as “cyclists,” and riding is a strong part of their identity. They are generally undeterred by roadway conditions.</p>
	<p>The “Enthusied and Confident” are those who have been attracted to cycling and are comfortable sharing the roadway with automotive traffic, but prefer to do so operating on their own facilities. They are attracted to riding where streets have been redesigned to make them work well for bicycling. They appreciate bicycle lanes and bicycle boulevards. This demographic comprises approximately seven percent of the population.</p>
	<p>The vast majority of people are the “Interested but Concerned.” These individuals are curious about bicycling. They are hearing messages from a wide variety of sources about how easy it is to ride a bicycle regularly, about how bicycling is booming, about “bicycle culture”, and about the need for people to lead more active lives. They like riding a bicycle, and they would like to ride more. However, they are cautious toward most riding conditions, and are uncomfortable with riding in mixed traffic. Very few of this group regularly rides bicycles, and particularly not along arterials, or to major commercial and employment destinations. This group represents approximately 60 percent of the population. They would ride if they felt safer on the roadways—if cars were slower and less frequent, and if there were more quiet streets with few cars and paths without any cars at all.</p>
	<p>Approximately one third of the population falls into the last category - the “No Way, No How” group that is currently not interested in bicycling at all, for reasons of topography, inability, or simply a lack of interest.</p>

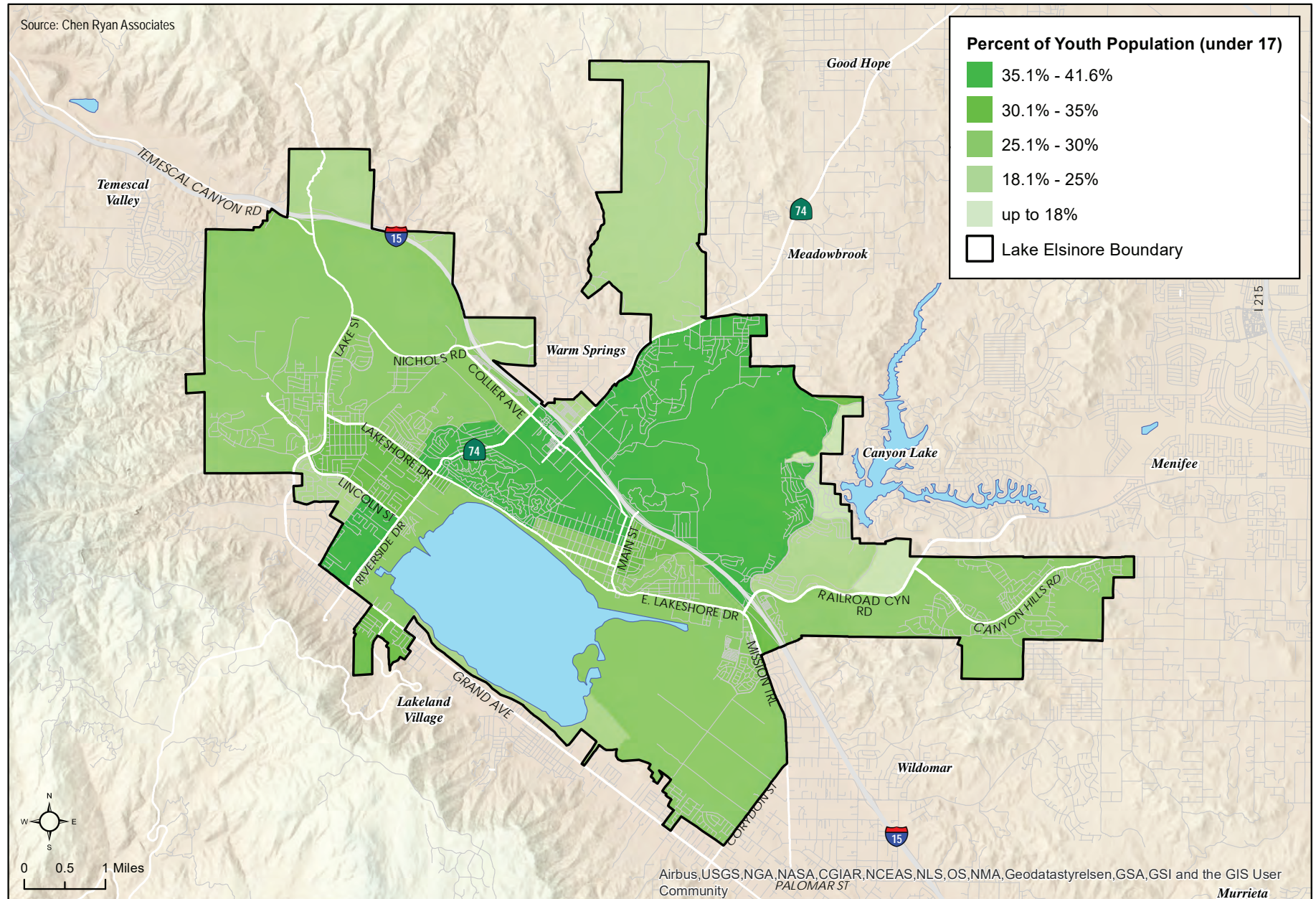


Figure 2-7 Lake Elsinore Senior Population





### Figure 2-8 Lake Elsinore Youth Population





## 2.6 ACTIVE TRANSPORTATION DEMAND

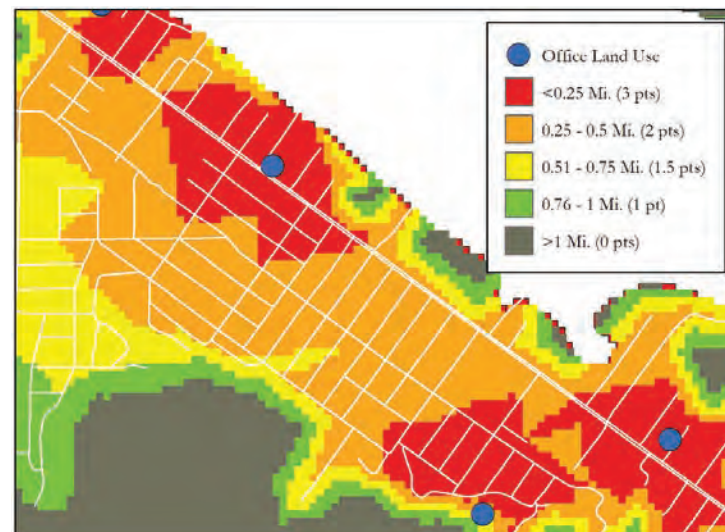
A common analysis technique used to understand potential demand for cycling and walking – or the propensity to make a walk or bike trip – is through an assessment of population and land use characteristics. An “active travel” propensity model was created to support this assessment and combines likely walk and bike trip generator inputs – population, employment, zero-vehicle households, pedestrian commuters, and bicycle commuters – with likely walk and bike trip attractors, or key land uses understood to attract bicycle and pedestrian trips. These trip-attracting land uses include schools, retail, parks, recreational spaces, and beaches. When combined, the active transportation generators and attractors provide a foundation for understanding potential active transportation demand across the City of Lake Elsinore.

### Active Transportation Trip Generators and Attractors

**Table 2-10** displays the inputs, thresholds, and multiplier values used to create the active transportation trip generator submodel. Generator input values listed as “high” reflect conditions with a greater

likelihood of generating an active transportation trip. Generator input values in the “low” range are understood to generate relatively fewer trips.

Higher population and employment densities are associated with potentially higher levels of active transportation trip generation. Bicycle and pedestrian commute rates, as well as zero-vehicle households, are also contributing factors to trip generation propensity.



**Table 2-10 Active Transportation Trip Generator Submodel Inputs**

Generator	High 4	Medium 3                  2		Low 1	Zero 0
Population Density (persons per acre)	≥ 20	15.1 - 20	10.1 - 15	5.1 - 10	< 5
Employment Density (jobs per acre)	≥ 10	7.1 - 10	4.5 - 7	1.1 – 4	< 1
Bicycle Commuters (percent of commuters)	≥ 1%	-	0.1% - 1%	-	< 1%
Pedestrian Commuters (percent of commuters)	≥ 4%	2.1% - 4%	1.1% - 2%	0.1% - 1%	< 1%
Zero-Vehicle Households	≥ 10%	5-1% - 10%	3.1% - 5%	1.1% - 3%	< 1%

**Figure 2-9** displays the Active Transportation Trip Generator Submodel results. As shown, a relatively higher concentration of active transportation trip generators can be found near Downtown, as well as in neighborhoods near the northwest shore of the lake, and portions of the City northeast of I-15.

The Active Transportation Trip Attractor Submodel was created using the input variables displayed in **Table 2-11**. Each attractor is buffered by one-mile, with multipliers that decrease every quarter-mile interval away from the trip attractor. A point value is calculated by multiplying the distance multiplier by the weight assigned to each attractor. As shown in the graphic on the previous page, particular land uses, in this case hypothetical office locations, garner progressively lower weights in terms of their ability to attract active transportation trips as the distance required to travel along the roadway network to reach them increases.

**Figure 2-10** displays the Active Transportation Trip Attractor Submodel, combining each of the trip attractor inputs into a single composite map. The greatest concentration of trip attractors is located in census block groups in the northwestern portion of the City, as well as near

**Table 2-11 Active Transportation Trip Attractor Submodel Inputs**

Land Use Attractors	Weights Multiplier	Within $\frac{1}{4}$ Mile 1.5	Between $\frac{1}{4}$ and $\frac{1}{2}$ Mile 1.0	Between $\frac{1}{2}$ and $\frac{3}{4}$ Miles 0.75	Between $\frac{3}{4}$ and 1 Mile 0.5
Retail Uses	4	6	4	3	2
Civic Uses	3	4.5	3	2.25	1.5
Office Uses	2	3	2	1.5	1
Parks	2	3	2	1.5	1
High, Middle and Elementary Schools	1	1.5	1	0.75	0.5

Downtown and along the I-15 corridor. Additional attractors are found east of I-15, near the border with the communities of Canyon Lake and Wildomar. Lower concentrations of trip attractors are found in the hilly and primarily residential portions of the community.

The Active Transportation Propensity Model, displayed as **Figure 2-11** was created by combining the trip generator and trip attractor submodels with equal weighting. As shown, the results closely mirror those presented in the trip attractor and trip generator submodels, with the greatest propensity identified in

neighborhoods nearest the lake, such as along the northwest shore and Downtown, with secondary concentrations along the I-15 corridor.

Higher propensity is indicative of areas with increased potential for active transportation due to relatively higher levels of trip attractors and trip generators. However, these areas may also have increased barriers related to active transportation, including higher posted speed limits and traffic volumes, more bicycle and pedestrian collisions, and more travel lanes.



### Figure 2-9 Active Transportation Trip Generator Submodel

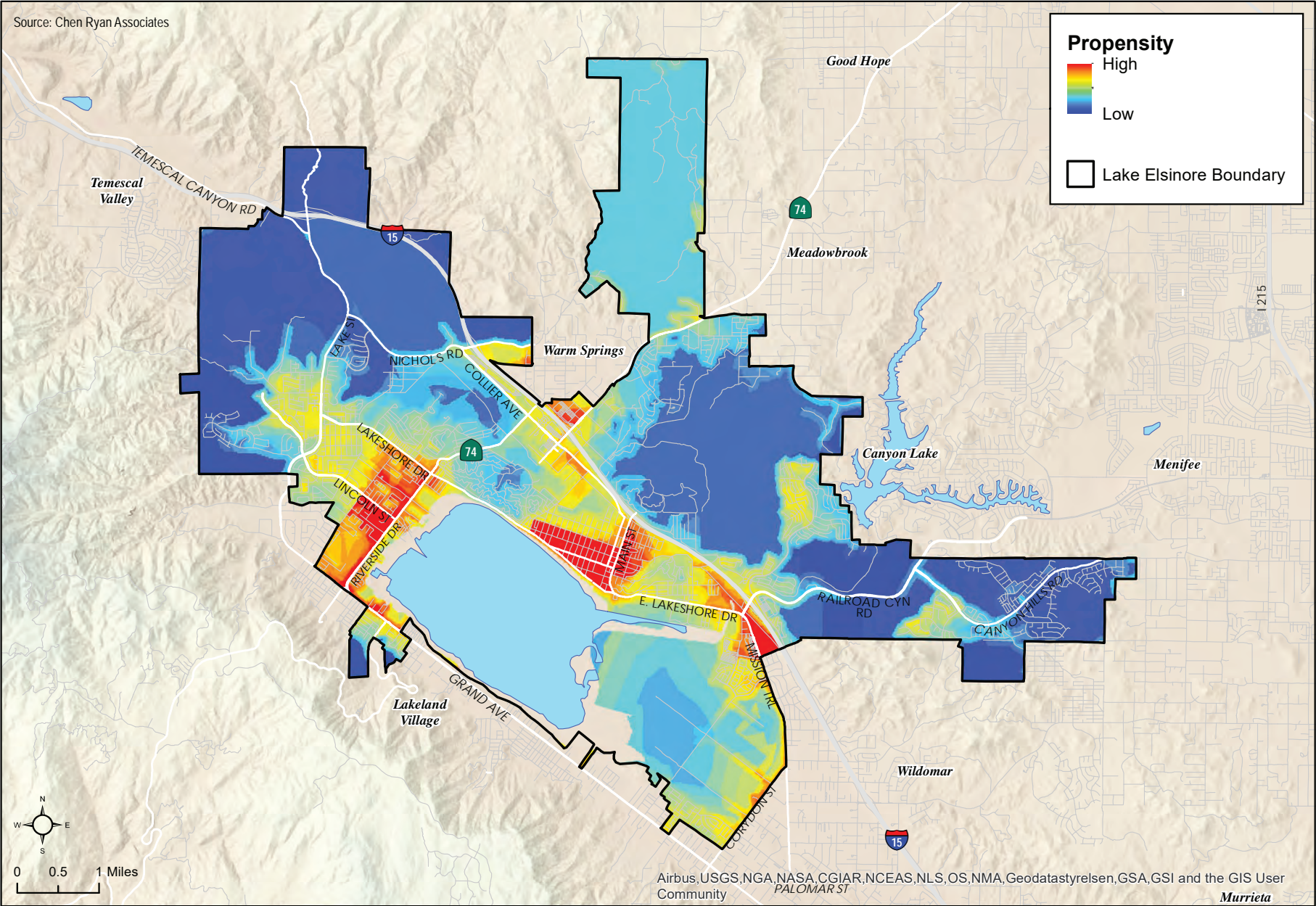








Figure 2-11 Active Transportation Propensity Model





A photograph of a crowded street festival or parade. In the foreground, the backs of several people's heads are visible as they look towards the event. The street is lined with trees showing autumn foliage. A blue pickup truck is visible in the middle ground, and a sign on a pole reads "MAY USE FULL LANE" with a bicycle symbol. The text "3 GOALS, OBJECTIVES, AND POLICIES" is overlaid in large white letters on the left side of the image.

# 3 GOALS, OBJECTIVES, AND POLICIES



# 3

## GOALS, OBJECTIVES, AND POLICIES

Active LE goals, objectives, and policies should be complementary to those set in current planning documents for the City, such as the Lake Elsinore General Plan, subsequent District Plans, and the Lake Elsinore Climate Action Plan. The framework and intent of those documents are carried forward here to further their ability to be implemented, such as:

- Optimize the efficiency and safety of the transportation system within the City of Lake Elsinore (Goal 6, Lake Elsinore General Plan)
- Pedestrian circulation routes that are clearly defined (Downtown Specific Plan)
- Right-sizing of streets to reduce the number of vehicle travel lanes that a pedestrian must cross. If infeasible, then landscaped pedestrian refuge areas provided at mid-crossing (Downtown Specific Plan)
- Bike racks at accessible, safe, well-lighted locations (Downtown Specific Plan)

Goals, objectives, and policies were developed following a review of the documents presented in Chapter 1, as well as under consultation with City staff. Further, the needs identified throughout the community outreach process, as identified in Chapter 4, were reviewed to ensure that the language of the goals, objectives, and policies are related to the stated needs and desires of community members.

Overarching goals are presented in the following section, followed by a delineation of supporting objectives and policies to ensure that they can be successfully implemented. Performance measures are attached to each goal to guide the City's ongoing monitoring of the Plan's implementation.



## GOAL 1: AN EQUITABLE MULTIMODAL NETWORK THAT SERVES ALL USERS

**Objective:** Accommodate multimodal mobility and accessibility when planning, designing, and implementing transportation improvements, improving access and circulation for all users of City streets.

**Policy 1.1:** Prioritize active transportation related projects within the active transportation network and focus area locations. Continually review the active transportation network to ensure it is relevant considering the changing densities of areas throughout the City, and coordinate bicycle and pedestrian facility improvements or upgrades with the City's resurfacing schedule.

**Policy 1.2:** Review capital improvement projects to ensure that needs of non-motorized travelers are considered in planning, programming, design, reconstruction, retrofit, maintenance, construction, operations, and project development.

**Policy 1.3:** Adopt the National Association of City Transportation Officials (NACTO) Urban Street Design Guide and Urban Bikeway Design Guide as a supplement to the California Manual for Uniform Traffic Control Devices.

**Policy 1.4:** Work to eliminate barriers to pedestrian and bicycle travel by ensuring existing and new rights-of-way are clear of obstructions, signage, and comfortable for users. Work to implement traffic calming measures where speeds are excessive.

**Policy 1.5:** Require the construction of pedestrian and bicycle facilities and amenities, where warranted, as a condition of approval of new development projects, including but not limited to, lighting, vegetation, bicycle racks, and benches, in all infrastructure projects.

**Policy 1.6:** Work with owners of properties adjacent to public walkways to identify beautification opportunities and implement improvements such as landscaping, fencing and/or art installations.



## CHAPTER 3 - Goals, Objectives, and Policies

**Policy 1.7:** Consider implementation of an active transportation share program (e.g. bikeshare/scootershare program).

**Policy 1.8:** Improve mobility and accessibility for travelers of all incomes through a process of equitable public engagement, service delivery and capital investment.

**Policy 1.9:** Utilize the Active LE Plan and priority projects to determine projects of highest need for implementation citywide.

### **Performance Measures:**

- Increased miles of bicycle and pedestrian network.
- Bicycle network linkages between all local civic, retail, and employment hubs.
- Increased bicycle and pedestrian amenities throughout the network.
- Representative engagement with all population groups within reasonable proximity of each active project during outreach opportunities.

- Successful pursuit of grant funding to aide implementation of Active LE Priority Projects.
- Implementation of an active transportation sharing program at the right time.



## GOAL 2: A BICYCLE AND PEDESTRIAN-FRIENDLY LAKE ELSINORE

**Objective:** Create a bicycle and pedestrian-friendly environment throughout the region for recreational and utilitarian riders through consistent engineering/infrastructure solutions and integration of walking, bicycling and public transit facilities into City roadways as a means of improving regional health, increased road safety, and reduced carbon emissions.

**Policy 2.1:** Expand the existing bicycle network to provide a comprehensive, regional network of Class I, Class II, and Class III facilities that increases connectivity between homes, jobs, public transit, schools and recreational resources for a variety of road users.

**Policy 2.2:** Develop a 20-year implementation strategy for the Active LE Plan that will begin to implement the policies and facilities herein.

**Policy 2.3:** Install bicycle facilities adjacent to schools and along the identified network extending to/from schools, and

pursue Safe Routes to School funding to implement bicycle infrastructure. Involve local schools, parent-teacher groups, and advocates throughout the Safe Routes to School planning efforts and pursuit of grants.

**Policy 2.4:** Implement policies and facilities proposed in the Active LE Plan whenever planning new facilities or Capital Improvement Projects that may be related to bicycle or pedestrian improvements.



**Policy 2.5:** Incorporate the proposed policies, facilities and programs from the Active LE Plan in whole or by reference into the City's Circulation Element upon future General Plan updates.

**Policy 2.6:** Coordinate with adjoining jurisdictions, including Riverside County, on bicycle and pedestrian planning and

implementation activities on regional corridors to link the region to neighboring communities.

**Policy 2.7:** Perform reallocation of roadway rights-of-way where appropriate to accommodate bicycle facilities and sidewalk infill where needed.

**Policy 2.8:** Develop and adopt Complete Streets policies that generally align with the policy elements defined by the National Complete Streets Coalition and require all capital improvements to include Complete Streets improvements in the project design and budget.

**Policy 2.9:** Ensure that all existing and new on-street bicycle routes, bicycle lanes, and off-street bicycle paths are appropriately signed and marked per the Wayfinding Guidelines herein. Encourage the implementation of consistent wayfinding or placemaking features for each area location within the network (e.g. similar designs).



**Policy 2.10:** Provide traffic calming treatments, streetscape improvements, signage, bicycle parking and support amenities (e.g., repair stations, water fountains, information kiosks, etc.) along City bikeways that increase bicycle utility and convenience for all people bicycling, such as requiring that all Class III bicycle routes have markings (“sharrows”) and/or “Bicycles May Use Full Lane” signage, in accordance with the most current edition of the California MUTCD, where bicycle lane implementation is demonstrated to be infeasible.

**Policy 2.11:** Implement pedestrian call buttons with countdown signals, as well as bicycle detection as part of all traffic signal improvements in conformance with the current edition of the California Manual on Uniform Traffic Control Devices, to the extent feasible.

**Policy 2.12:** Adopt a bicycle parking ordinance or modify existing sections of the municipal code to require bicycle parking with all new developments (including multi-family housing, commercial, industrial, and institutional uses) or when the size and/or use of existing buildings is significantly altered.

**Policy 2.13:** Install and support high-quality bicycle parking facilities, including bike corrals, within the public right-of-way and on public property, especially in high demand locations, such as Downtown, commercial centers, entertainment centers, employment centers, schools, colleges and parks. Establish bicycle parking standards for City-owned parking facilities that address the location, design, capacity, and support amenities that should be provided by all City bicycle parking facilities.

### **Performance Measures:**

- Performance of annual counts of bicycle and pedestrian activity to determine potential growth in activity levels.
- Successful pursuit of grant funding to aide implementation of Active LE Priority Projects.



## GOAL 3: MULTIMODAL MOBILITY THROUGH TRANSIT INTEGRATION

**Objective:** Further improve access to major employment and activity centers and encourage multi-modal travel for longer trip distances by supporting further transit integration with bicycles and pedestrians.

**Policy 3.1:** Implement bicycle facilities that provide access to regional and local public transit services.

**Policy 3.2:** Coordinate with transit agencies to install and maintain convenient and secure short-term and long-term bike parking facilities – racks, on-demand bike lockers, bike corrals, in-station bike storage, and staffed or automated bicycle parking facilities – at transit stops, stations, and terminals such as the Lake Elsinore Transit Center.

**Policy 3.3:** Provide current and relevant information to the public regarding bike parking and bicycle access located at transit stations through a variety of formats, such as on City websites, wayfinding signage, and regional bike maps.

**Performance Measures:**

- Increased bicycle parking facilities at transit stops, stations, and the Lake Elsinore Transit Center.
- Increased levels of maintenance for bicycle and pedestrian facilities.
- Increased transit ridership within the local and regional sphere.



**GOAL 4: A SAFE WALKING, BIKING, AND ROADWAY ENVIRONMENT IN LAKE ELSINORE**

**Objective:** Create a safer multimodal environment throughout the City for all users of the road and all trip purposes through addressing non-infrastructure means of improving regional health, increased road safety, reduced carbon emissions and an overall increase in multimodalism.

**Policy 4.1:** Establish protection of human life and health as the highest transportation system priorities, and seek to improve safety through the design and maintenance of streets, sidewalks, intersections and crosswalks. Develop and implement programs that encourage safe behavior and reduce aggressive and/or negligent behavior among drivers, bicyclists and pedestrians.

**Policy 4.2:** Annually review collision data, including causes, to implement ongoing improvements at the highest-risk intersections and throughout the transportation network.

**Policy 4.3:** Standardize the incorporation of lighting in all active transportation facilities and require private developers to do the same.

**Policy 4.4:** Standardize the incorporation of aesthetically pleasing barriers (e.g. split rail fencing) between vehicles and pedestrians/bicyclists wherever possible.

**Policy 4.5:** Consider traffic calming measures in all locations along the active transportation network where the perception of safety has been determined to be a deterrent.

**Policy 4.6:** Increase education of bicycle safety through programs and trainings of the general public and City employees.

**Policy 4.7:** Partner with local bike advocacy groups, businesses, or other such organizations to provide safety curricula to the general public and targeted populations, including diverse age, income, and ethnic groups.

**Policy 4.8:** Provide multi-lingual road safety information.



**Policy 4.9:** Work with local bike/walk advocacy groups and schools to develop and provide bicycle safety curricula for use in elementary, middle, and high schools.

**Policy 4.10:** Support continuous safety education to City staff who are involved in the design or other such decisions that affect roadways, such as traffic engineers, planners, public works engineers, public safety officers, and parks and recreation staff.

**Policy 4.11:** Support programs and public service announcements that educate motorists, pedestrians, bicycle riders, and the general public about bicycle operation, cyclists' rights and responsibilities, and safe road-sharing behavior via the City's website, local newspapers, and other such publications.

**Policy 4.12:** Work with transit agencies to develop comprehensive ongoing public service announcements promoting bicycling as a healthier, more sustainable mode of transportation.

**Policy 4.13:** As appropriate and feasible, increase enforcement of unsafe behaviors and laws that reduce bicycle and pedestrian-on-motor vehicle collisions and conflicts, and bike lane/crosswalk obstruction.

