

## **ACTION ELEMENT – NON-MOTORIZED TRANSPORTATION**

### **BACKGROUND**

The two primary types of non-motorized transportation used in Butte County are bicycling and pedestrian travel.

Bicycling has become an increasingly popular method of travel throughout the region. Many individuals are attracted to the energy savings, environmental benefits, and health advantages, while others who are not able to drive due to age or finances use bicycles as a primary means of transportation. The valley areas of the county are particularly attractive to bicyclists and pedestrians due to the flat terrain.

Pedestrian travel is commonly used for very short trips and for students traveling to school. In addition, the health benefits of walking have made this a popular form of exercise for all ages. In urban areas, pedestrian facilities most often consist of sidewalks and shared bicycle/pedestrian paths.

Another aspect of the pedestrian system in rural areas is hiking. Butte County has much to offer in scenery, diversity of climatic zones, and wildlife. Large portions of land are not accessible by car or off-road vehicles due to the rugged terrain. However, a network of trails and pathways have provided access to the abundant natural resources. These trails have added to the quality of life within the region by providing recreational, physical, and educational opportunities.

Local land use and transportation planning within the region has been sensitive to the attributes necessary to promote and encourage bicycling and walking. Each urban area within the region boasts at least one non-motorized transportation facility. Mixed land use developments, which include commercial, office, school, and residential areas, have also been used to make bicycling and walking more attractive as a method of travel. Jurisdictions generally require sidewalks be installed for new developments. In addition, jurisdictions have required developers to construct, or contribute toward the construction of bicycle and pedestrian paths.

### **PURPOSE AND NEED**

The purpose of identifying non-motorized transportation is to identify early in the planning process potential new routes and projects to capitalize on grant funding opportunities. The greater the use of bicycling and walking as an alternative to single occupant vehicles, the fewer vehicle emissions produced and cars on the road.

## BIKEWAYS

Depending on the location, overall planning and development of non-motorized facilities may be the responsibility of local, state, or federal government. Local governments are responsible for the planning and development of bikeways within their incorporated limits. Caltrans is responsible for the development and maintenance of bikeways along state highways or where established bikeways are interrupted by highway construction. The federal government is responsible for funding bikeways on federal lands, such as national forests, or along interstate highways if their provision will enhance safety. Chapter 1000 of the *Highway Design Manual* (Caltrans, 2012) covers Bicycle Transportation Design. Section 1000.4 defines three classes of bikeways as follows:

Bikeways are categorized by three different designations:

<b>Class I Bike Path</b>	Provides a completely separated facility designed for the exclusive use of bicycles and pedestrians with minimal crossflows by motorists. Caltrans standards call for Class I bikeways to have 8 feet (2.4 meters) of pavement with 2 foot (0.6 meters) graded shoulders on either side, for a total right-of-way of 12 feet (3.6 meters). These bikeways must also be at least 5 feet (1.5 meters) from the edge of a paved roadway. They are almost always located in an exclusive right-of-way.
<b>Class II Bike Lane</b>	Provides a restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and crossflows by pedestrians and motorists permitted. Caltrans standards generally require a 4 foot (1.2 meters) bike lane with a 6-inch (150-mm) white stripe separating the roadway from the bike lane. Bike lanes are areas within paved streets that are identified with striping, stencils, and signs for preferential (semi-exclusive) bicycle use.
<b>Class III Bike Route</b>	Provides a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists. Roadways designated as Class III bike routes should have sufficient width to accommodate motorists, bicyclists, and pedestrians. Other than a street sign, there are no special markings required for a Class III bike route. Bike routes are on-street routes intended to provide continuity to the bikeway system.

### Goals & Objectives for Bicycle and Pedestrian Planning

In addition to goals for transit, three primary goals were established for non-motorized transportation.

**Goal 1: Provide options so people will choose and be able to walk and bicycle as a way to travel, to be healthy and for recreation.** Objectives include the following:

- Recognize the value of walking and bicycling in Butte County's cities and between communities.
- Advocate for healthy, sustainable, and efficient communities
- Develop services and invest in improvements that overcome the obstacles – physical, social and institutional – allowing them to walk and bike.

**Goal 2: Focus on urban infrastructure improvements that contribute to interconnectivity and safety for people who choose to walk or bike.**

Objectives should ensure local planning and development policies pursue strategies that will support safe and effective travel by bike or walking:

- Improve bicycle facilities on primary commuter routes to major employment locations in Butte County.
- Encourage installation of sidewalks along the street at all major commercial developments and in higher density residential neighborhoods.
- Link noncontiguous sidewalk segments/close gaps.
- Provide the option for bike and pedestrian access to surrounding neighborhood destinations for all new developments.

**Goal 3: Facilitate regional links allowing for origin-to-destination access to bicycle and pedestrian facilities. Some basic objectives include the following:**

- Assist local jurisdictions to seek funding to connect local bike and pedestrian projects to regional trails and bikeways.
- Develop projects, programs, and policies to encourage people to make multimodal trips that link walking, bicycling and transit.
- Develop facilities (e.g., bike lockers, freeway crossings, intermodal centers) that make it easy for people to choose non-motorized modes for longer distance travel.

**BICYCLE & PEDESTRIAN PRACTICES & POLICIES**

In 2014, the California Active Transportation Program (ATP) consolidated and replaced the Bicycle Transportation Account. Jurisdictions in Butte County do not currently need an active transportation plan to be eligible for ATP grants. However, jurisdictions in Butte County will eventually need to adopt an active transportation plan” to remain eligible for ATP grants. Figure 8-1 summarizes ATP requirements for active transportation plans.

**Figure 8-1 Active Transportation Plan Requirements**

<b>Description</b>
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.
The number and location of collisions, serious injuries, and fatalities suffered by bicyclists and pedestrians in the plan area, both in absolute numbers and as

a percentage of all collisions and injuries, and a goal for collision, serious injury, and fatality reduction after implementation of the plan.
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.
A map and description of existing and proposed bicycle transportation facilities
A map and description of existing and proposed end-of-trip bicycle parking facilities.
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.
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, 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.
A map and description of existing and proposed pedestrian facilities at major transit hubs. These must include, but are not limited to, rail and transit terminals, and ferry docks and landings.
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, freedom from encroaching vegetation, maintenance of traffic control devices including striping and other pavement markings, and lighting.
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 accidents involving bicyclists and pedestrians.
A description of the extent of community involvement in development of the plan, including disadvantaged and underserved communities.
A description of how the active transportation plan has been coordinated with neighboring jurisdictions 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.
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.
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.

