

Transportation Element

The Transportation Element outlines the existing circulation system within the City of Redding and its designated Sphere of Influence (SOI), and provides goals and policies to direct implementation programs to enhance mobility and efficiently serve existing and future land uses.

The Transportation Element supports regional and statewide efforts to reduce greenhouse gas emissions and vehicle miles traveled (VMT), as well as complement environmental justice efforts and improve public health.

A key goal of the Transportation Element is the provision of a well-connected network of “complete streets” that accommodate multi-modal mobility, provide access to land uses and support the City’s economic and sustainability goals. The Transportation Element ensures that transportation and land use decisions are coordinated and promote the safe and efficient transport of goods, make efficient use of existing facilities, and protect environmental quality.



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Introduction

The Transportation Element addresses the street and transportation network and the movement of people and goods within the City of Redding. It establishes a plan for the transportation system to serve all members of the community. The transportation system shapes community life by linking friends to friends, people to jobs, homes to shopping, businesses to supplies, and families to entertainment. As such, the Transportation Element provides goals, policies, and implementation measures to guide the prioritization of future investments and maintenance.

Statutory Requirements

The Transportation Element meets State General Plan law, California Complete Streets Act requirements, and supports statewide goals that aim to reduce vehicle miles traveled (VMT).

The Transportation Element (referred to by the Government Code as the Circulation Element) provides the necessary framework to guide the growth and development of the Planning Area's transportation-related infrastructure and integrates land use and transportation planning by ensuring that all existing and future developments have adequate multi-modal access and circulation.

California law mandates the development of a Circulation Element as part of the General Plan.

- The Circulation Element must contain the “general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other local public utilities and facilities”, all correlated with the land use element of the General Plan per Government Code Section 65302(b).
- In addition, the General Plan must incorporate “Complete Streets” policies, as described below.

Utility-oriented facilities, such as energy, water, sewage, storm drainage, solid waste, and communications, are addressed within the Public Facilities and Services Element of the City of Redding General Plan.



Complete Streets Act

The term “Complete Streets” refers to a balanced, multimodal transportation network that meets the needs of all users of streets -- including bicyclists, persons with disabilities, motorists and passengers, users of personal mobility devices such as scooters and skateboards, movers of commercial goods, pedestrians, public transit, and seniors. A “Complete Street” provides safe and convenient travel in a manner that is suitable to the local users.

The Transportation Element is consistent with the California Complete Streets Act (AB 1358), adopted in 2008, which requires that cities and other public agencies incorporate “Complete Street” policies when updating the General Plan Circulation Element. Complete Streets make travel safe for all users. Every street does not need to provide dedicated space to all users, but the network must accommodate the needs of all users.

Economically, Complete Streets can help revitalize communities and can give people the option to lower transportation costs by using transit, walking, or bicycling rather than driving to reach their destinations. The City of Redding has a few critical corridors that are managed by the California Department of Transportation (Caltrans). Caltrans is actively engaged in implementing its complete streets policy in all planning, programming, design, construction, operations, and maintenance activities for the State Highway System. The provision of safe mobility for all users contributes to the Caltrans vision: "...improving mobility across California." The successful long-term implementation of this vision is intended to result in diverse options for transporting people from one place to another, less traffic congestion and greenhouse gas emissions, more walkable communities (with healthier, more active people), and fewer barriers for older adults, children, and people with disabilities.



Example of a “complete street” with pedestrian-oriented land uses.

Capital Improvement Programs

California Government Code Section 65401 specifies public works projects must conform with the General Plan. In practice, this requires that the City, during each adoption of the Five-Year Capital Improvement Program (CIP), make findings that the proposed City of Redding Five-Year CIP is in conformance with the General Plan, including the Transportation Element.

Vehicle Miles Traveled & SB 743

The Transportation Element is consistent with Senate Bill (SB) 743 which was passed by the California Legislature in 2013 and led to changes to the California Environmental Quality Act (CEQA) regarding the analysis of transportation impacts that took effect in 2020. Transportation impact analysis under CEQA is no longer based on level of service (LOS), which focused on motor vehicle delay. The new CEQA standards require that transportation impacts associated with the development be assessed primarily based on the effects on VMT.

Rates of VMT are typically lowest in compact, walkable, and mixed-use areas. Higher rates of VMT tend to occur in suburban or rural areas with low population densities and longer distances to activity centers. Therefore, efforts to reduce VMT often focus on encouraging infill development. Similarly, SB 743 aims to encourage infill development and a diversity of land uses instead of sprawl, and to promote multi-modal transportation networks that provide efficient access to destinations and improve public health through active transportation.

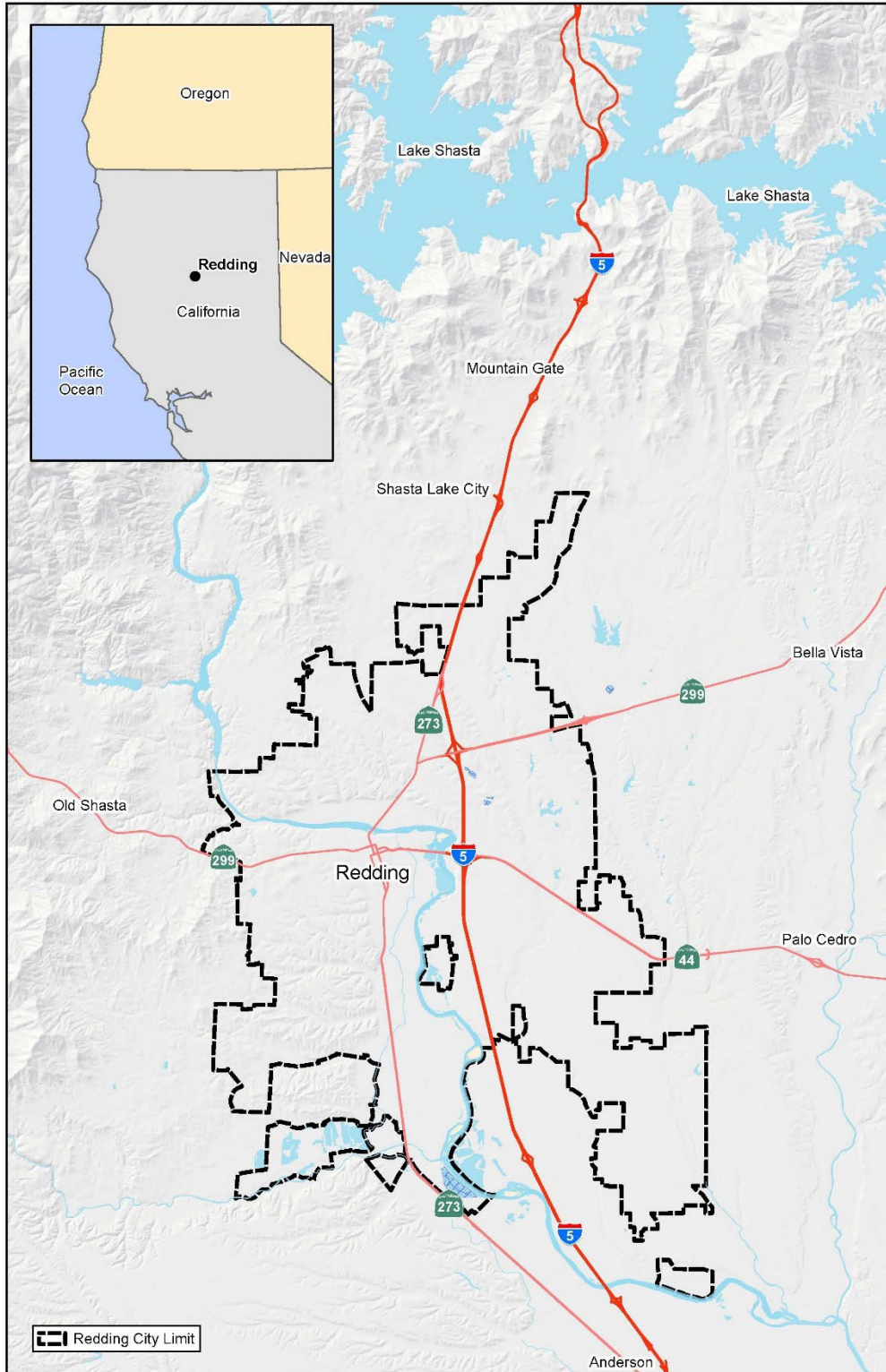
While LOS is no longer relevant for CEQA purposes, LOS-based performance goals remain relevant for non-CEQA planning purposes and as a tool for the City to ensure its roadway system meets the expectations of the community which are discussed under the heading Motor Vehicle Traffic.

Regional Transportation Planning

California courts have recognized that general plans must reflect the regional context. The Transportation Element must, therefore, account for both regional transportation plans and, in some cases, congestion management plans. Metropolitan planning organizations and regional transportation planning agencies prepare regional transportation plans in cooperation with the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Caltrans, the Air Resources Board, the Department of Housing and Community Development, and other stakeholders, including system users.

The purpose of the regional transportation plan (RTP) is to establish regional goals; identify present and future transportation needs, deficiencies, and constraints; analyze potential solutions; estimate available funding; and propose investments. In most regions in California, the RTP includes a sustainable community strategy (SCS) that aligns transportation investments with a land use pattern designed to reduce regional greenhouse gas emissions. To be eligible for federal and state funding, transportation projects must be consistent with the adopted RTP, including an applicable SCS.

Figure 1: Regional Location

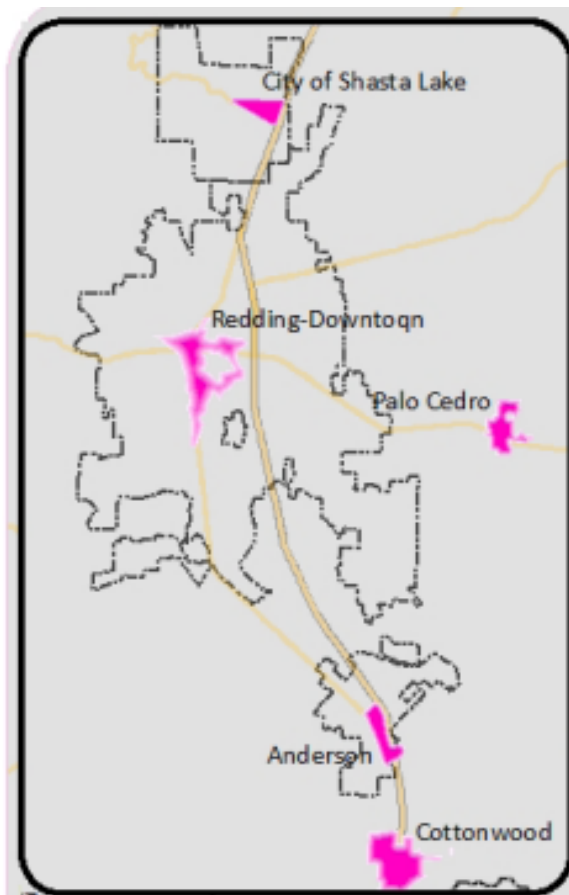


RTP/SCS for Shasta County Region

The Shasta Regional Transportation Agency (SRTA) is the federally-designated metropolitan planning organization (MPO) and state-designated regional transportation planning agency (RTPA) for the Shasta County region. Every four years, SRTA prepares and adopts the *Regional Transportation Plan & Sustainable Community Strategy for the Shasta Region* (Shasta RTP/SCS), a comprehensive RTP with an SCS covering a minimum 20-year planning horizon.

The SCS addresses emission reduction targets and identifies Strategic Growth Areas (SGAs) where various strategies can be focused to effectively reduce per capita VMT and associated greenhouse gas emissions. The urban core area in the City of Redding was identified as an SGA, as shown in the following figure.

Figure 2: RTP/SCS Strategic Growth Areas



Local Mobility Setting

How people move from one place to another is an important indicator of the success of a transportation system. This section summarizes travel characteristics associated with the Redding transportation network by gauging its current performance and tailoring projects and programs that will provide benefits to the community.

Redding has long been the most northerly crossroads in California, a meeting place of east-west and north-south travel. Located where the Central Valley meets the mountains, Redding developed as the most important hub north of Sacramento. Its locational advantages and the historical transportation routes into surrounding counties have made the Redding area the commercial center for north-central and northeastern California, and, today, it serves as regional headquarters for a host of businesses and governmental agencies.

Residents living in the City of Redding generate lower rates of VMT per capita than other areas of Shasta County because there is greater proximity to jobs, commercial areas, and services such as public transit. Nonetheless, the Shasta RTP/SCS notes that the Redding urban area has a relatively low population density (2 persons per acre) relative to comparable cities outside of Shasta County (for example, Chico, which has a population density of 6 persons per acre).