**Policy 4.14:** Explore opportunities to increase motorist's awareness of the possibility of the presence of cyclists, especially at locations with a high incidence of bicycle-related collisions.

**Policy 4.15:** Coordinate with the Riverside County Sheriff's Department to increase the frequency of patrols on off-street shared-use paths, especially underneath bridge overcrossings.

**Policy 4.16:** Install emergency phone towers with special emphasis on areas not readily visible (e.g., along the Canal) with LED lighting to illuminate the area for people bicycling and pedestrians. The LED lights should be powered by solar panels to reduce maintenance and electrical costs. Where feasible, attach surveillance cameras to each phone tower to provide law enforcement agencies with real-time footage of the location to help prevent/address any criminal activity.

### **Performance Measures:**

- Annual review of safety data through SWITRS or similar and update project priority list with incident weight considerations accordingly.
- Increased facility amenities such as lighting, aesthetic/actual barriers between vehicular traffic and pedestrians/bicyclists and install emergency towers.
- Increased law enforcement patrol in areas with significant transient and loitering activity.
- Increased amenities throughout bicycle network corridors between hubs.
- Reduced bicyclist and pedestrian related stress levels.



## GOAL 5: EDUCATION ABOUT HEALTH AND ECONOMIC BENEFITS OF ACTIVE TRANSPORTATION NETWORK

**Objective:** Share information with the public, residents, and local business owners about how active transportation infrastructure encourages a healthy community and benefits the local economy.

**Policy 6.1:** Consistently spread the message about how active transportation is mentally and physically healthy for individuals and the community because it inspires others to get active about their transportation and thus reduce greenhouse gas emissions.

**Policy 6.2:** Consistently spread the message about how pedestrian and bicycle infrastructure encourages more local trips which results in more local shopping and less vacancies. In addition, active transportation infrastructure often results in improved property values.

**Policy 6.3:** Accompany installation of new bicycle facilities with educational programs for motorists, bicyclists, and pedestrians – particularly children.

**Policy 6.4:** To complement the City's Safe Routes to School program, develop a Safe Routes for Seniors program. This program should address pedestrian conditions including pedestrian access to transit. It should be based on the senior community's identified needs, priorities and barriers to safe nonmotorized travel. The program should include an educational component, capital improvement program, and mobility and safety training program. Senior centers and organizations should be partners in both development and implementation.

### **Performance Measures:**

- An implemented consistent messaging program for different audiences (e.g. City Council, local business owners, private developers, network users, etc.)
- A Safe Routes for Seniors Program.
- Increased multimodal mode share among seniors and youths.

## GOAL 6: THOROUGH EVALUATION OF MULTIMODAL ENHANCEMENT EFFORTS

**Objective:** Measure the impact of infrastructure improvements, education, encouragement, and enforcement activities on the rates of bicycling and injuries utilizing the performance measures associated with each of the aforementioned goals, as well as with Goal 6 presented below.

**Policy 6.1:** Work with local advocacy groups and community-based organizations to conduct annual or biennial citywide bicycle and pedestrian counts to track rates of cycling and walking over time.

**Policy 6.2:** Conduct before and after bicycle and pedestrian counts with the implementation of new infrastructure projects, using program and count standards such as those supported by SCAG through their Active Transportation Database at: <http://atdb.scag.ca.gov>.

**Policy 6.3:** Administer yearly or biennial general community bike and walk surveys to understand the public's knowledge of the rules of the road, fears, and



behaviors to inform the development and implementation of education and encouragement programs as well as infrastructure improvements, such as through survey recommendations in SCAG's Active Transportation Database, or by adapting similar tools that are currently used by the National Safe Routes to School Partnership to a general audience.

### ***Performance Measures:***

- Increased cycling and walking rates over time.
- Increased cycling and walking rates associated with implementation of new facilities.
- Increased awareness and amenability to cycling and walking for all trip purposes.

# 4 COMMUNITY INVOLVEMENT





# 4

## COMMUNITY INVOLVEMENT

Public participation was an important component throughout the Active LE Plan development, encompassing a variety of outreach strategies targeting a diverse range of community members and stakeholders. Key outreach strategies included maintaining a project website with an interactive “Wikimap” survey, community surveys, targeted community group outreach, school outreach, and a community meeting. This section describes the various public engagement methods used during this process and how the input shaped the Active LE Plan.

## 4.1 PROJECT WEBSITE

A project website ([www.lake-elsinore.org/ATP](http://www.lake-elsinore.org/ATP)) was established to provide continuous updates on project progress and inform the public of upcoming outreach events, outlined in the sections that follow.

Website visitors could view project visuals and learn about project updates. The website also provided a link to a web-based Wikimap survey (detailed in the following section).



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## 4.2 WIKIMAP AND TEXT MESSAGE-BASED SURVEYS

Input data was solicited in two formats, which included a text message-based survey and a web browser-based “Wikimap” survey.

The text message-based survey allowed users to submit input by answering questions with numerical responses via text message exchange with automatic replies to the user. Questions prompted responders to identify factors such as user behaviors, willingness to make additional trips via foot or bike if proposed improvements were made, and the optimal location of said improvements.

The web browser-based Wikimap survey allowed users to place discreet data points at locations where they wished to identify an area that should receive particular attention, either due to need, demand, or other concern. Together, these two inputs garnered a total of 116 individual responses over the course of the project, and were incorporated into the network development process to ensure that identified network improvements also reflected the stated needs of community members.



Both of these community input methods were promoted through the project website, as well as by pocket-sized cards that were distributed at each community event. These cards were also available at community-oriented destinations such as City Hall and the Lake Elsinore Senior Center throughout the Plan development.





### 4.3 POP-UP EVENTS

A total of five pop-up style outreach events were attended by members of the project team. Pop-up events corresponded with larger community-drawing functions, and included attendance at events that spanned a cross-section of language, geographic, and demographic factors. The purpose of these pop-up events was to increase awareness of the ongoing development of the Plan and collect input from community members through direct comment on project boards and other materials, which were present at each Pop-up event. Pop-up events were held in conjunction with the following community events:

- Dia de los Muertos (October 2018)
- Winterfest (December 2018)
- Amazing Outlet Race (March 2019)
- Unity in the Community (April 2019)
- Eggapalooza (April 2019)

All pop-up events were staffed by bilingual English/Spanish speakers. As discussed in Section 4.2, cards with instructions on how community members could participate further by taking a text-based or “Wikimap”

survey were distributed. Tablets were also available for users who preferred to participate with these media in person.



### 4.4 SCHOOL OUTREACH

Outreach to schools occurred in partnership with the Riverside University Health System’s Safe Routes to School efforts in Lake Elsinore. Parent events at Elsinore Elementary and Elsinore Middle schools in Winter 2019 were attended by staff representing both concurrent efforts, and performed school walk audits with parents. During the walk audits, parents identified safety challenges, obstacles, and issues encountered during school drop-off and pick up, as well as barriers that prevented some parents from choosing to allow their children to walk to school. The events were used to drive

participation in the text message-based and “Wikimap” surveys, which garnered additional datapoints around schools for use in the refinement of proposed network improvements.

### 4.5 PROJECT DESIGN TEAM (PDT)

The Active LE Plan included the formation of a Project Design Team (PDT), which consisted of 24 stakeholders who volunteered to meet at recurring intervals over the course of the plan development process to provide focused direction on project deliverables. A total of 4 meetings were held:

- The first meeting, held in October 2018, allowed members to provide comment on overarching principles of the Plan, form goals, and provide direction.
- The second meeting, held in January 2019, presented the team with a review of existing conditions findings. The team also performed a walk audit around Downtown Lake Elsinore to view opportunity areas.
- The third meeting, held in April 2019, presented a draft network and included a bus tour of several preliminary project sites to gather feedback, as well as to preview and solicit feedback on wayfinding concepts.

- The fourth meeting, held in July 2019, allowed the team to view priority projects, and finished with a second bus tour to three of the City's highest priority project locations to view and discuss before/after photo simulations.



## 4.6 COMMUNITY WORKSHOP

The community workshop will be held in August of 2019, after which this section will be updated as part of the Final Active LE Plan.

## 4.7 SUMMARY OF RESULTS FROM OUTREACH

### Survey Results Summary

A total of 116 discreet responses were received over the course of the project's outreach. Of the respondents, 16 indicated that they currently walk, bike, use transit, or another non-vehicular means of transportation to work or school on a regular basis.

The majority of respondents indicated that they felt it was somewhat or very difficult to walk and bike in Lake Elsinore, with 76 respondents indicating it was somewhat or very difficult to walk, and 65 respondents indicating it was somewhat or very difficult to bike. By contrast, only 10 respondents found it somewhat or very easy to walk in Lake Elsinore, and only 9 found it somewhat or very easy to bike.

The top community-identified issues found in the survey consisted of the following:

- Lack of cross-town bicycle connectivity
- Few dedicated bicycle facilities near schools and parks
- Many intersections with poor crossing facilities
- Few mobility options for accessing retail/recreation aside from driving

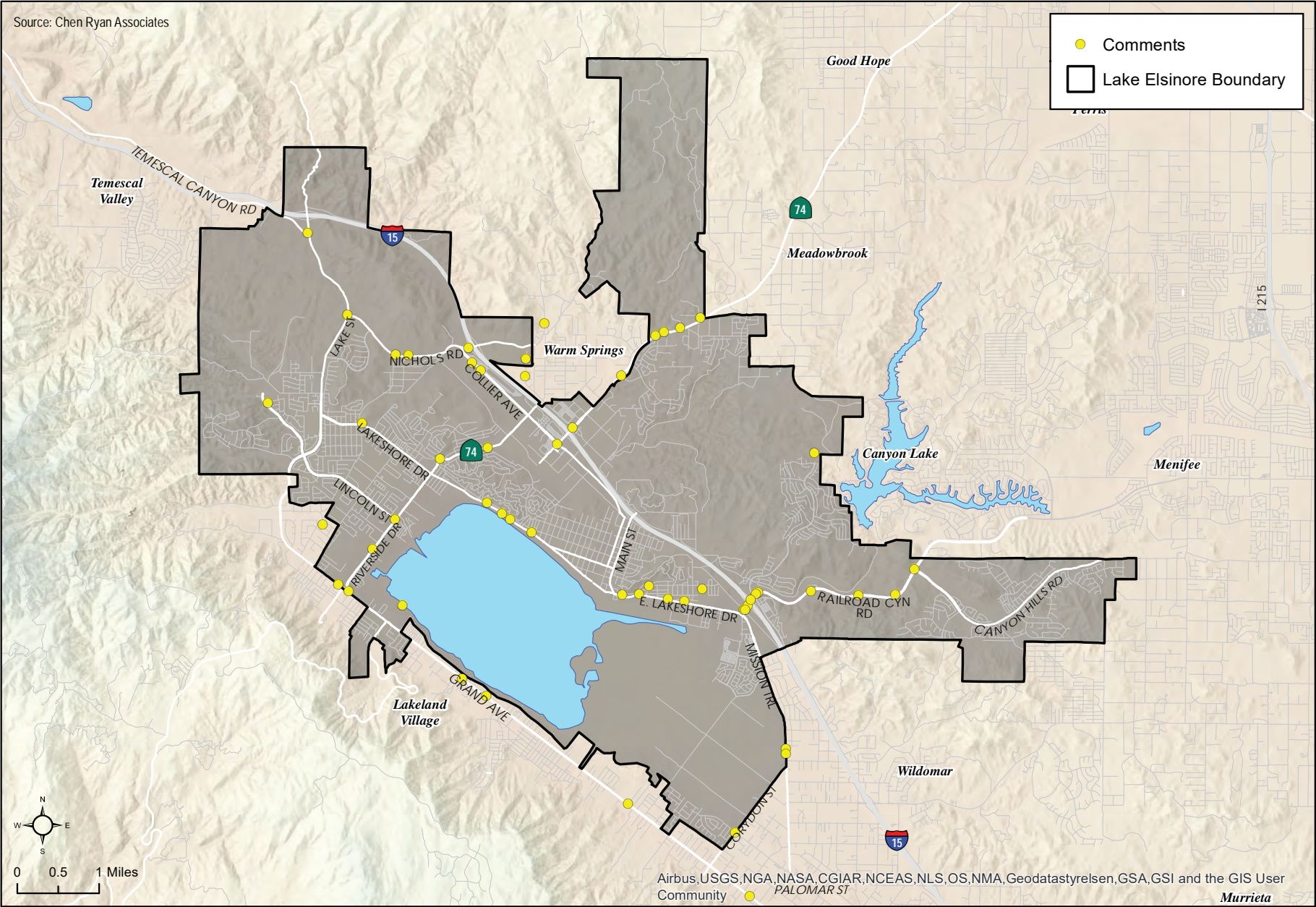
- Long block lengths that make it difficult to safely cross the street
- Need for pedestrian safety treatments near schools
- Desire to leverage Lake Elsinore's recreational facilities and improve access
- Need to ensure all modes are balanced

### Comment Distribution

*Figure 4-1* presents a graphic representation of the comments received relative to the location in Lake Elsinore in which they reference a need or deficiency. As shown, the comments are clustered with highest frequency around Downtown, with secondary comment clusters located around Nichols Road and Collier Avenue, along the eastern lakefront, along Railroad Canyon Road, and along the northeast shore of the lake. The comments were used to facilitate network development, as well as to ensure that project prioritization efforts reflect deficiencies and issues in these areas.



Figure 4-1 Lake Elsinore Comment Distribution







# 5 LAKE ELSINORE TOMORROW



# 5

## LAKE ELSINORE TOMORROW

Building upon the key issues identified through the existing conditions analysis and community engagement process, this chapter identifies specific recommendations to improve walking and bicycling. Ten Priority Projects are recommended, including two multi-use path projects, three bicycle projects and five pedestrian-focused improvements, bolstered by Design Guidelines and Wayfinding recommendations that were developed in tandem with the Active LE Plan. These documents are designed to provide complimentary approaches and standards for the City to use in the implementation and ongoing maintenance of these projects.



## 5.1 DESIGN GUIDELINES APPROACH

The City of Lake Elsinore Design Guidelines, developed alongside the Active LE Plan as a companion document, establishes best practices techniques and examples of all types of pedestrian and bicycle facilities recommended as part of this Plan. The Guidelines are tailored to the Lake Elsinore community in several ways such as:

- Providing guidance for future development projects of all scales to ensure they support multi-modal travel and result in safe, efficient, and enjoyable routes for walking and bicycling
- Best practice treatments to enhance Lake Elsinore's existing pedestrian and bicycle infrastructure; and
- General guidelines for trails (including equestrian and shared-use trails).

The Design Guidelines focuses on cutting-edge practices and recent trends in bicycle and pedestrian infrastructure design that are appropriate for the development patterns and community needs of Lake Elsinore. Focus is placed upon roadway crossings (at controlled and uncontrolled intersections, corner treatments, signals, and sidewalks), pedestrian amenities (street furniture, lighting standards,

landscaping and street trees), trails, bicycle infrastructure, and future shared active transportation elements, such as potential bikeshare or scootershare.

The City of Lake Elsinore Design Guidelines document is available in its entirety as **Appendix A**.

## 5.2 PLANNED NETWORKS

This section of the Plan presents complete networks for bicycle and pedestrian travel. These networks address the existing and future needs of community members and will provide for safe, comfortable and convenient travel to and from the retail hubs, civic center, transit center, neighborhood connections, parks, and recreational facilities by bike and foot in the City of Lake Elsinore.

### 5.2.1 The Planned Bicycle Network

Lake Elsinore and its sphere of influence currently has 28.5 miles of bicycle facilities as presented in **Table 2-2** and **Figure 2-3**, including Class I multi-use paths, Class II bike lanes, and Class III bike routes. This Plan makes recommendations for an additional 69 miles of facility, focusing on closing critical gaps within Lake Elsinore City limits and enhancing portions of



bicycle network in the unincorporated Riverside County that fall within Lake Elsinore's sphere of influence. The proposed bicycle network also includes planned facilities gleaned from the documents reviewed in Chapter 1 to establish a 97.5-mile network that includes:

- 6.0 miles of Class I multi-use paths
- 48.9 miles of Class II bike lanes
- 6.5 miles of Class III bike routes
- 6.1 miles of Class IV cycle tracks

**Figure 5-1** shows the proposed Complete Bicycle Network, which includes both Priority Projects and additional network improvements. The planned bicycle network is presented in Table 5-1, including mileage of facility, and indicating where existing facilities as presented earlier in this document will be bolstered or built further.

### 5.2.2 Level of Traffic Stress (LTS)

The planned bicycle network was assessed using the bicycle Level of Traffic Stress (LTS) methodology for characterizing cycling environments, as developed by Mekuria, et al. (2012) of the Mineta Transportation Institute and reported in Low-Stress

Bicycling and Network Connectivity. LTS classifies the street network into categories according to the level of stress it causes cyclists, taking into consideration a cyclist's physical separation from vehicular traffic, vehicular traffic speeds along the roadway segment, number of travel lanes, and factors related to intersection approaches with dedicated right-turn lanes and unsignalized crossings.

**Table 5-2** identifies the four LTS categories and provides a description of the traffic stress experienced by the cyclist and the environmental characteristics consistent with the category. LTS scores range from 1 (lowest stress) to 4 (highest stress) and correspond to roadways that different populations may find suitable for riding on, considering their stress tolerance. Each LTS classification is associated with a cyclist traffic tolerance category as identified by Portland Bicycle Coordinator Roger Geller and documented in a Portland Bureau of Transportation memo titled Four Types of Cyclists.

**Figure 5-2** displays the bicycle Level of Traffic Stress results for all roadways and paths where cyclists are permitted under Plan conditions. As shown, certain major auto-serving roadways exhibit

uncomfortable, or LTS 4 conditions, primarily due to having a high-speed limit or large number of traffic lanes. However, the majority of the City exhibits low-stress conditions under the proposed Plan conditions (LTS 1 or 2).

Relative to existing conditions, level of traffic stress is improved along roadways providing major connectivity opportunities, such as Lake Street, Lakeshore Drive, Riverside Drive along the lakefront, Railroad Canyon Road, Mission Trail, and Corydon Street. The complete existing conditions level of traffic stress analysis is presented in the Existing Conditions Report, found in **Appendix B**.

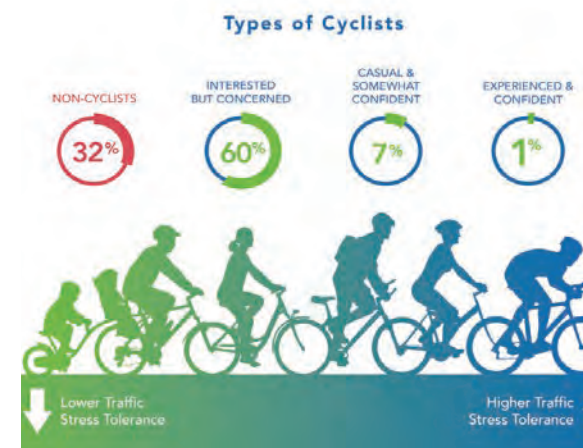


Figure 5-1 Planned Bicycle Network

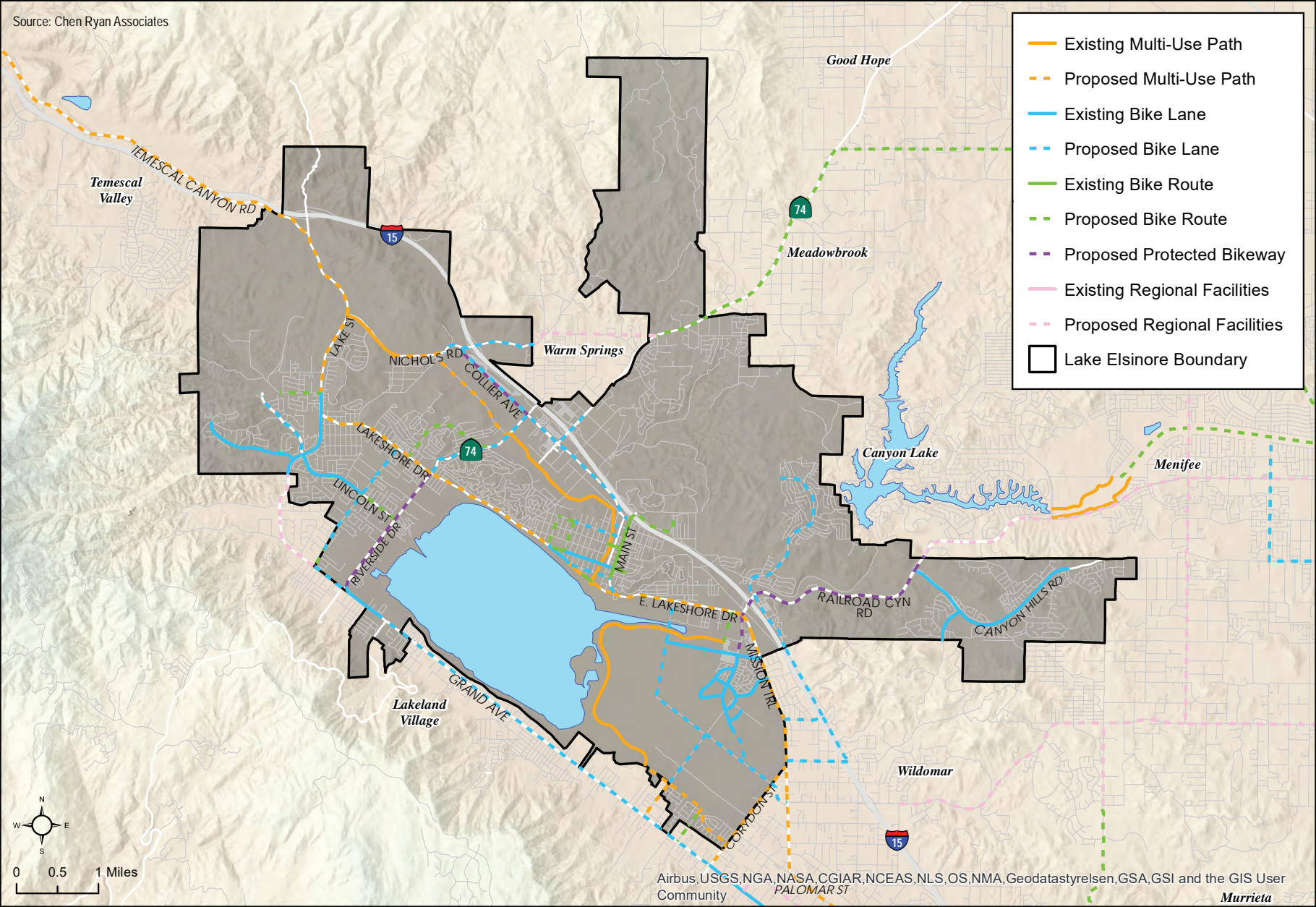




Table 5-1 Lake Elsinore Complete Bicycle Network

Location	From	To	Existing/ Planned	Mileage
Class I Multi-Use Path				36.0
Front St/Darby St	Clinton Keith Rd	Gruwell St	Existing	1.9
Levee Trail	Diamond Cir	Palomar St	Existing	3.6
W Lakeshore Dr	S Lowell St	S Poe St	Existing	0.2
Newport Rd	Normandy Rd	Goetz Rd	Existing	1.2
Canyon Lake Dr N	Normandy Rd	Goetz Rd	Existing	0.9
Downtown Canal	W Lakeshore Dr	Riverside Dr/Hwy 74	Existing	2.8
Nichols Rd	Lake St	Terra Cotta Rd	Existing	0.7
Temescal Canyon Rd	Mayhew Rd	El Hermano Rd	Existing	0.8
Palomar St	Harwood Ln	Timothy Ln	Planned	3.0
Mission Trail	Timothy Ln	Ethen Rd	Planned	1.1
Corydon Rd	Union St	Grand Ave	Planned	0.3
Skylark Dr	Palomar St	Levee Trail	Planned	0.1
Old Coach Rd	Levee Trail	Corydon Rd	Planned	0.6
Stoneman St	Palomar St	Grand Ave	Planned	0.5
Levee (Palomar St)	Old Coach Rd	Stoneman St	Planned	0.5
Palmoar St	Stoneman St	Levee Trail	Planned	0.4
Corydon Rd	Union St	Mission Trail	Planned	1.3
Mission Trail	Corydon Rd	Ethen Rd	Planned	0.3
Mission Trail	Corydon Rd	Malaga Rd	Planned	1.4
E Lakeshore Dr	Campbell St	Short St	Planned	1.6
Lakeshore Dr	Mohr St	Terra Cotta Rd	Planned	1.7
Baker St	Pierce St	Riverside Dr	Planned	1.3
Lake St	Mountain St	Nichols Rd	Planned	1.0
Temescal Canyon Rd	El Hermano Rd	Bernard St	Planned	4.0
Mission Trail	Campbell St	Railroad Canyon Rd	Planned	0.3