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.

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.

Recommendations are further identified in BCAG's Transit and Non-Motorized Transportation Plan and posted online at: <http://www.bcag.org/Planning/Transit--Non-Motorized-Transportation-Plan/index.html>.

## **EXISTING LEVELS OF WALKING AND BICYCLING**

The American Community Survey (ACS) is one of the only sources of data regarding existing levels of walking and bicycling within Butte County. The 2014-2018 ACS provides sample data about means of transportation to work. Figure 8-2 shows commuting mode share for Butte County and its jurisdictions according to the 2014-2018 ACS. Figure 8-3 shows the number of commuters by mode. These figures are for work trips only and do not include trips made for recreational or other utilitarian purposes. Non-work trips, such as shopping or errands, are more likely to be made by walking or bicycling. Therefore, it is reasonable to believe that actual levels of bicycling within Butte County are higher than those presented for each jurisdiction. ACS data does not distinguish between intra-jurisdiction and inter-jurisdiction trips; however, it is likely that the bicycle and walking mode shares are higher among individuals who live and work in the same jurisdiction. Existing Levels of Walking and Bicycling – Educational commutes by walking/biking are not considered work trips by the ACS, and this should be noted as a large percentage of students walk and bike to CSUC and schools.

**Figure 8-2 Commuter Mode Share %, 2014-2018**

Jurisdiction	Bicycle	Walk	Car, Truck, or Van	Public Transit	Worked at Home/ Other
Butte County (Total)	2.5	3.3	86	1.2	7
Biggs	0	0	94.2	0.8	5
Chico	4.8	5	83.3	1.2	5.7
Gridley	0	3.1	89.6	0	7.3
Oroville	0.2	1.9	89.1	2.2	6.6
Paradise	0.3	1.7	87.4	1.7	9

(2018 American Community Survey 5-Year Estimates)

Based on the 2014-2018 ACS data, approximately six percent of Butte County residents' bicycle or walk as their primary means of transportation to work. The walking or bicycling mode shares in Chico are above the county average while those in Gridley, Paradise, Oroville, and Biggs are all below the average. Figure 8-3 shows the number of commuters by mode.

**Figure 8-3 Number of Commuters by Mode, 2014-2018**

Jurisdiction	Bicycle	Walk	Car, Truck, or Van	Public Transit	Worked at Home/ Other
Butte County (Total)	2,300	3,036	79,129	1,104	6,441
Biggs	0	0	811	7	43
Chico	2,106	2,193	36,540	526	2,500
Gridley	0	71	2,059	0	168
Oroville	11	105	4,923	122	365
Paradise	29	165	8,494	165	875

(2018 American Community Survey 5-Year Estimates)

Based on the 2014-2018 ACS data, over 5,300 commuters' bicycle or walk as their primary means of transportation to work, representing over 10,600 trips per working day. Each commuter makes two trips each day: one trip from home to work and one trip from work to home.

## **EXISTING AND PLANNED WALKING AND BICYCLING INFRASTRUCTURE**

Figure 8-5, Figure 8-6, and Figure 8-7 show the existing and proposed bikeways in the various jurisdictions within Butte County.

### **City of Biggs**

In June of 2011, the City of Biggs updated their Bicycle Transportation Plan. The City of Biggs plans bikeways within its sphere of influence. The City is responsible for the development of bikeways within its incorporated limits, while the county is responsible for the remainder of the urban area.

#### **Existing**

The City of Biggs has two bike paths: one along Rio Bonito Road east of 2<sup>nd</sup> Street and another at the City's northeastern limits with a connection to 2<sup>nd</sup> Street. Bike lanes exist on E Street/Rio Bonito Road between 8<sup>th</sup> Street and 2<sup>nd</sup> Street, 6<sup>th</sup> Street between B Street and E Street, and 8<sup>th</sup> Street between B Street and E Street. Biggs has bike routes on 2<sup>nd</sup> Street, 5<sup>th</sup> Street, C Street, Aleut Street, and Trent Street.

#### **Proposed**

Proposed bicycle facilities in the City of Biggs include a bike path following the Hamilton Slough between Biggs Gridley Road and B Street, and a regional bike path beginning south of B Street and following the railroad tracks south towards Gridley. Bike lanes are proposed on B Street and 6<sup>th</sup> Street. Additional bike routes are proposed on 5<sup>th</sup> Street and C Street.

### **City of Chico**

The City of Chico has the most extensive bikeway system within Butte County. The Chico City Council has maintained a strong commitment to bicycle transportation. The City Council's goal of becoming the most Bicycle Friendly City, as determined by Bicycling Magazine. In the 2017 League of American Bicyclists "Where We Ride" report, Chico was ranked 12th overall for 'bike-share', the percentage of people who commute by bike. In 2019, the City of Chico was ranked in the top 15% of over 500 US cities in their Places for Bikes city ratings. The League of American Bicyclist awarded the City of Chico a [Gold Level Award for 2016 to 2020](#). In addition, local land use and transportation planning within the region have been sensitive to the attributes necessary to promote and encourage bicycling and walking. BCAG has developed a comprehensive bike map for the urbanized area of Chico. The map has been distributed to the University, each bike shop, and posted online at BCAG's website: <http://www.bcag.org/Transit/Bicycle-Resources/Bike-Maps/index.html>

In the 2008/09 fiscal year, the City of Chico began the SR 99 Corridor Bikeway Project. The project is a combination Class 1 and 2 facilities, generally along the east side of SR 99 frontage routes and drainage easements from Eaton Rd on the north to Southgate Ave on the south. The City of Chico was recently awarded Cycle 2, 3 & 4 ATP grant funds for projects along the SR 99 Bikeway Corridor. Figure 8-4 identifies the specific projects.

## **Existing**

### **Class I Bike Paths**

The City of Chico has an extensive network of Class I bike paths. Bicycle paths are present alongside or parallel to several major arterial streets including Nord Avenue, Cohasset Road, State Route 99, Park Avenue and Midway, and Bruce Road. The City also has several bike paths that follow waterways or abandoned railroad. For example, Bidwell Park features several bike paths which serve as connections between other facilities north and south of the park.

### **Class II Bike Lanes**

East Avenue, Nord Avenue, Warner Street, Manzanita Avenue, Easton Road, 20<sup>th</sup> Street, Notre Dame Boulevard, Forest Avenue, and Skyway Road are all corridors featuring Class II bike lanes along at least a portion of their route. Bike lanes are not available on all roadways; some simply feature a wide shoulder.