Travel Modes

The U.S. Census Bureau American Community Survey (ACS) provides data on the mode by which people travel to/from work (or commute). As shown in Table 1, most employed Redding residents commute via automobile to and from work. However, the ACS does not account for non-commute trips, including utilitarian or recreational trips, or multi-modal trips (e.g., walking to a bus stop or walking after driving to a destination). The ACS data also does not represent travel patterns for trips made by youth and trips to and from schools and colleges in the area.

Table 1: Work Commute Travel Modes

Jurisdiction	Drive Alone	Carpool	Transit	Walk	Bicycle	Work at Home	Taxi, Motorcycle or Other
Redding	81.4%	8.2%	1.0%	2.0%	1.1%	5.1%	1.1%

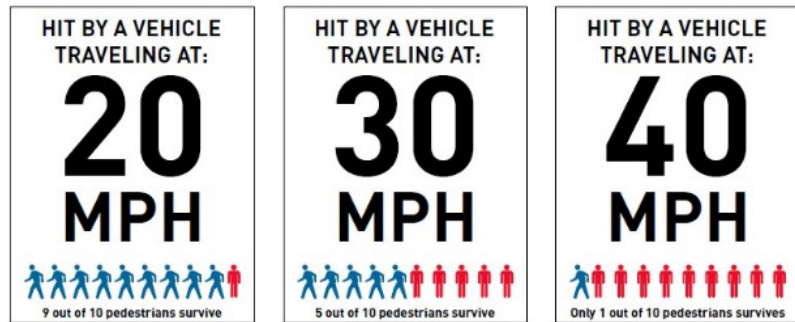
Source: United States Census Bureau, American Community Survey, 2015

Motor Vehicle Traffic

Daily traffic volumes on key motor vehicle routes within Redding are summarized in Table 2. The primary regional motor vehicle facility is the Interstate 5 (I-5) freeway that carries roughly 69,000 daily vehicles near Cypress Street in Redding. Cypress Street carries over 30,000 daily vehicles across the Sacramento River east of downtown, while many of Redding's key streets carry between 10,000 to 18,000 daily vehicles. To put the daily volumes in perspective: streets with one lane per direction can typically accommodate roughly 20,000 daily vehicles, while streets with two lanes per direction can accommodate over 30,000 daily vehicles, provided that left-turn pockets are provided where appropriate. A driver's perception of traffic flow is directly related to expectations. Motorists may expect and accept occasionally heavy traffic, but will not accept continuous delays throughout their course of travel. In Redding, most drivers have come to expect virtually free-flow traffic, unlike what they may have encountered in larger cities in which they have either resided or visited. But it is important to realize that, while all streets are designed to carry traffic, they are not all the same. Some serve major commercial corridors and are directly linked to Interstate 5 and the State highway system, including State Route 44, 273, and 299. Other streets function as links between places of work and residential areas. Still, others provide basic organization to areas, like Downtown with its "grid" system, and have their flavor and provide different driving experiences. It is not reasonable to expect that every street should have free-flow traffic 24 hours a day.

The speed of vehicles traveling in residential neighborhoods is a very real concern. Although residential streets are typically designed for a speed of 25 MPH, the average speed along the City's residential streets is more than 30 MPH. On certain streets, the average speed is considerably higher. Excessive speed not only poses serious pedestrian safety concerns, but it also affects the residents'

perception of the general quality of life within neighborhoods. Speed humps, street closures, and diversions are important tools but must be used appropriately given each neighborhood's unique environment. These devices, if not properly designed, may cause longer response times for emergency vehicles and reduce access options. Speed can be controlled through several means, including increased enforcement; traffic-calming devices such as traffic circles and neck-downs; speed tables; and narrowing the "pavement width" either physically or by using visual cues such as striping to narrow the traffic lanes of the street. Reducing the width of motor vehicle lanes is an effective strategy to reduce travel speeds in many cities, with 10- to 11-foot lane widths recommended for City streets, consistent with National Association of City Transportation Officials (NACTO) guidelines. Such provisions are an integral component of new neighborhoods as addressed in the Community Development and Design Element.



Speed is especially lethal for vulnerable users like pedestrians and people biking. The risk of injury and death increases as speed increases.

Table 2: Daily Traffic Volumes

No	Street / route	Location	Avg Daily Traffic	
			Baseline	2045
1	Interstate 5 (I-5)	N of Twin View Blvd	39,500	51,100
2	Interstate 5 (I-5)	N of SR-299 / S of Twin View Blvd	46,500	58,100
3	Interstate 5 (I-5)	N of SR-44 / S of SR-299	60,000	75,000
4	Interstate 5 (I-5)	S of SR-44 / N of Cypress Ave	69,000	88,600
5	Interstate 5 (I-5)	S of Cypress Ave / N of Churn Cr Rd	61,000	80,000
6	Interstate 5 (I-5)	S of Churn Creek Rd	58,000	78,200

7	SR-44	E of Butte St / W of I-5	56,000	66,200
8	SR-44	E of I-5 / W of Hilltop Dr	48,000	55,700
9	SR-44	E of Hilltop Dr / W of Victor Ave	37,000	45,900
10	SR-44	E of Victor Ave	35,000	39,100
11	SR-44	Shasta View Dr	23,500	29,500
12	SR-44	Airport Rd	16,600	20,600
13	SR-273	N of Lake Blvd	12,700	14,000
14	SR-273	N of Benton Dr/S of Lake Blvd	20,800	23,500
15	SR-273	S of Market/Pine	16,800	19,100
16	SR-273	S of Buenaventura Ave	19,200	22,500
17	SR-273	S of S. Bonnyview Rd	21,800	25,000
18	SR-299	W of I-5 / E of SR-273	20,300	25,400
19	SR-299	E of I-5 / W of Hawley Rd	21,000	25,500
20	SR-299	E of Hawley Rd/W of Old Oregon Tr.	11,600	14,100
21	SR-299	E of Old Oregon Tr.	9,700	11,000
22	Airport Rd	N of Rancho Rd	12,100	16,400
23	Airport Rd	S of Rancho Rd	9,900	13,800
24	S. Bonnyview Rd	west of I-5 ramps	21,600	26,000
25	S. Bonnyview Rd	east of I-5 ramps	23,700	29,300
26	S. Bonnyview Rd	west of Churn Creek Rd	21,100	25,700
27	Buenaventura Blvd	N of Placer St	9,300	10,500
28	Buenaventura Blvd	S of Placer St	9,400	11,500
29	California St	btw Shasta & Tehama St	6,100	6,700
30	Churn Creek Rd	S of SR-299 ramps	13,100	15,800
31	Churn Creek Rd	N of S Bonnyview	13,000	14,900
32	Churn Creek Rd	E of S Bonnyview	13,400	17,800
33	Cypress Ave	W of Hartnell Ave	27,900	35,900
34	Cypress Ave	E of Hartnell Ave	19,000	22,200
35	Cypress Ave	E of I-5 / W of Hilltop Dr	31,200	36,800
36	Cypress Ave	E of Hilltop Dr / W of Larkspur Ln	21,000	25,100
37	Hartnell Ave	W of Bechelli Ln	12,000	12,700
38	Hartnell Ave	E of Bechelli Ln	13,600	13,800
39	Hartnell Ave	E of Churn Creek Rd	18,400	19,500
40	Hartnell Ave	W of Shasta View Dr	10,000	11,400
41	Hartnell Ave	E of Shasta View Dr	5,900	7,100
42	Hawley Rd.	N of SR-299 ramps	6,400	7,800
43	Hilltop Ave	N of Cypress Ave	12,100	13,300
44	Old Oregon Trail	S of SR-299 ramps	7,400	10,100
45	Placer St	E of Buenaventura Blvd	12,500	15,300
46	Placer St	W of Buenaventura Blvd	13,900	14,100
47	Rancho Rd	W of Airport Rd	6,200	9,100
48	Victor Ave	N of Rancho Rd	3,600	5,100

Bicycling & Walking

Walking and bicycling, jointly referred to as “active transportation,” are key components of the City of Redding transportation system. Active transportation not only supports the health, vitality, and prosperity of the community but directly supports the quality of life for residents.

Biking as a form of transportation has been popular in the City of Redding for many years. The earliest bicycle route planning document was a regional bikeway plan adopted in 1984, and the City adopted bicycle



master plans in 1998 and 2010, and further updated in 2018 with the adoption of the Redding *Active Transportation Plan* (developed in conjunction with SRTA’s GoShasta Regional Active Transportation Plan). The purpose of the *Active Transportation Plan* is to lay the foundation for the establishment of a safe, efficient, comfortable, and connected active transportation network (i.e., pedestrian and bicycle networks/facilities) that is not only used but intrinsic to the lifestyle of Redding residents and visitors. The *Active Transportation Plan* is a living document that is intended to be updated every 4 to 7 years.

The *Active Transportation Plan* includes the following four goals:

- Goal 1: Strive to develop a highly connected and comfortable active transportation network.
- Goal 2: Work to increase the number of walking and bicycling trips.
- Goal 3: Work to increase safety and mobility for pedestrians and bicyclists.
- Goal 4: Promote an active transportation culture that benefits the community.

Existing Bicycle & Pedestrian Networks

Redding is well known for its Sacramento River Trail. This nationally-recognized, multi-use facility is a major recreational opportunity that has become the backbone of the active transportation network. Over the last 30 years, the trail was extended to over 20 miles in length and now creates a viable commuter corridor that connects neighborhoods, schools, parks, bikeways, open spaces, and major commercial areas. The community is outspoken in its desire to see this trail, or similar facilities, extended into additional neighborhoods, the downtown core, and various commercial areas. Any improvements that result from this plan should follow the lead of the Sacramento River Trail Project in contributing to the aesthetic and cultural value of the community.

The existing bicycle network, shown in Figure 3, is comprised of shared-use paths, bike lanes, and bike routes. Bicycle support facilities and amenities include bicycle parking, bicycle shops, and repair stations (e.g., a place to put air in low tires or fix a flat tire). Bicycle racks are concentrated in Downtown Redding and near shopping or commercial centers. Additionally, there are five bicycle shops and one repair station. Planned bicycle improvements identified in the *Active Transportation Plan* are incorporated into the Circulation Plan described in this element.

The pedestrian network, shown in Figure 4, shows sidewalks and paths that make up Redding’s pedestrian facilities. Pedestrian facilities include trails, curb ramps, crosswalks, crossing aids (e.g., pedestrian crosswalk indicators), traffic control devices aimed at facilitating pedestrian crossings (e.g., pedestrian crossing signs/beacons), grade-separated crossings, and other infrastructure to encourage and improve conditions for walking and accessibility for all, including disabled persons, the elderly, and even parents with strollers.

The sidewalk network is generally well connected in Downtown Redding and in areas adjacent to and within many of the retail centers and within most of the residential neighborhoods. However, gaps in the sidewalk network are evident in locations between neighborhoods. Planned pedestrian improvements identified in the *Active Transportation Plan* are incorporated into the Circulation Plan described in this element.