Table 5-1 Lake Elsinore Complete Bicycle Network

Location	From	To	Existing/ Planned	Mileage
Temescal Canyon Rd	Bernard St	Nichols Rd	Planned	1.8
Nichols Rd	Terra Cotta Rd	Pierce St	Planned	0.7
Nichols Rd	Lake St	Terra Cotta Rd	Planned	0.0
W Lakeshore Dr	S Spring St	Short St	Planned	0.2
W Lakeshore Dr	Lake St	Terra Cotta Rd	Planned	0.5
E Lakeshore Dr	Campbell St	Short St	Planned	0.3
Lakeshore Dr	Mohr St	Terra Cotta Rd	Planned	1.1
Class II Bike Lanes				48.9
Grand Ave	Clinton Keith Rd	Nyiri Way	Existing	3.4
Grand Ave	Nyiri Way	Corydon Rd	Existing	0.3
Summerly Development Future Road			Planned	0.2
Summerly Development Future Road			Planned	0.2
Summerly Development Future Road			Planned	0.1
Summerly Development Future Road			Planned	0.2
Summerly Development Future Road			Planned	0.2
Summerly Development Future Road			Planned	0.5
Summerly Development Future Road			Planned	0.2
Summerly Development Future Road			Planned	0.6
Summerly Development Future Road			Planned	0.1
Summerly Development Future Road			Planned	0.2
Summerly Development Future Road			Planned	0.3
Summerly Development Future Road			Planned	0.2
Summerly Development Future Road			Planned	0.2
Summerly Development Future Road			Planned	0.4
Malaga Rd	Lucerne St	Diamond Cir	Existing	0.7
Malaga Rd	Diamond Cir	Diamond Dr	Existing	0.2



Table 5-1 Lake Elsinore Complete Bicycle Network

Location	From	To	Existing/ Planned	Mileage
Lost Rd	Canyon Hills Rd	Flowerhill Dr	Existing	0.4
Canyon Hills Rd	Lost Rd	Piedmont Dr	Existing	1.6
Grand Ave	El Contento Dr	Serena Way	Existing	0.4
Canyon Hills Rd	Railroad Canyon Rd	Lost Rd	Existing	0.8
Graham Ave	Chestnut St	Lewis St	Existing	0.6
W Lakeshore Dr	Graham Ave	S Lowell St	Existing	0.3
Lincoln St	Machado St	Grand Ave	Existing	0.9
Grand Ave	McVicker Canyon	Patrick Ct	Existing	0.2
McVicker Canyon	Grand Ave	Gateway Dr	Existing	1.2
Grand Ave	McVicker Canyon	Lincoln St	Existing	0.1
Grand Ave / Lake St	Lincoln St	Mountain St	Existing	0.9
Grand Ave	Riverside Dr	El Contento Dr	Existing	0.1
Malaga Rd	Diamond Dr	Mission Trail	Existing	0.3
Clinton Keith Rd	Grand Ave	George Ave	Existing	1.3
Grand Ave	Scales Way	Corydon St	Planned	3.2
Antelope Rd	Keller Rd	Joan Dunn Ln	Planned	0.6
Stoneman St	Palomar St	Cereal St	Planned	0.7
Cereal St	E Lakeshore Dr	Corydon St	Planned	3.0
Lemon St	Mission Trl	Grape St	Planned	0.8
Olive St	Mission Trl	Grape St	Planned	0.5
Grape St	Olive St	Lemon St	Planned	0.6
Grand Ave	Pepper Dr	Marie Dr	Planned	0.2
Grand Ave	Pepper Dr	Hwy 74	Planned	0.2
Grand Ave	Hwy 74	Serena Way	Planned	0.1
Grape St	Olive St	City Boundary	Planned	1.0

Table 5-1 Lake Elsinore Complete Bicycle Network

Location	From	To	Existing/ Planned	Mileage
Limited Ave	S Lowell St	S Main St	Planned	0.5
Pottery St	Lewis St	Main St	Planned	0.6
E Flint St	N Main St	Canal	Planned	0.2
Collier / Minthorn St	Central Ave	(end) Main St	Planned	1.3
Summerhill Dr	La Strada (end)	Railroad Canyon Rd	Planned	2.2
Machado St	Joy St	Lakeside HS	Planned	1.1
Lincoln St	Dale Ct	Grand Ave	Planned	0.9
Collier Ave	Central Ave	Riverside Dr	Planned	0.5
Bradley Rd / Haun Rd	Rio Vista Dr	Keller Rd	Planned	5.2
Cetral Ave	Cambren Ave	I-15 SB On-Ramp	Planned	0.4
Riverside Dr	Collier Ave	W Lakeshore Dr	Planned	1.5
Collier Ave	Nichols Rd	Riverside Dr	Planned	1.2
Nichols Rd	Pierce St	City Boundary	Planned	1.2
Grand Ave	Machado St	Riverside Dr	Planned	0.5
Grape St	Malaga Rd	Railroad Canyon Rd	Planned	0.7
Garden	Corydon Rd	Mission Trail	Planned	0.3
Grand Ave	Ontario Way	Scales Way	Planned	0.1
Grand Ave	Russell St	Turner St	Planned	0.0
Grand Ave	Russell St	Ontario Way	Planned	1.2
Short St	Limited Ave	W Lakeshore Dr	Planned	0.2
Central Ave	Collier Ave	I-15 SB On-Ramp	Planned	0.1
Mahado St	Joy St	Lakeshore Dr	Planned	0.4
Keller Rd	Howard Way	Antelope Rd	Planned	0.3



Table 5-1 Lake Elsinore Complete Bicycle Network

Location	From	To	Existing/ Planned	Mileage
Class III Bike Routes				6.5
Lakeshore Dr	S Spring St	S Poe St	Existing	0.1
Main St	Limited Ave	Sulphur St	Existing	0.1
Main St	Sulphur St	Graham Ave	Existing	0.1
Graham Ave	S Main St	Chestnut St	Existing	0.1
Main St	Graham Ave	Sumner Ave	Existing	0.3
Sumner Ave	Riley St	Main St	Existing	0.2
Main St	Sumner Ave	I-15 SB On-Ramp	Existing	0.4
Skylark Dr	City Boundary	Grand Ave	Planned	0.2
Diamond Circle	Levee Segment	E Lakeshore Dr	Planned	0.4
Machado St	Grand Ave	Lakeside HS	Planned	0.2
Mohr St	Pottery St	Graham Ave	Planned	0.4
Main St / Minthorn	I-15 SB On-Ramp	Weber St	Planned	0.8
Lincoln St	Robin Dr	Riverside Dr	Planned	0.1
Lincoln St	Machado St	Robin Dr	Planned	0.4
Gunnerson St	Lakeshore Dr	Riverside Dr	Planned	1.2
Mountain St	Lake St	Rice Canyon	Planned	0.5
Skylark Dr	City Boundary	Palomar St	Planned	0.2
Graham Ave	Lakeshore Dr	Silver St	Planned	0.1
Lewis St	Pottery St	Graham Ave	Planned	0.4
Pottery St	Lewis St	Mohr St	Planned	0.2
W Lakeshore Dr	Silver St	Lewis St	Planned	0.1
Lakeshore Dr	S Spring St	S Poe St	Existing	0.1

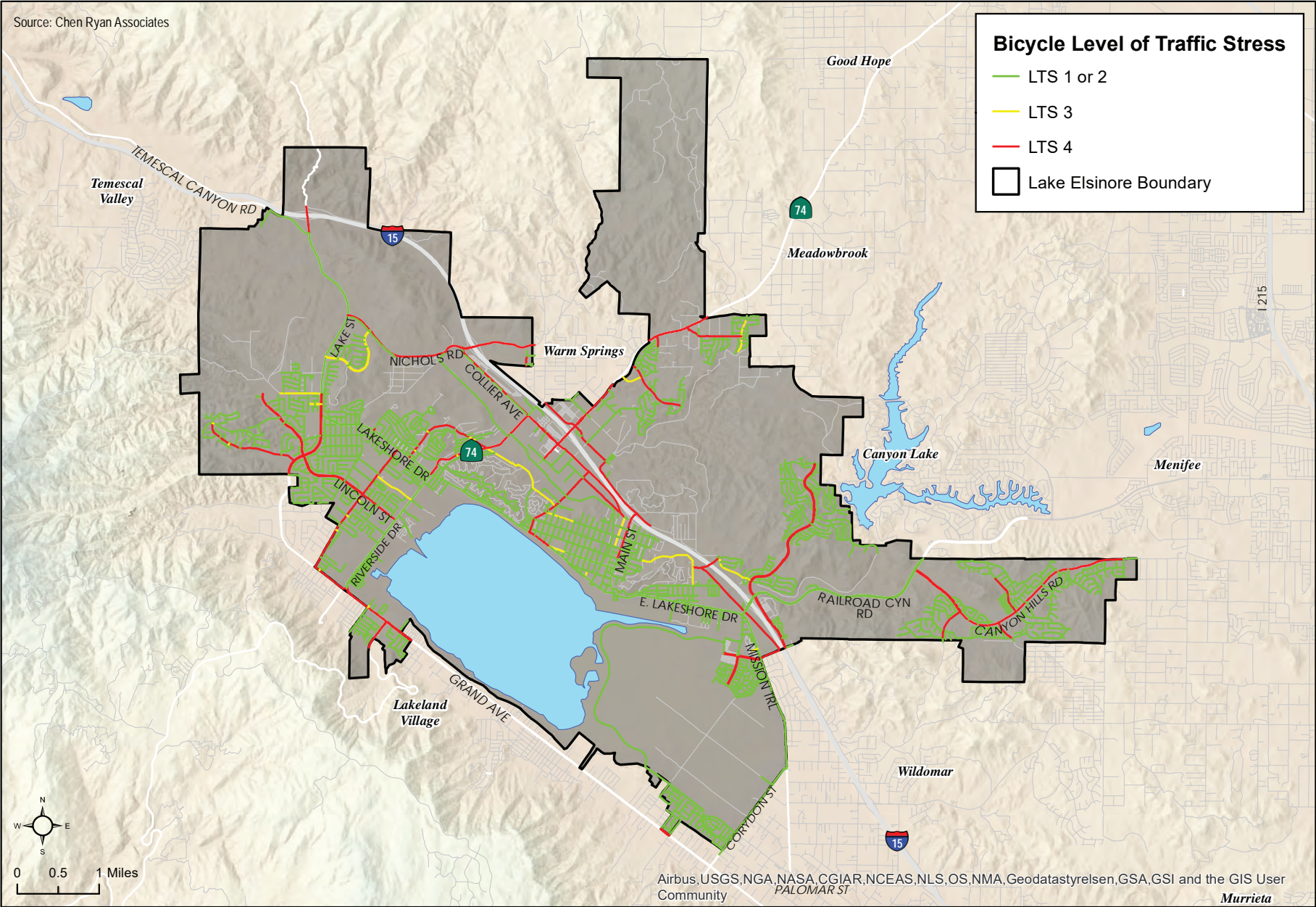
Table 5-1 Lake Elsinore Complete Bicycle Network

Location	From	To	Existing/ Planned	Mileage
Class IV Cycle Tracks				6.1
Diamond Dr	Malaga Rd	Lakeshore Dr	Planned	0.5
Diamond Dr	Grape St	I-15 SB On-Ramp	Planned	0.2
Railroad Canyon Rd	Canyon Hills Rd	Grape St	Planned	2.3
Riverside Dr	Grand Ave	Lakeshore Dr	Planned	1.7
Collier Ave	Nichols Rd	Riverside Dr	Planned	1.2
Railroad Canyon Rd	Canyon Hills Rd	City Boundary	Planned	0.2
Diamond Dr	Lakeshore Dr	I-15 SB On-Ramp	Planned	0.1
				Total: 97.5





Figure 5-2 Bicycle Level of Traffic Stress Results



### 5.2.3 The Planned Pedestrian Network

The pedestrian network was formed to complete the currently discontinuous sidewalk infrastructure found throughout the City, as well as to ensure that crossings are upgraded to safe, comfortable facilities that can serve destinations, transit, or connections to additional pedestrian facilities. Sidewalk infill is proposed where field review revealed missing or discontinuous sidewalk infrastructure within the identified key active transportation network.

Proposed pedestrian recommendations also include the following improvements to midblock locations:

- Seven (7) new protected midblock crossings with bulb-outs serving locations where existing and planned Class I facilities cross surface streets

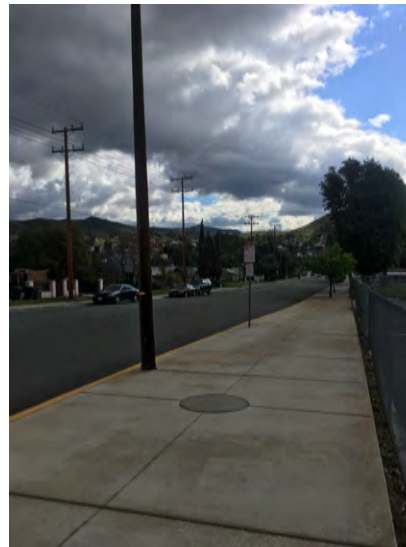
High-quality intersection treatments are also targeted at key signalized intersections serving Class I facilities and key pedestrian links, including:

- Adoption of high-visibility crossings and ADA-compliant curb ramps as the City standard for new or restriped crosswalks, including at intersections where crosswalks do not currently exist.
- Lead pedestrian intervals and/or no-right-on-red prohibitions at high-pedestrian volume locations, with recommendation for implementation when signal timing adjustments occur.

- Pedestrian countdown signals when new signal heads are installed or old heads are replaced.

The proposed pedestrian network is depicted in **Figure 5-3**, while the pedestrian treatments discussed above are presented with greater detail and photographic representation in **Figure 5-4**.

A full list of intersections to receive upgraded treatments is presented in **Table 5-3**, while sidewalk infill locations are presented in **Table 5-4**.





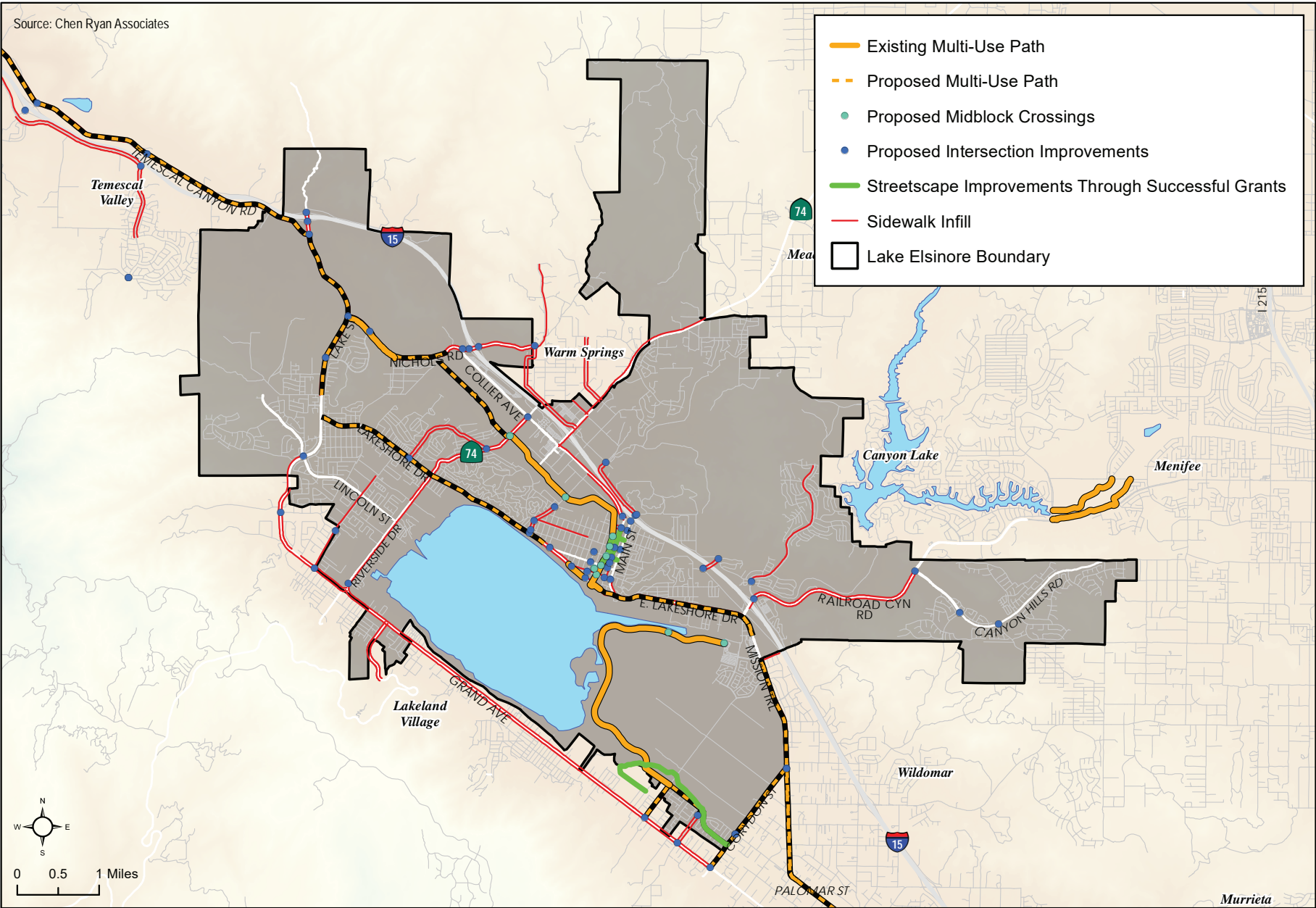


Figure 5-4 Pedestrian Treatment Types



**High-Visibility Crossings** improve crosswalk visibility and reinforce where drivers should stop.



**Lead Pedestrian Intervals (LPI)** give pedestrians a 3 – 7 second head start when entering an intersection, reinforcing their right-of-way and priority turning vehicles.



**Pedestrian Countdown Signals** indicate to pedestrians how many seconds remain in the pedestrian phase, providing the information needed to judge whether or not there is adequate time to cross.



**Curb Bulb-Outs/Extensions** shorten the crossing distance for pedestrians, improve their visibility, and force drivers to make turns at slower speeds.



**No "Right on Red"** prohibitions are useful for intersections in areas with high walking and bicycling levels. Other applications include at signalized intersections where a designated school crosswalk and school crossing guard are present, or locations with unusual pedestrian movements or geometries.



**A HAWK beacon (High-intensity Activated crossWalk beacon)** is a traffic control device used to stop road traffic and allow pedestrians to cross safely. The purpose of a HAWK beacon is to allow protected pedestrian crossings, stopping road traffic only as needed.



**ADA-Compliant Curb Ramps** provide visual and tactile feedback for people with visual impairments.



**Sidewalk Infill** increases pedestrian safety, walkability, and accessibility for all users, particularly



*Table 5-3 Lake Elsinore Proposed Pedestrian Improvements – Intersections*

Intersection	Improvement Type(s)
Summerhill Drive/Grape Street and Railroad Canyon Road	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Main Street and Flint Street	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Spring Street and Flint Street	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Main Street and Limited Avenue	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Chaney Street and Strickland Avenue	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Riverside Drive and Collier Avenue	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Spring Street and Minthorn Street/Collier Avenue	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Chaney Street and Lakeshore Drive	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Poe Street and Lakeshore Drive	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Grand Avenue and Riverside Drive	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Poe Street and Graham Avenue	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Poe Street and Heald Avenue	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Main Street and I-15 SB Ramps	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Summerhill Drive and Canyon Estates Drive	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Chaney Street and Sumner Street	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Poe Street and Limited Street	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Spring Street and Limited Street	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Chaney Street and Heald Avenue	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Grand Avenue and Alverado Street	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Mohr Street and Lakeshore Drive/Graham Avenue	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Limited Street and Lakeshore Drive	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Franklin Street/Grunder Drive and Canyon Estates Drive	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Corydon Road and Grand Avenue	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Temescal Canyon Road and Lake Street	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Main Street and I-15 NB Ramps	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Machado Street and Alverado Street	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns

**Table 5-3** *Lake Elsinore Proposed Pedestrian Improvements – Intersections*

Intersection	Improvement Type(s)
Mission Trail and Corydon Road	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Riverside Drive and Gunnerson Street	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Machado Street and Grand Avenue	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Gunnerson Street and Lakeshore Drive	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
2nd Street/Camino Del Norte and Dexter Avenue	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Lincoln Street and Grand Avenue	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Main Street and Minthorn Street/Camino Del Norte	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Railroad Canyon Drive and Canyon Hills Road	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Grand Avenue and Skylark Drive	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Horsethief Road and Temescal Canyon Road	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
I-15 NB Ramps and Indian Truck Trail	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Grand Avenue and Stoneman Street	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Lost Road and Canyon Hills Road	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
I-15 SB Ramps and Indian Truck Trail	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Corydon Road and Palomar Street	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Palomar Street and Skylark Drive	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Lake Street and I-15 SB Ramps	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Horsethief Canyon Road and DePalma Road	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Cottonwood Canyon Road and Canyon Hills Road	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Spring Street and Sumner Avenue	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Spring Street and Heald Avenue	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Spring Street and Peck Street	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Main Street and Sumner Avenue	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Spring Street and Graham Avenue	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Auto Center Drive and Franklin Street/Grunder Drive	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
I-15 NB Ramps and Nichols Road	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns



*Table 5-3 Lake Elsinore Proposed Pedestrian Improvements – Intersections*

Intersection	Improvement Type(s)
I-15 SB Ramps and Nichols Road	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
El Toro Road and Nichols Road	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Collier Avenue and Nichols Road	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Alberhill Ranch Road and Nichols Road	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Lake Street and Alberhill Ranch Road	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Lake Street and Aberhill Ranch Road	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Lake Street and Nichols Road	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Lake Street and I-15 NB Ramps	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Horsethief Canyon Road and Mountain Road (N)	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns
Horsethief Canyon Road and Mountain Road (S)	High-Visibility Crossings, ADA Compliance, Pedestrian Countdowns

Table 5-4 Lake Elsinore Proposed Pedestrian Improvements – Sidewalk Infill

Location	From	To	Length (mi)
Lakeshore Drive	Chaney Street	Diamond Drive	3.37
Riverside Drive	Grand Avenue	Collier Avenue	3.21
Railroad Canyon Road	Canyon Hills Road	I-15 SB Ramps	2.52
Minthorn Street/Collier Avenue	Central Avenue	Spring Street	1.70
Main Street/Short Street	Limited Street	Lakeshore Drive	0.09
Machado Street	Grand Avenue	Joy Street	1.35
Limited Street	Lakeshore Drive	Main Street	0.50
Chaney Street	Lakeshore Drive	Strickland Avenue	0.47
SR-74/Central Avenue	Collier Road	City Limits	1.23
Strickland Avenue	Riverside Drive	Chaney Street	1.16
Main Street	Camino Del Norte	I-15 NB Ramps	0.06
Grand Avenue	Corydon Street	Machado Street	5.60
Mission Trail	Malaga Road	Corydon Street	1.40
Lakeshore Drive	Machado Street	Gunnerson Street	0.33
Dexter Avenue	SR-74/Central Avenue	El Toro Road	0.80
Nichols Road	El Toro Road	Lake Street	2.55
Malaga Road	Casino Drive	Mission Trail	0.25
Camino Del Norte	Main Street	2nd Street/Dexter Avenue	0.72
Langstaff Street	Graham Street	Limited Avenue	0.13
SR-74/Ortega Hwy	Grand Avenue	City Limits	0.26
Gunnerson Street	Lakeshore Drive	Riverside Drive	1.20



Table 5-4 Lake Elsinore Proposed Pedestrian Improvements – Sidewalk Infill

Location	From	To	Length (mi)
Summerhill Drive	End	Canyon Estates Drive	1.91
Corydon Street	Mission Trail	Grand Avenue	1.48
Cambern Avneue	10th Street	Central Avenue	0.26
Rostrata Street/Conrad Avenue	SR-74/Central Avenue	Mermack Avenue	0.84
Temescal Canyon Road	Lake Street	E Hermano Road	4.62
De Palma Road	Horsethief Canyon Road	Indian Truck Trail	1.86
Horsethief Canyon Road	Mountain Road	De Palma Road	2.34
Skylark Drive	Palomar Street	Grand Avenue	0.50
Stoneman Street	End	Grand Avenue	0.50
Campbell Ranch Road	Indian Truck Trail	Mayhew Canyon Road	0.33
Spring Street	Heald Avenue	Sumner Avenue	0.13
Franklin Street	Canyon Estates Drive	Auto Center Drive	0.26
Lake Street	Alberhill Ranch Road	I-15 NB Ramps	2.00
El Toro Road/Lindell Road	North	Dexter Avenue	3.47
Flint Street	Canal (end)	Spring Street	0.08

### 5.2.4 Pedestrian Environment Quality Evaluation (PEQE)

All Circulation Element roadways in Lake Elsinore were evaluated under Proposed Network conditions using the Pedestrian Environment Quality Evaluation (PEQE), developed by Chen Ryan Associates based upon an adaptation of the San Francisco Department of Public Health's Pedestrian Environmental Quality Index (PEQI). PEQE assigns a score to each side of a roadway segment based on four measures: horizontal buffer, lighting, clear pedestrian zone, and posted speed limit. Intersections are also scored based upon the presence of four features: physical features, operational features, ADA curb ramps, and type of traffic control. Additionally, mid-block crossings are scored based upon visibility, crossing distance, ADA features, and type of traffic control. These scores are used to assign facility ratings of high, medium, or low, indicating the relative pedestrian comfort associated with a particular intersection, segment, or midblock crossing. Table 5-5 displays the attributes influencing the segment scores and, scoring evaluation.

**Table 5-6** displays the three possible ranks and a description of the environmental characteristics pertaining to each, while

**Figure 5-5** displays the results of the PEQE roadway and intersection analyses along Circulation Element roadways under future buildout of the proposed pedestrian network.

Relative to existing conditions, whereby the majority of the City exhibited “low” pedestrian segment quality, the sidewalk infill proposed through this Plan improves the Citywide pedestrian environment quality to “medium” under future conditions. Note that sidewalk infill projects, as a conservative estimate, do not assume large-scale right-of-way acquisition for landscaped buffers. To the extent that this is possible, the pedestrian environment will improve in those locations, likely to a “high” quality pedestrian environment. Increasing landscaped buffers between the walkway and travel or parking lanes has a strong, positive effect on the pedestrian environment.

