

# Woodland Active Transportation Plan



# Acknowledgments

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# Introduction

Walking, biking, and rolling by wheelchair or scooter are all components of active transportation. These human-powered modes of travel

- connect families to schools, parks, work, shopping, restaurants, bus stops, and other destinations without a car;
- improve physical and mental health, including reducing the incidence of disease and obesity;
- create a better environment by reducing air pollution and greenhouse gas emissions; and
- provide economical travel, especially when compared to owning and operating a car.

The City of Woodland is a city of about 60,000 people located in the Sacramento metropolitan area. Walking and bicycling are common on the city's network of roadways, sidewalks, and shared-use paths and enjoyed by many residents and visitors. The city's pedestrian-scale downtown enables comfortable walking to many destinations. Students can often walk or bike to neighborhood schools and parks.

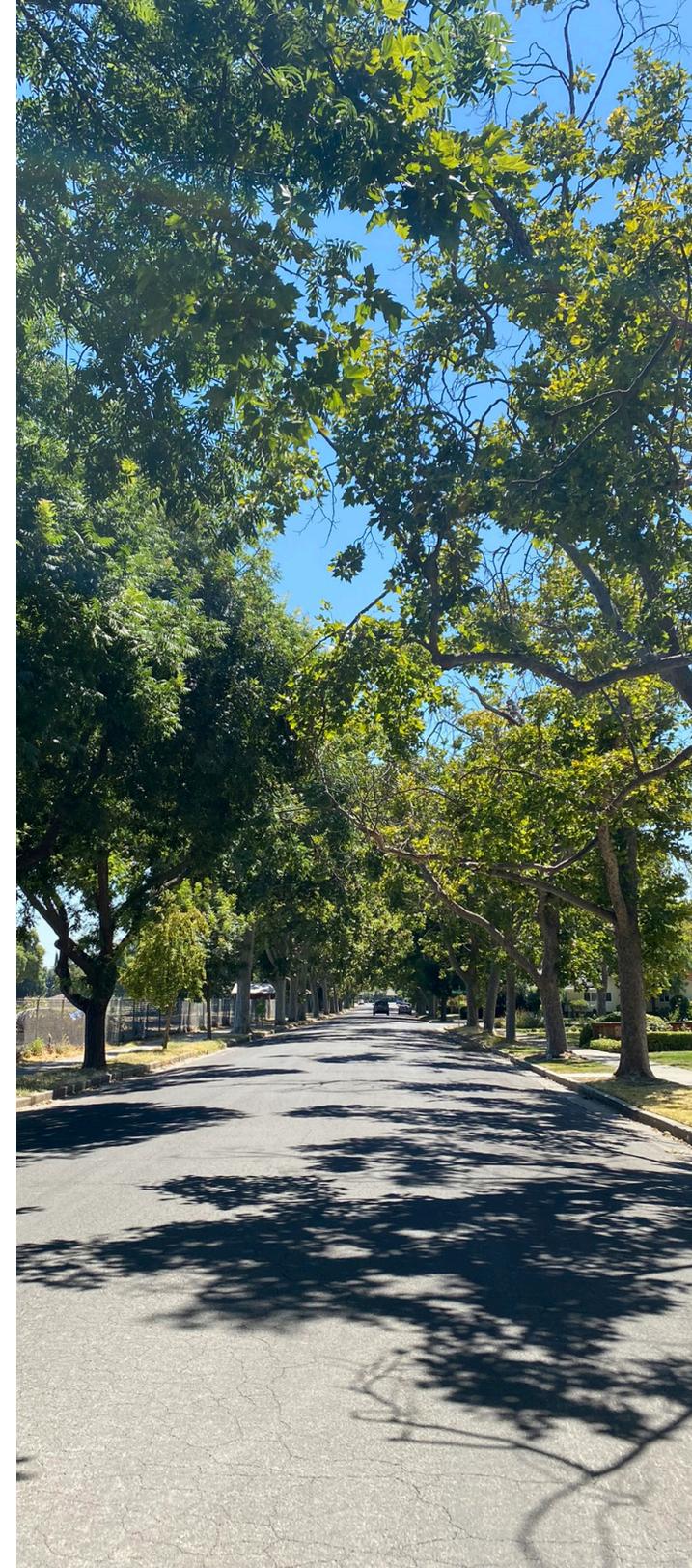
However, walking and biking in some parts of Woodland can be challenging. As in most of California, the automobile is the primary mode of moving people to their destinations. Woodland is typical of many cities in that, outside its historic downtown, much of the city was developed in a suburban, automobile-

focused pattern, which frequently discourages walking and biking and using transit.

These local conditions and other emerging factors make Woodland a prime area for walking and biking improvements. City residents have expressed the desire for more, safe, and comfortable walking and biking facilities. Electric mobility devices such as e-bikes and scooters are increasing in popularity. Additionally, new laws and policies regarding reduction of vehicle miles traveled present an opportunity for synergy with active transportation.

This active transportation plan (ATP) is an important step toward making walking and biking safer, easier, and more enjoyable for everyone. The plan will help make the City eligible for new funding to create new trails, sidewalks, bike lanes, and other improvements for bicycling and walking. The plan will support applications for funding from the statewide Active Transportation Program and other sources of funding.

This plan meets all requirements for active transportation plans as specified by the California Transportation Commission's 2023 Active Transportation Program Guidelines. (The Draft 2025 Active Transportation Program Guidelines published January 12, 2024, have only minor editorial changes.) A summary of these requirements and where they are addressed within the plan is provided in Appendix H, Plan Conformance with ATP Guidelines.



## Plan Goals

The goals for this plan were developed with consideration of other local and state plans and policies, desires of local residents, and emerging trends and opportunities in active transportation.

The Woodland General Plan, Woodland Climate Action Plan, and the Sacramento Council of Governments Metropolitan Transportation Plan/Sustainable Communities Strategy each have goals supporting increases in bicycling and walking. The California Transportation Plan and the California State Bicycle and Pedestrian Plan also have specific goals and policies for increasing biking and walking that are also supported by this plan. Each of these plans is further described in Appendix C, Relevant Plans and Policies.

- 1 Develop facilities and programs to allow all people in Woodland to more easily and more safely get to where they need to go by walking and biking, including wheelchairs, scooters, and e-bikes.
- 2 Create a network of sidewalks and bikeways that connect residents to key destinations, especially local schools and parks.
- 3 Connect local facilities to a network of regional bikeways that allows people to travel between regional destinations.
- 4 Consider all members of community when selecting facilities and prioritizing transportation modes.
- 5 Support implementation of the General Plan, Regional Transportation Plan, and Local Road Safety Plan.
- 6 Meet the requirements of the California Transportation Commission ATP guidelines.
- 7 Support successful funding applications for walking and biking improvements.



## Public Participation

Obtaining input from the residents of Woodland was an important part of the ATP development process. The public helped identify recommended improvements to the bicycling and walking facilities. Participation was solicited through the following:

- A booth at the Recreation Program Exposition (REXPO) in March 2023
- An online crowdsourced interactive map, live from March 2023 to November 2023, where the public could recommend improvements they would like to see and vote for improvements made by others
- A website hosted by the City to communicate information about the plan process throughout the project
- Office hours at a downtown coffee shop with City staff in March 2024 to solicit feedback from the community on the recommended pedestrian and bicycle improvements.

Appendix B, Public Participation, provides additional details on the public input received.

## Active Transportation Facilities

Active transportation networks include several types of infrastructure. Walking facilities include sidewalks, crosswalks, and shared-use paths. Bicycling facilities, in order from lowest stress and most comfortable to highest stress and least comfortable, include shared-use paths, separated bikeways, bike lanes, and bike routes. Bike parking also supports bicycling networks.

These and other treatments are introduced in this chapter and described in detail in Appendix D, Walking and Biking Facilities Toolkit.