Figure 3: Existing Bikeways (Year 2022)

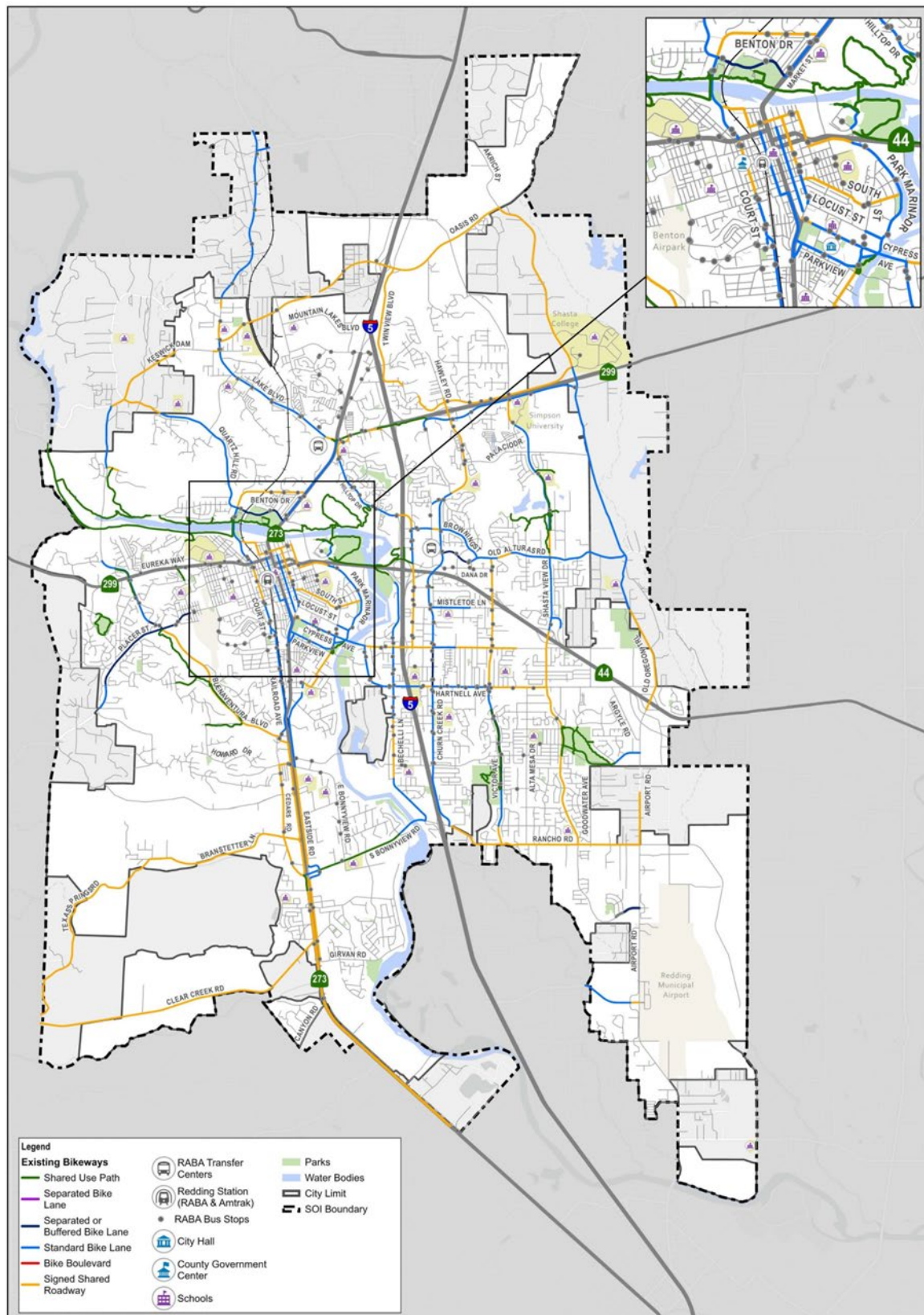
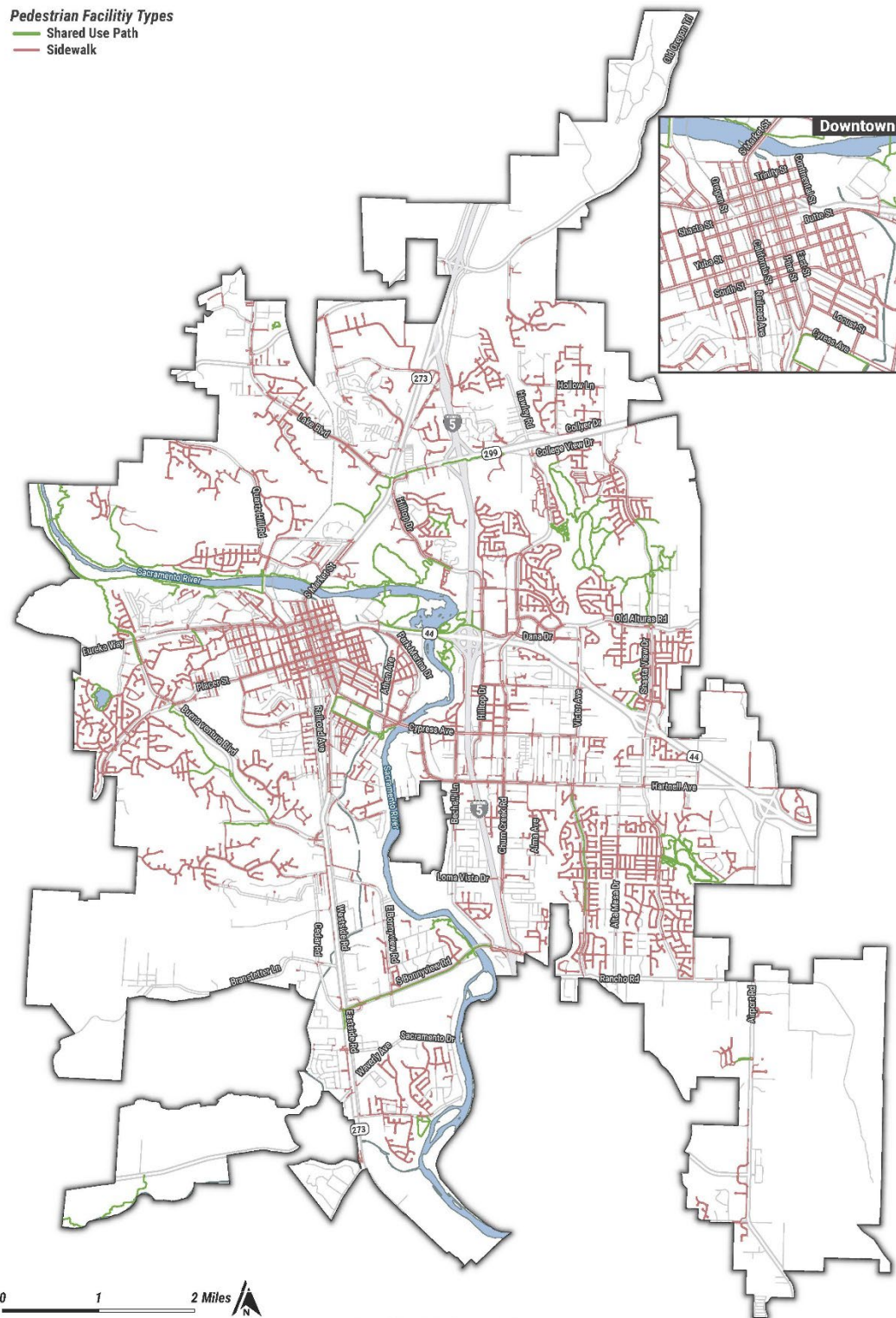


Figure 4: Existing Sidewalks & Paths



Source: Redding Active Transportation Plan (2018)

Public Transit Service

Public transportation in the Redding area is provided by the Redding Area Bus Authority (RABA) which provides both fixed-route and demand-response transit services. RABA was formed in 1976 by a joint powers agreement (JPA) between the City of Redding and the County of Shasta to provide public transit services within the Greater Redding Area. RABA began service in 1981 and has expanded over the years to meet the increased needs of the community. The JPA was amended in 1998 to include the City of Anderson and the City of Shasta Lake. RABA's primary source of revenue is Transportation Development Act (TDA) funds. Most RABA riders are commuters who are highly transit dependent.

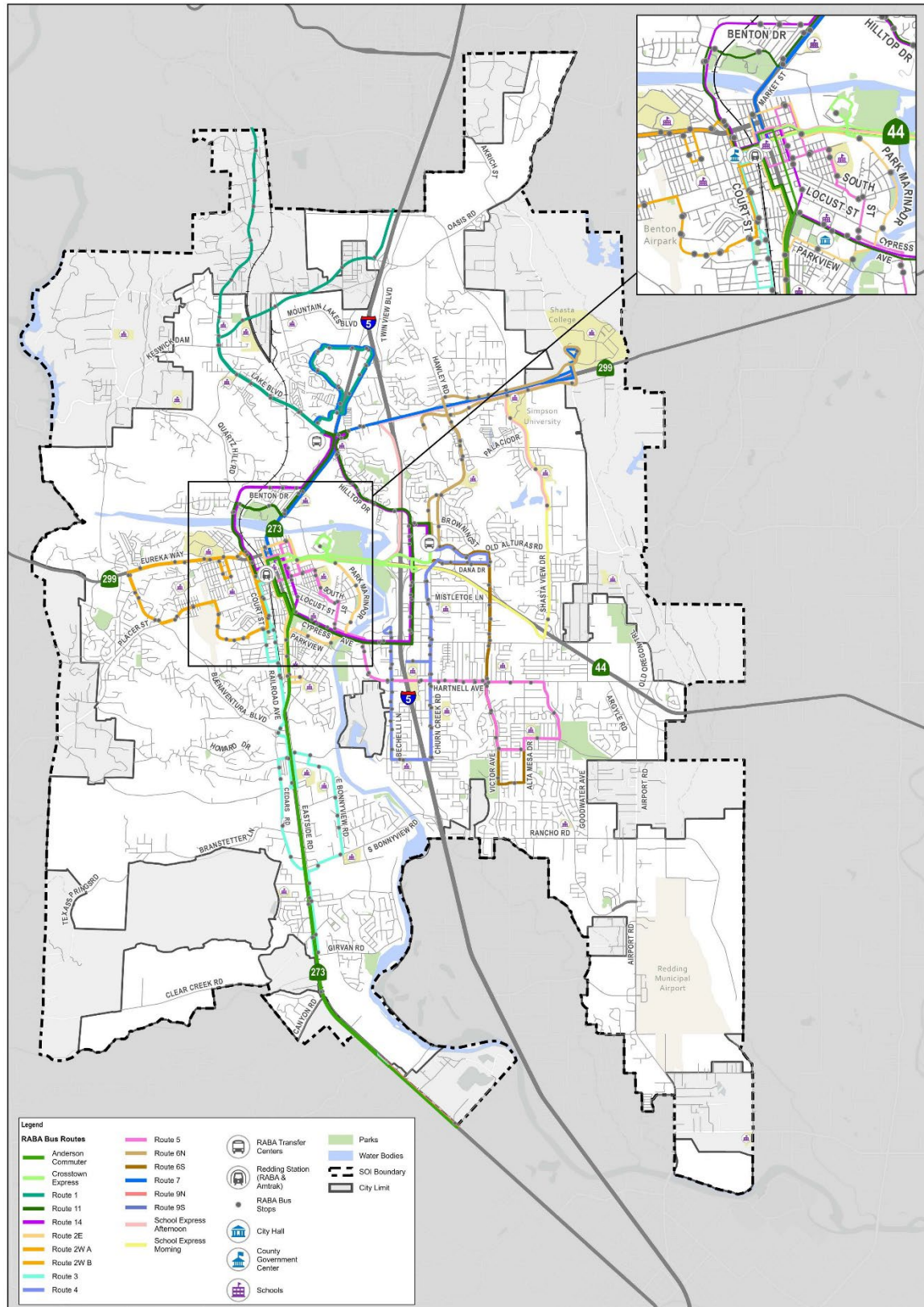
The RABA Downtown Transit Center is located in Downtown Redding and is the main transit hub in Shasta County, serving as a point of connection between RABA and other interregional bus services (e.g., Amtrak Thruway, Greyhound, Modoc Sage Stage, and Trinity Transit).

Currently, RABA fixed route service consists of ten local routes and three express routes. The local routes operate 12 or 13 service hours per day, Monday through Friday, starting at either 6:00, 6:30, or 7:00 a.m. Saturday service commences three hours later than the Monday through Friday start time but ends at the same time. RABA does not currently provide Sunday service. RABA's demand response transportation service provides origin and destination transportation for individuals who, because of a disability, are not able to utilize a regularly scheduled fixed route bus service. RABA's demand response service provides Americans with Disability Act (ADA) Paratransit service.

Figure 5 illustrates the fixed-route RABA bus routes that services the Redding community. All local routes depart from one of three RABA transit centers – six routes depart from the Downtown Transit Center, three from the Masonic Transfer Center, and five local routes from the Canby Transfer Center (TC). These routes all complete a loop in the span of one hour and return to the starting point at the respective transit center with a couple of exceptions.



Figure 5: Public Transit Routes & Stops



Safety & Collisions

A Local Road Safety Plan (LRSP) was developed for the City of Redding in February 2022 and provides a citywide analysis of the roadway system and details the current collision patterns and high-risk roadway characteristics (system analysis). In addition, the plan identifies safety countermeasures to help mitigate the City's primary crash type trends and reduce the overall collision severity.

Five years of collision data (2015-2019) from the Statewide Integrated Traffic Records System (SWITRS) and Transportation Injury Mapping System (TIMS) was evaluated for the City roadways. Within the five-year period, a total of 3,468 collisions were reported within the City of Redding, specifically 2,364 collisions on City streets and 1,104 collisions on Caltrans roadways. Of the 2,364 collisions on City streets, twenty-four (24) resulted in fatalities and ninety-three (93) resulted in severe injuries. Figure 6 shows the density of collisions on City roadways. Unsafe speed was the most common violation category in the noted collisions. The City intersections and segments were ranked based on a safety assessment to weigh collisions and capture the relative severity in equivalent property damage, as summarized below. In addition, the collision density of Caltrans facilities in Redding is shown in Figure 8.