Intersections, which previously had “low” quality pedestrian environments due to few locations with high-visibility striping or other safety-enhancing pedestrian accommodations, likewise improve to “medium” quality under Plan conditions due to the treatment enhancements discussed in Chapter 5.2.3.

Under buildout of the Plan conditions, seven new midblock crossings are proposed to serve the Lake Elsinore Canal multi-use path at locations intersecting with roadways, for a total of eight midblock crossings citywide, when added to the existing mid-block crossing along Main Street in Downtown. These crossings will exhibit “high” quality characteristics.

As with the bicycle LTS analysis presented in Chapter 5.2.1, PEQE performed under existing conditions is presented in the Existing Conditions Report as Appendix C.





Table 5-5 Pedestrian Environment Quality Ranking System

Facility Type	Measure	Description/Feature	Scoring
Segment between two intersections	1. Horizontal Buffer	Between the edge of auto travel way and the edge of clear pedestrian zone	0 point: < 6 feet 1 point: 6 - 14 feet 2 points: > 14 feet or vertical buffer
	2. Lighting		0 point: below standard/requirement 1 point: meet standard/requirement 2 points: exceed standard/requirement
	3. Clear Pedestrian Zone	5' minimum	0 point: has obstructions 2 points: no obstruction
	4. Posted Speed Limit		0 point: > 40 mph 1 point: 30 - 40 mph 2 points: < 30 mph
Maximum			8 points

Table 5-5 Pedestrian Environment Quality Ranking System

Facility Type	Measure	Description/Feature	Scoring
Intersection by Leg	1. Physical Feature	<ul style="list-style-type: none"> <li>Enhanced/High Visibility Crosswalk</li> <li>Raised Crosswalk/Speed Table</li> <li>Advanced Stop Bar</li> <li>Bulb out/Curb Extension</li> </ul>	0 point: < 1 feature per ped crossing 1 point: 1 – 2 features per ped crossing 2 points: > 2 features per ped crossing
	2. Operational Feature	<ul style="list-style-type: none"> <li>Pedestrian Countdown Signal</li> <li>Pedestrian Lead Interval</li> <li>No-Turn On Red Sign/Signal</li> <li>Additional Pedestrian Signage</li> </ul>	0 point: < 1 feature per ped crossing 1 point: 1 – 2 features per ped crossing 2 points: > 2 features per ped crossing
	3. ADA Curb Ramp		0 point: no ramps and no truncated domes 1 point: ramps only, no truncated domes 2 points: meet standard/requirement
	4. Traffic Control		0 point: no control 1 point: stop sign controlled 2 points: signal/roundabout/traffic circle
Maximum			8 points



Table 5-5 Pedestrian Environment Quality Ranking System

Facility Type	Measure	Description/Feature	Scoring
Mid-block Crossing	1. Visibility		0 point: w/o high visibility crosswalk 2 points: with high visibility crosswalk
	2. Crossing Distance		0 point: no treatment 2 points: with bulb out or median pedestrian refuge
	3. ADA		0 point: no ramps and no truncated domes 1 point: ramps only, no truncated domes 2 points: meet standard/requirement
	4. Traffic Control		0 point: no control 1 point: flashing beacon (In-pavement, RRFB, etc.) 2 points: signal/pedestrian hybrid beacon (HAWK)
Maximum 8 points			



Table 5-6 PEQE Classifications and Descriptions

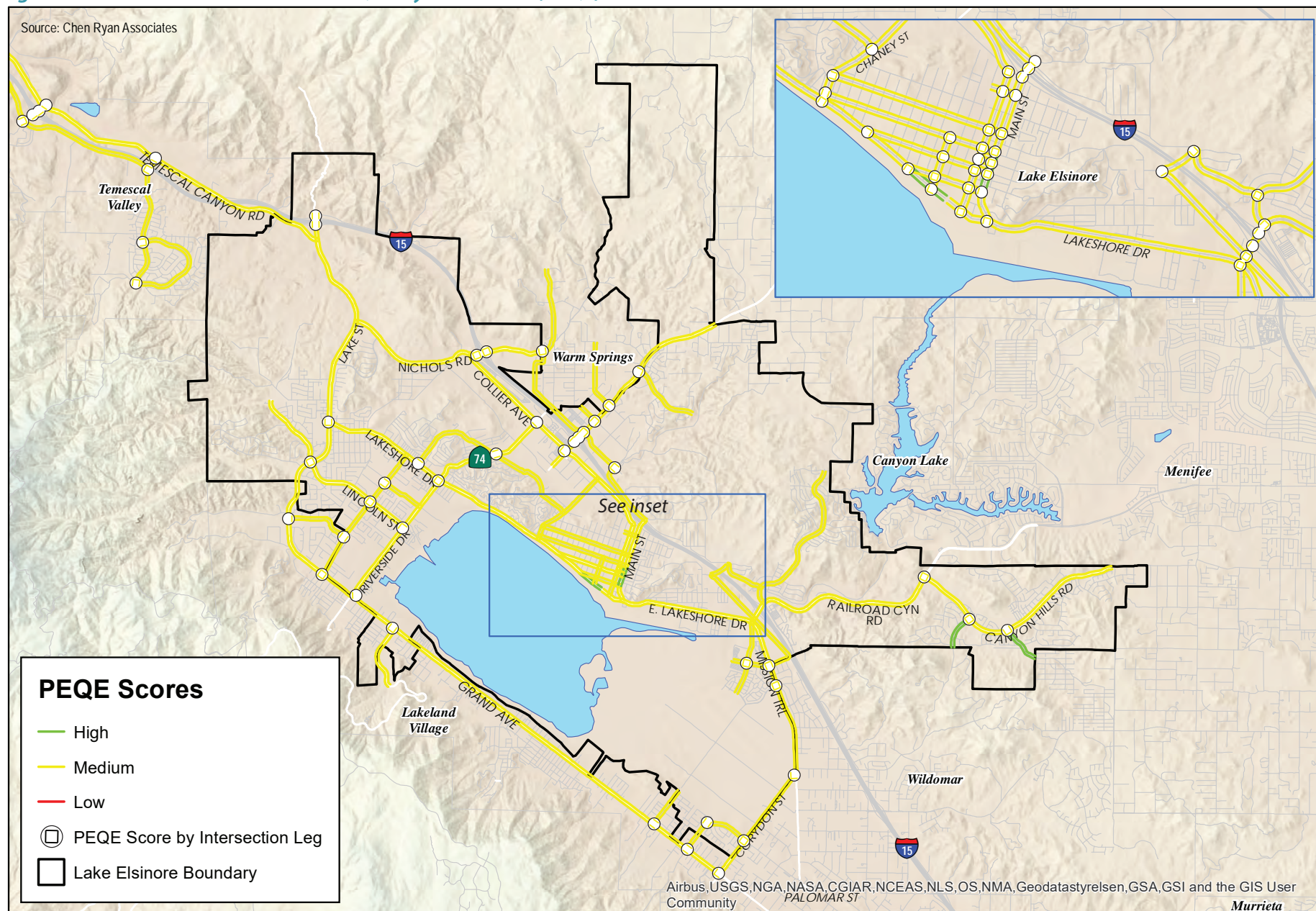
PEQE Rank	Point Ranking	Characteristics
Low	< 4 points	<ul style="list-style-type: none"> <li>Facility has fewer than one example of each feature type on average, or is generally below standard.</li> <li>Segments may lack a horizontal buffer, lighting may be below standard, sidewalks may be obstructed, and posted speed limits are generally high.</li> <li>Intersections generally lack physical or operational features to enhance pedestrian crossing safety, may lack curb ramps and/or traffic controls, such as free vehicular movement near freeway ramps.</li> <li>Mid-block crossings generally lack high visibility treatments, crossing distances are long, curb ramps may not be present, and there is generally no traffic control.</li> </ul>
Medium	4 – 6 points	<ul style="list-style-type: none"> <li>Facility is generally adequate and most features are to standard.</li> <li>Segments generally have some horizontal buffer, lighting is usually to standard, sidewalks are not obstructed, and posted speed limits are reasonable, but may be high.</li> <li>Intersections generally possess a few operational or physical features to enhance pedestrian crossing safety such as pedestrian countdowns, or high visibility crosswalks. Curb ramps are generally present but may lack ADA-compliant truncated domes. Traffic controls are present.</li> <li>Mid-block crossings generally have some pedestrian-friendly features, such as a high visibility crosswalk or flashing beacon, but often do not have full ADA compliance and/or traffic control features.</li> </ul>

High	> 6 points	<ul style="list-style-type: none"><li>▪ Facility generally exceeds standards and is fully ADA compliant</li><li>▪ Segments generally have ample horizontal buffer, pedestrian-scale lighting exceeds standards, sidewalks are not obstructed, and posted speed limits are low.</li><li>▪ Intersections possess several operational or physical features to enhance pedestrian crossing including bulb-outs, leading pedestrian intervals, or high visibility crosswalks. Curb ramps are ADA-compliant. Traffic controls are present.</li><li>▪ Mid-block crossings have several pedestrian-friendly features. Pedestrian refuges, bulb-outs, or other distance-shortening features are present. Curb ramps have full ADA compliance, and traffic control features are present to enhance pedestrian crossing safety.</li></ul>
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**Figure 5-5 Pedestrian Environmental Quality Evaluation (PEQE)**



### 5.3 PROJECT PRIORITIZATION PROCESS

The proposed projects as presented in the preceding section comprise a total of 98 pedestrian projects, 38 bicycle projects, and 19 shared bicycle/pedestrian projects (including the proposed Class I facilities and related midblock crossings). To determine project priority, each project was ranked against a set of criteria, which included such factors as land use considerations, grant competitiveness to aide funding pursuit, safety, demographics, input from community members, as gathered during the public outreach portion of the project, and City staff input.

**Table 5-7** displays the criteria used to assign prioritization scores to each of the projects.

**Table 5-7 Project Prioritization Criteria**

Type	Criteria
Land Use Criteria	Parks Density Score: Identifying the number of parks located within $\frac{3}{4}$ mile of the project, as well as per mile (along corridor projects), is useful in weighing a project's ability to deliver connectivity to recreational facilities. Source: Chen Ryan Associates
	School Density Score: Identifying the number of schools located within $\frac{3}{4}$ mile of the project, as well as per mile (along corridor projects), is useful in weighing a project's ability to deliver connectivity to City schools. Source: Chen Ryan Associates
	Transit Stop Density Score: Identifying the number of transit stops located within $\frac{3}{4}$ mile of the project/corridor is useful in weighing a project's ability to deliver first/last mile connectivity to transit. Source: Riverside Transit Authority
Grant Competitiveness Criteria	CalEnviroScreen (CES) Percentile of Improvement Area: CalEnviroScreen (CES) is a measure of environmental, health, and socioeconomic factors, and can be helpful in gauging grant competitiveness. A percentile score is presented. Source: CalEnviroScreen 3.0
Safety Criteria	Active Transportation Collisions Density Score: The number of collisions of each type, including on a total and per-mile basis, that occurred within $\frac{3}{4}$ mile of a proposed project was noted. Source: SWITRS
	Active Transportation Collisions Fatality Score: The number of fatal bicycle or pedestrian collisions that occurred within $\frac{3}{4}$ mile of a proposed project was noted. Source: SWITRS
Additional Criteria	Population Density Score: The number of people that live within a half-mile of the proposed project. Source: 2017 American Community Survey
	Employment Density Score: The number of people that live within a half-mile of the proposed project. Source: 2017 American Community Survey



Table 5-7 Project Prioritization Criteria

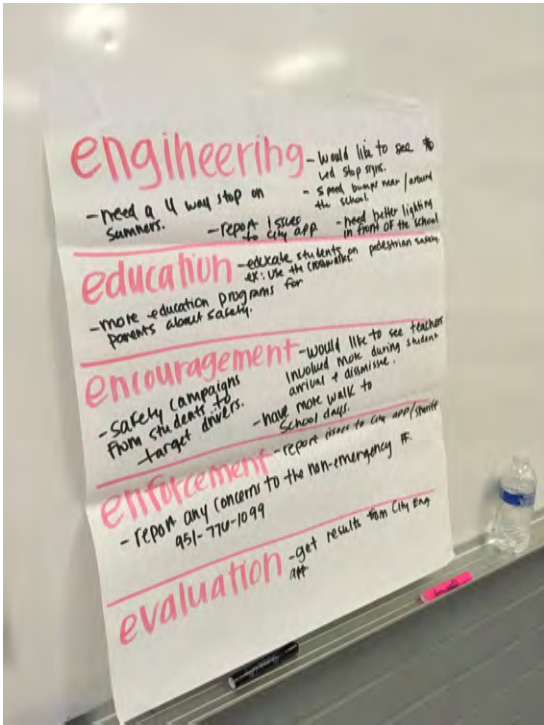
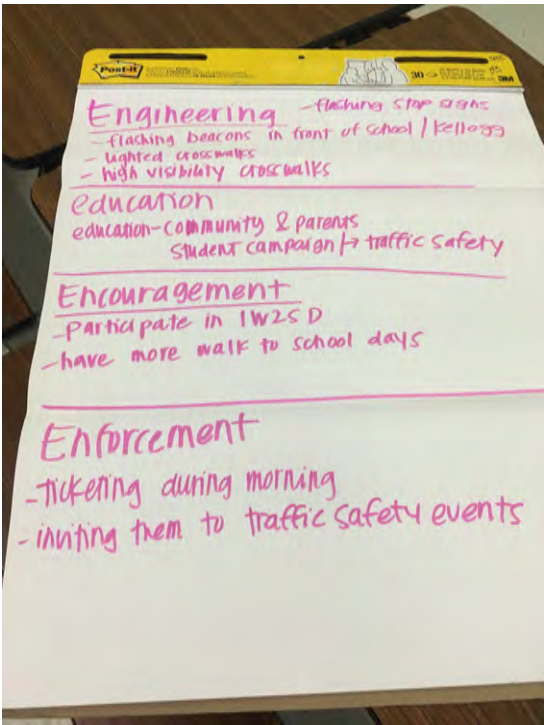
Type	Criteria
Additional Criteria	Relevant Public Comments Score: The number of public comments (within a ¾ mile distance from the improvement area) was noted, which can be used for providing additional weight to a project that received a large degree of community-held interest or priority.
	Source: Chen Ryan Associates
	Staff Input Score: Lake Elsinore City Staff have unique knowledge of the project area. It is recommended that City staff review the proposed projects and provide insight as to whether or not each project should receive additional points based upon City goals and objectives.
	Source: City Staff

5.4 PRIORITY PROJECTS

Table 5-8 displays a comprehensive prioritization scoring and phasing for each of the projects displayed in Tables 5-1 and 5-2. Pedestrian and bicycle projects were prioritized together using the same criteria, so that the highest-ranking projects would emerge unaffected by project type, and equal consideration could be placed upon bicycle and pedestrian priority.

Projects were grouped into three phases or tiers based on their prioritization scores, to assist the City in determining an appropriate implementation schedule. Tier 1 consists of the top ten priority projects. Tier 2 consists of all projects with a total score of 10 or above, totalling 28 projects between Tier 1 and Tier 2. Tier 3 consists of the remaining unbuilt and unfunded projects.

Note that Table 5-8 also highlights 32 projects have received funding and are scheduled for implementation in the near future.





Together, the Tier 1 projects include the following ten bicycle and pedestrian projects:

- 1: Lakeshore Drive Sidewalk and Class I multi-use path
- 2: Mission Trail Class I multi-use path
- 3: Collier Avenue/Minthorn Street Class II bike lanes/Class IV cycle track
- 4: Riverside Drive Sidewalk, Class II bike lanes/Class IV cycle track
- 5: Diamond Drive/Railroad Canyon Road Class IV cycle track
- 6: Minthorn Street/Collier Avenue sidewalk completion
- 7: Main Street/Short Street Class II bike lanes
- 8: Limited Street sidewalk completion
- 9: Railroad Canyon Road sidewalk completion
- 10: Chaney Street sidewalk completion

Prioritization of projects by tier are presented in **Figure 5-6**.

The reminder of this Chapter is intended to guide the implementation of the proposed bicycle and pedestrian networks and supporting features. Figure 5-7 through Figure 5-16 present individual project sheets pertaining to the aforementioned

project prioritization and cost estimation, focusing on the Tier 1 bicycle and pedestrian projects.



Table 5-8 Project Prioritization

Location	From	To	Improvement Type	Population Density Percentile	Employment Density Percentile	Parks Density Percentile	School Density Percentile	Cal Enviro- Screen Percentile	Active Transportation Collision Density Percentile	Active Transportation Fatality Percentile	Transit Stop Density Percentile	Public Comment Percentile	Staff Input Score	TOTAL SCORE
Tier 1														
Lakeshore Drive	Riverside Drive	Mission Trail	Class I, Sidewalk	46%	61%	5%	4%	90%	6%	67%	59%	87%	4	14.13
Mission Trail/ Palomar Street	W Lakeshore Dr	City of Wildomar	Class I	22%	23%	10%	9%	93%	12%	67%	47%	92%	4	13.20
Collier Avenue/ Minthorn Street	Nichols Rd	Main St	Class II	36%	83%	2%	3%	97%	4%	67%	71%	69%	3	13.20
Riverside Drive	Grand Avenue	Collier Avenue	Sidewalk, Class II, Class IV	87%	87%	0%	2%	87%	5%	0%	69%	100%	4	12.96
Diamond Drive/ Railroad Canyon Road	Malaga Rd	City Limits	Sidewalk, Class IV	48%	30%	1%	1%	68%	2%	67%	51%	92%	4	12.69
Minthorn Street/ Collier Avenue	Central Avenue	Spring Street	Sidewalk, Class II	29%	75%	3%	6%	99%	6%	67%	65%	38%	3	12.39
Main Street/ Short Street	Limited Ave	W Lakeshore Dr	Sidewalk, Class II	22%	22%	52%	14%	97%	38%	33%	24%	31%	4	11.78
Machado Street	Grand Avenue	Joy Street	Sidewalk	97%	19%	4%	16%	88%	18%	12%	37%	46%	4	11.45

Table 5-8 Project Prioritization

Location	From	To	Improvement Type	Population Density Percentile	Employment Density Percentile	Parks Density Percentile	School Density Percentile	Cal Enviro- Screen Percentile	Active Transportation Collision Density Percentile	Active Transportation Fatality Percentile	Transit Stop Density Percentile	Public Comment Percentile	Staff Input Score	TOTAL SCORE
Limited Street	Lakeshore Drive	Main Street	Sidewalk	31%	36%	19%	10%	99%	14%	33%	33%	38%	4	11.45
Chaney Street	Lakeshore Drive	Strickland Avenue	Sidewalk	16%	51%	2%	21%	98%	6%	67%	37%	31%	3	11.36
Tier 2														
Pottery St	Lewis St	Main St	Class II	41%	61%	13%	15%	99%	11%	67%	41%	31%	2	11.31
Limited Ave	Lowell St	Main St	Class II	31%	36%	19%	10%	99%	14%	33%	33%	31%	4	11.31
SR-74/Central Avenue	Collier Road	City Limits	Sidewalk	18%	59%	1%	4%	100%	4%	33%	45%	31%	4	11.10
Central Ave	I-15 SB Ramps	Collier Ave	Class II	8%	33%	0%	36%	99%	29%	33%	35%	15%	4	11.03
Riverside Dr	Lakeshore Dr	Collier Ave	Class II	29%	77%	1%	3%	99%	8%	0%	39%	62%	4	11.00
Strickland Avenue	Riverside Drive	Chaney Street	Sidewalk	22%	97%	1%	9%	99%	6%	67%	53%	54%	1	10.91
Main Street	Camino Del Norte	I-15 NB Ramps	Sidewalk	16%	17%	78%	45%	65%	82%	33%	22%	0%	3	10.87
Pottery St	Mohr St	Lewis St	Class III	21%	54%	32%	49%	99%	35%	67%	43%	23%	1	10.86
Lakeshore Dr	Riverside Dr	Mohr St	Class I	40%	82%	4%	4%	70%	8%	33%	49%	54%	3	10.77
Lewis St	Graham Ave	Pottery St	Class III	25%	53%	20%	26%	99%	20%	67%	39%	8%	2	10.77
Lakeshore Dr	Grand Ave	Riverside Dr	Class I	72%	41%	3%	3%	81%	8%	0%	33%	69%	4	10.71



Table 5-8 Project Prioritization

Location	From	To	Improvement Type	Population Density Percentile	Employment Density Percentile	Parks Density Percentile	School Density Percentile	Cal Enviro- Screen Percentile	Active Transportation Collision Density Percentile	Active Transportation Fatality Percentile	Transit Stop Density Percentile	Public Comment Percentile	Staff Input Score	TOTAL SCORE
Flint St	Canal	Main St	Class II	25%	30%	48%	48%	99%	48%	67%	35%	8%	1	10.64
Graham Ave	Mohr St	Lewis St	Class III	22%	37%	37%	24%	91%	32%	33%	31%	23%	3	10.60
Machado St	Lakeshore Dr	Lakeside HS Stadium Wy	Class II	100%	26%	1%	3%	76%	10%	0%	37%	54%	4	10.59
Central Ave	Cambren Ave	Dexter Ave	Class II	9%	21%	5%	25%	91%	20%	33%	35%	23%	4	10.38
La Strada/ Summerhill Dr	End	Railroad Canyon Rd	Class II	37%	16%	2%	3%	65%	2%	33%	27%	69%	4	10.11
Tier 3														
Riverside Dr	Grand Ave	Lakeshore Dr	Class IV	76%	36%	1%	1%	64%	8%	0%	49%	54%	4	9.98
Grand Avenue	Corydon Street	Machado Street	Sidewalk	67%	12%	0%	1%	66%	1%	0%	100%	69%	4	9.98
Mission Trail	Malaga Road	Corydon Street	Sidewalk	34%	29%	1%	2%	57%	3%	33%	57%	46%	4	9.92
Lakeshore Drive	Machado Street	Gunnerson Street	Sidewalk	30%	33%	3%	8%	94%	30%	0%	29%	23%	4	9.83
Grape St	Railroad Canyon Rd	Lemon St	Class II	52%	37%	1%	4%	70%	3%	67%	51%	77%	1	9.75
Grand Ave	Lime St	City of Wildomar	Class II	60%	11%	0%	1%	61%	1%	0%	98%	69%	4	9.65

Table 5-8 Project Prioritization

Location	From	To	Improvement Type	Population Density Percentile	Employment Density Percentile	Parks Density Percentile	School Density Percentile	Cal Enviro- Screen Percentile	Active Transportation Collision Density Percentile	Active Transportation Fatality Percentile	Transit Stop Density Percentile	Public Comment Percentile	Staff Input Score	TOTAL SCORE
Dexter Avenue	SR-74/ Central Avenue	El Toro Road	Sidewalk	12%	32%	0%	9%	94%	6%	33%	41%	46%	3	9.64
Mohr St	Lakeshore Dr	Pottery St	Class III	19%	48%	14%	26%	98%	12%	67%	39%	23%	1	9.57
Summerhill Drive/Grape Street and Railroad Canyon Road	-	-	Intersection	11%	7%	0%	0%	70%	0%	33%	27%	62%	4	9.30
Pottery Bridge	-	-	Class I	25%	32%	0%	0%	99%	0%	67%	24%	8%	2	9.18
Main Street and Flint Street	-	-	Intersection	21%	22%	0%	0%	99%	0%	67%	24%	8%	2	8.90
Nichols Road	El Toro Road	Lake Street	Sidewalk	22%	17%	1%	1%	88%	0%	0%	6%	69%	4	8.88
Spring Street and Flint Street	-	-	Intersection	20%	26%	0%	0%	99%	0%	67%	24%	0%	2	8.80
Main Street and Limited Avenue	-	-	Intersection	21%	21%	0%	0%	93%	0%	33%	20%	23%	3	8.62
Chaney Street and Strickland Avenue	-	-	Intersection	13%	43%	0%	0%	99%	0%	67%	37%	23%	1	8.58

Table 5-8 Project Prioritization

Location	From	To	Improvement Type	Population Density Percentile	Employment Density Percentile	Parks Density Percentile	School Density Percentile	Cal Enviro- Screen Percentile	Active Transportation Collision Density Percentile	Active Transportation Fatality Percentile	Transit Stop Density Percentile	Public Comment Percentile	Staff Input Score	TOTAL SCORE
Riverside Drive and Collier Avenue	-	-	Intersection	6%	22%	0%	0%	99%	0%	0%	18%	38%	4	8.48
Malaga Road	Casino Drive	Mission Trail	Sidewalk	17%	17%	9%	0%	71%	20%	67%	33%	46%	1	8.43
Collier Ave	Nichols Rd	Riverside Dr	Class IV	10%	30%	0%	2%	94%	3%	0%	24%	69%	3	8.35
Grand Ave	Patrick Ct	Riverside Dr	Regional Facility	37%	6%	2%	1%	79%	3%	0%	20%	38%	4	8.33
Nichols Rd/El Toro Rd	City Limit	Hwy 74	Regional Facility	14%	21%	1%	2%	98%	0%	0%	12%	69%	3	8.18
Machado St	Lakeside HS Stadium Wy	Grand Ave	Class III	21%	1%	0%	0%	80%	17%	0%	12%	31%	4	8.09
Riverwalk & Chaney St	-	-	Midblock Crossing	23%	26%	0%	0%	99%	0%	33%	29%	23%	2	8.02
Levee Trail & Diamond Circle	-	-	Midblock Crossing	2%	5%	0%	0%	93%	0%	0%	14%	46%	4	7.99
Nichols Rd	Terra Cotta Rd	Baker St	Class I	9%	5%	3%	0%	94%	0%	0%	4%	38%	4	7.95
Spring Street and Minthorn Street/Collier Avenue	-	-	Intersection	14%	23%	0%	0%	99%	0%	67%	33%	0%	1	7.70