### Sidewalks

Sidewalks are paved areas immediately adjacent to the vehicular right-of-way for the use of pedestrians. Unlike shared-use paths, they are directly adjacent to the main right-of-way. Sidewalks may be used by people riding bicycles unless prohibited. In Woodland, Municipal Code section 10.24.110 prohibits bicycle riding on sidewalks in the central traffic district, defined as all streets and portions of streets within the area bounded by Lincoln Avenue, East Street, Court Street, and Cottonwood Street. Other sidewalks in the city may also have bicycle riding prohibited as identified by signs.



## Crosswalks

Crosswalks, which are street crossings for pedestrians, may be marked or unmarked. Marked crosswalks feature striping and other enhancements. These features may be used to raise awareness of the crossing and to delineate the best place to cross. There are two types of marked crosswalks:

- **Controlled crosswalks** are located with stop signs or traffic signals.
- **Uncontrolled crosswalks** are located without stop signs or traffic signals. Under California law, drivers are legally required to yield to pedestrians at uncontrolled crosswalks.

Additional features can be added to crosswalks to increase visibility on busy streets:

- **High-visibility crosswalk markings** add additional striping to the pavement.
- **Warning signage** improves visibility of crosswalks and increases the likelihood that a driver will yield to or stop for pedestrians.
- **Curb extensions** decrease the pedestrian crossing distance at intersections and improve the visibility of pedestrians waiting to cross the street.
- **Median refuge islands** allow pedestrians to cross one direction of traffic, then wait in the center of the street to cross the other direction of traffic.
- **Rectangular rapid flashing beacons (RRFBs)** allow the pedestrian to activate a flashing light when crossing.
- **Pedestrian hybrid beacons (PHBs)** require traffic to stop for pedestrians when activated, but allow vehicles to proceed with caution after the pedestrian crossing has been completed.

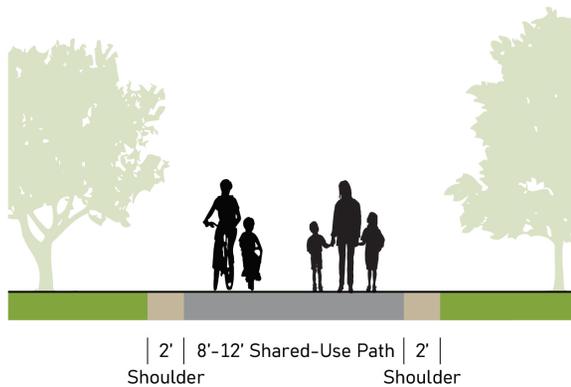
More features are described in Appendix D.



## Shared-Use Paths

Shared-use paths, often referred to as Class I bike paths (as classified in Chapter 1000 of the Caltrans Highway Design Manual) or paved trails, are off-street facilities that provide exclusive use for non-motorized travel by bicyclists and pedestrians (Figure 1). Shared-use paths have minimal cross flow with motorists and are typically located along landscaped corridors. Shared-use paths can be utilized for both recreational and commute trips. These paths provide an important recreational amenity for bicyclists, pedestrians, dog walkers, runners, skaters, and those using other non-motorized forms of travel. They are frequently designed to offer a specific benefit to users, such as a connection not previously included in the bicycle or pedestrian network or traversing a barrier such as a freeway or river.

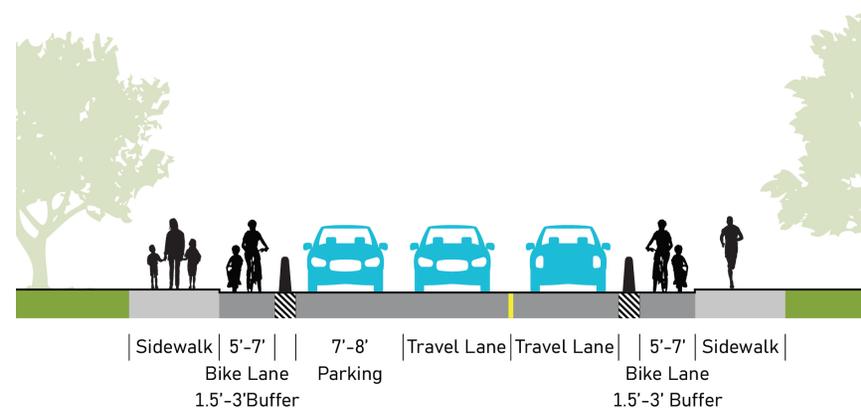
Figure 1: Shared-Use Path



## Separated Bikeways

Separated bikeways, designated Class IV by Caltrans and also known as cycle tracks, are physically separated bicycle facilities that are distinct from the sidewalk and designed for exclusive use by bicyclists. They are located within the street right-of-way but provide bicyclists comfort similar to shared-use paths. The key feature of a separated bikeway is a vertical element that provides physical separation from motor vehicle traffic (Figure 2). Common vertical elements used for separation include vertical curbs, painted buffers with flexible posts, parked cars, landscaped area, large planters, or other fixed barriers. Separated bikeways may also be constructed by creating a bikeway at a height above the vehicular lanes. Separated bikeways can be either one-way or two-way, accommodating a single direction of travel or both.

Figure 2: Separated Bikeway

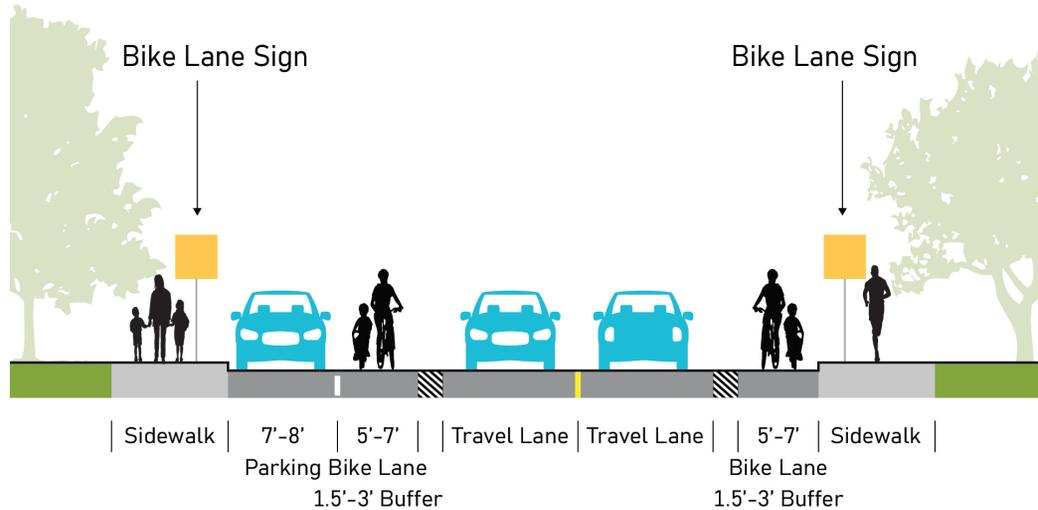


## Bike Lanes

Bike lanes, designated Class II by Caltrans, are on-street facilities that use striping, stencils, and signage to denote preferential or exclusive use by bicyclists. Bikes lanes are contiguous with motor vehicle travel lanes. Bike lanes provide adequate space for comfortable riding and alert drivers about the predictable movements of bicyclists.

**Buffered bike lanes** are similar to bike lanes but have an additional painted section of pavement that provides space between bike and motor vehicle travel lanes (Figure 3). The total bike lane width encompasses the buffer and the bike lane width.