Intersections with highest rates of collisions:

1. Churn Creek Rd / Hartnell Ave
2. South St / California St
3. Hartnell Ave / Bechelli Ln
4. Airport Rd / Preserve Blvd
5. Butte St / Continental St
6. Market St / Riverside Dr
7. Hartnell Ave / Northwoods Way
8. Churn Creek Rd / E Cypress Ave
9. Victor Ave / Hartnell Ave
10. Hilltop Dr / E Cypress Ave
11. E Cypress Ave / Bechelli Ln

City street segments with the highest rates of collisions:

1. Churn Creek Rd (Presidio St to S Bonnyview Rd)
2. E Cypress Ave (Park Marina Dr to Churn Creek Rd)
3. Hilltop Dr (n/o Browning St to Maraglia St)
4. Bechelli Ln (E Cypress Ave to n/o 3rd St)
5. W Cypress Ave (Market St to Park Marina Dr)
6. Railroad Ave (South St to Buenaventura Blvd)
7. Hartnell Ave (Goodwater Ave to Airport Rd)
8. Hilltop Dr (n/o Redding Hilltop Apartments to St. Thomas Pkwy)
9. Hartnell Ave (Northwoods Way to Kenco Ave)
10. S Bonnyview Rd (S Market St to Churn Creek Rd)

Figure 6: Collision Density on City Roadways (2015-19)

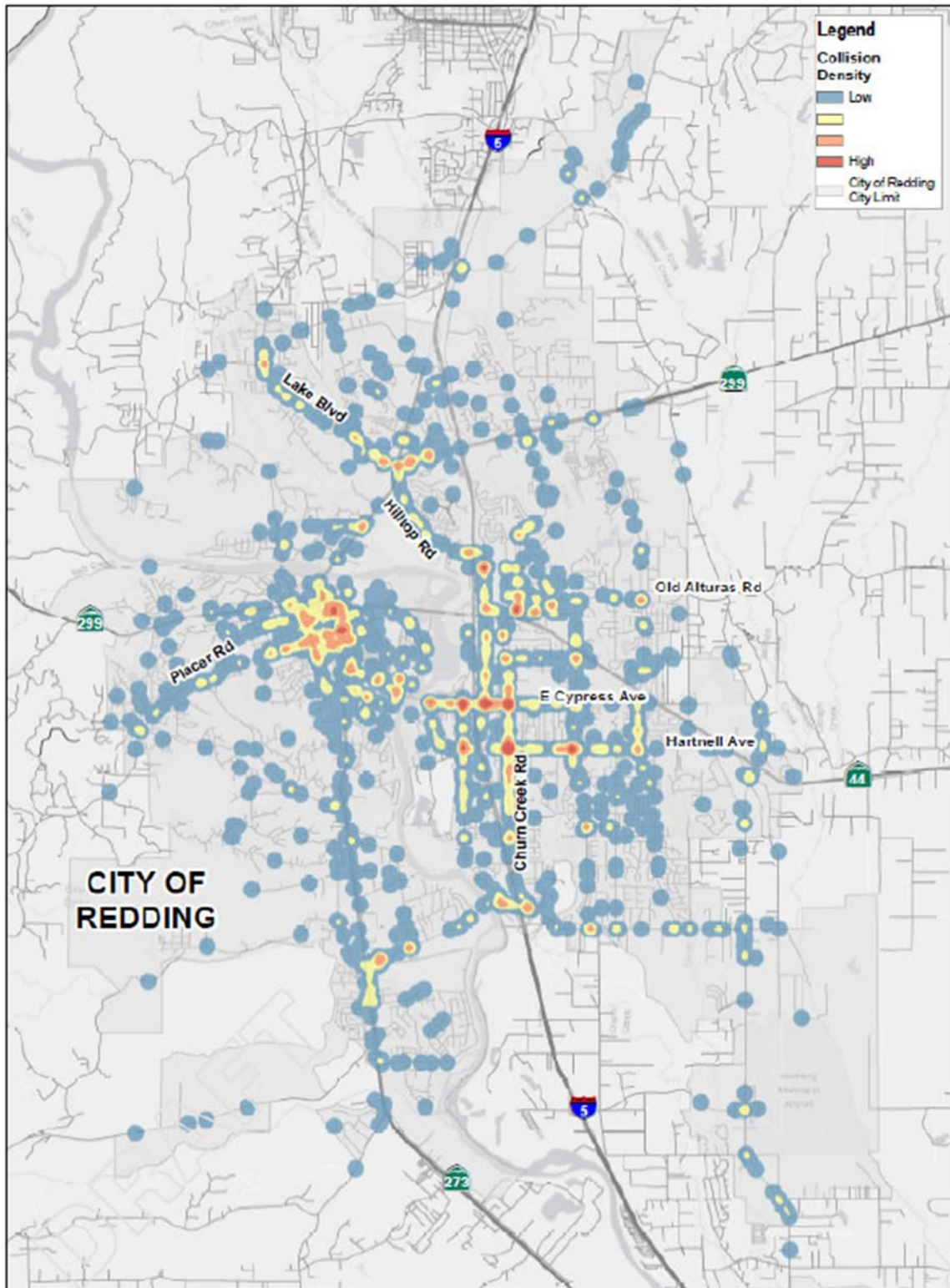


Figure 7: Collision Types on City Streets

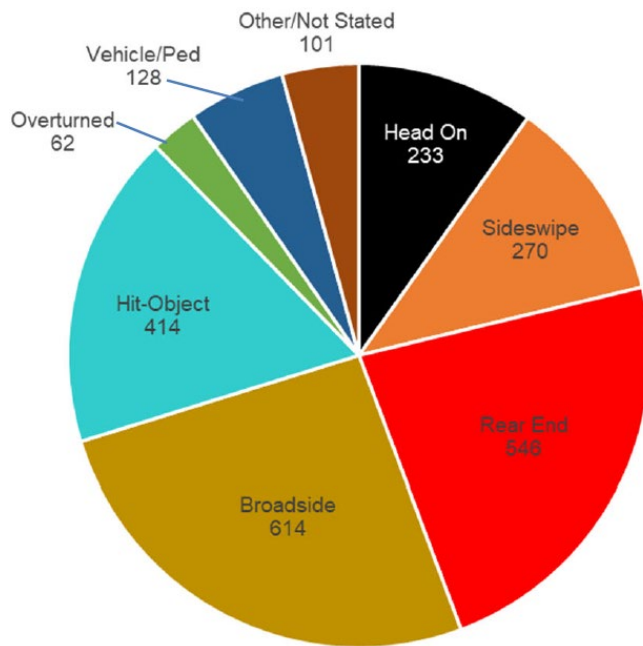
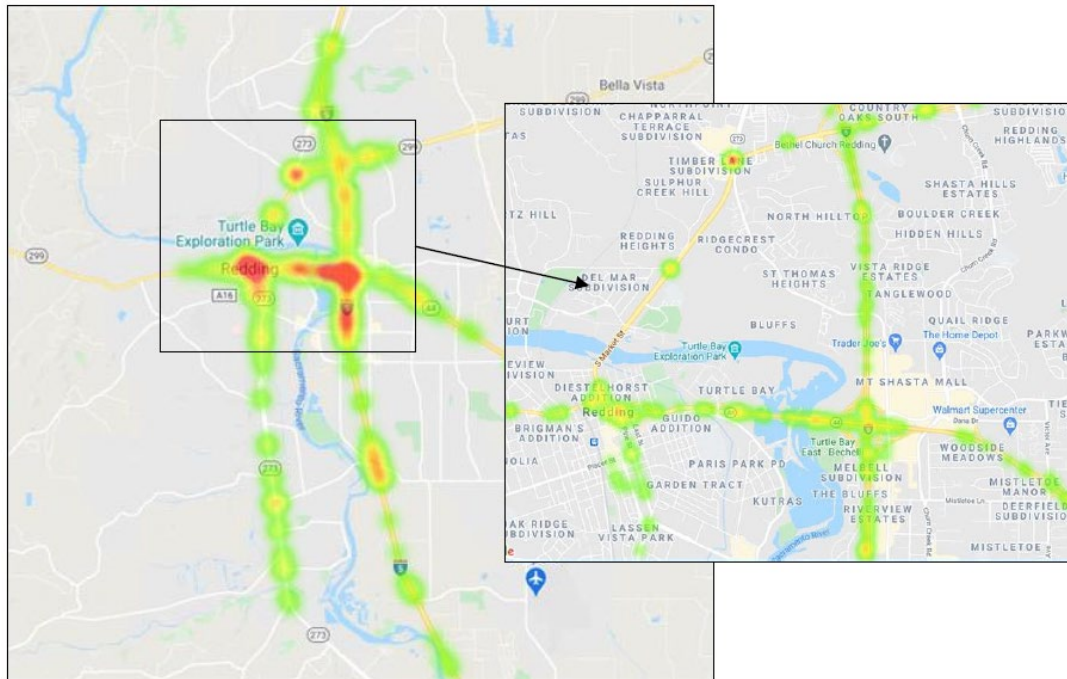


Figure 8: Collision Density on Caltrans Facilities



Circulation Plan

This section of the Transportation Element describes the complete street and bikeway network plan, including street and bikeway classifications, and street design guidelines. The plans and guidelines support planned improvements to the City’s street network by 2045; these improvements are deemed necessary based on traffic computer modeling that was conducted in 2022. The City of Redding desires to improve the transportation network of complete streets that provide safe multimodal transportation choices for independent mobility, encourage healthy active living, and support greater social interaction. The complete street network provides safe and convenient travel that serves all users.

Street Classification System

City streets are classified as either arterials, collectors, or local streets as defined below. In addition, Caltrans facilities within Redding include two additional classifications: freeways and expressways.

Arterial Streets. Arterials provide the principal network for citywide travel by all modes of travel, including walking, bicycling, motor vehicle, and transit. They also provide regional connections. Most commercial land uses in Redding are accessed directly via arterial streets. Arterial streets in Redding generally have one or two motor vehicle travel lanes per direction and sidewalks on both sides. Bicycle facilities on arterial streets should consist of buffered bicycle lanes or separated bikeway facilities wherever feasible while recognizing that this will be difficult to achieve on currently developed roadways without substantial modifications in lane configurations, striping, sidewalk modifications, right-of-way limitations, and/or other improvements. Arterial streets are further subdivided into types of arterials to reflect the land use and neighborhood context specific to each type. The ultimate, ideal design of these roadways includes the following attributes:



- **Principal Arterials** in Redding will typically provide two to three automobile lanes per direction by 2045, with wide sidewalks and bulb-outs at crossings to provide for low-stress pedestrian travel. Protected bikeways should be provided where feasible on principal arterials. Measures to enhance transit service are also encouraged, including queue jump lanes and bus stop amenities. Right-of-ways necessary to accommodate pedestrian, bicycle, and transit services, projected traffic, and emergency access/evacuation needs will generally range from 84 feet to 135 feet.
- **Minor Arterials** generally will provide one to two automobile lanes per direction by 2045, plus a center left-turn lane or median, wide sidewalks on both sides and bulb-outs at crossings to allow for low-stress pedestrian travel. Protected bikeways should be provided where feasible on minor arterials. Right-of-ways will generally range from 84 feet to 96 feet.

Because of Redding’s potential for growth over the decades beyond the horizon of this General Plan, sufficient rights of way for the City’s identified principal and minor arterial streets and intersections should be obtained in advance of need, where appropriate, to accommodate the diverse need of these

facilities beyond the needs of 2045. Certain streets should also be planned and constructed to address current needs for ingress/egress during emergencies such as wildfire and flooding events.

- **Collector Streets.** Collectors provide connections for all modes of travel within and between residential areas and activity centers, as well as providing direct access to land uses. Collectors also provide connections between arterial and local streets. Collector streets in Redding have one motor vehicle travel lane per direction, with sidewalks on both sides at buildout. Protected bikeways or buffered bicycle lanes should be provided wherever feasible on collector street segments. Right-of-ways will generally range from 60 feet to 96 feet.
- **Local Streets.** Local streets provide direct access to abutting properties by all modes of travel. City streets that are not designated as arterials or collectors are local. Bicycle facilities on local streets generally consist of shared travel lanes between motorists and bicyclists. Local streets typically provide sidewalks on both sides and allow on-street parking. Local streets should be designed to encourage low travel speeds and provide “low-stress” travel routes for bicyclists and pedestrians. Right-of-ways will generally range from 28 feet to 60 feet.
- **Freeways.** Travelers use freeways for longer trips by motor vehicle, including regional travel as well as crosstown trips within the Redding urban area. Freeways in Redding typically provide 2 to 3 lanes per direction, with grade-separated interchanges. Motor vehicle travel speeds on freeways typically range from 55 to 70 mph.
- **Expressways.** Travelers use expressways for regional trips and longer trips within Redding, primarily via motor vehicle, typically with 2 to 3 motor vehicle lanes per direction. Direct access to adjacent properties from an expressway is typically restricted or not allowed. State Route (SR) 273 is classified as an expressway on segments north and south of downtown Redding. Protected bikeways or multi-use paths should be provided where feasible adjacent to expressway segments. Right-of-ways will generally range from 110 feet to 150 feet.