Table 5-8 Project Prioritization

Location	From	To	Improvement Type	Population Density Percentile	Employment Density Percentile	Parks Density Percentile	School Density Percentile	Cal Enviro- Screen Percentile	Active Transportation Collision Density Percentile	Active Transportation Fatality Percentile	Transit Stop Density Percentile	Public Comment Percentile	Staff Input Score	TOTAL SCORE
Chaney Street and Lakeshore Drive	-	-	Intersection	11%	26%	0%	0%	93%	0%	33%	18%	31%	2	7.64
Poe Street and Lakeshore Drive	-	-	Intersection	21%	25%	0%	0%	93%	0%	33%	29%	15%	2	7.62
Lincoln St	Machado St	Riverside Dr	Class III	69%	13%	4%	5%	78%	22%	0%	33%	23%	2	7.53
Camino Del Norte	Main Street	2nd Street/ Dexter Avenue	Sidewalk	21%	35%	5%	10%	65%	9%	33%	37%	15%	2	7.51
Grand Avenue and Riverside Drive	-	-	Intersection	14%	2%	0%	0%	78%	0%	0%	20%	31%	4	7.47
Railroad Canyon Rd	City Limits	Uninc. Riverside County	Regional Facility	69%	26%	0%	0%	27%	0%	0%	35%	15%	4	7.36
Corydon St	Grand Ave	Palomar St	Class I	28%	11%	1%	3%	43%	1%	0%	45%	31%	4	7.22
Langstaff Street	Graham	Limited Ave	Sidewalk	24%	29%	0%	0%	99%	0%	33%	29%	23%	1	7.12
Diamond Dr/ Railroad Canyon Rd	Stoneman St	Cereal St	Class II	3%	6%	8%	0%	93%	19%	33%	16%	0%	2	7.11
Poe Street and Graham Avenue	-	-	Intersection	25%	33%	0%	0%	99%	0%	33%	33%	15%	1	7.11

Table 5-8 Project Prioritization

Location	From	To	Improvement Type	Population Density Percentile	Employment Density Percentile	Parks Density Percentile	School Density Percentile	Cal Enviro- Screen Percentile	Active Transportation Collision Density Percentile	Active Transportation Fatality Percentile	Transit Stop Density Percentile	Public Comment Percentile	Staff Input Score	TOTAL SCORE
Poe Street and Heald Avenue	-	-	Intersection	27%	38%	0%	0%	99%	0%	33%	35%	8%	1	7.10
Minthorn St	Main St	End	Class III	27%	23%	6%	6%	67%	8%	33%	24%	8%	2	7.10
Cereal St	Lakeshore Drive	Mission Trail	Class II	12%	21%	1%	2%	93%	0%	0%	37%	62%	2	7.09
Main Street and I-15 SB Ramps	-	-	Intersection	17%	19%	0%	0%	93%	0%	33%	24%	0%	2	7.07
SR-74/Ortega Hwy	Grand Avenue	City Limits	Sidewalk	4%	2%	0%	10%	64%	8%	0%	22%	23%	4	7.07
Summerhill Drive and Canyon Estates Drive	-	-	Intersection	10%	5%	0%	0%	65%	0%	33%	22%	62%	2	7.05
Gunnerson Street	Lakeshore Drive	Riverside Drive	Sidewalk	34%	61%	1%	2%	98%	8%	0%	33%	31%	1	7.04
Gunnerson St	Riverside Dr	Lakeshore Dr	Class III	31%	60%	1%	2%	100%	8%	0%	33%	31%	1	7.04
Chaney Street and Sumner Street	-	-	Intersection	11%	33%	0%	0%	99%	0%	33%	22%	31%	1	7.03
Lincoln St	End	Grand Ave	Class II	89%	14%	6%	5%	56%	12%	0%	20%	31%	2	7.02

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Location	From	To	Improvement Type	Population Density Percentile	Employment Density Percentile	Parks Density Percentile	School Density Percentile	Cal Enviro- Screen Percentile	Active Transportation Collision Percentile	Active Transportation Fatality Percentile	Transit Stop Density Percentile	Public Comment Percentile	Staff Input Score	TOTAL SCORE
Summerhill Drive	End	Canyon Estates Drive	Sidewalk	34%	13%	2%	4%	65%	2%	33%	22%	69%	1	6.97
Poe Street and Limited Street	-	-	Intersection	23%	28%	0%	0%	99%	0%	33%	29%	15%	1	6.91
Spring Street and Limited Street	-	-	Intersection	22%	23%	0%	0%	99%	0%	33%	24%	23%	1	6.91
Chaney Street and Heald Avenue	-	-	Intersection	11%	28%	0%	0%	99%	0%	33%	18%	31%	1	6.87
Olive St	Mission Trail	Grape St	Class II	17%	17%	0%	5%	70%	3%	33%	24%	15%	2	6.82
Grand Avenue and Alverado Street	-	-	Intersection	9%	2%	0%	0%	80%	0%	0%	0%	8%	4	6.79
Mohr Street and Lakeshore Drive/Graham Avenue	-	-	Intersection	16%	28%	0%	0%	93%	0%	33%	29%	23%	1	6.74
Limited Street and Lakeshore Drive	-	-	Intersection	22%	29%	0%	0%	93%	0%	33%	31%	15%	1	6.74



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Franklin Street/ Grunder Drive and Canyon Estates Drive	-	-	Intersection	9%	4%	0%	0%	65%	0%	0%	16%	62%	3	6.62
Corydon Road and Grand Avenue	-	-	Intersection	8%	2%	0%	0%	64%	0%	0%	16%	15%	4	6.61
Riverwalk & W Sumner Ave	-	-	Midblock Crossing	6%	31%	0%	0%	99%	0%	0%	16%	23%	2	6.33
Hwy 74	El Toro Rd	Uninc. Riverside County	Class III	9%	5%	2%	0%	62%	0%	0%	14%	38%	3	6.08
Temescal Canyon Road and Lake Street	-	-	Intersection	3%	2%	0%	0%	94%	0%	0%	0%	8%	3	6.07
Main Street and I-15 NB Ramps	-	-	Intersection	14%	16%	0%	0%	65%	0%	33%	12%	0%	2	6.02
Corydon Street	Mission Trail	Grand Avenue	Sidewalk	28%	11%	1%	3%	34%	1%	0%	45%	31%	3	5.95
Cambern Avneue	10th Street	Central Avenue	Sidewalk	9%	17%	4%	10%	94%	13%	0%	27%	38%	1	5.93

Table 5-8 Project Prioritization

Location	From	To	Improvement Type	Population Density Percentile	Employment Density Percentile	Parks Density Percentile	School Density Percentile	Cal Enviro- Screen Percentile	Active Transportation Collision Percentile	Active Transportation Fatality Percentile	Transit Stop Density Percentile	Public Comment Percentile	Staff Input Score	TOTAL SCORE
Machado Street and Alverado Street	-	-	Intersection	30%	4%	0%	0%	80%	0%	0%	18%	31%	2	5.89
Mission Trail and Corydon Road	-	-	Intersection	9%	5%	0%	0%	33%	0%	0%	24%	15%	4	5.82
Mission Trail and Corydon Road	-	-	Intersection	9%	5%	0%	0%	33%	0%	0%	24%	15%	4	5.82
Rostrata Street/ Conrad Avenue	SR-74/ Central Avenue	Mermack Avenue	Sidewalk	13%	21%	1%	3%	94%	2%	0%	18%	38%	1	5.56
Riverside Drive and Gunnerson Street	-	-	Intersection	6%	36%	0%	0%	99%	0%	0%	14%	23%	1	5.41
Machado Street and Grand Avenue	-	-	Intersection	13%	1%	0%	0%	80%	0%	0%	8%	31%	2	5.37
Gunnerson Street and Lakeshore Drive	-	-	Intersection	26%	23%	0%	0%	94%	0%	0%	20%	15%	1	5.30
2nd Street/ Camino Del Norte and Dexter Avenue	-	-	Intersection	8%	15%	0%	0%	65%	0%	33%	22%	15%	1	5.30

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Lincoln Street and Grand Avenue	-	-	Intersection	25%	4%	0%	0%	56%	0%	0%	0%	0%	3	5.24
Temescal Canyon Road	Lake Street	E Hermano Road	Sidewalk	20%	8%	0%	1%	82%	0%	0%	0%	8%	2	5.18
Main Street and Minthorn Street/ Camino Del Norte	-	-	Intersection	14%	15%	0%	0%	65%	0%	33%	8%	0%	1	4.96
Railroad Canyon Drive and Canyon Hills Road	-	-	Intersection	9%	4%	0%	0%	70%	0%	0%	12%	15%	2	4.80
Temescal Canyon Rd	Northern Boundarry	Lake St	Class I	6%	3%	0%	0%	42%	1%	0%	0%	8%	3	4.61
Grand Avenue and Skylark Drive	-	-	Intersection	10%	1%	0%	0%	64%	0%	0%	22%	8%	2	4.52
De Palma Road	Horsethief Canyon Road	Indian Truck Trail	Sidewalk	10%	4%	0%	0%	58%	0%	0%	0%	0%	2	4.02
Horsethief Road and Temescal Canyon Road	-	-	Intersection	4%	1%	0%	0%	96%	0%	0%	0%	0%	1	4.00

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Table 5-8 Project Prioritization

Location	From	To	Improvement Type	Population Density Percentile	Employment Density Percentile	Parks Density Percentile	School Density Percentile	Cal Enviro - Screen Percentile	Active Transportation Collision Density Percentile	Active Transportation Fatality Percentile	Transit Stop Density Percentile	Public Comment Percentile	Staff Input Score	TOTAL SCORE
I-15 NB Ramps and Indian Truck Trail	-	-	Intersection	1%	1%	0%	0%	96%	0%	0%	0%	0%	1	3.94
Mountain St	End	Lake St	Class III	29%	5%	4%	5%	56%	5%	0%	0%	15%	1	3.91
Horsethief Canyon Road	Mountain Road	De Palma Road	Sidewalk	22%	4%	0%	1%	45%	0%	0%	0%	0%	2	3.86
Grand Avenue and Stoneman Street	-	-	Intersection	10%	1%	0%	0%	64%	0%	0%	22%	8%	1	3.52
Lemon St	Mission Trail	Grape St	Class II	21%	9%	0%	7%	37%	1%	0%	24%	15%	1	3.37
Lost Road and Canyon Hills Road	-	-	Intersection	6%	4%	0%	0%	70%	0%	0%	0%	0%	1	3.32
Skylark Dr	Levee Trail	Grand Ave	Class III	18%	3%	3%	6%	34%	4%	0%	22%	8%	1	3.00
Skylark Drive	Palomar Street	Grand Avenue	Sidewalk	19%	3%	2%	5%	33%	3%	0%	22%	8%	1	2.98
Stoneman Street	End	Grand Avenue	Sidewalk	19%	3%	2%	0%	33%	2%	0%	22%	8%	1	2.90
Stoneman St	Levee Trail	Grand Ave	Class I	19%	3%	2%	0%	33%	2%	0%	22%	8%	1	2.90
Campbell Ranch Road	Indian Truck Trail	Mayhew Canyon Road	Sidewalk	2%	2%	0%	0%	60%	0%	0%	0%	0%	1	2.89

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I-15 SB Ramps and Indian Truck Trail	-	-	Intersection	2%	1%	0%	0%	60%	0%	0%	0%	0%	1	2.87
Corydon Road and Palomar Street	-	-	Intersection	15%	5%	0%	0%	33%	0%	0%	24%	8%	1	2.78
Corydon Road and Palomar Street	-	-	Intersection	15%	5%	0%	0%	33%	0%	0%	24%	8%	1	2.78
Palomar Street and Skylark Drive	-	-	Intersection	17%	3%	0%	0%	33%	0%	0%	20%	8%	1	2.75
Lake Street and I-15 SB Ramps	-	-	Intersection	3%	2%	0%	0%	42%	0%	0%	0%	8%	1	2.50
Horsethief Canyon Road and DePalma Road	-	-	Intersection	7%	1%	0%	0%	42%	0%	0%	0%	0%	1	2.42
Cottonwood Canyon Road and Canyon Hills Road	-	-	Intersection	6%	3%	0%	0%	38%	0%	0%	0%	0%	1	2.33

Table 5-8 Project Prioritization

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Projects that are Funded and Scheduled for Implementation														
Spring Street	Heald Avenue	Sumner Avenue	Sidewalk	31%	34%	75%	39%	99%	55%	33%	29%	23%	2	11.12
Nichols Rd	Baker St	City Limit	Class II	33%	37%	3%	4%	86%	4%	33%	41%	92%	3	10.75
Riverwalk & Riverside Dr	-	-	Midblock Crossing	28%	33%	0%	0%	99%	0%	33%	29%	23%	4	10.27
Riverwalk & W Graham Ave	-	-	Midblock Crossing	29%	35%	0%	0%	99%	0%	33%	29%	23%	3	9.33
Diamond Cir	W Lakeshore Dr	Pete Lehr Dr	Class III	10%	10%	9%	14%	93%	16%	33%	37%	62%	2	8.82
Spring Street and Sumner Avenue	-	-	Intersection	29%	32%	0%	0%	99%	0%	33%	29%	23%	2	8.25
Spring Street and Heald Avenue	-	-	Intersection	28%	31%	0%	0%	99%	0%	33%	29%	23%	2	8.22
Spring Street and Peck Street	-	-	Intersection	27%	29%	0%	0%	99%	0%	33%	29%	23%	2	8.16
Riverwalk & Limited Ave	-	-	Midblock Crossing	26%	30%	0%	0%	99%	0%	33%	29%	23%	2	8.16



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Riverwalk & W Heald Ave	-	-	Midblock Crossing	9%	43%	0%	0%	99%	0%	33%	35%	23%	2	8.15
Main Street and Sumner Avenue	-	-	Intersection	27%	27%	0%	0%	99%	0%	33%	29%	23%	2	8.14
Spring Street and Graham Avenue	-	-	Intersection	25%	27%	0%	0%	99%	0%	33%	29%	23%	2	8.09
Lake St	Mountain St	Lakeshore Dr	Class II	33%	5%	13%	10%	56%	12%	0%	0%	15%	4	7.31
Lake St	Nichols Rd	Mountain St	Class I	37%	7%	4%	2%	50%	2%	0%	0%	31%	4	7.12
Auto Center Drive and Franklin Street/ Grunder Drive	-	-	Intersection	8%	5%	0%	0%	65%	0%	0%	18%	77%	3	6.95
I-15 NB Ramps and Nichols Road	-	-	Intersection	3%	4%	0%	0%	94%	0%	0%	6%	38%	3	6.78
I-15 SB Ramps and Nichols Road	-	-	Intersection	3%	4%	0%	0%	94%	0%	0%	6%	38%	3	6.77
El Toro Road and Nichols Road	-	-	Intersection	4%	8%	0%	0%	94%	0%	0%	2%	31%	3	6.69

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Collier Avenue and Nichols Road	-	-	Intersection	3%	4%	0%	0%	94%	0%	0%	6%	31%	3	6.62
Franklin Street	Canyon Estates Drive	Auto Center Drive	Sidewalk	11%	6%	4%	20%	66%	10%	0%	20%	77%	2	6.59
Lake St	Temescal Canyon Rd	Nichols Rd	Class I	13%	5%	2%	0%	61%	0%	0%	0%	15%	4	6.54
Baker St	Nichols Rd	Riverside Dr	Class I	11%	40%	0%	2%	95%	2%	0%	20%	69%	1	6.52
Alberhill Ranch Road and Nichols Road	-	-	Intersection	9%	2%	0%	0%	94%	0%	0%	0%	23%	3	6.49
Lake Street	Alberhill Ranch Road	I-15 NB Ramps	Sidewalk	29%	8%	1%	0%	62%	1%	0%	0%	23%	3	6.10
Stoneman St	Cereal St	Levee Trail	Class II	18%	8%	1%	0%	73%	1%	0%	18%	8%	3	6.10
El Toro Road/ Lindell Road	North	Dexter Avenue	Sidewalk	13%	24%	0%	1%	101%	0%	0%	14%	46%	1	5.82
Lake Street and Alberhill Ranch Road	-	-	Intersection	19%	3%	0%	0%	56%	0%	0%	0%	8%	3	5.26
Lake Street and Nichols Road	-	-	Intersection	8%	2%	0%	0%	42%	0%	0%	0%	8%	3	4.62

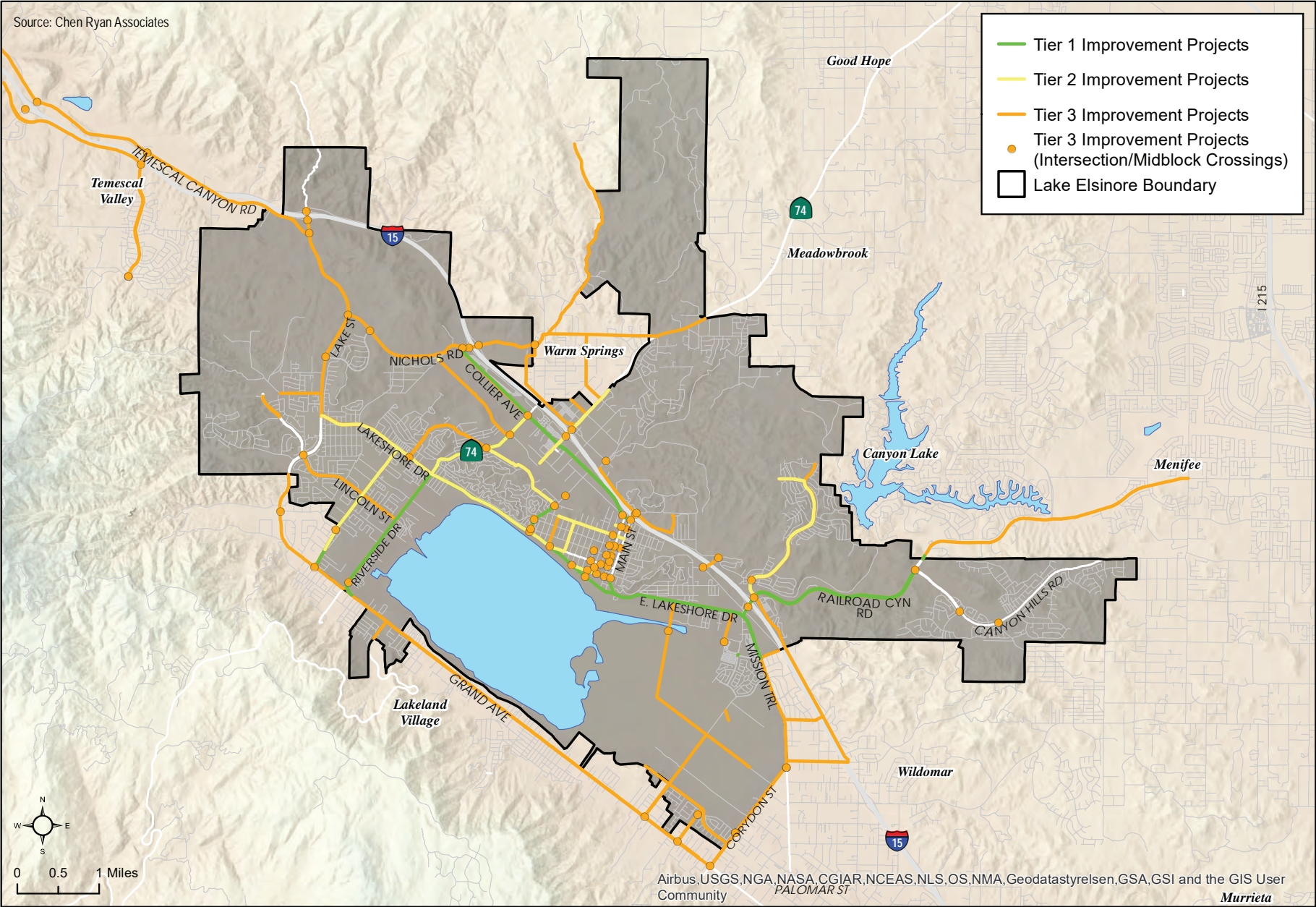
Table 5-8 Project Prioritization

Location	From	To	Improvement Type	Population Density Percentile	Employment Density Percentile	Parks Density Percentile	School Density Percentile	Cal Enviro - Screen Percentile	Active Transportation Collision Density Percentile	Active Transportation Fatality Percentile	Transit Stop Density Percentile	Public Comment Percentile	Staff Input Score	TOTAL SCORE
Lake Street and I-15 NB Ramps	-	-	Intersection	2%	1%	0%	0%	96%	0%	0%	0%	8%	1	4.11
Horsethief Canyon Road and Mountain Road (N)	-	-	Intersection	5%	2%	0%	0%	42%	0%	0%	0%	0%	1	2.40
Horsethief Canyon Road and Mountain Road (S)	-	-	Intersection	5%	2%	0%	0%	42%	0%	0%	0%	0%	1	2.40
Flint Street	Canal (end)	Spring Street	Sidewalk	22%	30%	100%	100%	99%	100%	67%	35%	0%	1	1.45

Source: Chen Ryan Associates (2019)



Figure 5-6 Improvement Project Prioritization



## Project 1: Lakeshore Drive (Riverside Drive to Diamond Drive)

## Project Area Description

This project spans the northeastern shore of Lake Elsinore, connecting the communities of Lakeside Village, Downtown Lake Elsinore and East Lake. Lakeshore Drive is primarily a 2-Lane undivided roadway with a 40-mph posted speed limit. There are no existing sidewalks along most of the corridor.

The project is part of a larger vision of completing a fully separated bicycle facility system around Lake Elsinore, and will include a Class I multi-use path along Lakeshore Drive. This project will also provide sidewalks between the Canal (in Downtown Lake Elsinore) and Diamond Drive (East Lake).

## Improvements &amp; Cost

3.48 miles of Class I Multi-Use Path

3.37 miles of Sidewalk

Cost of Class I Multi-Use Path:  
\$10,436,009.86

Cost of sidewalk infill:  
\$7,044,489.37

## Priority Score (Percentile)

Population Density: 46%  
Employment Density: 61%  
Parks Density: 5%  
Schools Density: 4%  
CalEnviroScreen Score: 90%  
Collision Density: 6%  
Collision Fatality Score: 67%  
Transit Stop Density: 59%  
Public Comment Score: 87%  
City Staff Input Score: 4

Total Prioritization Score: 15.31





Project 1: Lakeshore Drive (Riverside Drive to Diamond Drive)

Before



After





## Project 2: Mission Trail (Diamond Drive to Malaga Road)

## Project Area Description

This 0.6-mile project will include a multi-use path alongside Mission Trail, a high-traffic volume 4-lane arterial with a 45-mph posted speed limit. Mission Trail within these project extents is primarily fronted by commercial and retail land uses. In the vicinity is Lake Elsinore Diamond, a major civic attraction. In the future, the area surrounding this project is expected to absorb a substantial amount of residential growth by way of infill development.

While there are existing bike lanes within a portion of the project extents (from Campbell Road to Malaga Road), the high volumes and travel speeds along Mission Trail do not make bike lanes an ideal ultimate facility classification.

This project is a part of a larger vision of completing a fully separated bicycle facility system around Lake Elsinore.

## Improvements &amp; Cost

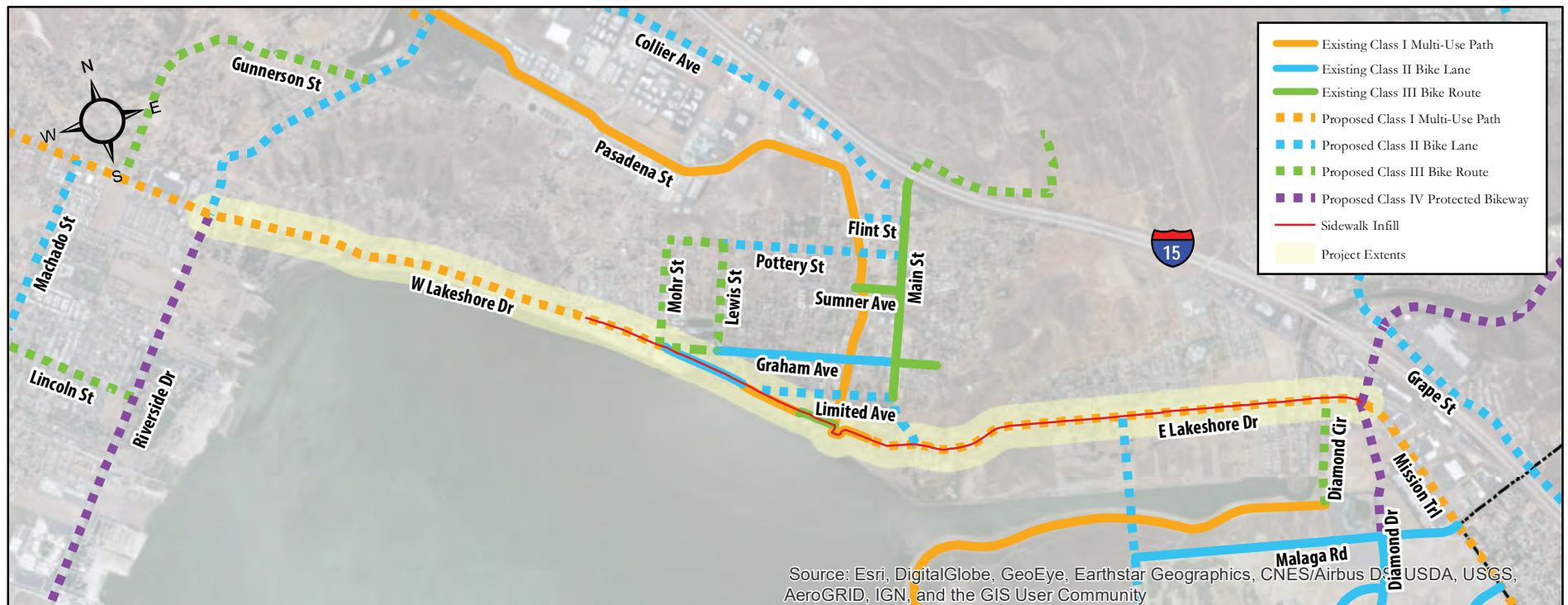
0.6 miles of Class I Multi-Use Path

Cost: \$1,800,000

## Priority Score (Percentile)

Population Density: 22%  
 Employment Density: 23%  
 Parks Density: 10%  
 Schools Density: 9%  
 CalEnviroScreen Score: 93%  
 Collision Density: 12%  
 Collision Fatality Score: 67%  
 Transit Stop Density: 47%  
 Public Comment Score: 92%  
 City Staff Input Score: 4

Total Prioritization Score: 13.2



Project 2: Mission Trail (Diamond Drive to Malaga Road)

Before



After





*Project 3: Collier Avenue / Minthorn Street (Nichols Road to Riverside Drive)***Project Area Description**

This project will include a continuous Class IV cycle track between the Lake Elsinore Outlet Center and Riverside Drive. It will connect to proposed bike lanes along Collier Avenue between Riverside Drive and Spring Street (see Project 6).