Figure 3: Buffered Bike Lane



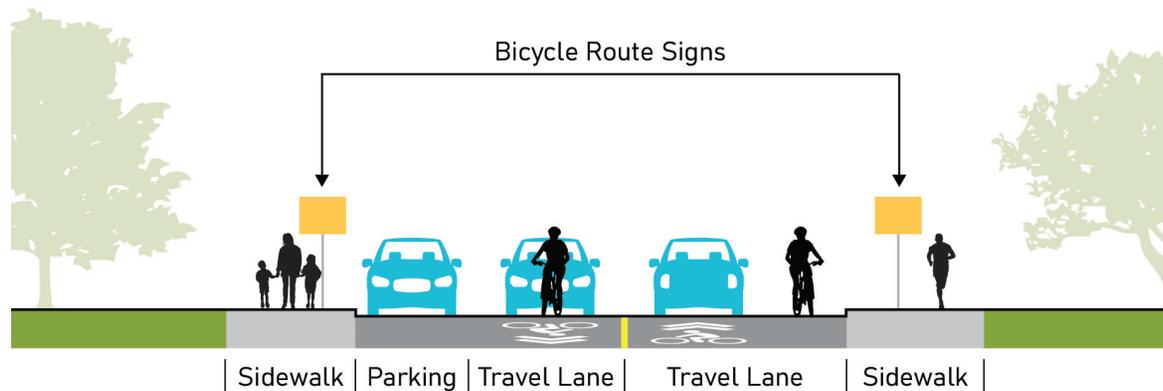
## Bike Routes

Bike routes, designated Class III by Caltrans, are streets with signs and optional pavement markings where bicyclists travel on the shoulder or share a lane with motor vehicles (Figure 4). Bike routes are utilized on low-speed and low-volume streets to connect bike lanes or paths along corridors that do not provide enough space for dedicated lanes. Shoulders are preferable but not required on streets with bike routes. In addition to alerting motorists to the presence of bicyclists, bike routes help bike riders find their way to other bikeways or regional destinations like schools and parks.

**Bicycle boulevards** are enhanced bike routes that are intentionally located on low-volume, low-speed local streets and include other features designed to make a low-stress, comfortable, attractive bikeway that prioritizes bicycle travel. These features include shared lane markings, wayfinding signs, and traffic calming features, including at crossings with higher volume arterials. Physical and non-physical measures such as signs, pavement markings, speed bumps, and low or reduced vehicle speeds are utilized to discourage through trips by motor vehicles and create safe, convenient bicycle access.

**Sharrows**, or shared-lane markings, are a common bike route pavement marking that alerts drivers that bicyclists are sharing the road and facilitate wayfinding through neighborhoods.

Figure 4: Bike Route



## Bicycle Parking

Bicycle parking encourages ridership by supporting the final stage of a bicycle trip. Locations with high ridership are excellent candidates for bicycle parking, including civic, residential, commercial, and office spaces. At these locations, both short-term and long-term parking should be accommodated.

**Short-term bicycle parking** is temporary bicycle parking intended for visitors. Bicycle racks are a common form of short-term parking. Bicycle racks in front of stores and other destinations allow patrons to park their bike for short periods. Bike parking should be located in well-lit areas to discourage theft. Installing permanent bicycle racks near main entrances also helps bicyclists feel welcome

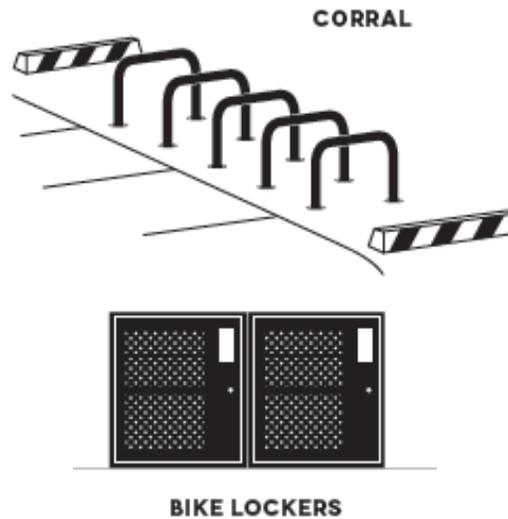


Source: Meena Rugh, *The California Aggie*.

and encourages them to ride their bicycle again on a return trip. Bicycle racks that allow at least two points of contact, such as the wheel and frame, provide the most protection against theft and accidental damage.

Woodland Municipal Code section 10.24.100 states that when a bike rack is provided, no person shall park a bicycle, except in such rack, on an adjacent street or sidewalk within a distance of 100 feet from such rack.

**Long-term bicycle parking** is intended for employees, students, commuters, and residents to protect bicycles for extended periods. Long-term facilities are more secure than short-term bicycle parking and should fully protect bicycles from theft and weather.

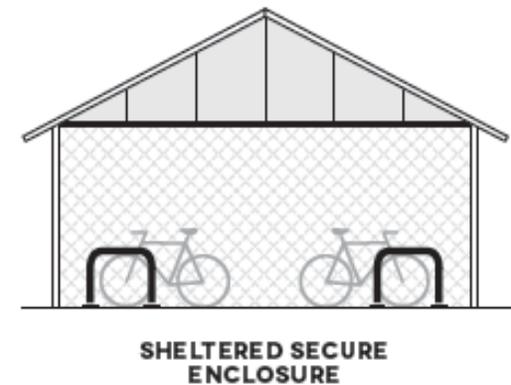


Source: APBP, *Essentials of Bike Parking: Selecting and Installing Bike Parking that Works* (2015).

Long-term bicycle parking includes bike lockers, bike cages, and bike rooms:

- Bike lockers are outdoor enclosures that accommodate one or two bicycles and are usually leased on a monthly basis or paid short-term use.
- Bike cages are fully enclosed, roofed shelters that house racks of bicycle parking, typically found at schools.
- Bicycle rooms are found inside office or residential buildings, and provide secure indoor parking. Bicycle rooms may feature amenities such as bike pumps and quick-fix tools for employees and residents.

The Association of Pedestrian and Bicycle Professionals (APBP) *Essentials of Bike Parking: Selecting and Installing Bike Parking that Works* (2015) provides guidance for planning and installing bike parking facilities that are effective and secure.





## Traffic Calming

Traffic calming devices include a wide range of design treatments capable of reducing vehicle speeds and thus improving the safety and comfort of the transportation network for all users. Reducing vehicle speeds makes travel safer for both bicycles and pedestrians. Traffic calming devices may employ vertical deflection, as with speed bumps, or horizontal deflection as with curb extensions.

Narrowing traffic calming devices are a sub-category of horizontal deflection traffic calming devices. Wider roads are associated with greater crash rates and higher impact speeds. Narrowing roadways often leads to decreased vehicle speeds and improves safety.

Restriping narrower travel lanes for vehicle traffic can reduce motor vehicle speed. In many locations, interior traffic lanes can be narrowed to 10 feet or less to encourage lower speeds. Narrow lanes can make room in the roadway right-of-way for painted medians, center turn lanes, bicycle lanes, or parking.

## Emerging Trends and Opportunities

New technologies and changes in California regulations that have emerged in the last several years are supporting expanded use of active transportation.

**Electric bikes and scooters** are two expanding technologies that provide both new opportunities and challenges. These devices can be partially or fully powered but also share facilities with other users. There is a range of types of e-bikes, scooters, and other devices. State law governs where these devices may be used but also allows local jurisdictions to enact more restrictive rules on where they may be used. A review of these devices and regulations governing their use is included in Appendix D.

**Vehicle miles traveled (VMT)** has become the standard for measuring transportation impacts under the California Environmental Quality Act since the implementation of California Senate Bill 743. Walking and biking, including using electric bikes and scooters, helps reduce VMT directly. Walking and biking also support greater use of transit, further reducing VMT. The Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, released by the California Air Pollution Control Officers Association, is a good guide for estimating these reductions.



# Existing Conditions

Woodland's flat topography and relatively low rainfall are suitable for walking and biking, as are the city's mild winter temperatures. However, summer temperatures are often hot and more challenging for walking and biking.

Woodland is generally suburban in character of land use. The estimated population as of 2022 was 61,230, according to the U.S. Census Bureau (2022). Most residences are single-family homes. Most retail development is in shopping centers, though some traditional retail exists in the city's walkable downtown. While most of the city has been developed with sidewalks, there are gaps in some industrial areas. Additionally, curb ramps at some intersections are missing or do not meet current standards. Many newer areas have dedicated bicycling facilities, though many older areas of the city do not.