### **Class III Bike Routes**

Several major arterials and collectors within Chico have been designated as Class III bike routes, with the majority concentrated in downtown and just north of downtown in the vicinity of CSU Chico. Bike routes also exist throughout the residential neighborhood immediately northwest of Bidwell Park, along Lassen Avenue, and along a portion of Dr. Martin Luther King Junior Parkway.

## **Proposed**

The City of Chico has identified numerous improvements to its network of bicycle infrastructure. Components of the proposed network include:

- Construction of bike paths on Humboldt Road between Marsh Junior High School and the City's eastern limits, along the railroad right-of-way between the 9<sup>th</sup> Street/Walnut Street intersection in downtown and the City's southern limits, following the abandoned railroad spur from Estes Road east to Skyway Road, following the Sacramento River tributary between State Route 32 and Cohasset Road, along the future Eaton Road between its existing terminus and Nord Avenue, and continuing along the Amtrak tracks between Lindo Avenue and the Sacramento River Tributary.
- Construction of bike lanes along sections of several roadways, including Sacramento Avenue, Nord Avenue, Chico River Road, Eaton Road, Cussick Avenue, Bruce Road, and Honey Run Road.



- Designation of bike routes on numerous city streets, focusing especially on downtown Chico and the neighborhoods to the north of CSU Chico.

In addition, BCAG assisted the City of Oroville develop a Nord Avenue Corridor Study with many bike, pedestrian and access to transit improvements. The project work effort is posted at: <http://www.bcag.org/Planning/Nord-Ave-Corridor-Plan/index.html>.

### **City of Gridley**

The City of Gridley adopted their Bicycle Plan in 2008. The City received a Community Based Transportation Grant from Caltrans to develop their bicycle plan. The completion of the plan enabled the City to pursue State funding for projects identified in the plan. The City of Gridley intends to update their plan to comply with new ATP plan requirements.

#### **Existing**

The City of Gridley does not currently have any bike paths. Bike lanes exist on Spruce Street between Biggs Gridley Road and State Route 99, on Gridley Road between Vermont Street and Washington Street, on Hazel Street between Virginia Street and the street's eastern terminus, and along the entire length of Washington Street. Gridley has not designated any streets as bike routes.

#### **Proposed**

The City of Gridley has proposed to add bike lanes to several north-south and east-west streets within its roadway grid. Additionally, the regional bike path between Biggs and Gridley will be accessible in Gridley near the Washington Street/Spruce Street intersection.

### **City of Oroville**

In 2008, the City of Oroville began a comprehensive update to their Bicycle Transportation Plan. The City of Oroville has also included an extensive system of bikeways and trails in the Oroville General Plan. Currently, there are two Class I bike paths and one Class II bike lane within the City of Oroville, with the Bikeway Master Plan identifying several bikeways for future construction. In addition, a 41-mile bicycle trail loops around the Feather River.

#### **Existing**

Within the City of Oroville, there is one bike path which connects Riverbend Park and State Route 70 along the banks of the Feather River. Bike lanes are present on sections of Grand Avenue, Orange Avenue, and Foothill Boulevard. The City of Oroville has not designated any streets as bike routes.

## **Proposed**

Oroville's network of proposed bicycle facilities calls for bike lanes on several of the city's long north-south and east-west corridors. Bike paths are proposed following the Feather River, parallel to Lincoln Boulevard, and following the paths of two high-tension power line easements to the east of downtown. The network proposal designates two corridors in downtown Oroville as bike routes. There is also a major effort by the City for comprehensive bicycle, pedestrian and transit access improvements along the State Route 162 corridor through the City of Oroville. Comprehensive details are available in the City's SR 162 Corridor Study. This project work effort is posted at: <http://www.bcag.org/Planning/SR-162-Corridor-Study/index.html>.

## **Town of Paradise**

In 2007 the Town of Paradise adopted their Master Bicycle Plan to serve as the planning guide for future bikeway and pedestrian facility development. In this plan, the Town established a bikeway system to serve the entire community. The backbone of the Paradise bikeway system is the Paradise Memorial Trailway, an abandoned railroad right-of-way through town converted to pedestrian and bikeway usage. Due to the Camp Fire on November 8, 2018 it should be noted that the Town's immediate priority is to address the safety and operational concerns on their local roadway system. However, the Town remains steadfast in completing the ATP projects funded through the CTC.

## **Existing**

The Paradise Memorial Trailway is the Town of Paradise's major bike path and currently connects the Neal Road/Skyway Road intersection with the Pentz Road/Skyway Road intersection. The trail parallels Skyway Road for its length. A short bike lane exists on Pearson Road between Recreation Drive and Clark Road. A bike path was recently completed for a portion of Pearson Rd in 2016.

## **Proposed**

The Town of Paradise's current plan calls for the addition of bike lanes along several roadway corridors including Pentz Road, Wagstaff Road, Bille Road, Sawmill Road, Pearson Road, and Neal Road. Bike routes have been proposed on Pentz Road south of Pearson Road, Clark Road, and segments of Wagstaff Road and Nunnelley Road. A bike path that would connect Chico and Paradise has been proposed adjacent to Skyway Road.

## **Unincorporated Butte County**

Butte County adopted their Bicycle Transportation Plan in 2012. The Bicycle Plan Update for the unincorporated areas is the County vision for making bicycling an integral part of the transportation system in Butte County unincorporated areas. The plan recommends projects, programs, and policies to

encourage use of this practical, non-polluting, healthy and affordable mode of transportation.

The unincorporated areas of Butte County are included with emphasis on regional connectivity to the communities of Biggs, Chico, Gridley, Oroville and the Town of Paradise, as well as gap closures.

### **Existing**

From Chico, the Chico-Durham Bike Path continues south along Midway to Jones Avenue in Durham. Additionally, several multi-use trails serve the area north and west of Oroville, continuing north along State Route 149 to the Butte College campus on Clark Road.

### **Proposed**

An extensive network of bike paths, bike lanes, bike routes, and multi-use trails is proposed for the unincorporated areas of Butte County. Bike paths are proposed between Chico and Paradise along Skyway Road, and between Biggs and Gridley along the railroad right-of-way. Bike lanes are proposed on several state highways and county roadways. Bike routes are proposed on segments of Humboldt Road, Skyway Road, Pentz Road, and Jones Avenue. South Oroville is a priority area for the county in which several grant funds have been approved recently including HSIP, CMAQ and ATP funding near the congregation of local schools.