Figure 9 illustrates the 2045 buildout circulation plan and street classification for each segment. Table 3 provides guidelines and prioritization by mode of travel for each City street classification.

Figure 9: Circulation Plan

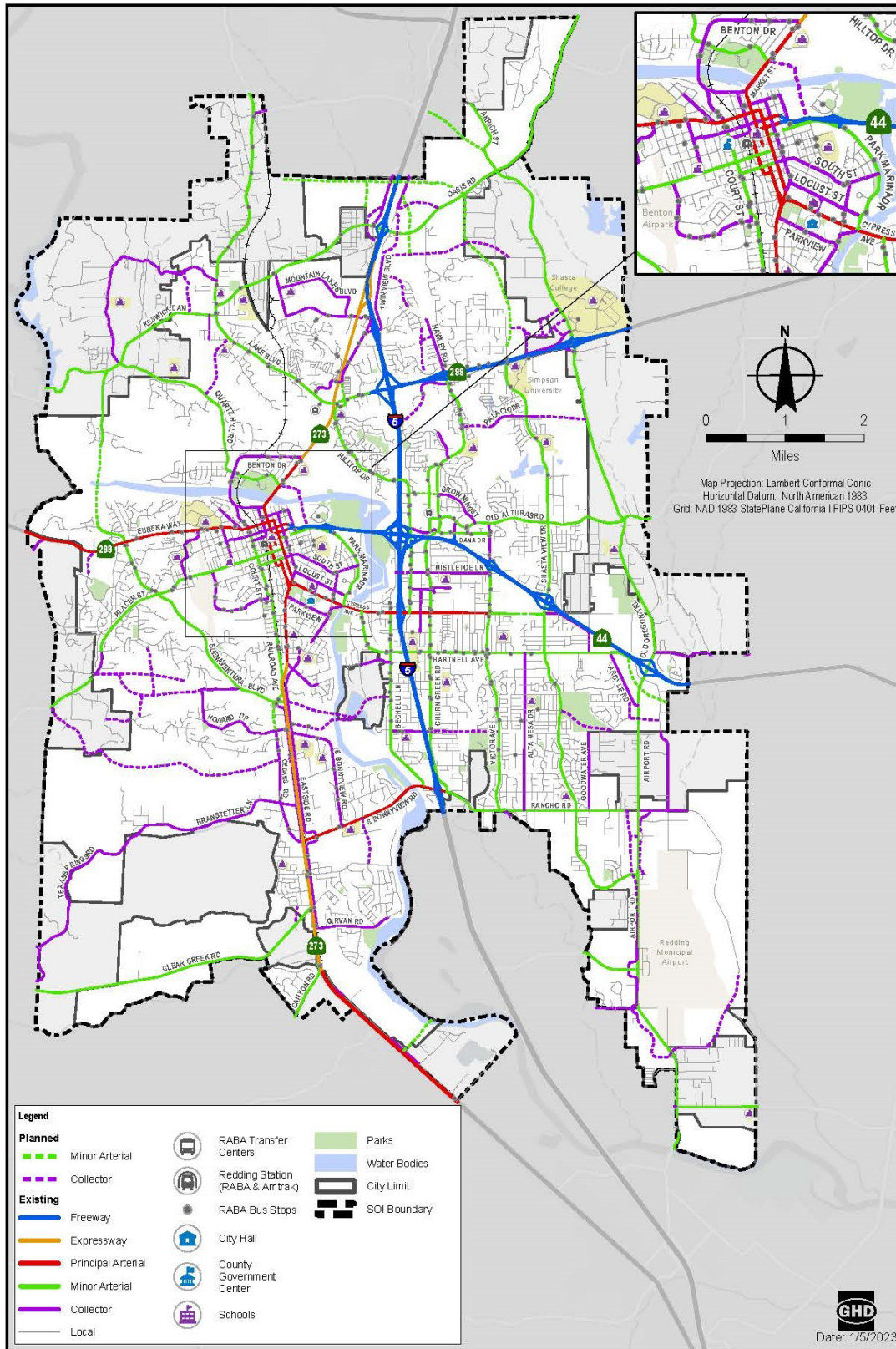


Table 3: City Street Classifications & Guidelines

Classification	Mode Priority	Description and Guidelines	Motor Vehicle Lanes	Bicycle Provisions
Principal Arterial	Bicycle: ① Pedestrian: ① Transit: ① Vehicle: ①	<i>Major thoroughfare with transit service and mixed commercial and retail frontages. Provides regional access to adjacent land uses and safe crossings for all travel modes along a regional transportation corridor. Provides enhancements for walking, bicycling, and transit, including bulb-outs, where feasible, to reduce pedestrian crossing distances. On-street motor vehicle parking may be permitted where feasible to enhance access to adjacent uses.</i>	2-3 motor vehicle lanes per direction (recommended lane width of 10-11 feet)	Separated bikeway (Class IV) where feasible otherwise buffered bike lanes.
Minor Arterial	Bicycle: ① Pedestrian: ① Transit: ① Vehicle: ①	<i>Arterial streets with commercial and residential frontages that also serve through trips connecting arterials for multiple modes. Distributes trips to residential areas. Balances the needs of motor vehicles, transit, bicycles, and pedestrians. On-street motor vehicle parking is typically permitted, but intrusion of commercial parking demand on to Neighborhood Arterial segments is discouraged.</i>	1-2 motor vehicle lanes per direction plus a center median / left-turn pocket (recommended lane width of 10-11 feet) *	Separated bikeway (Class IV) where feasible otherwise buffered bike lanes.
Collector Street	Bicycle: ① Pedestrian: ① Transit: ③ Vehicle: ①	<i>Collector streets connect arterial and local streets while also providing direct access to adjacent land uses. Balances the needs of bicyclists, motorists and pedestrians.</i>	1 motor vehicle lane per direction (recommended lane width of 10-11 feet)	Separated bikeway (Class IV) or buffered bike lanes (Class II) where feasible
Local Street	Bicycle: ② Pedestrian: ① Transit: ③ Vehicle: ②	<i>Neighborhood streets with residential, commercial retail or mixed-use frontages that provide direct local access to properties. Pedestrian circulation and access to properties is prioritized. On-street parking is typically permitted. Intrusion of commercial parking demand on to residential local street segments is discouraged.</i>	1 lane per direction (recommended lane width of 10 feet).	Shared travel lanes with motor vehicles
① = High Priority ② = Medium Priority ③ = Low Priority				

* Certain streets may require additional lanes or width to accommodate emergency access and/or property access.

Traffic Planning

Land use planning can have a significant impact on managing local traffic problems and, to some extent, regional problems. For instance, this General Plan includes land use policies aimed at giving more residents the choice of living closer to their jobs. It also contains policies supporting mixed-use developments, higher-density development in the Downtown and other areas, and locating neighborhood shopping facilities closer to residential neighborhoods. These policies can be found in the Community Development and Design Element. But these strategies alone will not solve existing congestion problems, nor will they prevent additional circulation problems that may impact the community's concerns regarding the safety and convenience of the City's streets.

Traffic engineers use quantitative measures known as Level of Service (LOS) to describe traffic conditions. Factors taken into consideration include the volume of traffic, street and intersection design, signal timing, and other variables. LOS is normally used to describe peak-hour conditions, specifically the morning or afternoon hour when traffic is the heaviest.

This General Plan uses a multilevel approach to assigning LOS expectations. It recognizes that the same level of service for all streets is not appropriate or necessary. For example, moving traffic through Downtown without delay detracts from efforts to establish an active pedestrian-friendly area.

The following LOS thresholds are provided to guide the future development of the major components of the vehicle transportation network. The City Council may approve requests for deviations from the LOS thresholds, in unusual or exceptional circumstances, as it determines necessary and appropriate. Note that these thresholds reflect community expectations for its roadways and are not appropriate for evaluation of impacts under CEQA which are based on Vehicle Miles Traveled (VMT).

LOS "C"—"acceptable delays"—Most arterial streets and their intersections.
LOS "D"—"tolerable delays"—The Downtown area where vitality, activity, and pedestrian, bicycle, and transit use are primary goals. Streets within the state highway system and interchanges and river-crossing street corridors whose capacity is affected by adjacent intersections.

It is important to note that there may be roadways where LOS thresholds cannot be maintained given various constraints to increasing their capacity. Cypress Avenue in proximity to the Interstate 5 interchange is an example. Without acknowledging such conditions and making allowances for LOS to be exceeded, virtually every project that adds traffic to such roadways would require the proposed City Council "exemption" of this Element to be pursued which is not only time consuming but given the lack of options available to mitigate the LOS on these roadways the process would lack purpose.

Bikeway Network Plan

Increasing the convenience and use of bicycling as a daily form of transportation is a key goal of the Transportation Element. Increasing rates of bicycling will produce a number of community benefits including improved health, reduced traffic, less need for costly roadway improvement projects, and improved air quality. Facilities for biking and walking provide recreational opportunities as well. Grant funding sources are often available to implement bikeway improvements.

Types of Bikeway Facilities

There are four classifications of bikeway facilities in California, as defined by the California Department of Transportation (Caltrans):

Multi-Use Paths or Shared Use Paths (Class I Bikeways). A path physically separated from motor vehicle traffic by an open space or barrier, and either: within a road right-of-way or within an independent right-of-way used by bicyclists, pedestrians, joggers, skater, and other non-motorized travelers. Because the availability of uninterrupted rights-of-way is limited, this type of facility may be difficult to locate and more expensive to build relative to other types of bicycle and pedestrian facilities, but less expensive compared to building new roadways.



Bicycle Lanes (Class II Bikeways). A portion of a roadway that has been set aside by striping and pavement markings for the preferential or exclusive use of bicyclists. Bicycle lanes are intended to promote an orderly flow of bicycle and vehicle traffic. This type of facility is established by using the appropriate striping, legends, and signs.



Buffered bike lanes provide additional separation from vehicles with a striped buffer section, that does not include any vertical separation.

Bicycle Routes (Class III Bikeways). Class III bicycle routes are facilities where bicyclists share travel lanes with motor vehicle traffic. Bike routes must be of benefit to the bicyclist and offer a higher degree of service than adjacent streets. They provide for specific bicycle demand and may be used to connect discontinuous segments of bicycle lane streets. In addition, bicycle routes are often located on residential streets. If the pavement width is sufficient and warranted by traffic volume/speeds, an edge line may be painted to further delineate the bicycle route.



Bicyclists and motorists share travel lanes on Bicycle Routes (also referred to as Class III Bikeways).

Bicycle Boulevard (Class III Enhanced Bikeway). In addition, many cities have installed an enhanced type of Class III Bicycle Route, referred to as a “Bicycle Boulevard.” Bicycle Boulevards are generally installed on relatively low-volume and low-vehicle speed streets and often include elements to facilitate bicycle travel, such as reorienting stop signs to reduce delays to cyclists, and/or discouraging use by motorists making cut-through trips, such as through the inclusion of traffic calming measures.



Example of a Bicycle Boulevard (Class III Enhanced Bikeway)

Separated Bikeway (Class IV Bikeways). A Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and adjacent vehicle traffic. The physical separation may include flexible posts, grade separation, inflexible physical barriers, or on-street parking. Separated bikeways

generally operate in the same direction as vehicle traffic on the same side of the roadway. However, two-way separation bikeways can also be used, usually in lower-speed environments (35 miles per hour or less).



Examples of Separated Bikeways (Class IV Bikeways) that provide separated lanes for the exclusive use of bicyclists.

Planned Bikeways

Figure 10 shows the locations of planned bikeways, and Figure 11 illustrates the planned 2045 buildout bikeway network. Planned facilities include separated bikeways or buffered bicycle lanes on most arterial street segments.

Once completed, the bikeway network will connect every neighborhood to the central core of the community, as well as to employment, shopping, cultural, educational, transit, and recreational facilities throughout Redding. Bicycle facilities should be located in public and private development projects, and dedicated bicycle lanes should be included within street rights-of-way. Note that Redding's geographical size, (approximately 60 square miles in 2022), terrain, and considerable variations in temperature and precipitation may impact the use of bikes under certain climatic conditions for some users.

Planned Pedestrian Improvements

Not only does walking provide a good form of exercise, but it can also be an effective commuting mode if complementary land uses are located nearby. In order to be effective, sidewalks and other pedestrian areas need to be reasonably attractive, impart a feeling of safety and separation from vehicles, and be designed for use by all individuals, including those with mobility impairments. These objectives can largely be achieved through facility design. Factors such as sidewalk width and the creation of an attractive separation between the sidewalk and the curb (usually by a maintained landscape strip) can contribute to the quality and perceived safety of the pedestrian's experience. This is particularly important on streets that carry heavy traffic volumes and/or have relatively high vehicle speeds.