## Transportation Modes

Mobility and accessibility are important aspects of the City of Woodland's small-town character. The city has remained relatively compact compared to other suburban communities in the Sacramento region, making transit, walking, and bicycling viable choices for travel. However, automobiles are the primary mode of travel in the city. According to the U.S. Census Bureau 2022 American Community Survey (ACS) 5-Year Estimates, about 86 percent of City of Woodland residents commute by car, truck, or van, resulting in approximately 25,630 trips to work

by vehicle per day. As shown in Table 1, The share of workers that walk to work in the City of Woodland is about 0.8 percent and the share of those that bike to work is about 0.6 percent. Additionally, about 1.3 percent of workers use public transportation to get to work and about 10 percent of workers in Woodland work from home. Although these shares are comparable to statewide averages, note that city values may be higher or lower due to ACS margins of error.

Note that these statistics only include workers who walk or ride every day, not those who do so occasionally. Reliable data on non-commute trips, including trips to school, trips for shopping, and recreational trips is not readily available and not included in these estimates. Thus, the total number of biking and walking trips is likely greater than shown.



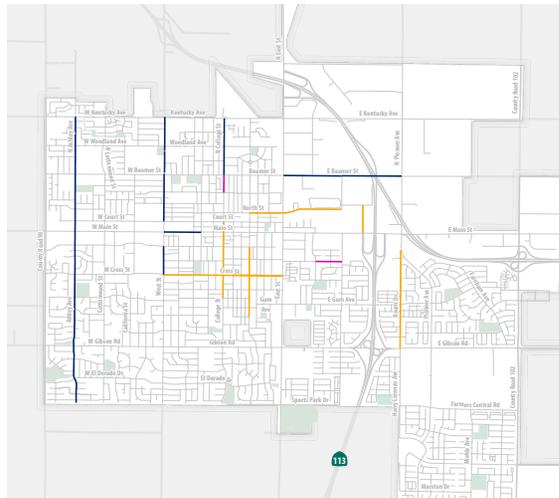
**Table 1. Trips to Work by Walking and Bicycling**

Location	Commuters	Walking		Bicycling	
		Trips	Share	Trips	Share
Woodland	29,842	239	0.8%	179	0.6%
Yolo County	100,577	2,012	2.0%	5,532	5.5%
California	18,353,469	440,483	2.4%	128,474	0.7%

Note: Numbers and shares are estimates. Actual numbers may be lower or higher. Workers aged 16 years and older. Sources: U.S. Census 2018 -2022 American Community Survey, 2023; Fehr & Peers, 2024.

## Transit Connections

The Yolo Transportation District (YoloTD) operates Yolobus, which provides local and intercity bus service within the City of Woodland, Yolo County, and to downtown Sacramento and Sacramento International Airport. Routes 42A/42B have the highest ridership, with service between Woodland, Davis, the Sacramento International Airport, and downtown Sacramento. Morning and afternoon express routes, such as Routes 45, 45X, and 46, serve commuters traveling between Woodland and downtown Sacramento. All buses have bike racks that can accommodate up to three bikes at a time. Figure 5 shows the bus stops and bus routes in Woodland.



Yolobus also offers door-to-door ADA para-transit service. This service complements and operates within the same times and service area as the fixed-route bus service.

Yolobus began operating its on-demand ride-share service, BeeLine, in 2023. This service uses small vehicles for short trips within Woodland. Riders can select their pick-up and drop-off points through a mobile app.



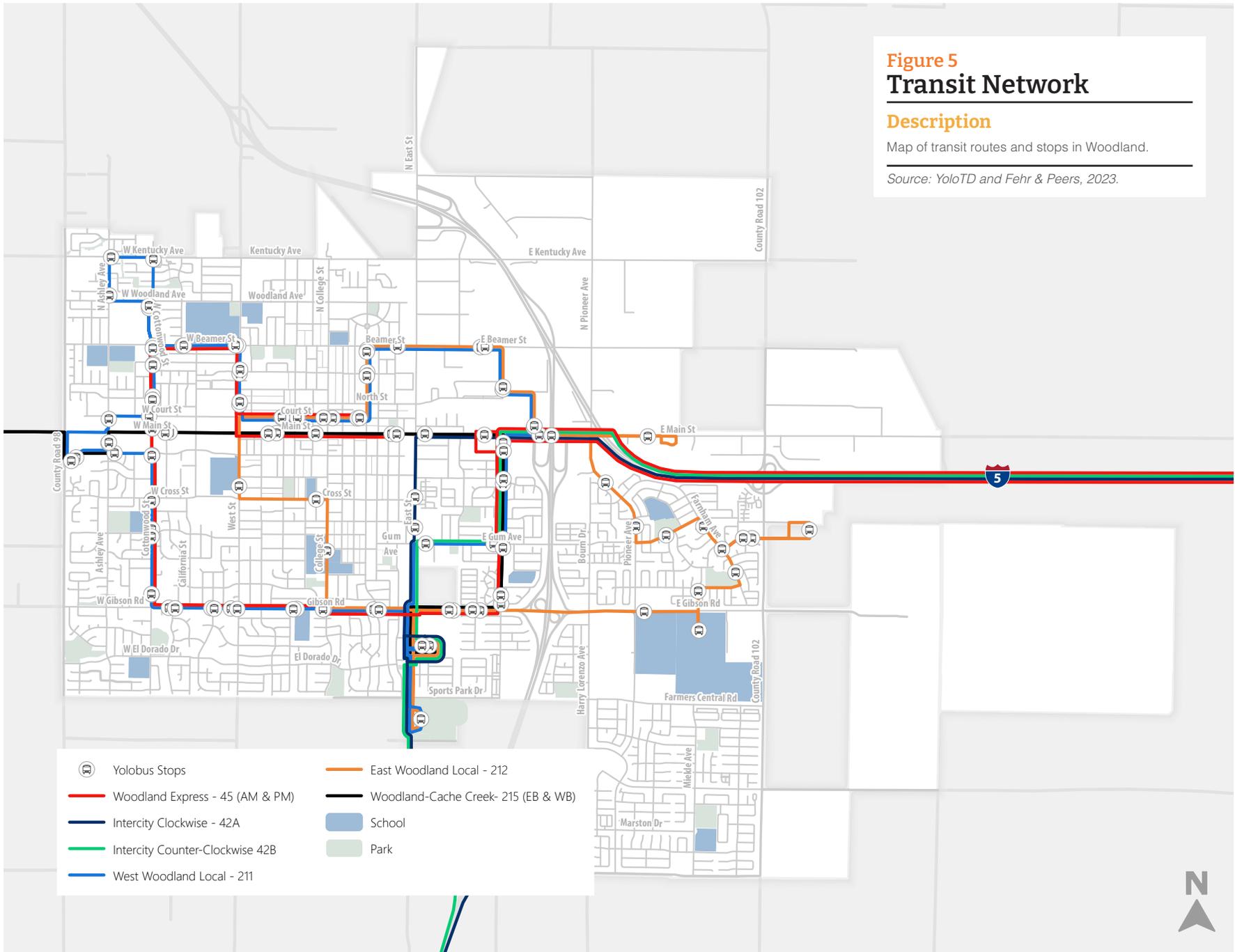
Source: <https://yolobus.com/beeline/>

## Figure 5 Transit Network

### Description

Map of transit routes and stops in Woodland.

Source: YoloTD and Fehr & Peers, 2023.



- Yolobus Stops
- Woodland Express - 45 (AM & PM)
- Intercity Clockwise - 42A
- Intercity Counter-Clockwise 42B
- West Woodland Local - 211
- East Woodland Local - 212
- Woodland-Cache Creek- 215 (EB & WB)
- School
- Park





## Roadway Infrastructure and Vehicle Volumes

Figure 6 shows traffic controls related to biking and walking, including traffic signals, flashing beacons, speed feedback signs, and speed humps. The city also has multiple railways and many railroad crossings.