Collier Avenue is a high-speed roadway that runs parallel with Interstate 15. Between Nichols Road and Riverside Drive, Collier Avenue is a 4-Lane roadway with a 50-mph posted speed limit. Along the southern extent of the project, Collier Avenue narrows to a 2-Lane undivided roadway with a 45-mph posted speed limit.

**Improvements & Cost**

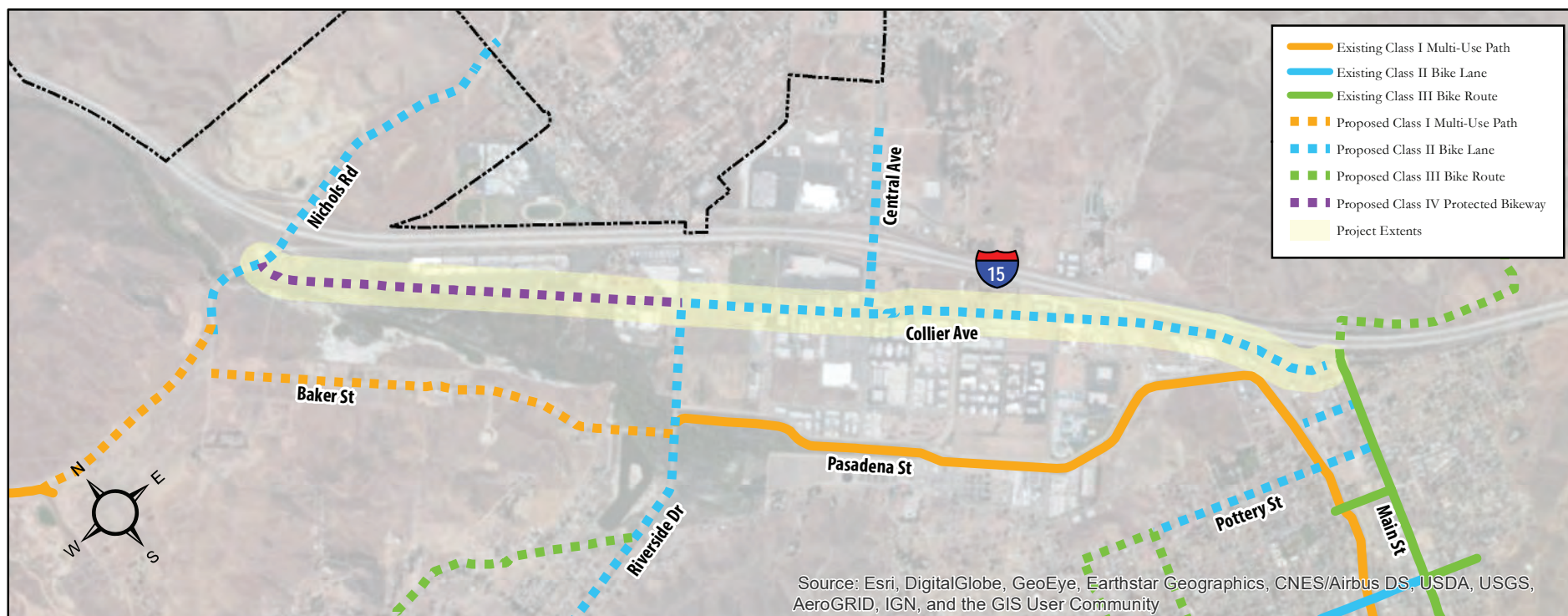
1.2 miles of Class IV Cycle Track

Cost: \$1,395,319

**Priority Score (Percentile)**

Population Density: 36%  
 Employment Density: 83%  
 Parks Density: 2%  
 Schools Density: 3%  
 CalEnviroScreen Score: 97%  
 Collision Density: 4%  
 Collision Fatality Score: 67%  
 Transit Stop Density: 71%  
 Public Comment Score: 69%  
 City Staff Input Score: 3

Total Prioritization Score: 13.2





Project 3: Collier Avenue / Minthorn Street (Nichols Road to Riverside Drive)

Before



After



## Project 4: Riverside Drive (Grand Avenue to Collier Avenue)

## Project Area Description

This project spans 3.2 miles on the west side of Lake Elsinore, and once completed, will include continuous bicycle and pedestrian facilities between the Lake Elsinore Outlets, commercial uses near I-15, and the Lakeside Village community.

Riverside Drive currently has sidewalks along portions of the roadway between Grand Avenue and Lakeshore Drive, but facilities are discontinuous, and no pedestrian connectivity is present between Lakeshore Drive and Collier Avenue. This project will complete sidewalks, and also include one-way class IV cycle tracks along the south side of Riverside Drive, transitioning to Class II bike lanes between Lakeshore Drive and Collier Avenue.

This roadway is a part of California State Route 74, which connects Southern Orange County with Western Riverside via the Santa Ana Mountains.

## Improvements &amp; Cost

3.2 miles of sidewalk infill/reconstruction (6.4 miles total)

1.7 miles of one-way Class IV cycle track

1.5 miles of Class II bike lanes

Cost for sidewalk infill: \$6,710,000

Cost for Class IV cycle track: \$1,692,805.20

Cost for Class II bike lane: \$99,000

## Priority Score (Percentile)

Population Density: 87%

Employment Density: 87%

Parks Density: 0%

Schools Density: 2%

CalEnviroScreen Score: 87%

Collision Density: 5%

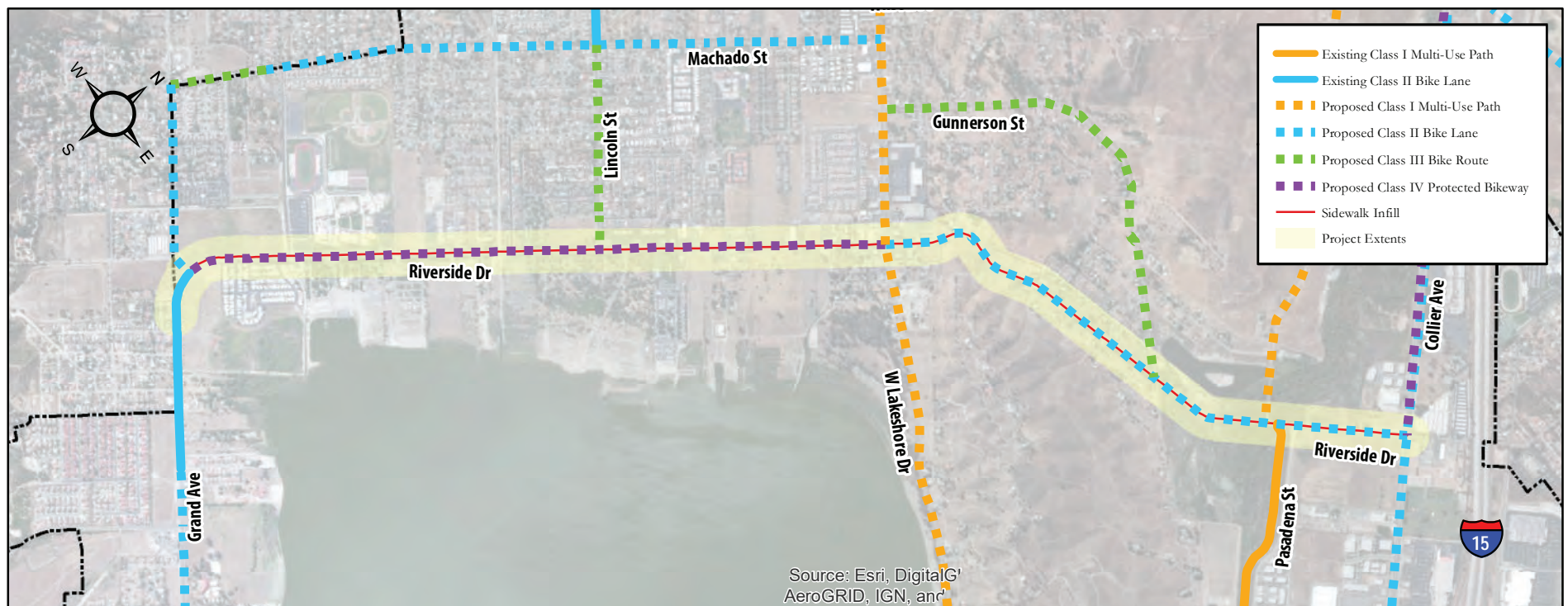
Collision Fatality Score: 0%

Transit Stop Density: 69%

Public Comment Score: 100%

City Staff Input Score: 4

Total Prioritization Score: 12.96





## Project Area Description

This project in eastern Lake Elsinore spans 3.2 miles, and will include 3.2 miles of cycle track and 2.5 miles of sidewalk infill, along both sides of the roadway. It will connect residential developments with several freeway interchange-catering commercial centers along the project corridor, and connect the East Lake neighborhood in the vicinity of Lake Elsinore Diamond with the Canyon Hills neighborhood in eastern Lake Elsinore (crossing under Interstate 15).

In the vicinity of Interstate 15, there are several freeway interchange-catering commercial centers along the project corridor. Railroad Canyon Road currently is the only route option for inter-community travel, thus requiring any cyclists to travel on a 50-mph roadway heavily utilized by automobiles. East of Interstate 15, Railroad Canyon Road becomes a 50-mph prime arterial with very few fronting land uses.

## Improvements & Cost

3.2 miles of one-way Class IV cycle track

2.5 miles of sidewalk infill

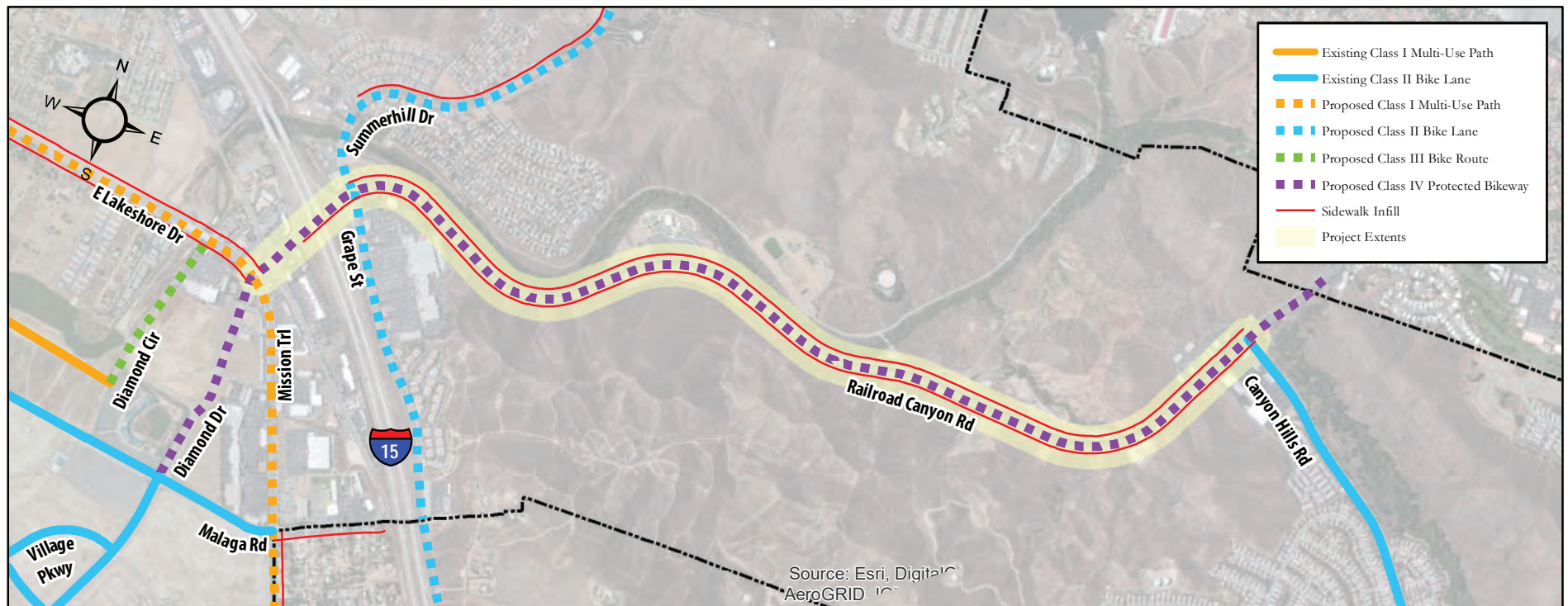
Cost for sidewalk infill:  
\$5,274,229.72

Cost for Class IV cycle track:  
\$3,113,491.20

## Priority Score (Percentile)

Population Density: 48%  
Employment Density: 30%  
Parks Density: 1%  
Schools Density: 1%  
CalEnviroScreen Score: 68%  
Collision Density: 2%  
Collision Fatality Score: 67%  
Transit Stop Density: 51%  
Public Comment Score: 92%  
City Staff Input Score: 4

Total Prioritization Score: 12.69





### Project 6: Minthorn Street/Collier Avenue (Riverside Drive to Spring Street)

#### Project Area Description

This project will connect Downtown to the commercial uses in the northern portion of Lake Elsinore with Class II bike lanes, running along either side of Minthorn Street, which transitions to become Collier Avenue.

The roadway currently is 2-lanes and 3rd Street, widening to 3-lanes, with 2 southeast bound lanes and 1 northwest bound lane, between 3rd Street and Central Avenue. The roadway is a critical connection point for traffic connecting between downtown and the northwest portion of the City.

#### Improvements & Cost

1.23 miles of Class II bike lanes

1.23 miles of sidewalk infill

Cost for Class II bike lanes:  
\$270,600.00

Cost for sidewalk infill:  
\$2,571,132.96

#### Priority Score (Percentile)

Population Density: 29%

Employment Density: 75%

Parks Density: 3%

Schools Density: 6%

CalEnviroScreen Score: 99%

Collision Density: 3%

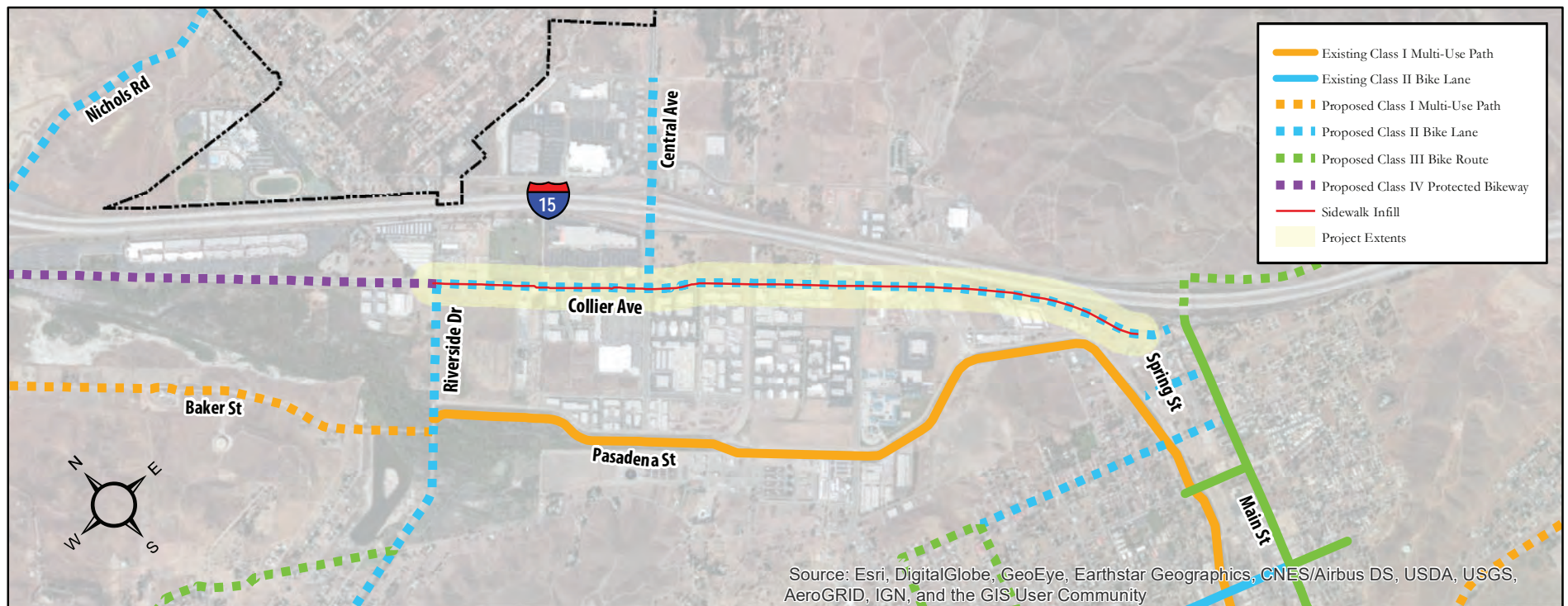
Collision Fatality Score: 37%

Transit Stop Density: 65%

Public Comment Score: 38%

City Staff Input Score: 3

Total Prioritization Score: 12.39



### Project Area Description

This project will include Class II bike lanes and Sidewalk Completion, connecting the proposed Class I multi-use path along Lakeshore Drive (see Project Sheet I), and existing Class II and II facilities that serve Downtown.

This 0.2 mile segment of roadway currently has 2-lanes and asphalt sidewalks along the west side of the road, and is the key connector between Lakeshore Drive and Downtown.

### Improvements & Cost

0.2 miles of Class II bike lanes

0.2 miles of sidewalk infill

Cost for Class II bike lanes: \$13,200

Cost for sidewalk infill: \$194,911.32

### Priority Score (Percentile)

Population Density: 22%

Employment Density: 22%

Parks Density: 52%

Schools Density: 14%

CalEnviroScreen Score: 97%

Collision Density: 38%

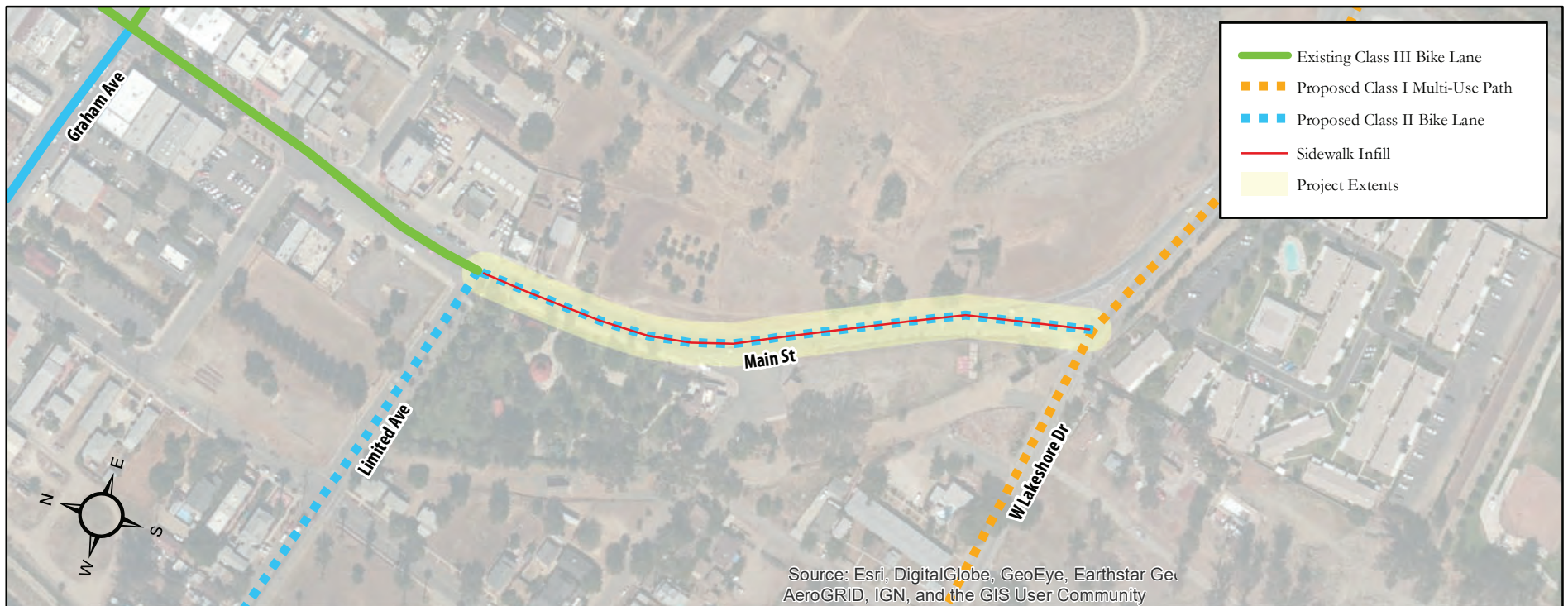
Collision Fatality Score: 33%

Transit Stop Density: 24%

Public Comment Score: 31%

City Staff Input Score: 4

Total Prioritization Score: 11.78





**Project 8: Machado Street (Grand Avenue To Joy Street)****Project Area Description**

The project will include 1.35 miles of sidewalk infill to ensure a continuous sidewalk along this corridor.

Machado Street is a 2-lane road between Grand Avenue and Joy Street, with discontinuous sidewalk. The roadway's proximity to Lakeside High School, Machado Elementary School, and Machado park create a strong need for continuous sidewalks along this road, due to the backbone it delivers in connecting the communities along the northwest shore of the lake to these community-serving facilities.

**Improvements & Cost**

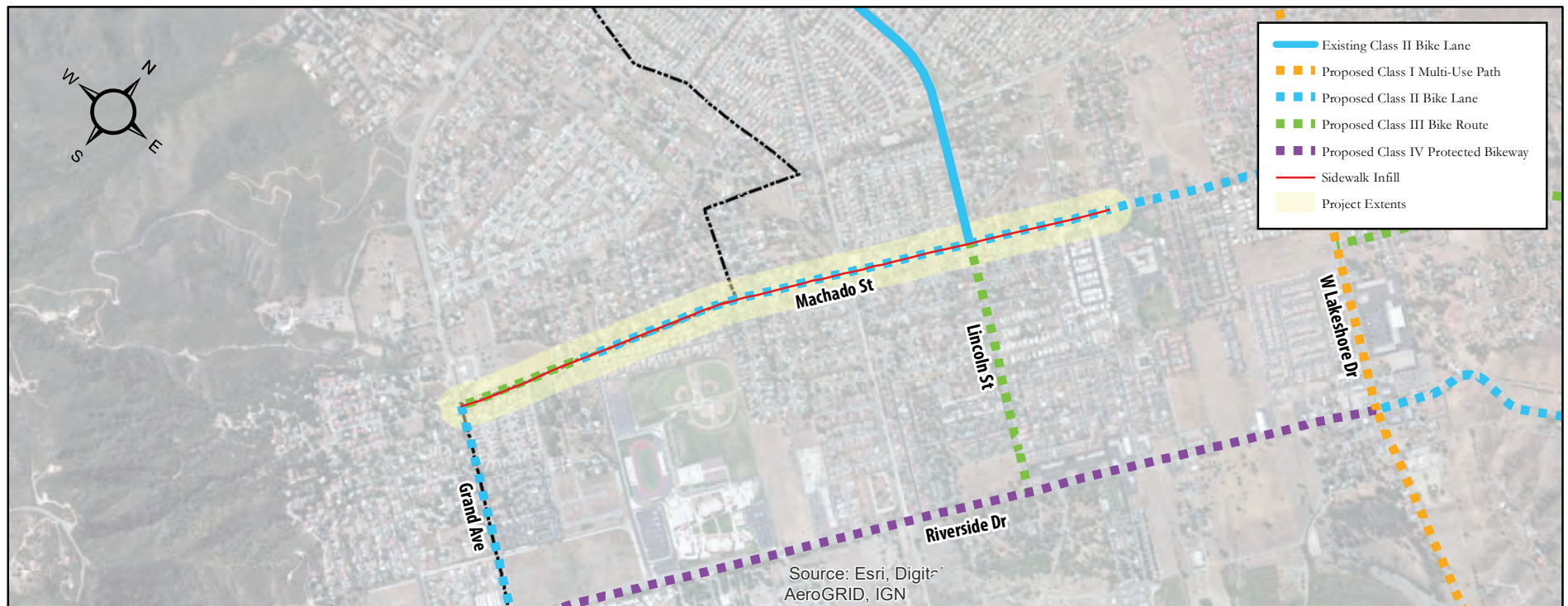
1.35 miles of sidewalk infill

Cost: \$2,823,375.69

**Priority Score (Percentile)**

Population Density: 97%  
 Employment Density: 19%  
 Parks Density: 4%  
 Schools Density: 16%  
 CalEnviroScreen Score: 88%  
 Collision Density: 18%  
 Collision Fatality Score: 12%  
 Transit Stop Density: 37%  
 Public Comment Score: 46%  
 City Staff Input Score: 4

Total Prioritization Score: 11.45





### Project Area Description

This project will include 0.5 miles of sidewalk infill to ensure pedestrian connectivity along Limited Avenue, which currently has discontinuous sidewalk coverage along the segment between Main Street and Lakeshore Drive. The 2-lane roadway offers key connectivity between the lakeshore, park facilities such as Swick and Matich Park, and Downtown.