The installation of curb ramps in accordance with Americans with Disabilities Act requirements is also important at intersections so that those with mobility impairments can feel comfortable crossing the street and safely return to a sidewalk system. In order to encourage the highest level of use, pedestrian facilities need to be linked or connected to areas or destination points to which people want to get. These include but are not limited to a neighborhood store, place of employment, neighboring development, educational/recreational facilities, the river, or other creek-side trails. Policies addressing this issue are included in the Community Development and Design Element. The development of the type of pedestrian system described in this section is essential to increasing the number of individuals able to walk throughout the Redding community.

The Circulation Plan includes Pedestrian Improvements identified in the Redding Active Transportation Plan as illustrated in Figure 12.

Figure 10: Planned Bikeways

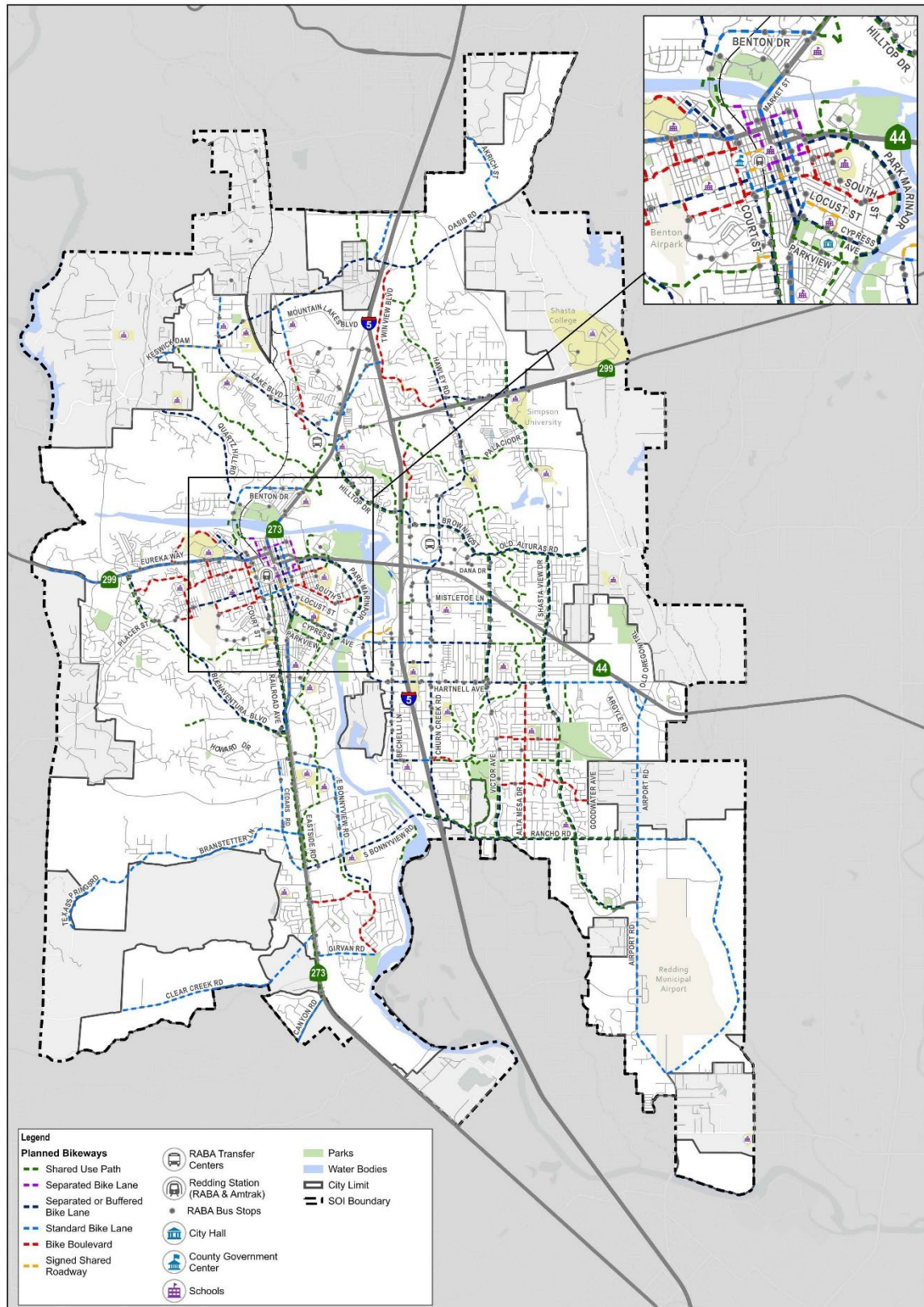


Figure 11: Planned 2045 Buildout Bikeway Network

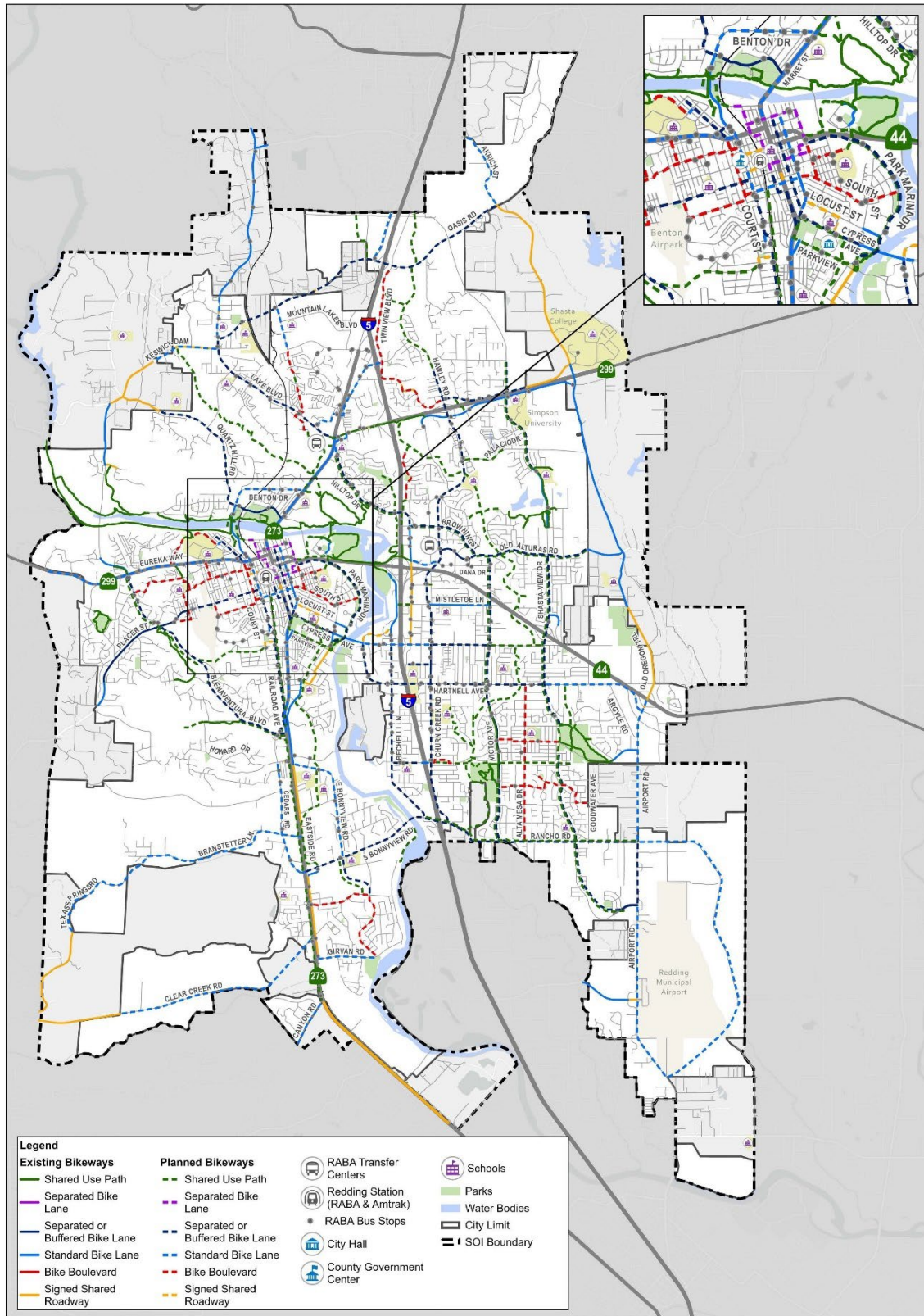
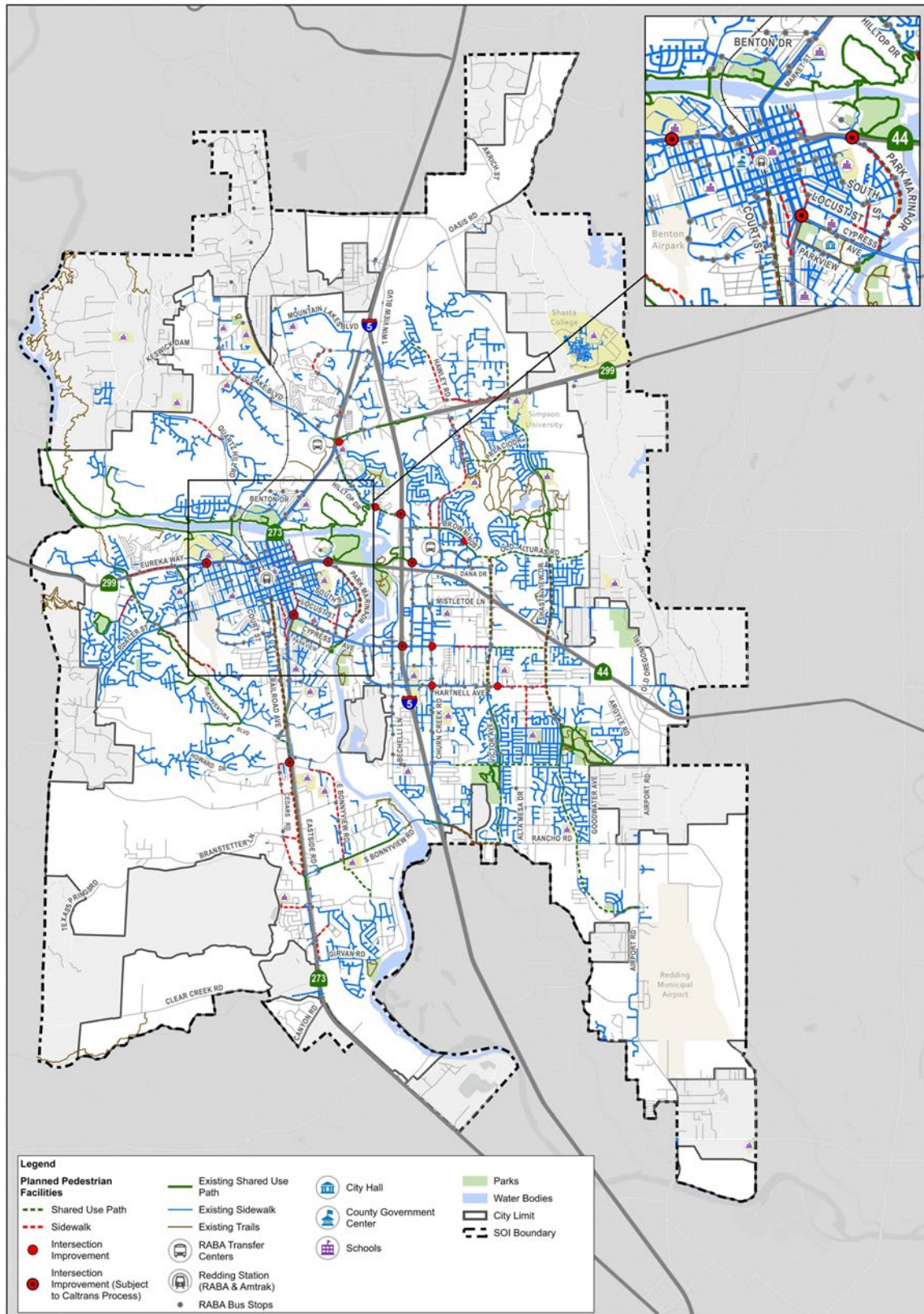


Figure 12: Planned 2045 Pedestrian Improvements



Goals & Policies

The goals and policies in this section reinforce various policies of the General Plan's Community Development and Design Element, Transportation Element, and Parks, Trails and Recreation Element intended to encourage the development of infill parcels and mixed-use developments that help to lessen reliance on automobiles and to provide pedestrian and bicycle connections between neighborhoods, transit, recreational amenities, schools, employment centers, and services. Together these actions will help to establish a land use and transportation network that is efficient, accessible, and builds on the existing strengths of the Redding community.