Figure 7 shows posted speed limits and Figure 8 shows daily traffic volumes on arterials in Woodland.

## Key Destinations and Land Use

Figure 9 shows key destinations for bicyclists and pedestrians in Woodland. Important destinations include the following:

- Schools
- Parks
- Public buildings, including libraries, post offices, city halls, and county offices
- Retail areas
- Hospitals and medical facilities
- Senior centers and senior housing

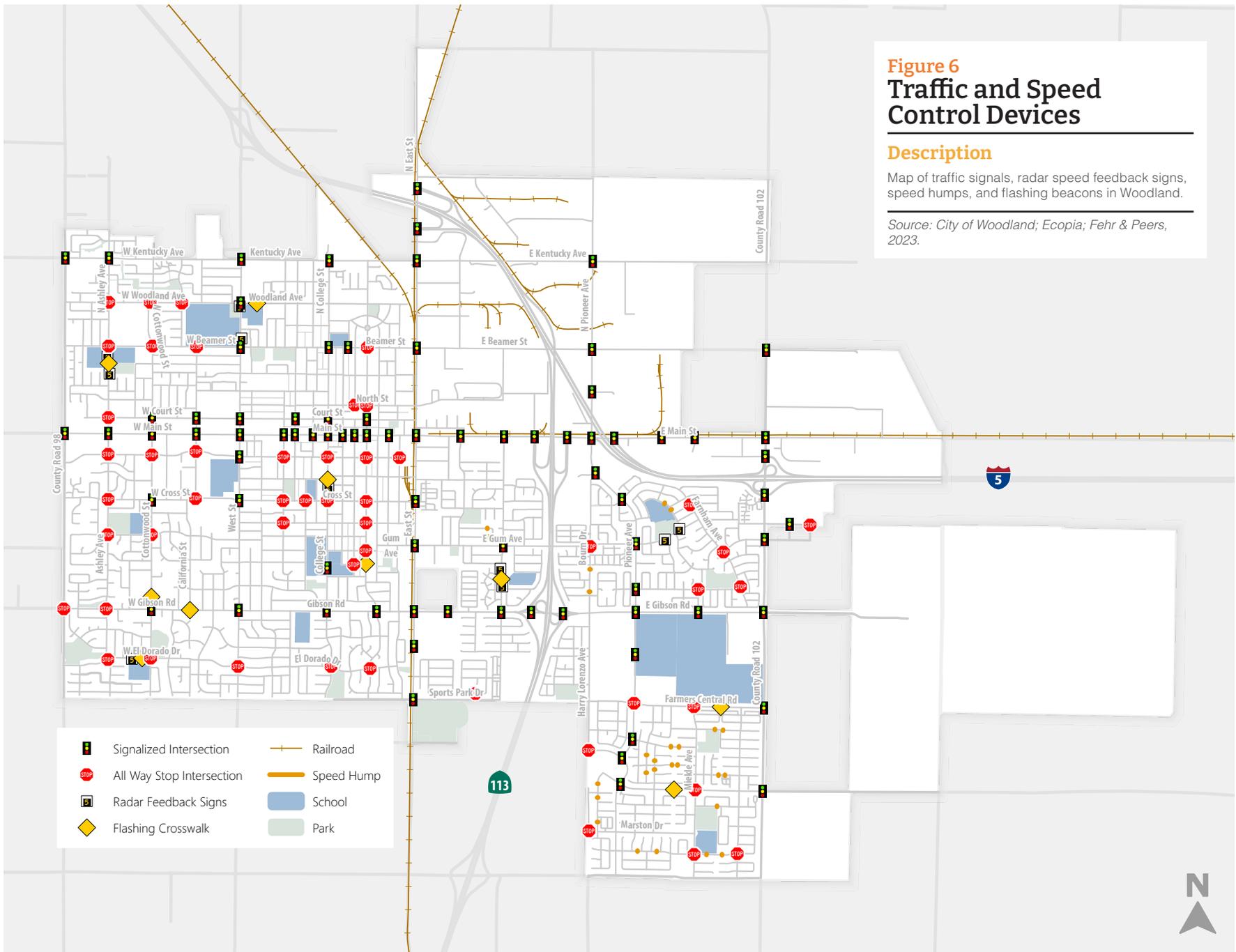
Current zoning maps identifying residential, commercial, and industrial areas are included in Appendix A, Existing Conditions Supporting Data.

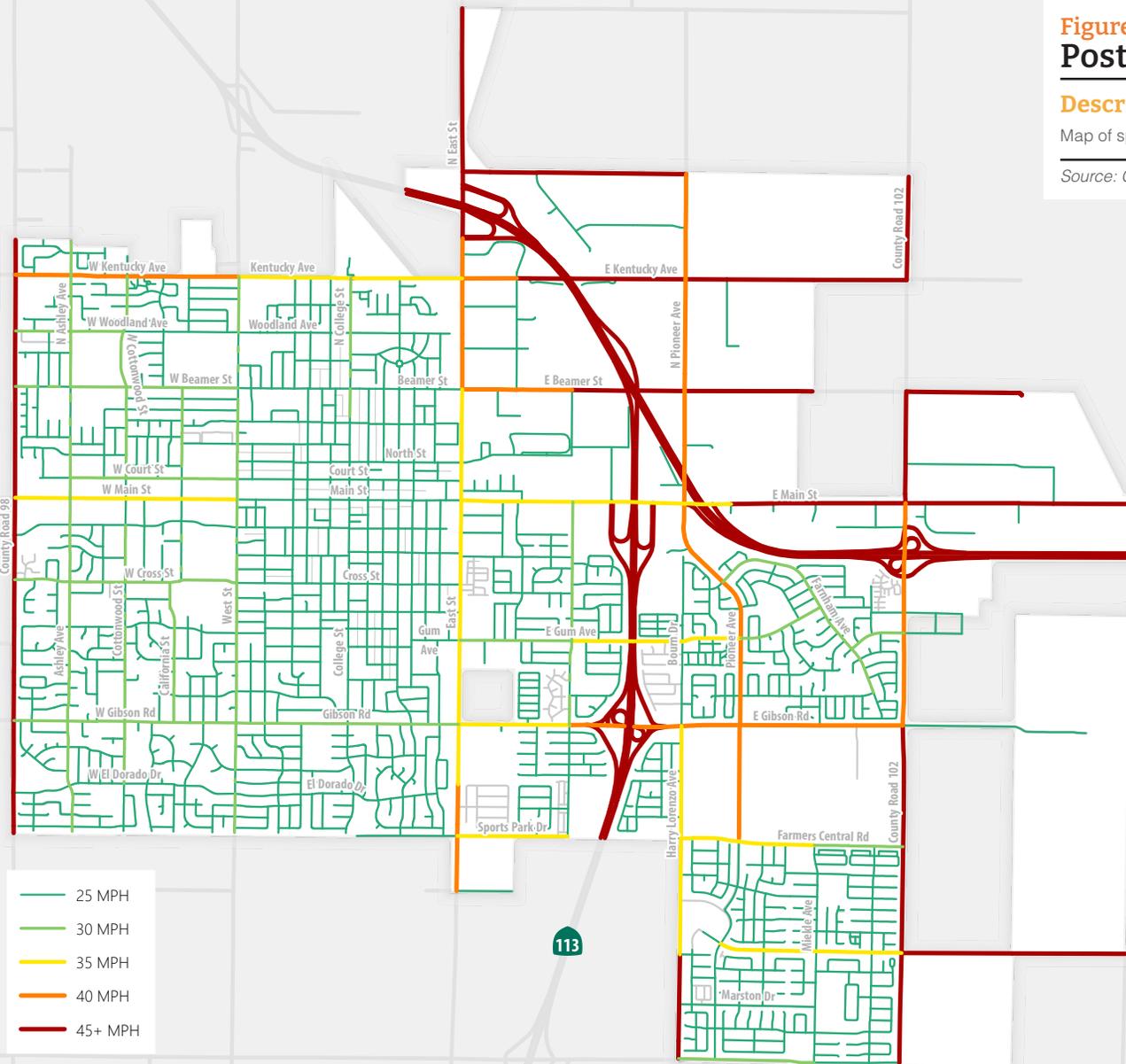
## Figure 6 Traffic and Speed Control Devices

### Description

Map of traffic signals, radar speed feedback signs, speed humps, and flashing beacons in Woodland.