The 25 mph speed limit offers an ideal, calmed environment for pedestrian traffic, and this sidewalk infill will complement semi-protected bike lanes along Limited Avenue to position the road as a comfortable multi-modal connector.

### Improvements & Cost

0.5 miles of sidewalk infill

Cost: \$1,053,343.06

### Priority Score (Percentile)

Population Density: 31%  
 Employment Density: 36%  
 Parks Density: 19%  
 Schools Density: 10%  
 CalEnviroScreen Score: 99%  
 Collision Density: 14%  
 Collision Fatality Score: 33%  
 Transit Stop Density: 33%  
 Public Comment Score: 38%  
 City Staff Input Score: 4

Total Prioritization Score: 11.45



**Project 10: Chaney Street (Lakeshore Drive to Strickland Avenue)****Project Area Description**

The project includes Sidewall infill to close a critical gap serving other high-quality active transportation facilities, as well as portions of the City with few connectors due to natural topography.

Chaney street is a 2-lane road that offers a major connection between the commercial portion of Lake Elsinore west of I-15 and the lakefront. Currently, pedestrians connecting from portions of town close to I-15, or connecting from the Lake Elsinore Canal to the lakefront must walk along the shoulder of this wide, 35mph road.

The road is also intersected by the Lake Elsinore Canal, which is poised to receive additional foot and bicycle traffic.

**Improvements & Cost**

3.48 miles of Class I Multi-Use Path

3.37 miles of Sidewalk

Cost of Class I Multi-Use Path:  
\$10,436,009.86

Cost of sidewalk infill:  
\$7,044,489.37

**Priority Score (Percentile)**

Population Density: 46%  
Employment Density: 61%  
Parks Density: 5%  
Schools Density: 4%  
CalEnviroScreen Score: 90%  
Collision Density: 6%  
Collision Fatality Score: 67%  
Transit Stop Density: 59%  
Public Comment Score: 87%  
City Staff Input Score: 4

Total Prioritization Score: 15.31



## 5.5 PROJECT COSTS

**Table 5-9** presents a list of typical costs for implementation based on the type of bicycle facility or pedestrian infrastructure.

The cost estimates are planning-level in nature. They include an industry-standard 85% escalation as an assumption for design costs, construction costs, and construction management. These costs were taken from recent, similar efforts completed in the City and nearby jurisdictions.

In the future, costs should be adjusted based on more current rates, perhaps by applying a conservative 3% inflation estimate to these costs. These costs may be used to determine the approximate cost to construct a route or segment. Preliminary engineering will provide a more definitive cost estimate.

**Table 5-9 Facility Design Cost Estimates**

Infrastructure	Description	Cost	Cost Unit
Multi Use Path	Class I	\$3,000,000	Mile
Bicycle Lane	Class II (each direction)	\$33,000	Mile
Signed Bicycle Route	Class III (each direction)	\$16,500	Mile
Signed Bicycle Route with Roadway Improvements	Class IV (One-Way)	\$486,483	Mile
Sidewalk	Assumes 2 sides, 6-foot width, & Curb/Gutter Construction	\$2,090,352	Mile
Midblock Crossing w/ Beacon and Bulb-outs	HAWK Beacon & Bulb-outs	\$314,500	Per Crossing
Pedestrian Countdown Signal	Assumes 4 legs	\$148,000	Per Intersection
High Visibility Crosswalk	Assumes 4 legs, 6-lane-per-leg intersection w/ left-turn pockets	\$27,000	Per Intersection
ADA-Compliant Curb Ramp	Assumes 4 legs	\$111,000	Per Intersection

Implementation costs for each route are based on typical construction costs. Table 5-10 lists each project, classification or other identifying feature, and estimated cost for implementation. Based upon the criteria identified in Table 5-5, the total estimate to complete all projects in the Plan is \$167,984,832.49.

Note that costs do not include potential right-of-way acquisition that may be required to implement certain network features. Further, relocation of utilities or the removal of drainage ditches cannot be known at this level. These costs would be estimated on a case by case basis and would be additional to the costs provided herein.



Table 5-10 Estimated Project Costs

Road	From	To	Mode	Class/Type	Miles	Cost Per Unit	Cost
Collier Ave/ Minthorn St	Nichols Rd	Main St	Bike	II	4.10	\$33,000.00	\$270,600.00
Main St	Limited Ave	W Lakeshore Dr	Bike	II	0.20	\$33,000.00	\$13,200.00
Nichols Rd	Baker St	City Limit	Bike	II	1.20	\$33,000.00	\$79,200.00
Pottery St	Lewis St	Main St	Bike	II	0.64	\$33,000.00	\$42,240.00
Limited Ave	Lowell St	Main St	Bike	II	0.50	\$33,000.00	\$32,883.77
Central Ave	I-15 SB Ramps	Collier Ave	Bike	II	0.10	\$33,000.00	\$6,600.00
Riverside Dr	Lakeshore Dr	Collier Ave	Bike	II	1.50	\$33,000.00	\$99,000.00
Flint St	Canal	Main St	Bike	II	2.00	\$33,000.00	\$132,000.00
Machado St	Lakeshore Dr	Lakeside HS Stadium Wy	Bike	II	1.50	\$33,000.00	\$99,000.00
Central Ave	Cambern Ave	Dexter Ave	Bike	II	0.40	\$33,000.00	\$26,400.00
La Strada/ Summerhill Dr	End	Railroad Canyon Rd	Bike	II	2.20	\$33,000.00	\$145,200.00
Grape St	Railroad Canyon Rd	Lemon St	Bike	II	2.34	\$33,000.00	\$154,155.54
Grand Ave	Lime St	City of Wildomar	Bike	II	5.68	\$33,000.00	\$374,866.80
Lake St	Mountain St	Lakeshore Dr	Bike	II	0.25	\$33,000.00	\$16,500.20
Diamond Dr/ Railroad Canyon Rd	Stoneman St	Cereal St	Bike	II	0.13	\$33,000.00	\$8,536.97
Cereal St	Lakeshore Drive	Mission Trail	Bike	II	2.61	\$33,000.00	\$172,328.65
Lincoln St	End	Grand Ave	Bike	II	0.91	\$33,000.00	\$60,386.96
Olive St	Mission Trail	Grape St	Bike	II	0.49	\$33,000.00	\$32,452.79

Road	From	To	Mode	Class/Type	Miles	Cost Per Unit	Cost
Stoneman St	Cereal St	Levee Trail	Bike	II	0.73	\$33,000.00	\$47,946.10
Lemon St	Mission Trail	Grape St	Bike	II	0.75	\$33,000.00	\$49,556.49
Pottery St	Mohr St	Lewis St	Bike	III	0.20	\$16,500.00	\$6,710.48
Graham Ave	Mohr St	Lewis St	Bike	III	0.20	\$16,500.00	\$6,600.00
Lewis St	Graham Ave	Pottery St	Bike	III	0.40	\$16,500.00	\$13,200.00
Mohr St	Lakeshore Dr	Pottery St	Bike	III	0.38	\$16,500.00	\$12,517.89
Diamond Cir	W Lakeshore Dr	Pete Lehr Dr	Bike	III	0.35	\$16,500.00	\$11,653.88
Machado St	Lakeside HS Stadium Wy	Grand Ave	Bike	III	0.24	\$16,500.00	\$7,875.45
Lincoln St	Machado St	Riverside Dr	Bike	III	0.49	\$16,500.00	\$16,327.08
Minthorn St	Main St	End	Bike	III	0.83	\$16,500.00	\$27,438.87
Gunnerson St	Riverside Dr	Lakeshore Dr	Bike	III	1.18	\$16,500.00	\$38,828.79
Hwy 74	El Toro Rd	Uninc. Riverside County	Bike	III	0.64	\$16,500.00	\$21,100.99
Mountain St	End	Lake St	Bike	III	0.50	\$16,500.00	\$16,647.08
Skylark Dr	Levee Trail	Grand Ave	Bike	III	0.42	\$16,500.00	\$13,887.79
Diamond Dr/ Railroad Canyon Rd	Malaga Rd	City Limits	Bike	IV	3.20	\$486,483.00	\$3,113,491.20
Riverside Dr	Grand Ave	Lakeshore Dr	Bike	IV	1.74	\$486,483.00	\$1,692,805.20
Collier Ave	Nichols Rd	Riverside Dr	Bike	IV	1.16	\$486,483.00	\$1,124,719.49
W Lakeshore Dr	End	Mission Trail	Both	I	1.78	\$3,000,000.00	\$5,336,009.86

Road	From	To	Mode	Class/Type	Miles	Cost Per Unit	Cost
Mission Trail/ Palomar St	W Lakeshore Dr	City of Wildomar	Both	I	0.60	\$3,000,000.00	\$1,800,000.00
Lakeshore Dr	Riverside Dr	Mohr St	Both	I	1.70	\$3,000,000.00	\$5,100,000.00
Lakeshore Dr	Grand Ave	Riverside Dr	Both	I	1.60	\$3,000,000.00	\$4,800,000.00
Nichols Rd	Terra Cotta Rd	Baker St	Both	I	0.62	\$3,000,000.00	\$1,865,567.92
Corydon St	Grand Ave	Palomar St	Both	I	1.49	\$3,000,000.00	\$4,476,150.16
Lake St	Nichols Rd	Mountain St	Both	I	1.01	\$3,000,000.00	\$3,015,209.91
Lake St	Temescal Canyon Rd	Nichols Rd	Both	I	1.15	\$3,000,000.00	\$3,450,239.90
Baker St	Nichols Rd	Riverside Dr	Both	I	1.27	\$3,000,000.00	\$3,813,990.00
Temescal Canyon Rd	Northern Boundarry	Lake St	Both	I	0.62	\$3,000,000.00	\$1,871,672.99
Stoneman St	Levee Trail	Grand Ave	Both	I	0.50	\$3,000,000.00	\$1,506,188.93
Canal & Riverside Dr	-	-	Both	midblock	1.00	\$314,500.00	\$314,500.00
Canal & W Graham Ave	-	-	Both	midblock	1.00	\$314,500.00	\$314,500.00
Canal & Limited Ave	-	-	Both	midblock	1.00	\$314,500.00	\$314,500.00
Canal & W Heald Ave	-	-	Both	midblock	1.00	\$314,500.00	\$314,500.00
Canal & Chaney St	-	-	Both	midblock	1.00	\$314,500.00	\$314,500.00
Canal & W Sumner Ave	-	-	Both	midblock	1.00	\$314,500.00	\$314,500.00
Diamond Drive and I-15 SB Ramps	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00



Road	From	To	Mode	Class/Type	Miles	Cost Per Unit	Cost
Summerhill Drive/ Grape Street and Railroad Canyon Road	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Main Street and Flint Street	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Spring Street and Flint Street	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Main Street and Limited Avenue	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Chaney Street and Strickland Avenue	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Riverside Drive and Collier Avenue	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Spring Street and Sumner Avenue	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Spring Street and Heald Avenue	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Spring Street and Peck Street	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Main Street and Sumner Avenue	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Spring Street and Graham Avenue	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Spring Street and Minthorn Street/ Collier Avenue	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Chaney Street and Lakeshore Drive	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00

Road	From	To	Mode	Class/Type	Miles	Cost Per Unit	Cost
Poe Street and Lakeshore Drive	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Grand Avenue and Riverside Drive	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Poe Street and Graham Avenue	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Poe Street and Heald Avenue	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Main Street and I-15 SB Ramps	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Summerhill Drive and Canyon Estates Drive	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Chaney Street and Sumner Street	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Auto Center Drive and Franklin Street/Grunder Drive	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Poe Street and Limited Street	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Spring Street and Limited Street	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Chaney Street and Heald Avenue	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Grand Avenue and Alverado Street	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
I-15 NB Ramps and Nichols Road	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00

Road	From	To	Mode	Class/Type	Miles	Cost Per Unit	Cost
I-15 SB Ramps and Nichols Road	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Mohr Street and Lakeshore Drive/ Graham Avenue	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Limited Street and Lakeshore Drive	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
El Toro Road and Nichols Road	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Franklin Street/ Grunder Drive and Canyon Estates Drive	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Collier Avenue and Nichols Road	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Corydon Road and Grand Avenue	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Alberhill Ranch Road and Nichols Road	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Temescal Canyon Road and Lake Street	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Main Street and I-15 NB Ramps	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Machado Street and Alverado Street	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Mission Trail and Corydon Road	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00



Road	From	To	Mode	Class/Type	Miles	Cost Per Unit	Cost
Mission Trail and Corydon Road	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Riverside Drive and Gunnerson Street	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Machado Street and Grand Avenue	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Gunnerson Street and Lakeshore Drive	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
2nd Street/Camino Del Norte and Dexter Avenue	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Lake Street and Alberhill Ranch Road	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Lincoln Street and Grand Avenue	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Main Street and Minthorn Street/Camino Del Norte	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Railroad Canyon Drive and Canyon Hills Road	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Lake Street and Nichols Road	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Grand Avenue and Skylark Drive	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Lake Street and I-15 NB Ramps	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00

Road	From	To	Mode	Class/Type	Miles	Cost Per Unit	Cost
Horsethief Road and Temescal Canyon Road	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
I-15 NB Ramps and Indian Truck Trail	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Grand Avenue and Stoneman Street	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Lost Road and Canyon Hills Road	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
I-15 SB Ramps and Indian Truck Trail	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Corydon Road and Palomar Street	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Corydon Road and Palomar Street	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Palomar Street and Skylark Drive	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Lake Street and I-15 SB Ramps	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Horsethief Canyon Road and DePalma Road	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Horsethief Canyon Road and Mountain Road (N)	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Horsethief Canyon Road and Mountain Road (S)	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Cottonwood Canyon Road and Canyon Hills Road	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00

Road	From	To	Mode	Class/Type	Miles	Cost Per Unit	Cost
SR-74/Central Avenue and I-15 NB/SB Ramps	-	-	Ped	intersection	-	\$286,000.00	\$286,000.00
Langstaff Green Street	Graham	Limited Ave	Both	Sidewalk	1.00	\$314,500.00	\$314,500.00
Lakeshore Drive	Canal (end)	Diamond Drive	Ped	Sidewalk	2.47	\$2,090,352.00	\$5,163,169.44
Lakeshore Drive	Chaney St	Poe Street/ Canal (end)	Ped	Sidewalk	0.9	\$2,090,352.00	\$1,881,319.93
Riverside Drive	Grand Avenue	Collier Avenue	Ped	Sidewalk	3.21	\$2,090,352.00	\$6,710,029.92
Minthorn Street/ Collier Avenue	Central Avenue	Spring Street	Ped	Sidewalk	1.23	\$2,090,352.00	\$2,571,132.9
Limited Street	Lakeshore Drive	Main Street	Ped	Sidewalk	0.50	\$2,090,352.00	\$1,053,343.06
Railroad Canyon Road	Canyon Hills Road	I-15 SB Ramps	Ped	Sidewalk	2.52	\$2,090,352.00	\$5,274,229.72
Chaney Street	Lakeshore Drive	Strickland Avenue	Ped	Sidewalk	0.47	\$2,090,352.00	\$981,809.07
Spring Street	Heald Avenue	Sumner Avenue	Ped	Sidewalk	0.13	\$2,090,352.00	\$269,116.09
SR-74/Central Avenue	Collier Road	City Limits	Ped	Sidewalk	1.23	\$2,090,352.00	\$2,571,885.55
Strickland Avenue	Riverside Drive	Chaney Street	Ped	Sidewalk	1.16	\$2,090,352.00	\$2,421,923.63
Main Street	Camino Del Norte	I-15 NB Ramps	Ped	Sidewalk	0.06	\$2,090,352.00	\$115,273.92
Machado Street	Grand Avenue	Joy Street	Ped	Sidewalk	1.35	\$2,090,352.00	\$2,823,375.69
Main Street / Short Street	Limited Street	Lakeshore Drive	Ped	Sidewalk	0.09	\$2,090,352.00	\$194,911.32



Road	From	To	Mode	Class/Type	Miles	Cost Per Unit	Cost
Grand Avenue	Corydon Street	Machado Street	Ped	Sidewalk	5.60	\$2,090,352.00	\$11,711,803.03
Mission Trail	Malaga Road	Corydon Street	Ped	Sidewalk	1.40	\$2,090,352.00	\$2,932,345.71
Lakeshore Drive	Machado Street	Gunnerson Street	Ped	Sidewalk	0.33	\$2,090,352.00	\$698,294.61
Dexter Avenue	SR-74/Central Avenue	El Toro Road	Ped	Sidewalk	0.80	\$2,090,352.00	\$1,676,460.16
Nichols Road	El Toro Road	Lake Street	Ped	Sidewalk	2.55	\$2,090,352.00	\$5,339,218.80
Malaga Road	Casino Drive	Mission Trail	Ped	Sidewalk	0.25	\$2,090,352.00	\$513,430.17
Camino Del Norte	Main Street	2nd Street/ Dexter Avenue	Ped	Sidewalk	0.72	\$2,090,352.00	\$1,497,254.37
SR-74/Ortega Hwy	Grand Avenue	City Limits	Ped	Sidewalk	0.26	\$2,090,352.00	\$541,986.46
Gunnerson Street	Lakeshore Drive	Riverside Drive	Ped	Sidewalk	1.20	\$2,090,352.00	\$2,511,139.91
Summerhill Drive	End	Canyon Estates Drive	Ped	Sidewalk	1.91	\$2,090,352.00	\$4,000,578.46
Franklin Street	Canyon Estates Drive	Auto Center Drive	Ped	Sidewalk	0.26	\$2,090,352.00	\$534,216.61
Lake Street	Alberhill Ranch Road	I-15 NB Ramps	Ped	Sidewalk	2.00	\$2,090,352.00	\$4,182,020.72
Corydon Street	Mission Trail	Grand Avenue	Ped	Sidewalk	1.48	\$2,090,352.00	\$3,085,108.77
Cambern Avneue	10th Street	Central Avenue	Ped	Sidewalk	0.26	\$2,090,352.00	\$543,848.96
El Toro Road/ Lindell Road	North	Dexter Avenue	Ped	Sidewalk	3.47	\$2,090,352.00	\$7,243,968.58

Road	From	To	Mode	Class/Type	Miles	Cost Per Unit	Cost
Rostrata Street/ Conrad Avenue	SR-74/Central Avenue	Mermack Avenue	Ped	Sidewalk	0.84	\$2,090,352.00	\$1,765,070.28
Temescal Canyon Road	Lake Street	E Hermano Road	Ped	Sidewalk	4.62	\$2,090,352.00	\$9,648,019.60
De Palma Road	Horsethief Canyon Road	Indian Truck Trail	Ped	Sidewalk	1.86	\$2,090,352.00	\$3,892,778.88
Horsethief Canyon Road	Mountain Road	De Palma Road	Ped	Sidewalk	2.34	\$2,090,352.00	\$4,882,456.17
Flint Street	Canal (end)	Spring Street	Ped	Sidewalk	0.08	\$2,090,352.00	\$157,299.61
Skylark Drive	Palomar Street	Grand Avenue	Ped	Sidewalk	0.50	\$2,090,352.00	\$1,050,031.83
Stoneman Street	End	Grand Avenue	Ped	Sidewalk	0.50	\$2,090,352.00	\$1,049,960.81
Campbell Ranch Road	Indian Truck Trail	Mayhew Canyon Road	Ped	Sidewalk	0.33	\$2,090,352.00	\$682,631.62
						<b>Total</b>	<b>\$167,984,832.49</b>



## 5.6 ADDITIONAL NETWORK IMPROVEMENTS

Support facilities and programs are an important part of the Active LE Plan and future updates. Support facilities may include bicycle parking (bike racks or lockers), showers for commuters, and staging areas.

### Bicycle Parking

Bicycle parking may be separated into two categories: short-term parking and long-term parking. Short-term bicycle parking is usually defined as being two hours or less and consists of a bicycle rack or a series of bicycle racks, whereas long-term parking suggests that bicyclists may leave the bike all day, overnight, or for a longer duration. Long-term parking options include:

- Lockers, for one or two bicycles
- Racks in an enclosed, lockable room or fenced area
- Racks in an area monitored by security (cameras, guards, or other personnel)
- Racks or lockers in an area always visible to employees.

A lack of bike racks and other facilities is a frequently-mentioned reason why bicyclists or would-be bicyclists don't ride, or ride less often. Bicycle racks are currently only located at some City parks, private developments, and civic facilities. At a minimum, the City should install bike racks at all City parks and high-volume transit facilities, and encourage installation at major employment areas, as the fear of bicycle theft is a significant deterrent to bicycle use.

To further encourage bicycling, the City should adopt bicycle-parking standards for future commercial and industrial development. Typical standards are one bicycle rack per 40-60 elementary and junior high school students, per 100-120 high school students, and per 100-120 employees. The number of racks needed at each location can be determined when the existing rack begins to exceed 80% capacity.

### Siting Considerations

Heavy bicycle use is another reason for locating bicycle racks. Standard locations are schools and parks. Other determinants for siting bike parking are:

- Visual observation - observation of locations where bikes are illegally parked due to lack of bicycle racks.
- User Input - asking bicyclists and bike groups.
- Land use criteria - targeting areas where people gather such as coffee shops, bookstores, recreation centers.
- Zoning code - requiring new commercial development and change in business to install bike parking proportionate to car parking requirements. Bike racks should be located at each school and at shopping areas in excess of 50,000 square feet, or where it is evident that there is high cycling use.

Racks should be installed in the public right-of-way, at schools and parks, or at commercial and industrial sites in conformance with setback requirements. Bike racks should be located based on the following:

- Visibility - Cyclists should be able to easily spot bicycle racks from the street.
- Access - Bicycle racks should be convenient to building entrances and street access. Whenever possible, racks should be placed within 50 feet of building entrances.



- Security - Locate parking within view of passers-by, retail activity, office windows, or within a fenced area for long-term parking such as at a school.
- Lighting - To avoid theft, bicycle-parking areas should be well lit or located within a well-lighted area.
- Weather protection - Whenever possible, protect bicycle parking area from weather by siting under an existing overhead or covered walkway.
- Avoid conflict with pedestrians or vehicles - Locate racks so that parked bicycles do not block walkways or near vehicle parking.

The design of the rack should be based upon accommodating the following:

- Supporting the bike frame at two locations (not just the wheel).
- Allowing both the frame and at least one wheel to be locked to the rack (without requiring that the lock be placed near the bicycle chain).
- Allowing the use of either a cable or "U-type" lock.
- Bicycles which are equipped with water bottle cages.
- Bicycle which are not equipped with kickstands.

- All types of size of bicycles, including various types of and sizes of frames, wheel sizes, and tire widths.

Three common ways of providing secure long-term bicycle parking are 1) fully enclosed lockers accessible only by the user, 2) a continuously-monitored facility, and 3) restricted access to facilities where only owners of bicycles are permitted access to the area. Bicycle lockers are intended for long-term parking and to protect against theft of the entire bicycle and its components and accessories.

Bicycle storage lockers may be considered at transit stations or major employment locations where the lockers are internal and are maintained by the employer. Bicycle lockers are typically rented to bicyclists for daily use over a period of time. Rental costs vary from one agency to another. A survey conducted by Pedestrian and Bicycling Information Center revealed a low rental of \$2.00 per month (Tucson, AZ), to a mid-range of \$5.00 per month (Santa Cruz, CA and Caltrain), to a high-end rental of \$10.00 per month in Portland, Oregon.

## Shower Facilities

Cyclists may be more apt to commute by bicycle to their place of employment, if shower facilities are offered or readily available at nearby fitness centers or gymnasiums. Some employers typically offer shower facilities, such as fire stations or police stations. The City should encourage new major employers to provide shower facilities for their employees.

## Staging Areas

As part of Lake Elsinore's "Dream Extreme" motto, encouraging riding along many of the region's trails and exploring the rugged, natural beauty of western Riverside County is a City priority. To this end, it is important to serve staging areas where high usage is anticipated or where facilities are located a long distance from the start of a bike ride. As discussed earlier in this chapter, the bicycle network reflected a need to ensure that bike facilities reached staging areas to encourage entire trips are made by bicycle instead of driving and parking at trailheads.