### **ATP Approved Projects**

The following represent recently approved ATP projects from Cycle 1 through 4. Many of these projects utilized CMAQ funds for the preliminary engineering component.

Figure 8-4 – Active Transportation Program Projects – Cycles 1-4

Cycle	Source	Agency	Title	ATP Funds	Total Cost
1	Statewide	Paradise	Pearson Rd Safe Routes to Schools Connectivity Project	<b>\$1,388,000</b>	\$1,388,000
1	Small Urban & Rural	Paradise	Maxwell Dr. Safe Routes to Schools Project	<b>\$968,000</b>	\$968,000
1	Small Urban & Rural	Biggs	Safe Routes to Schools Sidewalk Improvements	<b>\$860,000</b>	\$860,000
2	Statewide	Paradise	Almond St Multi-Modal Improvements	<b>\$3,429,000</b>	\$3,905,000
2	Statewide	Paradise	Memorial Trailway Class 1 Enhancements	<b>\$1,356,000</b>	\$1,391,000
2	Small Urban & Rural	Biggs	B Street & 2 <sup>nd</sup> St Safe Routes to Schools Project	<b>\$809,000</b>	\$819,000
2	Small Urban & Rural	Chico	State Route 99 Bikeway Project – Phase 4	<b>\$800,000</b>	\$1,786,000
2	Small Urban & Rural	Paradise	Ponderosa Elementary Safe Routes to Schools Project	<b>\$1,504,000</b>	\$1,736,000
2	Small Urban & Rural	Paradise	Downtown Equal Mobility Project	<b>\$539,000</b>	\$553,000
2	Statewide	Butte County	South Oroville Safe Routes to Schools Project	<b>\$1,516,000</b>	\$1,716,000
3	Statewide	Chico	Esplanade Corridor Safety and Accessibility Improvements	<b>\$7,241,000</b>	\$7,661,000
3	Statewide	Oroville	Oroville SR 162 Ped/Bike/Disabled Mobility & Safety Imprv.	<b>\$3,451,000</b>	\$3,951,000
3A	Small Urban & Rural	Paradise	ATP Gap Closure Complex	<b>\$3,787,000</b>	\$4,995,000
4	Statewide	Butte County	Butte County Safe Routes Resource Center and 5 Community Projects	<b>\$985,000</b>	\$1,140,000
4	Statewide	Chico	Little Chico Creek Pedestrian/Bicycle Bridge Connection at Community Park	<b>\$1,497,000</b>	\$2,142,000
4	Small Urban & Rural	Chico	Bikeway 99 Phase 5 - 20th Street Pedestrian/Bicycle Overcrossing	<b>\$12,356,000</b>	\$15,464,000
<b>Summary</b>				<b>\$42,486,000</b>	<b>\$59,187,000</b>

**Awards for the Active Transportation Program for Cycles 1 – 4**

**Small Urban & Rural Pot of Funds: \$21,623,000**  
**Statewide Pot of Funds: \$20,863,000**  
**Total Butte Region ATP Funds: \$42,486,000**

Figure 8-5 Existing and Proposed Bicycle Facilities – Countywide, Biggs, Gridley and Paradise