Source: City of Woodland; Ecopia; Fehr & Peers, 2023.





**Figure 7**  
**Posted Speed Limits**  
**Description**  
 Map of speed limits on roadways in Woodland.  
 Source: City of Woodland; Fehr & Peers, 2023.

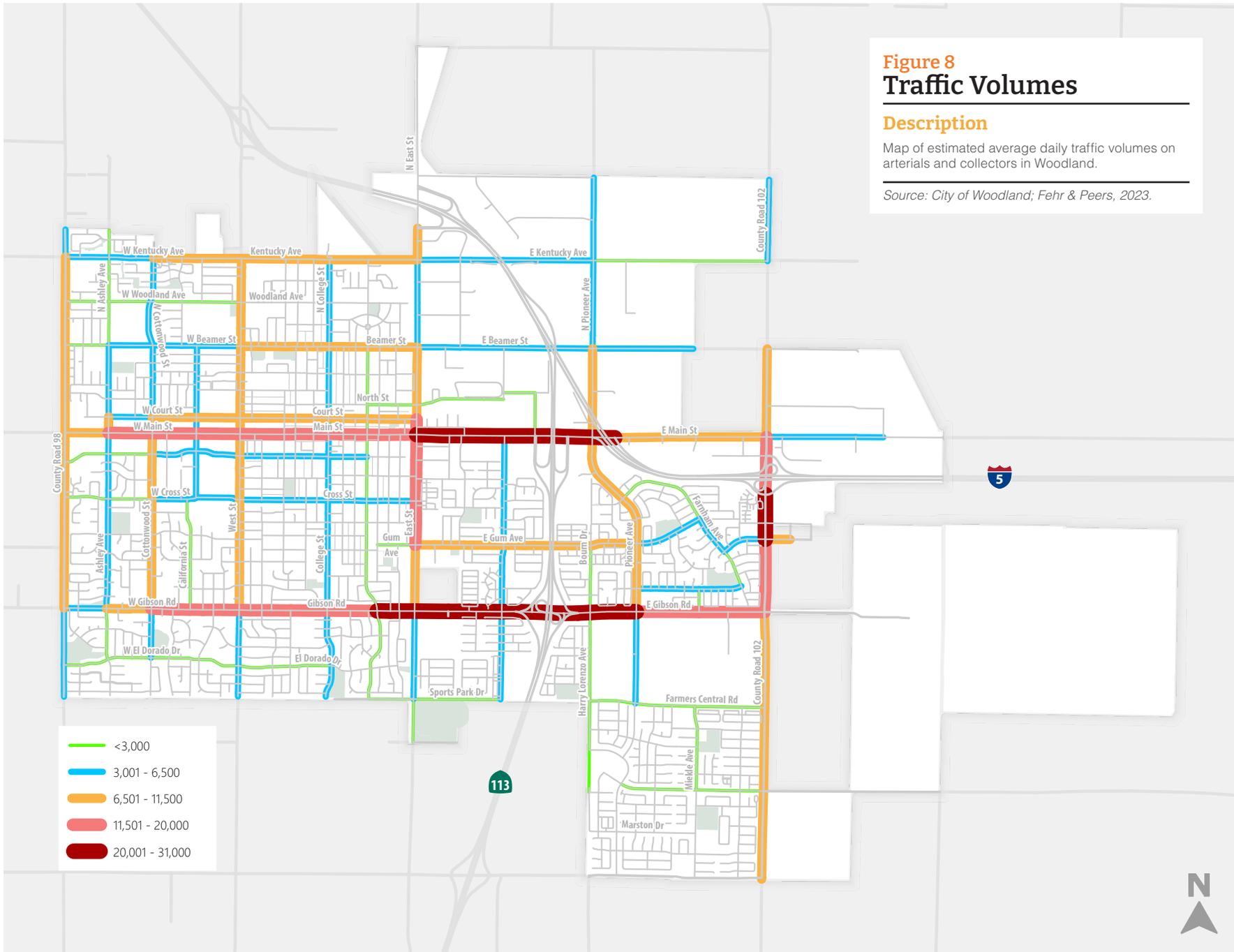


## Figure 8 Traffic Volumes

### Description

Map of estimated average daily traffic volumes on arterials and collectors in Woodland.

Source: City of Woodland; Fehr & Peers, 2023.

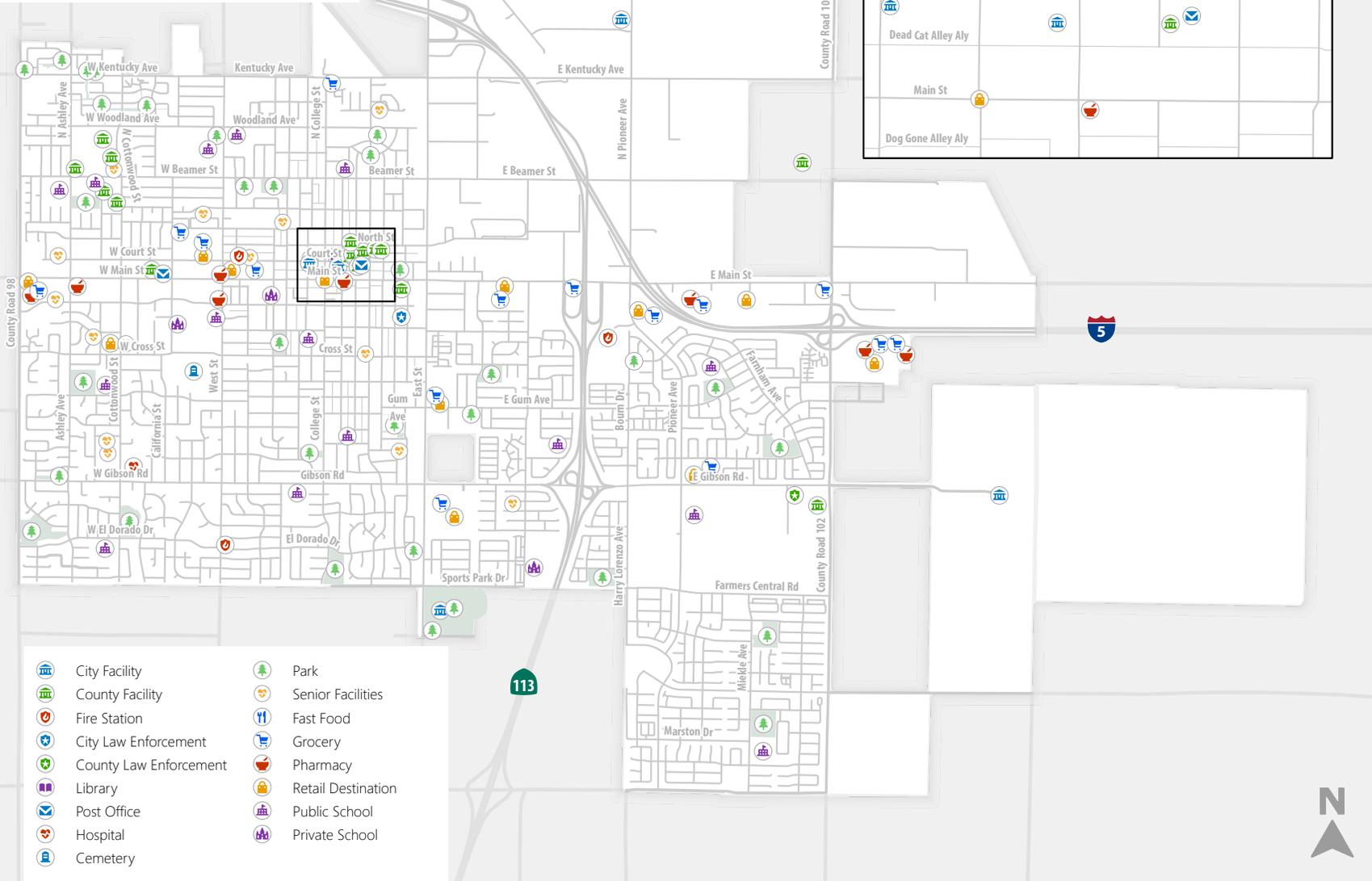


# Figure 9 Key Destinations

## Description

Map of Woodland's key destinations.