Further support to staging areas may include a number of other amenities, including:

- Bike racks
- Shade shelters
- Benches and/or picnic tables
- Signage (interpretative and directional)
- Lighting
- Trash receptacles
- Emergency telephones
- Restrooms or portable restrooms
- Water fountains (with bottle spouts and dog basins)

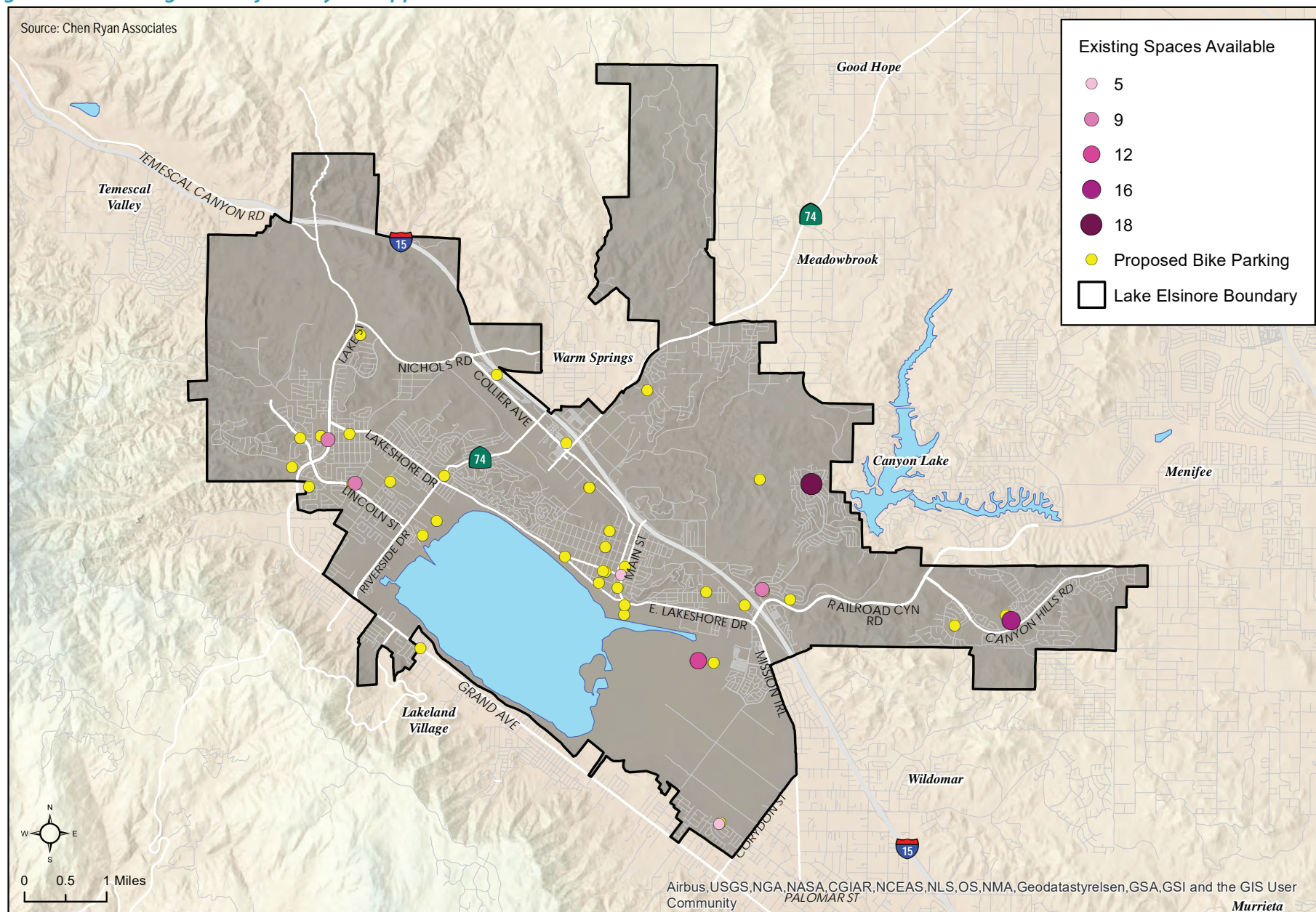
Staging areas in Lake Elsinore also include local parks, and a combination of private and public land uses. The goals and policies framework, as presented in Chapter 3 of this Plan, guides the implementation of facilities such as bike racks, lockers, or forms of storage, as well as shower or hydration facilities that may come about from development or redevelopment of private land uses. The City should also ensure that public staging areas, parks or activity centers such as the Lake Elsinore Senior Center and Cultural Center have bicycle parking available at a minimum.

An inventory was performed at each of the City's public activity centers for the presence of bicycle parking. The current availability, as well as locations where future bicycle support facilities may be targeted, is presented in **Figure 5-17**.





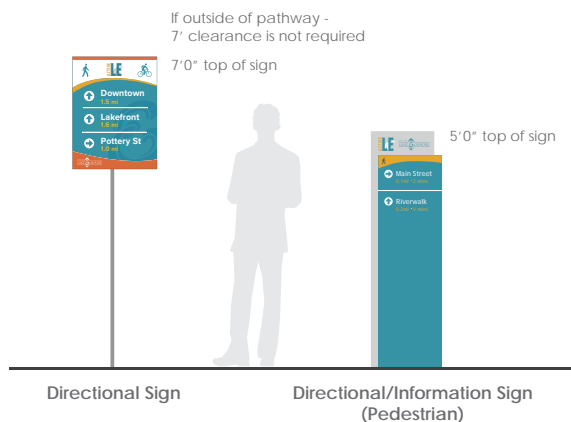
Figure 5-17 Existing and Project Bicycle Support Facilities





## 5.7 WAYFINDING

A set of wayfinding concepts was developed in tandem with the Active LE effort to provide a coherent branding statement for wayfinding in the City, incorporating the City of Lake Elsinore's design language, "dream extreme" motto, and vision. This will allow the Active LE program to maintain visibility as a living component of the City's overarching programs and efforts, as this Plan is implemented, maintained, and updated in the future. The wayfinding concepts were developed with feedback from City staff and the Project Design Team. The wayfinding concepts are presented in *Appendix C*.



## 5.8 PROGRAMMATIC IMPROVEMENTS

This section presents recommendations for complementary, but essential education and encouragement programs in support of active transportation. Paired with physical infrastructure improvements as guided earlier in this chapter, these programmatic improvements will encourage a culture of safe, enjoyable riding and walking for utilitarian and recreational purposes, and position the City to enjoy the maximum benefit of its active transportation networks. The programmatic recommendations fall into the following broad categories:

- Education & Outreach**  
 Education is a critical element for a complete and balanced approach to improving both bicycling and walking safety for all road users.
- Pedestrian & Bicycle Events**  
 Local and regional events provide opportunities to promote walking and biking, by showing both new and existing users the benefits and enjoyment that active mobility provides, in a friendly setting.
- Enforcement**  
 Enforcement of traffic laws for all modes of travel creates safer environments for everyone.

- Programs & Coordination**  
 Coordinating with internal City departments and surrounding jurisdictions is important to increase the utility and viability of infrastructure projects.

### Education & Outreach

When a new or unfamiliar intersection treatment or other piece of infrastructure is implemented in the City, consider a parallel education effort targeted toward the user group(s) most likely to be impacted. General education on the intended function and appropriate behavior around the new infrastructure should be the primary focus of the campaign. A secondary focus could be related to the benefits of the new infrastructure and how it helps the City to fulfill broader public safety, mobility and/or sustainability goals.

Education campaigns promote safe driving behaviors and collaboration between motorists and active transportation users. For Lake Elsinore, one such campaign could be on education regarding the "Three Feet for Safety Act" (CVC 21760) to promote safe motorist behavior along Class III bike routes, such as along Main Street. The "Three Feet for Safety Act" requires drivers to maintain a minimum 3-foot buffer

when passing cyclists, and when sharing a road with bicycles, either with or without dedicated facilities. The campaign uses media outlets including street banners, billboards, commercials and press releases to increase the brand awareness of Street Smarts. Campaigns may use community events, schools and sponsorships to educate the community about safe driving.

Implementation of the priority projects will require a concurrent educational campaign to inform community members of the goals and benefits of the projects as they are implemented, as well as how to properly use the new facilities. The following educational strategies should be considered:

- **Project Website**  
To provide an overview of and updates on implementation of major projects and their related goals, design features, schedule of approval, design and construction, or impacts to the neighborhood.
- **Flyers/Postcards**  
To be distributed to residents and businesses along the streets impacted by projects, and made available at public buildings, public meetings, and other major activity centers.

- **Videos**  
To be shown before Council Meetings on public access TV, and uploaded to YouTube to promote the priority projects and explain new design concepts for Lake Elsinore's streets (i.e., new bike lanes).
- **Billboards/Bus Shelters**  
Working with RTA or utilizing billboards such as the electronic marquee at the Lake Elsinore Outlet Mall, feature simple, large print ads to promote pedestrian and bicycle safety and/or explain new design treatments in the public right of way (i.e. flashing pedestrian beacons).
- **Social Media**  
To promote and provide updates on projects via major social media outlets, such as Facebook, Flickr, Instagram.
- **Staff/Agency Training**  
To provide City staff and enforcement staff with training on new design treatments in the right-of-way.
- **Safety Device Giveaway**  
To provide community members with safety equipment (i.e., bicycle bells, bike helmets, bike lights, walking/jogging reflectors). These giveaways could be coordinated with major events.
- **Safe Night Out**  
To encourage pedestrian and bicycle activity by organizing public safety walks along commercial streets and hand out safety information and/or giveaways.

- **General Public Outreach**  
Distribute brochures advertising Lake Elsinore's multimodal travel options, such as new bike infrastructure, or the use of RTA services.

## Pedestrian & Bicycle Events

Throughout the year, the City should continue to look for opportunities to promote walking and bicycling at local and regional events, such as the following:

- **Bike to Work Day/Month**  
The City should promote and participate in Bike to Work Day/Month, a regional event sponsored by SCAG and regional agencies during the month of May. This is a good opportunity to give away safety equipment, raise the visibility of cycling in the City, and partner with local community groups and businesses to create a bike advocacy community.
- **National Night Out**  
The City should continue to have a presence at National Night Out, typically held in the month of August. The City could pass out pedestrian and safety education materials and/or equipment at the neighborhood block parties during National Night Out, typically held in the month of August.

- **Pop-up Neighborhood Event**  
During the design development phase, the City could host a “pop-up” event, such as those facilitated during the creation of this Plan, with temporary in-street installations at the site of proposed improvements. These events allow community members to try out, touch, and see the potential improvements in their future location. The event helps residents understand the benefits of unusual or non-traditional neighborhood greenway treatments, such as traffic diverters or unique pavement markings and signage.
- **GoHuman Events**  
The GoHuman campaign, led by SCAG, partners with cities throughout the region to host open streets events focusing on encouraging people to walk and bike more by inviting the community to interact with city streets, free of automobile traffic. The event furthers goals of reducing traffic collisions in Southern California, and creating safer, healthier cities. Lake Elsinore held a successful GoHuman event in October of 2018. An identified next step from the GoHuman Event Summary that followed this event is continued coordination with Community Services and the Riverside County Sheriff’s Department to host additional bicycle education events throughout the community.

### Enforcement

Enforcement tools have demonstrated effectiveness in improving safety for road users. Allocate associated resources for Riverside County Sheriff staff time to enforce the rules of the road related to:

- Pedestrian Crossing Behavior
- Motorist Behavior
- Safe Walking, Riding, and Driving in School Zones
- Riding Against Traffic
- Failure to Yield at Crosswalks

### Programs & Coordination

Coordinating with internal City departments and surrounding jurisdictions is important to increase the utility and viability of projects.

- **Bike Network Connections**  
Organize quarterly check-in meetings with neighboring jurisdictions to update on network connections and facilities.
- **Multimodal Connections**  
Coordinate with RTA on placement of bus stops and transit enhancements,

such as additional bike racks on buses and bikeshare program.

- **Bike Racks/Parking in the Right-of-way**  
Continue to work with local businesses and land development projects to identify locations for bike parking along the public right-of-way.
- **Walking Route Program**  
Identify and establish walking routes in the City. During public outreach, participants expressed a lack of clearly defined, safe walking routes, particularly around schools. Residential streets with tree cover, low traffic volumes, and absence of bicyclists on sidewalks make good candidate routes. Walking routes could be connected to one or multiple parks within the City. Routes could be supported by sidewalk and landscaping improvements, signage, educational pamphlets and/or scheduled walking programs.

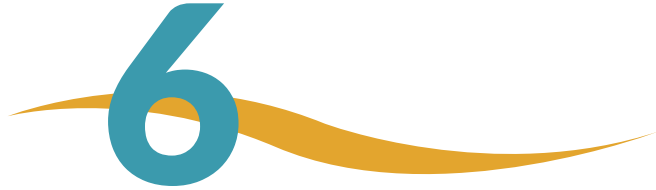




A photograph of a dirt path leading through a line of trees towards a body of water. The trees have light-colored, peeling bark. The path is shaded by the trees. In the background, a calm lake is visible under a clear sky. A small signpost is on the left side of the path.

# 6 NEXT STEPS





## NEXT STEPS

Implementation of the Active LE Plan is ultimately based upon several factors, such as the availability of funding, successful pursuit thereof, or immediate safety concerns that may present new project needs at a later date. Further factors that determine implementation include changes in availability of funding at the federal, state, or regional level, or local capital improvement projects such as road widening and traffic control lights at intersections.

The following chapter is intended to guide ongoing implementation of the networks presented and prioritized in Chapter 5, as well as the Active LE plan as a whole, including cost and maintenance

## 6.1 PLAN REVIEW AND UPDATE

Once adopted, City staff should review and update the plan every four years, as is required by Caltrans for competitiveness in grant programs. A fresh assessment based upon the successes of completed facilities, a reappraisal of cost estimates, and identification of changes in the proposed system to meet future increased demand for bicycle and pedestrian facilities and new development should accompany any update. It should be noted that any major changes in future Plan updates may be subject to further environmental review. Once approved by the City Council, this and any updated Plan document should be forwarded to Caltrans for approval

## 6.2 ESTIMATED NEW USERS

While Census data provides insight to mode choice for work commute trips, understanding the varied number of reasons why one chooses to make a trip, as well as the mode chosen for all trip purposes, is more difficult to ascertain. The following analysis is intended to extrapolate a conservative estimate of the number of trips taken when other factors are included, such as:

- Walking and biking trips to transit
- Walking and biking trips for work-from-home employees
- Trip chaining and round-trip effects on facility use levels

**Table 6-1** uses the latest available 2017 American Community Survey Census commute and demographic data, population growth factors per SCAG, rates of current walking and cycling in Lake Elsinore, and generally accepted marginal rates of additional bicycle use adoption based upon the creation of new facilities to provide a summary of the estimated number of new users expected in the future as projects are implemented. Scenarios include Year 2017 American Community Survey data, Year 2020 conditions, at which time it is assumed that no priority projects are constructed, and Year 2040 conditions (the current SCAG planning horizon year),

when it is assumed that the active transportation network has been built out.

Estimations were made based upon the number of daily walking and biking trips currently occurring, factoring for non-commute trips or walking and biking trips to transit, which are not captured by Census data, applying estimated citywide growth expected to occur by the year 2040 according to SCAG modeling forecasts, and adding a conservative growth factor of 1.3% to account for the effect that a more complete walking and biking network will have on attracting new users.

As shown, current daily bike and pedestrian trip estimates are about 7,100 daily trips, while forecast future active trips are about 13,000 daily trips, assuming build out of the proposed bicycle and pedestrian networks.

Details underlying the figures found in Table 6-1 are presented in **Appendix D**.

**Table 6-1 Existing and Future Daily Cyclist and Pedestrian Volumes**

Year	2017	2020	2040
Scenario	American Community Survey Estimate	Assumes no Completed Projects	Assumes Network Buildout
Estimated Daily Users (Cyclists/Pedestrians)	7,092 (1,026 / 6,066)	8,034 (1,162 / 6,872)	12,860 (1,861 / 11,000)



## 6.3 MAINTENANCE

Bicycle and pedestrian facilities must be maintained in an appropriate manner to ensure they continue to serve users well, so an ongoing maintenance program should be established. Well-maintained active transportation facilities increase safety, encourage use of the facilities, and increase longevity of the facilities. The maintenance program should include a periodic review of the condition of all signs, pavement markings, barriers, and surface condition of facilities. Roadway dirt, debris, and potholes affect pedestrians and cyclists to a greater extent than cars. It is therefore recommended that routine surveys of the City's active transportation network are conducted by City staff to ensure timely removal of glass and other debris, as well as to conduct routine restriping and sign replacement.

It is also recommended that the City designate a staff person to serve as active transportation coordinator, or appoint a local organization on their behalf. This allows local residents to know who to contact when there are maintenance, connectivity, or general concerns. This person would have the primary responsibility to implement the Plan by leading pursuit of grant funds,

coordinating with the Public Works or other City departments to incorporate bicycle and pedestrian facilities into the Capital Improvement Program (CIP), and updating the Plan as appropriate and discussed earlier in this chapter. A typical set of tasks for the active transportation coordinator may include:

- Pursuing grants for pedestrian and bikeway projects and programs.
- Participating in Southern California Association of Governments (SCAG) bicycle committees and other regional transportation groups involved in funding programs or transportation planning, such as Riverside County, RTA, or the Western Riverside Council of Governments (WRCOG).
- Coordinating and promoting active transportation education, incentives, and awareness programs and events.
- Serving as the contact person for active travel-related questions and concerns.
- Reviewing the SCAG Regional Transportation Plan/Sustainable Communities Survey (RTP-SCS), including maintaining an awareness of future update processes, to ensure consistency with local and regional bikeways.
- Participating with SCAG in the developing the RTP-SCS as it relates to the regional bikeway network.
- Assembling and storing accident data, facility usage data, and other statistical data that may be used for grant funding applications.
- Maintaining a log of maintenance tasks, costs, and scheduled bikeway improvements.
- Serving as a clearinghouse for filtering community concerns, education materials and for coordinating volunteer groups.
- Reviewing and providing an update of this Plan to the City Council at a minimum of every four years and forward to Caltrans for review and approval.

## 6.4 FUNDING

Planning efforts are constrained by concerns over limited implementation resources. Projects that are part of comprehensive plans often have a competitive edge over standalone projects. Indeed, there are many different ways to combine funding and other resources. Commonly-used funding sources are provided in Table 6-2 below. As shown, there are multiple avenues to secure funding for different aspects of bikeway and pedestrian planning, engineering, and construction. It should be noted, however, that grant funds are competitive, and State and Federal authorities receive more applications for funding each year than there are funding dollars available. Therefore, it is recommended that a City staff member, such as a potential active transportation coordinator, be allocated to pursue potential funding sources.



**Table 6-2** *Pedestrian and Bicycle Funding Opportunities*

This table indicates potential eligibility for pedestrian and bicycle projects under US Department of Transportation surface transportation funding programs. Abbreviations used are noted in the matrix that follows the table. Additional restrictions may apply. See notes and basic program requirements below and see program guidance for detailed requirements. Project sponsors should fully integrate nonmotorized accommodation into surface transportation projects. Section 1404 of the Fixing America's Surface Transportation (FAST) Act modified 23 U.S.C. 109 to require federally-funded projects on the National Highway System to consider access for other modes of transportation and provides greater design flexibility to do so.

Key:                    ~\$ = Eligible, but not competitive unless part of a larger project.      \$\* = See program - specific notes for restrictions.      \$ = Funds may be used for this activity (restrictions may apply).

Activity or Project Type	SB1	TI-GER	TI-FIA	FTA	ATI	CMAQ	HSIP	NHPP	STBG	TA	RTP	SRTS	PLAN	NHTSA - 402	NHTSA - 405	FLTP
Crosswalks (new or retrofit)	\$	\$	\$	\$	\$	\$*	\$	\$	\$	\$	\$	\$				\$
Curb cuts and ramps	\$	\$	\$	\$	\$	\$*	\$	\$	\$	\$	\$	\$				\$
Counting equipment				\$	\$		\$	\$	\$	\$	\$	\$	\$*			\$
Data collection and monitoring for pedestrians and bicyclists				\$	\$		\$	\$	\$	\$	\$	\$	\$*			\$
Historic preservation (pedestrian and bicycle and transit facilities)		\$	\$	\$	\$				\$	\$						\$
Landscaping, streetscaping (pedestrian and/or bicycle route; transit access); related amenities (benches, water fountains); generally as a part of a larger project	\$	~\$	~\$	\$	\$			\$	\$	\$						\$



Table 6-2 Pedestrian and Bicycle Funding Opportunities

Activity or Project Type	SB1	TI-GER	TI-FIA	FTA	ATI	CMAQ	HSIP	NHPP	STBG	TA	RTP	SRTS	PLAN	NHTSA - 402	NHTSA - 405	FLTP
Lighting (pedestrian and bicyclist scale associated with pedestrian/bicyclist project)	\$	\$	\$	\$	\$		\$	\$	\$	\$	\$	\$				\$
Maps (for pedestrians and/or bicyclists)				\$	\$	\$			\$	\$		\$	\$*			
Paved shoulders for pedestrian and bicycle use		\$	\$			\$*	\$	\$	\$	\$		\$				\$
Pedestrian plans				\$					\$	\$			\$			\$
Recreational trails	\$	~\$	~\$						\$	\$	\$					\$
Road diets (pedestrian and bicycle portions)	\$	\$	\$				\$	\$	\$	\$						\$
Road Safety Assessment for pedestrians and bicycles							\$		\$	\$			\$			\$
Safety education and awareness activities and programs to inform pedestrians, bicyclists, and motorists on ped/bike safety	\$								\$SRTS	\$SRTS		\$	\$*	\$*	\$*	
Safety education positions									\$SRTS	\$SRTS		\$		\$*		
Safety enforcement (including police patrols)	\$								\$SRTS	\$SRTS		\$		\$*	\$*	

## CHAPTER 6 - Next Steps

**Table 6-2 Pedestrian and Bicycle Funding Opportunities**

Activity or Project Type	SB1	TI-GER	TI-FIA	FTA	ATI	CMAQ	HSIP	NHPP	STBG	TA	RTP	SRTS	PLAN	NHTSA - 402	NHTSA - 405	FLTPP
Safety program technical assessment (for peds/bicyclists)									\$SRTS	\$SRTS		\$	\$*	\$		
Separated bicycle lanes	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		\$				\$
Shared use paths / transportation trails	\$	\$	\$	\$	\$	\$*	\$	\$	\$	\$	\$	\$				\$
Sidewalks (new or retrofit)	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$				\$
Signs / signals / signal improvements		\$	\$	\$	\$	\$	\$	\$	\$	\$		\$				\$
Signed pedestrian or bicycle routes	\$	\$	\$	\$	\$	\$		\$	\$	\$		\$				\$
Spot improvement programs		\$	\$	\$			\$	\$	\$	\$	\$	\$				\$
Stormwater impacts related to pedestrian and bicycle projects		\$	\$	\$	\$		\$	\$	\$	\$	\$	\$				\$
Traffic calming	\$	\$	\$	\$			\$	\$	\$	\$		\$				\$
Trail bridges	\$	\$	\$			\$*	\$	\$	\$	\$	\$	\$				\$
Trail construction and maintenance equipment	\$								\$RTP	\$RTP	\$					

**Table 6-2 Pedestrian and Bicycle Funding Opportunities**

Activity or Project Type	SB1	TI-GER	TI-FIA	FTA	ATI	CMAQ	HSIP	NHPP	STBG	TA	RTP	SRTS	PLAN	NHTSA - 402	NHTSA - 405	FLTP
Trail/highway intersections		\$	\$			\$*	\$	\$	\$	\$	\$	\$				\$
Trailside and trailhead facilities (includes restrooms and water, but not general park amenities; see guidance)		~\$*	~\$*						\$*	\$*	\$*					\$
Training						\$	\$		\$	\$	\$	\$	\$*	\$*		
Training for law enforcement on ped/bicyclist safety laws	\$								\$SRTS	\$SRTS		\$			\$*	
Tunnels / undercrossings for pedestrians and/or bicyclists	\$	\$	\$	\$	\$	\$*	\$	\$	\$	\$	\$	\$				\$

**Abbreviations:**

- ADA/504: Americans with Disabilities Act of 1990 / Section 504 of the Rehabilitation Act of 1973
- SB1: Senate Bill 1 Transportation Investment bill which allocates funds to transit, bike and pedestrian projects
- TIGER: Transportation Investment Generating Economic Recovery Discretionary Grant Program
- TIFIA: Transportation Infrastructure Finance and Innovation Act (loans)
- FTA: Federal Transportation Administration Capital Funds
- ATI: Associated Transit Improvement (1 percent set-aside of FTA)
- CMAQ: Congestion Mitigation and Air Quality Improvement Program
- HSIP: Highway Safety Improvement Program
- NHPP: National Highway Performance Program
- STBG: Surface Transportation Block Grant Program
- TA: Transportation Alternatives Set-Aside (formerly Transportation Alternatives Program)
- RTP: Recreational Trails Program
- SRTS: Safe Routes to School Program/Activities
- PLAN: Statewide Planning and Research (SPR) or Metropolitan Planning Funds
- NHTSA 402: State and Community Highway Safety Grant Program
- NHTSA 405: National Priority Safety Programs (Nonmotorized safety)
- FLTP: Federal Lands and Tribal Transportation Programs (Federal Lands Access Program, Federal Lands Transportation Program, Tribal Transportation Program, Nationally Significant Federal Lands and Tribal Projects)