Complete Streets

The intent of the following goals and policies is to make travel safe for all users, including bicyclists, pedestrians, motorists, transit vehicles and riders, and people of all ages and abilities. Complete Streets principles are incorporated into the General Plan, consistent with the California Complete Streets Act (AB 1358).

Goal T1: A transportation system that meets the diverse needs of users of all ages and abilities, including safe, efficient, sustainable, and comfortable routes for walking, bicycling, and public transportation to increase the use of these modes of transportation, and enable convenient and active travel as part of daily activities.

Policy T1A: Strive to ensure that where complete street infrastructure is constructed, it improves transportation choices for pedestrians, bicyclists, motorists, and public transportation riders and that users of all ages and abilities are considered in the planning, design, approval, construction, and operation of new streets, and the alteration and maintenance phases of existing streets by:

- Including infrastructure that promotes a safe means of travel for all users along the right of way, such as sidewalks, shared-use paths, bicycle lanes (including protected bicycle lanes or buffered bicycle lanes where feasible) or paved shoulders.
- Providing pedestrian and bike connections from developments to adjacent main streets, open space areas, parks, transit stops, schools, commercial and employment centers, and other activity centers as opportunities arise.
- Designing new development to incorporate street connectivity for all users.
- Including new or alteration of existing infrastructure that facilitates safe crossing of the right-of-way for all users, such as: accessible curb ramps, high-visibility crosswalks, pedestrian refuge islands, smaller curb radii, corner bulb-outs, pedestrian signals, and bicycle detection at traffic signals where warranted.
- Incorporating features that improve the comfort, convenience, and safety of users such as pedestrian-oriented/wayfinding signs, pedestrian-scale lighting, benches and other street furniture, bicycle parking facilities, comfortable and attractive public transportation stops and facilities, street trees, landscape, and planting strips.

Policy T1B: Seek funding to establish a systematic complete street retrofit program that will effectively alter existing appropriately identified streets into complete streets.

Policy T1C: Update the Redding Active Transportation Plan every four to seven years to ensure successful implementation of the City’s planned bicycle and pedestrian networks by undertaking the following:

- Work to identify and prioritize physical improvements that would make bicycle and pedestrian travel safer along current key bicycling and walking routes.
- Pursue an implementation strategy to construct needed improvements.
- Undertake improvements as part of street projects where reasonable and feasible.

Policy T1D: Consider requiring that development projects dedicate street rights-of-way and construct both on- and off-site improvements as appropriate to provide access and street connectivity for users of all ages and abilities, mitigate the effects of vehicle miles traveled (VMT) attributable to the project, and not degrade peak-hour LOS below the following adopted thresholds nor conflict with multi-modal performance standards. The City Council may, at its sole discretion, determine that the degradation of LOS is appropriate given the extraordinary circumstances of the project being proposed. The traffic analysis used to establish mitigation or improvement measures shall be based on the regional travel demand model or other City-approved methods. At the option of the City and as may be provided by City ordinance, improvements may be deferred by the City upon approval of a Deferred Improvement Plan which identifies improvements needed, costs, funding sources, and other pertinent data required by the City.

Policy T1E: Strive to complete the planned build-out street network as illustrated on the Circulation Plan map, and ensure that the accompanying design standards, programs, and procedures include complete streets implementation as a main focus by undertaking the following measures.

- Review as necessary the City’s design guidelines and standard cross-sections for streets, intersections (including roundabouts and traffic circles), pedestrian facilities, bicycle facilities, and transit facilities and revise as necessary to be consistent with National Association of City Transportation Officials (NACTO) and its guidelines regarding complete streets.
- Consider establishing performance measures to evaluate multimodal travel conditions for pedestrians and bicyclists, such as Level of Traffic Stress (LTS) criteria, to guide development of the street network.
- Collaborate with the Redding Area Bus Authority (RABA) and other service providers to incorporate infrastructure to assist users in employing multiple modes of transportation in a single trip in order to increase transportation access and flexibility. Examples include but are not limited to, provisions for bicycle and wheelchair access on public transportation, secure bicycle racks at transit stops, and public transportation access to trails and recreational locations.
- Consider the development of a Complete Streets Design Manual that can serve as a guide for public and private development projects that propose new streets or modifications of existing streets.

Policy T1F: Strive to complete the Planned Pedestrian Improvements identified in the Redding Active Transportation Plan, and support the provision of an attractive, safe, and continuous

system of sidewalks and other pedestrian facilities by undertaking the following measures where appropriate:

- Seek funding for the design and/or, construction, of the sidewalk, path, and crossing improvements identified in the Active Transportation Plan. Focus on securing funds to match federal and State grant program opportunities.
- Where feasible and appropriate, seek to provide pedestrian-oriented features, such as benches, enhanced landscape, and trash receptacles, in commercial areas, including the Downtown and Redding Riverfront Specific Plan areas.
- Require new developments provide sidewalks or other pedestrian-dedicated facilities on both sides of new public streets contained within the development. Exceptions may be appropriate where the topography is difficult, proposed lots are of a rural or semi-rural nature, or where the development plan illustrates that pedestrians will be accommodated by alternative means.
- Work with local organizations and neighborhood groups to develop a plan to determine where curbs, gutters, and sidewalks are needed on unimproved local streets and how to pay for the improvements; establishing sidewalk continuity wherever feasible is a priority.
- Pursue funding for the continued replacement and repair of sidewalks that have deteriorated due to age and tree-root invasion.
- Work to develop and seek funding to implement a program to identify, prioritize, and construct the retrofitting of existing intersections that do not currently have accessibility ramps and accommodations at the street corners.
- Strive to ensure that all new or renovated pedestrian facilities be of a sufficient width to ensure pedestrian comfort and safety and to accommodate the special needs of persons with physical disabilities wherever feasible.

Policy T1G: Strive to complete the Build-Out Bikeway Network identified in the Redding Active Transportation Plan, and support related measures to make bicycling a safe, accessible, comfortable, and sustainable transportation mode by:

- Working to secure funding to construct the bikeway network improvements identified in the Active Transportation Plan.
- Pursuing the installation of protected bicycle lanes (Class IV separated bikeway treatments) where feasible on arterial streets.
- Seeking to incorporate appropriate bicycle facilities in the design of interchanges, intersections, and other street-improvement/maintenance projects.
- As funding allows, making improvements to streets, signs, and traffic signals as needed to improve bicycle travel, and keep bikeways free of overhanging shrubbery, debris, and other obstacles.

- Supporting to the extent possible the efforts of public transit providers including the Redding Area Bus Authority (RABA) to provide bicycle racks on all buses within the system.
- As appropriate, supporting the requirement that new development provides bicycle facilities or pay in-lieu fees based on the fair share of that development's impacts on the bikeway system and needs identified on the Comprehensive Bikeway Plan.

Policy T1H: Strive to achieve the level of service described in this Element for motor vehicle traffic on roadway segments and at intersections during weekday peak-hours, except where achieving the LOS standard would conflict with complete streets goals and standards or the City Council determines that extraordinary circumstances exist to require deviation from the LOS standard by requiring new development to provide improvements, pay in-lieu fees and/or pay development impact fees as approved by the City Council and based on the fair share of that development's contribution of improvements needed to achieve the following peak-hour LOS standard/thresholds:

- Level of Service "C" on all City roadways and intersections, except at those specific locations/roadway segments identified within this Element, where a LOS "D" is appropriate including the Downtown Specific Plan area, streets within the state highway system and interchanges and river-crossing street corridors whose capacity is affected by adjacent intersections.

Policy T1I: Work with the public, stakeholders, and other jurisdictions and agencies to promote, design, and construct an effective transportation system that serves users of all ages and abilities by:

- Pursuing appropriate targeted outreach and public participation in community decisions concerning street design and use.
- Collaborating with Shasta County, the City of Anderson, the City of Shasta Lake, Caltrans, and the Shasta Regional Transportation Agency to integrate bicycle, pedestrian, and public transportation facility planning into regional and local transportation planning programs to encourage connectivity between jurisdictions. Encourage coordination among these agencies to develop appropriate joint prioritization, capital planning and programming, and implementation of street improvement projects and programs.
- Consulting with local public safety agencies to determine critical evacuation routes and recommended street design on designated routes to allow for adequate evacuations during emergency situations.
- Designing a roadway network that should have adequate circulation to allow for secondary and tertiary access points and should avoid developments with single points of access. Existing areas with single points of access should be prioritized to create secondary road access points. Road connections required for secondary access should be designed to meet a minimum road standard allowed by the City Engineer and the Fire Marshall.

Policy T1J: Pursue financing for components of the transportation system, and strive to ensure that the transportation capital improvement program and other budgetary tools include funding for Complete Streets infrastructure-by:

- Update the transportation capital improvement program (CIP) as necessary and pursue grant funds and other funding sources to augment City resources.
- Striving to provide appropriate improvements to improve multimodal accessibility with routine street maintenance and improvements such as pavement overlays, sidewalk repair, and ADA curb ramp installation.

Policy T1K: Strive to assess fees on new development sufficient to cover the fair share portion of that development's impacts on the local and regional transportation system by updating the City's transportation impact fee (TIF) as necessary to ensure the fees collected cover the costs of identified improvements. Exceptions may be considered including but not limited to the cases when new development generates significant public benefits (e.g., low-income housing, primary-wage-earner employment), and alternative sources of funding for the improvements can be obtained to offset foregone revenues.

Low-stress Walk & Bikeways

Goal T2: A connected network of low-stress walk and bikeways within one-half mile of all residents that would connect key travel nodes and activity centers such as those that provide neighborhood retail and services, as well as Downtown Redding.

Policy T2A: Support the provision of a connected network of low-stress walk and bikeways to connect major activity centers, including the provision of appropriate low-stress walk and bikeway access to Downtown Redding and the Redding Transit Center by considering implementation of the measures identified below. Low-stress bikeways should generally consist of separated bikeways (Class IV bikeways), sometimes referred to as “protected bicycle lanes”, on arterial or collector streets; bicycle boulevard treatments on local streets; or multi-use paths.

- Work to identify and prioritize routes for a connected network of low-stress walk and bikeways, identifying barriers to low-stress travel with plans to address them. and Incorporate maps and plans into future updates of the Redding Active Transportation Plan. Pursue funding to construct the network.
- Work to identify networks for walking and biking to connect with key travel nodes, and activity centers, including transit nodes and strategic growth areas. Consider accessibility to all neighborhoods and housing, striving to ensure access to a connected network of low-stress walk and bikeways within one-half-mile radius to all residents. Key travel nodes and activity nodes include Downtown Redding, Redding Transit Center, transit nodes (where multiple transit lines intersect), schools, City Hall, County Government Center, Shasta College, Simpson University, major parks and recreation centers, employment centers/business parks, neighborhood commercial nodes and regional commercial centers.
- As funding permits, develop design standards for the low-stress walk and bikeway network that establishes a "kit of parts" set of standards for the three low-stress facility types: 1) separated bike lanes on arterial and collector streets, 2) neighborhood greenways, and 3) off-street paths and trails. An implementation strategy to construct needed improvements to the network should be established.

- Work with the Cities of Anderson and Shasta Lake, and Shasta County to identify low-stress walk, bike routes that connect to the downtown core strategic-growth areas of the cities and towns of Shasta County.
- Support to the extent feasible and as funding allows operation of amenities and programming to enable daily transportation by people biking and walking, including bikeshare services, the Shasta Bike Depot at the Redding Transit Center, secure bike parking, short-term bike parking racks, and similar secure bike parking and e-bike charging stations to meet existing and future needs for the encouragement and education of those who travel via walking or biking.
- Work with the local school districts to develop specific transportation plans associated with schools and the surrounding neighborhoods to address conflicts with; traffic, pedestrian movements, safety during school hours, and bicycle facilities to and from schools. This may include a plan to implement slower speed school zones while children are present and flashing beacons to identify when these school zones are in effect.

Policy T2B: Support provision of continuous greenbelt trails within and between parks, and along the Sacramento River connecting Redding to the City of Shasta Lake, the City of Anderson, and Cottonwood. Efforts may include:

- Striving to provide trail access to all residents within a one -half mile radius to all residents and connect trails to all parks which should be equipped with safe and secure bike parking and electric charging stations for bikes and vehicles.
- Striving to connect trails to all schools, parks, and other large recreation destinations such as the Sacramento River Parkway, Downtown, the Civic Auditorium, Waterworks Park, and the YMCA, as well as civic buildings such as the Courthouse, Library, Shasta County government building on Court Street, and City Hall.

Public Transportation

Goal T3: Public transit service that is safe, efficient, cost-effective, and responsive to the needs of residents, workers, and visitors, including micro-transit, para-transit, and seasonal flexibility (e.g., increased service during the hot summer months).