Source: Fehr & Peers, 2023.



## Disadvantaged Communities

Service to disadvantaged and underserved communities, often referred to as environmental justice communities, is a key factor in many grant funding programs such as California's Active Transportation Program. This plan presents a variety of different indicators of disadvantaged communities:

**Household median income** – Census tracts with median household income less than 80 percent of the statewide median, or \$73,524 based on the 2018-2022 American Community Survey (ACS) (Figure 10).

**Free and reduced price meal (FRPM) eligibility** – The share of students at a school who are eligible for subsidized meals, based on the 2022-2023 school year. Schools with at least 75 percent eligible are considered disadvantaged by the ATP guidelines. Eight schools in Woodland are considered disadvantaged by this criterion (Figure 11).

**CalEnviroScreen 4.0 score percentile** – A measure of environmental health by census tract. Inputs include socioeconomic factors, population characteristics, pollution factors, and environmental factors. Tracts with higher percentiles are more disadvantaged. The worst scoring 25 percent are considered disadvantaged by the ATP guidelines. No areas of Woodland are considered disadvantaged by this criterion.

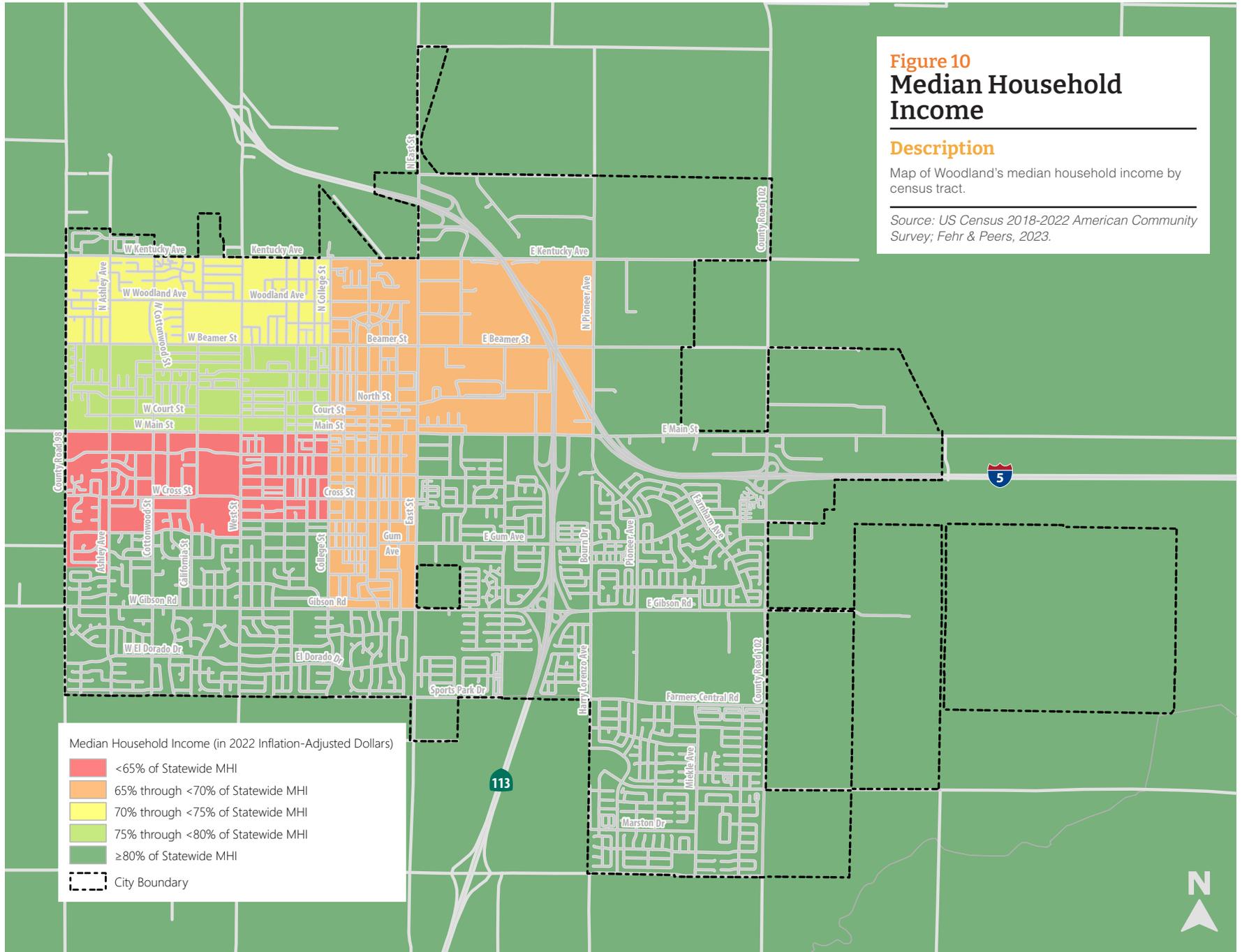
**California Healthy Places Index** – A measure of the community conditions shaping health outcomes. Factors include economics, education, transportation, social, neighborhood, housing, clean environment, and healthcare access. Census tracts in the worst scoring 25 percent are considered disadvantaged by the ATP guidelines. No areas of Woodland are considered disadvantaged by this criterion.

**SACOG Environmental Justice Areas** – Environmental justice areas identified by the Sacramento Council of Governments as having concentrations of low income, and/or high minority and/or qualification of an "other vulnerability" and/or within the CalEnviroScreen 3.0 identified areas (Figure 12).

**Federal Climate and Economic Justice Screening Tool (CEJST)** – Launched by the White House Council on Environmental Quality (CEQ). Federal agencies are currently implementing the Justice40 Initiative, which seeks to deliver 40 percent of the overall benefits of federal climate, clean energy, affordable and sustainable housing, clean water, and other investments to disadvantaged communities that are marginalized, underserved, and overburdened by pollution. Communities are considered disadvantaged if they are in a census tract that meets the threshold for at least one of the tool's eight categories of burden and corresponding economic indicator (Figure 13).

**US DOT Equitable Transportation Community (ETC) Explorer Tool** – A measure of the cumulative burden communities experience, as a result of underinvestment in transportation, in the following five components: Transportation Insecurity, Climate and Disaster Risk Burden, Environmental Burden, Health Vulnerability, and Social Vulnerability. It is designed to complement the CEJST by providing users deeper insight into the transportation disadvantage component of CEJST. Census tracts scoring in the worst 25 percent are considered to be disadvantaged by the Active Transportation Program. By this definition, northern areas of Woodland are considered disadvantaged (Figure 14).

**Zero Automobile Households** – The percentage of households that do not have a vehicle (and are more likely to be dependent on walking, biking, and transit to meet their transportation needs) by census tract according to the 2018-2022 ACS (Figure 15).