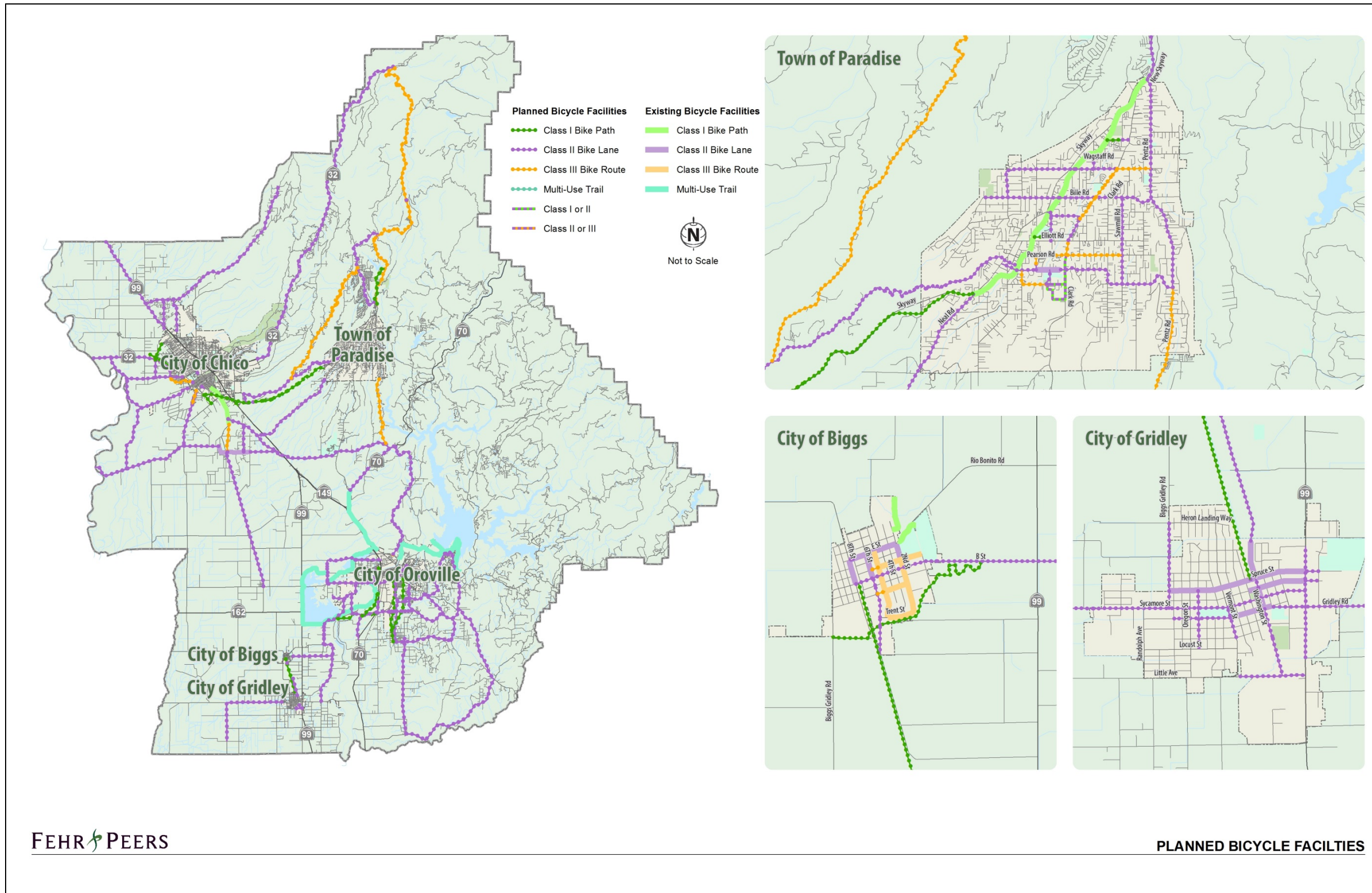


Figure 8-6 Existing and Proposed Bicycle Facilities – Oroville

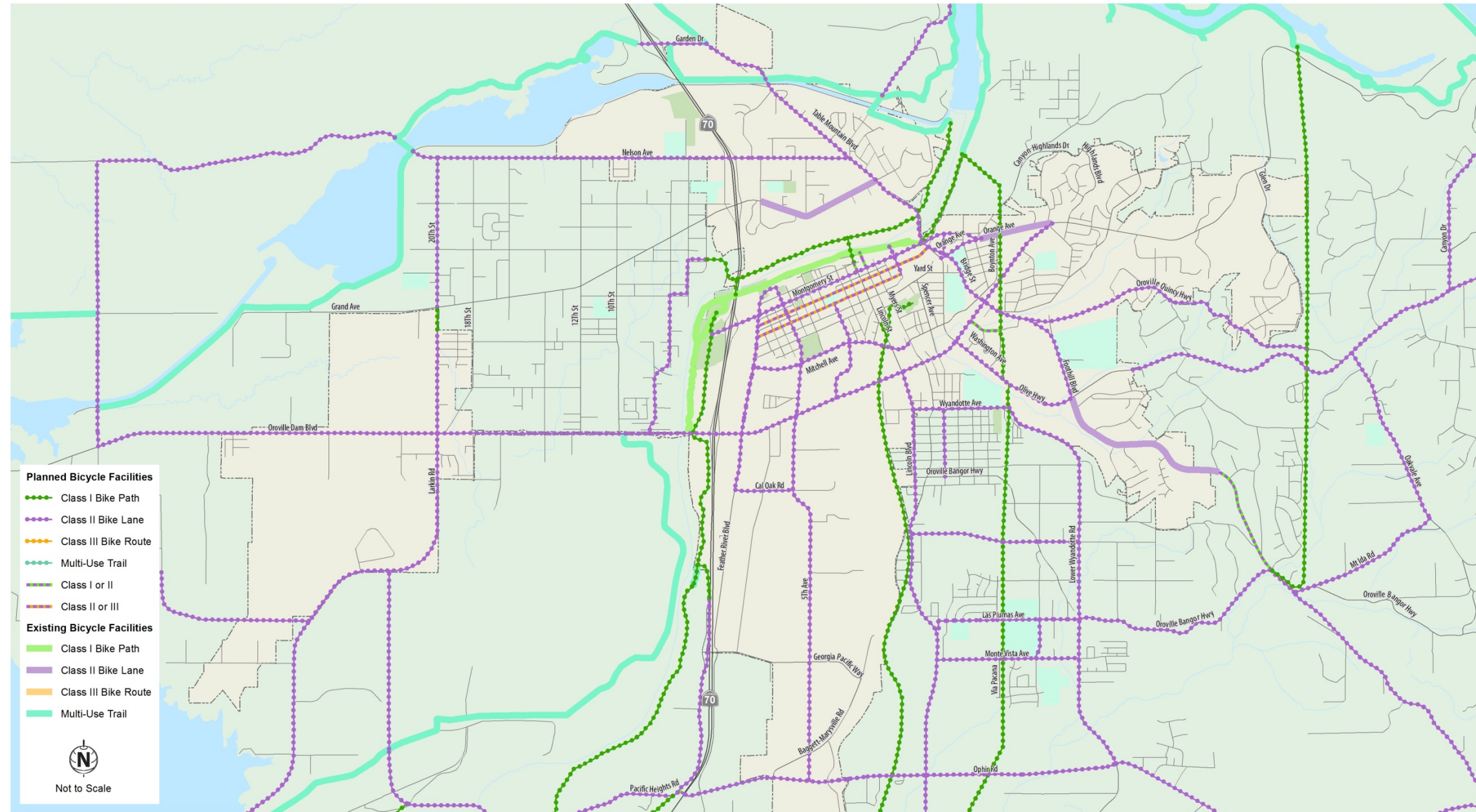
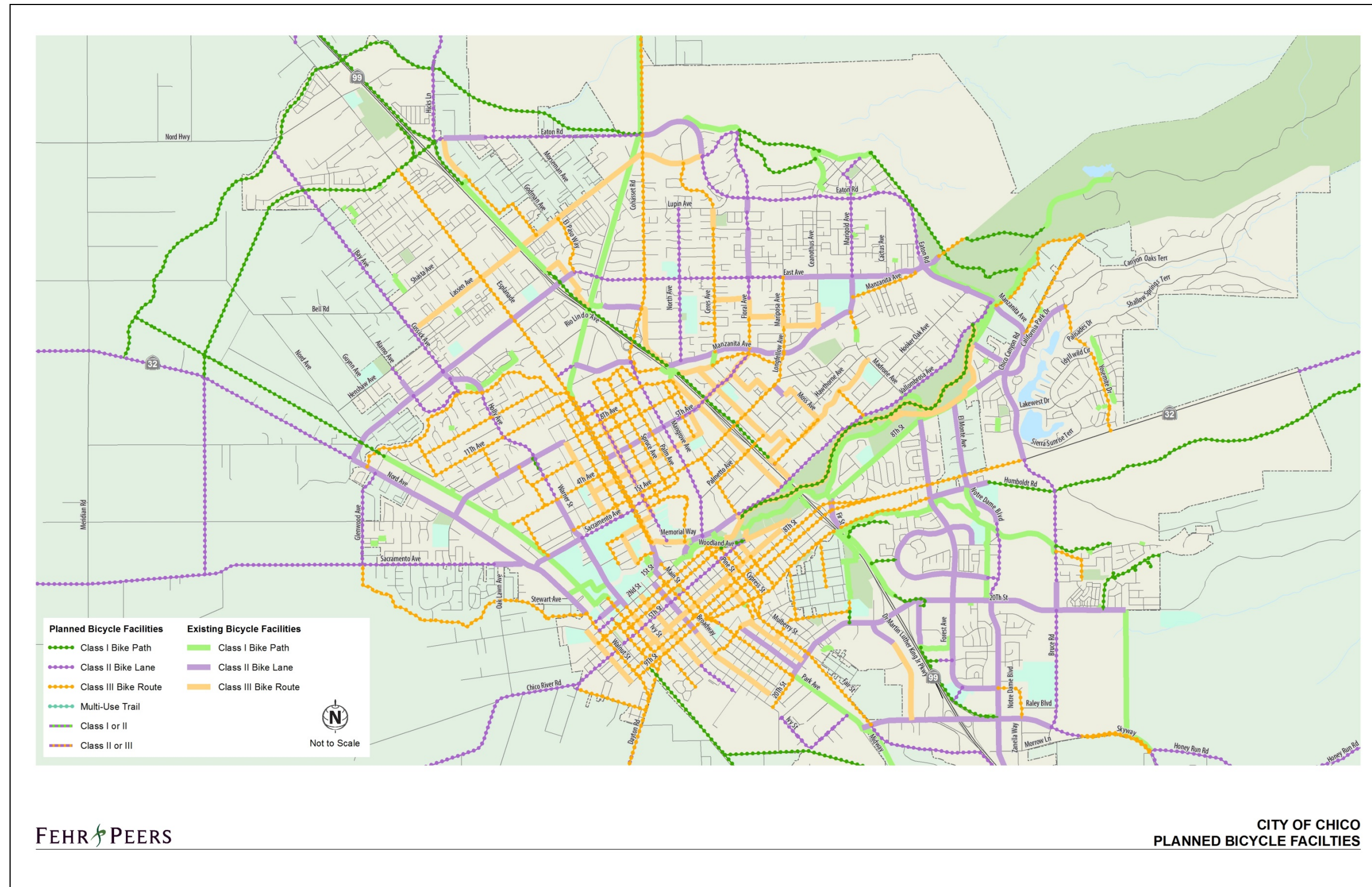