Policy T3A: Support the provision of enhanced transit service that is timely, cost-effective, responsive to growth patterns, and meet the diverse needs of existing and future transit demand. by:

- Working with the Shasta Regional Transportation Agency (SRTA) and public transit providers including the Redding Area Bus Authority (RABA) on an ongoing basis to plan and implement additional public transit services.
- Supporting to the extent feasible and as funding allows the continuation and expansion of private commercial or nonprofit bus operations to provide additional regional transit opportunities for residents.

- Promoting coordination of public transit, intercity rail, bicycle share program, intercity bus, and air transportation services to enhance the transportation options available for residents and visitors to the Redding community.
- Supporting to the extent feasible and as funding allows provision of intercity bus service.
- Developing policies and procedures to implement shared mobility devices to help enhance public transit options. These micro-transit shared mobility type devices could include scooters and e-bikes, but may be expanded as technology develops.

Policy T3B: Provide physical measures to enhance transit service by considering to undertake the following:

- Require new development to install and maintain passenger amenities at designated bus stops when relevant to accommodating project trips or mitigating VMT as appropriate.
- Provide bus facilities along arterial streets as indicated in an applicable transit development plan. Determine the precise locations during the development plan review or at the time of major street improvement or reconstruction.
- Work with RABA to provide safe, attractive, well-lit, comfortable, and protected waiting areas for bus passengers.

Vehicle Miles Traveled

Goal T4: A mix of land uses and transportation amenities that reduces vehicle miles traveled (VMT).

Policy T4A: Support measures that help reduce VMT below regional averages on a “residential per capita” and “per employee” basis by:

- Encouraging employers, colleges, and schools to provide incentives and facilities (e.g., showers) for employees and students utilizing alternatives to the single-occupant automobile, such as carpools, vanpools, buses, bicycling, and walking.
- Encouraging employers, including government agencies, to allow telecommuting and flex time and to promote staggered shifts or base work hours that do not coincide with peak-period traffic to reduce peak-hour trips.

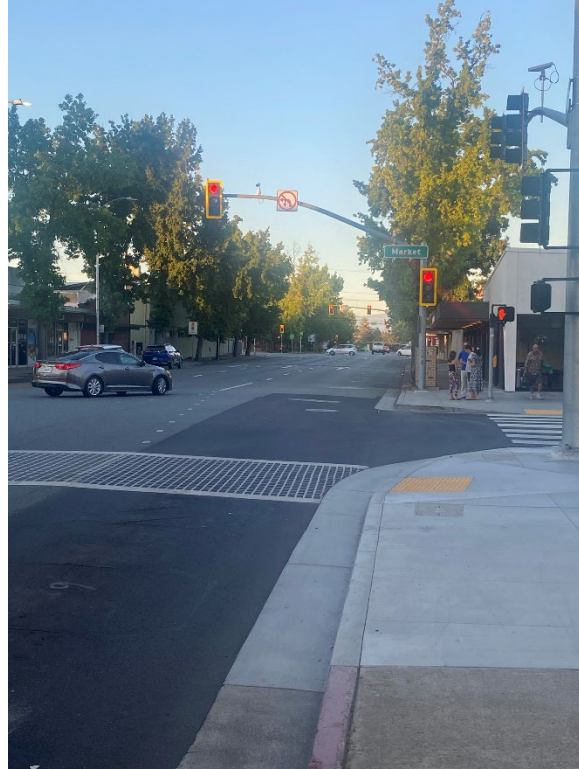
Policy T4B: Prioritize infill and mixed-use development, and encourage new development in close proximity to existing employment, housing, schools, commercial centers, and other services and amenities as addressed in the Community Development and Design Element.

Safety

Goal T5: A safe transportation system that minimizes traffic-related fatalities and reduces non-fatal injury collisions.

Policy T5A: Support efforts to eliminate traffic fatalities and serious injuries attributable to collisions on City streets by considering the following measures:

- Develop a “Vision Zero” strategy to reduce traffic fatalities and serious injuries to zero. The aim of “Vision Zero” is to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, and equitable mobility for all.
- Implement safety improvements consistent with those recommended by the Redding Local Roadway Safety Plan (LRSP) as funding allows.
- Monitor collision data and develop countermeasures to address identified collision patterns as feasible.
- Identify and prioritize intersections and other locations where collisions have occurred or that present safety challenges for pedestrians, bicyclists, or other users, including, but not limited to, intersections within one mile of schools; consider gathering additional data through methods such as walkability/bikeability audits.
- Restrict speed limits where feasible within the confines of State law, particularly in residential neighborhoods, Downtown, and other areas of the City where pedestrian and bicycle travel are strongly encouraged to reduce the potential for pedestrian injuries and fatalities.
- As funding is identified, implement measures to reduce motor vehicle speeds where applicable. Such measures may include but are not limited to; installation of traffic circles and/or narrower lane widths (10 to 11 feet).
- Consider installing automated speed enforcement of motorized vehicles on high-risk road segments and at high-risk intersections/traffic circles and installing automated traffic cameras on high-risk road segments and at high-risk intersections/traffic circles.



Policy T5B: Promote safety in neighborhoods by developing the local transportation network in a manner that does not create conflicts between vehicles and residents Efforts may include:

- Develop and implement as feasible, neighborhood protection plans when traffic studies or monitoring confirm excessive traffic volumes, substantial through traffic, speeding, or vehicle collisions in specific residential areas.
- Emphasize the use of landscape and other visual cues to slow through traffic; the installation of physical measures such as: delineators, traffic circles, and speed tables should be designed to enhance the visual aspects of the subdivision
- Establish street design standards and review criteria that will result in neighborhood streets that discourage cut through traffic and keep travel speeds low. The design standards may consider such things as excessive length and width and lack of connecting streets to adjacent neighborhoods and arterial streets. Encourage new subdivisions to utilize a grid street layout where feasible and to have multiple points of access to enhance access and reduce funneling traffic into one intersection.
- Strongly encourage new neighborhoods to incorporate detached sidewalks and to establish landscape "parkways" between the curb and sidewalk. Continuous and consistent tree planting to form canopy closure is encouraged.
- Route through traffic around the perimeters of neighborhoods where possible.

Downtown

Goal T6: Reinforce the urban land use pattern of downtown.

Policy T6A: Strive to retain alleys in the Downtown area to create shared spaces for bicycling and walking, and convenient service access, to local businesses.



Market Street alley improvement concept. (Image source: Shasta RTP/SCS, page 112).

Policy T6B: Work to identify and seek funding for motorized and low-stress non-motorized transportation linkages to connect Downtown Redding. Destinations outside of Downtown that would require additional connections include Park Marina, Turtle Bay, and Redding Civic Auditorium areas.

Policy T6C: Any new uses Downtown that would typically require a Traffic Study may be exempted unless it is determined that the proposed development would substantially increase traffic at intersections and roadways within this area of the City. If a traffic study is determined to be required the study should identify measures to maintain high-quality access and mobility in the area with a priority toward active transportation modes. New discretionary land use permit requests within the Downtown area, which generate net new PM peak-hour vehicle trips, should participate in enhancing access and mobility for transit, bicycle, and pedestrian modes. These enhancements may include, but are not limited to:

- Enhancing sidewalks to create a high-quality pedestrian environment, including wider sidewalks and improved crosswalks, native and drought-resistant landscaping, buffers between sidewalks and vehicle travel lanes, enhanced pedestrian lighting, wayfinding signage, shade trees, and canopies, increased availability of benches, provisions for café-style seating, and usage of monument elements and other forms of public art.
- Improving bicycle facilities to include attractive and secure bicycle parking, installation of bike lockers in appropriate locations, and provision of bicycle lanes, bike paths, and wayfinding signage along appropriate roadways.
- Supporting the development of a Downtown Business Improvement District or similar mechanism to help fund ongoing maintenance of the streetscape enhancements.

Policy T6D: Work with Caltrans to designate Caltrans facilities that act as arterials through Downtown Redding to be developed as “Main Streets” as an integral part of Downtown, rather than primarily throughway conveyances past Downtown. These main street designations should include the complete streets standards within the General Plan and include the safety elements, such as Vision Zero and accommodate all modes of transportation such as transit and shared mobility devices.

Parking

Goal T7: Convenient on-street and off-street parking facilities for motorized and electric vehicles (including charging stations) and bicycles that supports economic development, livable neighborhoods, sustainability, and public safety.

Policy T7A: Strive to maintain adequate on-street and public off- street parking areas, including electric vehicle charging stations, to meet ongoing parking demands by considering the following measures:

- Pursue funding options and strategies for the construction and maintenance of shared parking facilities/structures Downtown.
- Seek funding to provide electric charging stations at parking lots and rest areas for cars, trucks, and bicycles throughout the City.
- Encourage and facilitate the provision of electric-vehicle charging facilities in new parking lots and multi-family residential developments.
- Strive to install secure bicycle parking with electric charging stations and large enough for cargo bikes in the Downtown area and at City parks, civic buildings, and other community centers.

Policy T7B: Endeavor to ensure that required parking provisions for private development supports efforts to encourage multimodal travel and reduce VMT by:

- Pursuing maximum and minimum standards for automobile parking spaces in transit corridors and Downtown to promote use of alternate modes of travel as may be appropriate.
- Pursuing minimum standards for bicycle parking, including both long-term and short-term bicycle parking spaces.

Policy T7C: Generally, prohibit on-street automobile parking on arterial streets if there is not adequate space for bike lanes and parking lanes outside the Downtown area to reduce congestion and conflicts.

Policy T7D: Work to ensure the provision of adequate curbside or off-street space where applicable to accommodate passenger pick-up/drop-off activity by transportation network companies (TNC) and delivery services.

Regional Transportation Planning

Regional planning is a key element in dealing with traffic congestion and air pollution that results from vehicle commuting. To address regional transportation issues, Redding works closely with the Shasta Regional Transportation Agency (SRTA). This agency administers over \$24 million in State and federal funds

for the planning construction, operation and maintenance of transportation projects throughout Shasta County. SRTA is made up of elected officials from Shasta County, the Cities of Redding, Shasta Lake, and Anderson; and RABA.

Goal T8: Ensure interagency and regional coordination with regard to transportation planning and improvements and to improve the regional mobility network.

Policy T8A: Work closely with Caltrans and the Shasta Regional Transportation Agency (SRTA) to ensure that State facilities located within the City—including SR 299, SR 44, SR 273, Interstate 5, and intersections/interchanges that involve those facilities—are constructed in a manner consistent with the goals and policies of this element to the extent feasible.

Policy T8B: Encourage Caltrans and SRTA to incorporate desired City design features (including Intelligent Transportation System programs, landscaped medians, Class II bike lanes, Class IV separated bikeways, and detached sidewalks) within State facilities that function as arterials and gateways through the City. Work with Caltrans to develop a “Main Street” arterial standard for Caltrans right of way through Downtown Redding.

Policy T8C: Work closely with Shasta County to ensure that adequate street rights-of-way and improvements are provided in areas within the “Primary Growth Area” and “Secondary Growth Area” of this General Plan. Such improvements should be consistent with City of Redding standards as appropriate.

Aviation

Goal T9: Enhanced air travel opportunities at the Redding Municipal Airport and Benton Airpark.

Policy T9A: Continue to plan and develop the Redding Municipal Airport as addressed in the Economic Development and Public Facilities and Services Elements to maximize its contributions to business efficiency, economic development, and recreational opportunities within the region.

Implementation Measure IM-T9A-1: Encourage the establishment of additional commercial airline providers at the Redding Municipal Airport to provide the widest range of aviation travel choices to residents and businesses within the region.

Policy T9B: Support Benton Airpark as a public-use, general aviation airport and commercial-reliever facility for the Redding Municipal Airport.



Rail Service & Facilities

Goal T10: Maximum availability and use of both freight and passenger rail service.

Policy 10A: Encourage the Union Pacific Railroad (UPRR) Amtrak, the State of California, the San Joaquin Joint Powers Authority, and the Capital Corridor Joint Powers Authority to increase passenger service by expanding rail schedules to include a greater number of stops and range of connection times and by providing safe, comfortable and seamless station facilities that connect to the adjacent RABA Downtown Transit Center and the bike share program.

Policy 10B: Work with UPRR, the State of California, and other stakeholders to identify any surplus right-of-way that may be suitable for parking or other facilities associated with a future light-rail system.

Policy 10C: Seek the cooperation of UPRR in establishing a rail-side facility for freight-container unloading to augment goods-transportation opportunities.

Policy 10D: Strive to protect existing rail alignments and facilities through zoning from encroachment by new potentially incompatible land uses to the extent feasible.

Policy T10E: Support efforts as funding allows to improve safety at locations where rail and other transportation facilities interface.

Policy T10F : Strive to provide for additional grade - separated railroad crossings at South Bonnyview Road and in the Downtown area.