Figure 8-7 Existing and Proposed Bicycle Facilities – Chico



## COLLISION ANALYSIS

Five years of California Highway Patrol (CHP) Statewide Integrated Traffic Records System (SWITRS) data for injury or fatality collisions involving pedestrians or bicyclists was reviewed to identify collision locations and trends in Butte County. The SWITRS data was accessed using the Transportation Injury Mapping System (TIMS), a service available from the Safe Transportation Research and Education Center (SafeTREC) at the University of California, Berkeley. Figure 8-8 Summarizes the accident data for the region.

Figure 8-2 shows that the Butte County’s total walk and bicycle mode share is approximately six percent. However, pedestrian-vehicle and bicyclist-vehicle collisions account for 19 percent of all injury collisions and 29 percent of all fatal collisions in Butte County. Because pedestrians and bicyclists are particularly vulnerable in collisions with vehicles, infrastructure and programs aimed at reducing pedestrian or bicyclist injuries or fatalities could have a significant effect on reducing the County’s overall numbers of traffic-related injuries and fatalities.

Collision locations are mapped in Figure 8-9, Figure 8-10, and Figure 8-11. The mapped figures however relate to the previous Non-Motorized Transportation Plan and are being updated with the Post Camp Fire Study. The areas of concern remain valid.

**Figure 8-8 Summary of Butte County Injury and Fatal Collisions, 2012-2018**

Year	Total Collisions			Pedestrian-Vehicle Collisions			Bicyclist-Vehicle Collisions		
	Injury	Fatal	Total	Injury	Fatal	Total	Injury	Fatal	Total
2012	98	23	888	12	3	48	6	4	90
2013	88	19	872	11	5	68	7	3	84
2014	97	22	878	11	0	53	3	1	70
2015	97	31	878	9	9	54	16	0	75
2016	98	32	1029	16	12	70	4	1	76
2017	114	33	1022	12	6	71	5	4	62
2018	158	36	1010	14	6	51	14	3	72
Totals	750	196	6577	85	41	415	55	16	529



Figure 8-9 Pedestrian and Bicycle Collisions (2007-2011) – Countywide, Paradise, Biggs, and Gridley

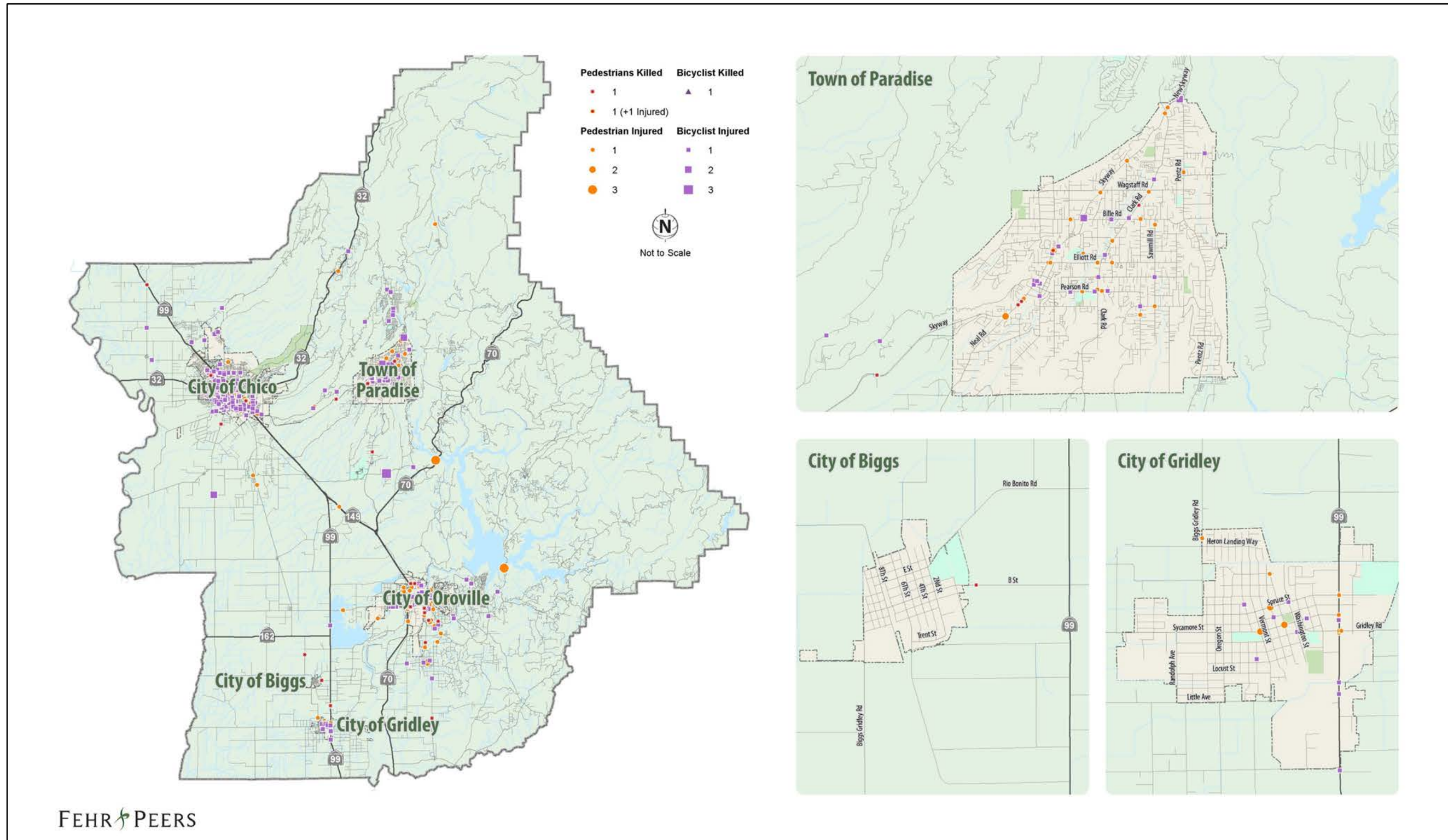


Figure 8-10 Pedestrian and Bicycle Collisions (2007-2011) – Oroville

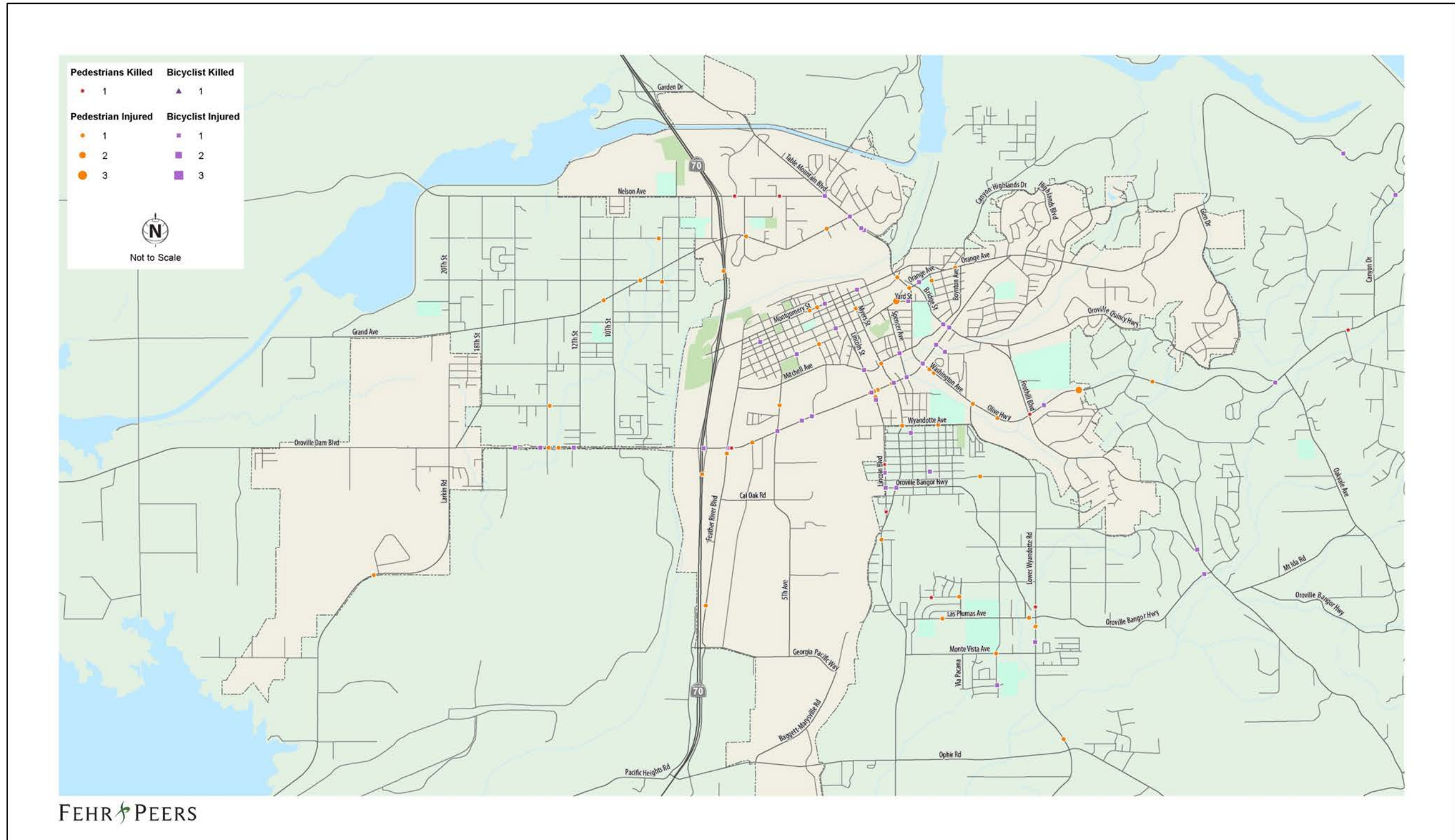
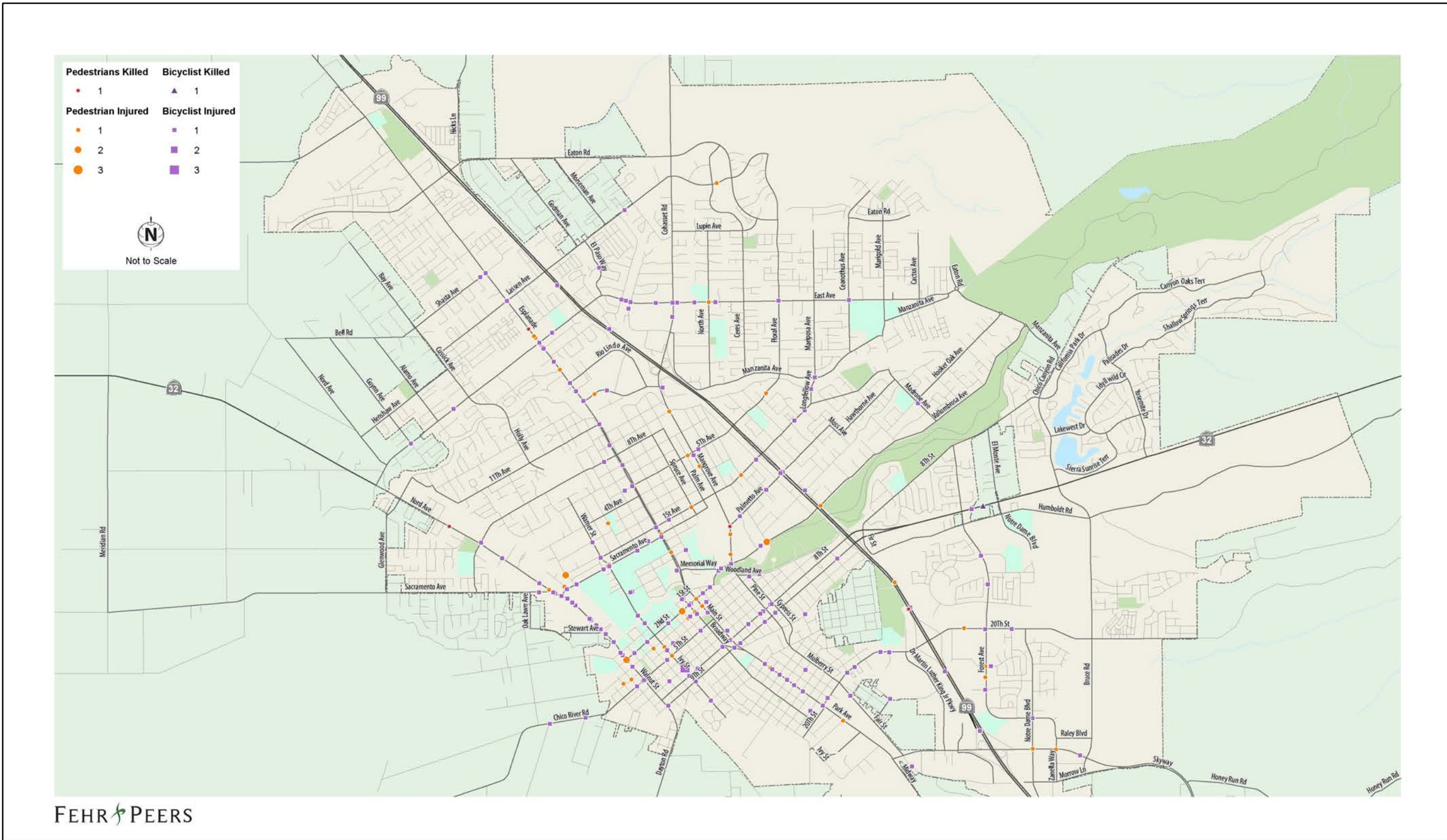


Figure 8-11 Pedestrian and Bicycle Collisions (2007-2011) – Chico



## **IMPROVING TRANSIT ACCESS**

Improving walking and bicycling access to transit centers, stops, and routes can increase transit ridership. One strategy for improving walking and bicycling access to transit facilities is to enhance infrastructure that serves “first mile” (access from home to transit) and “last mile” (access from transit to work, school etc.) walking and bicycling trips. The greatest opportunity for improving transit access is in areas that have high housing, population, and job density, areas with a diverse mix of land use, areas with dense roadway networks, and areas near transit stops with high ridership. Enhancing infrastructure in these areas is most likely to increase transit ridership by improving walking and bicycling access.

To identify areas of greatest opportunity for improving transit access, a transit access score was calculated for every B-Line stop in Butte County. The transit access score for a stop is based on the average regional suitability score within a quarter mile of the stop (which accounts for housing, population, and job density, diversity of land use, and roadway network density and the stop’s number of weekday bus boardings and alightings. The transit access score evenly weights the average regional suitability score and weekday bus boardings and alightings.

The TNMTP posted online at <http://www.bcag.org/Planning/Transit--Non-Motorized-Transportation-Plan/index.html> show the transit access score for each stop. The transit access score identifies for which stops investments in walking and bicycling infrastructure are most likely to improve transit access. Comparisons can be made between stops both on a regional scale (for example, comparing stops in Chico to stops in Oroville) or on a local scale (for example, comparing stops within Oroville to each other).

### **Biggs**

All of Biggs’ transit stops are on B Street. Although Biggs’ stops have a low transit access score compared to other stops in the region, investments in bicycling and pedestrian infrastructure on or connecting to B Street are most likely to improve transit access in Biggs.

### **Chico**

Several clusters of stops in Chico have a high transit access score: Downtown Chico, the area near the Sacramento Avenue/Nord Avenue intersection, and the area near the State Route 99/Cohasset Road interchange. These stop clusters are amongst the highest scoring in the region.

### **Gridley**

In Gridley, the stops on Spruce Street near Downtown Gridley have a moderately high transit access score. The areas near the Spruce Street/Biggs Gridley Road intersection and State Route 99/Spruce Street intersection have a relatively low transit access score. However, relative to transit access in the community, these two locations are good candidates for bicycle and pedestrian improvements.

## Oroville

Two areas in Oroville have a high transit access score: north Oroville near the Nelson Avenue/County Center Drive intersection and the area near the Oroville Dam Boulevard/Washington Avenue intersection.

## CONCLUSION

A sustainable transportation strategy offers a specific role for walking and bicycling in support of public transit and provides an unparalleled option for mitigating GHG emissions. As many cities and some smaller towns have shown in recent years with the introduction of road diets, complete streets, and bicycle sharing programs, prioritizing a safe pedestrian and quality bicycle infrastructure affords healthier communities, more transit friendly communities and an overall better quality of life.

Bicycling and walking are good transportation options in Butte County for local trips, but safety, appropriate amenities, and access issues have not been fully addressed. For regional trips, the bike infrastructure is fairly limited. Much of the county's street network is still very much planned around maximizing access for automobile trips, and many major streets outside of city and town centers lack sidewalks. Although much of the local bike infrastructure has been planned in the county's largest cities, little of it has been developed. As land uses change, more and more residents will seek access to non-motorized modes. Tools to increase the mode share of biking and walking in Butte County, as well as improving pedestrian access to transit, must be developed as part of a long-term sustainability strategy and play a key role in addressing policies for GHG emissions reductions. An in depth review for transit and non-motorized transportation in Butte County is posted at: <http://www.bcag.org/Planning/Transit--Non-Motorized-Transportation-Plan/index.html>. As previously stated, the Transit-Non Motorized Transportation Plan is being updated and included as part of the Post Camp Fire Study.