**Figure 10**  
**Median Household Income**

**Description**  
 Map of Woodland's median household income by census tract.

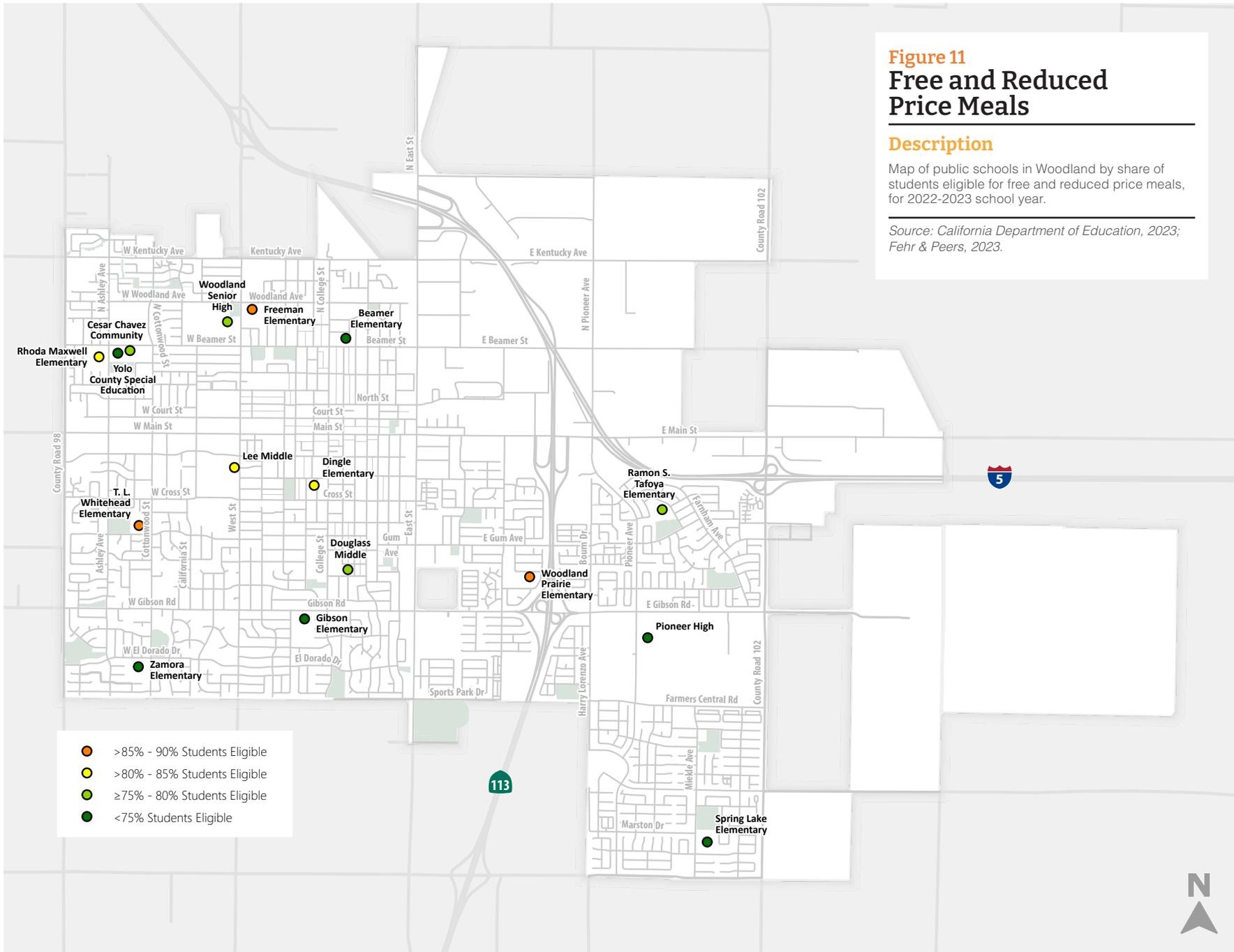
*Source: US Census 2018-2022 American Community Survey; Fehr & Peers, 2023.*

## Figure 11 Free and Reduced Price Meals

### Description

Map of public schools in Woodland by share of students eligible for free and reduced price meals, for 2022-2023 school year.

Source: California Department of Education, 2023;  
Fehr & Peers, 2023.

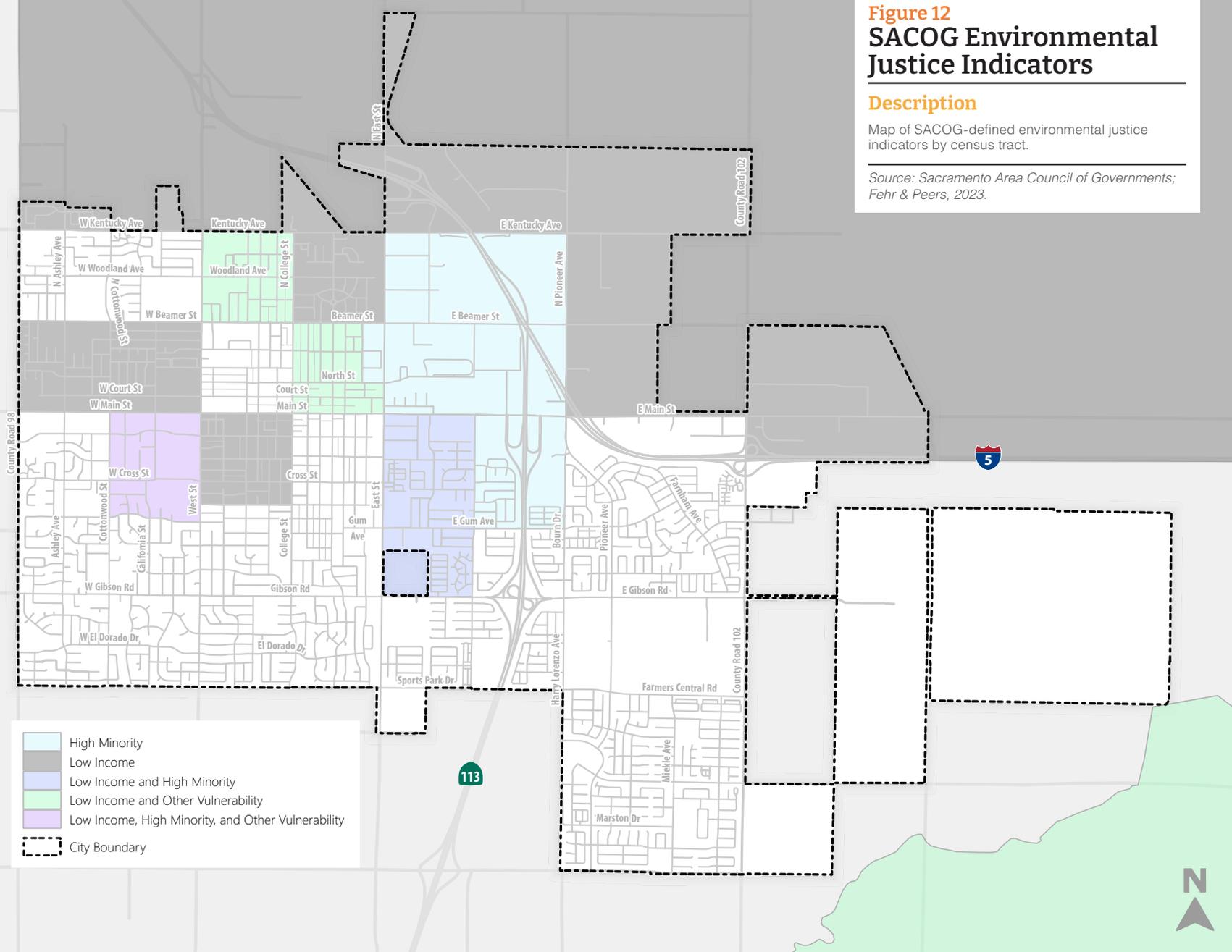


**Figure 12**  
**SACOG Environmental Justice Indicators**

**Description**

Map of SACOG-defined environmental justice indicators by census tract.

Source: Sacramento Area Council of Governments; Fehr & Peers, 2023.

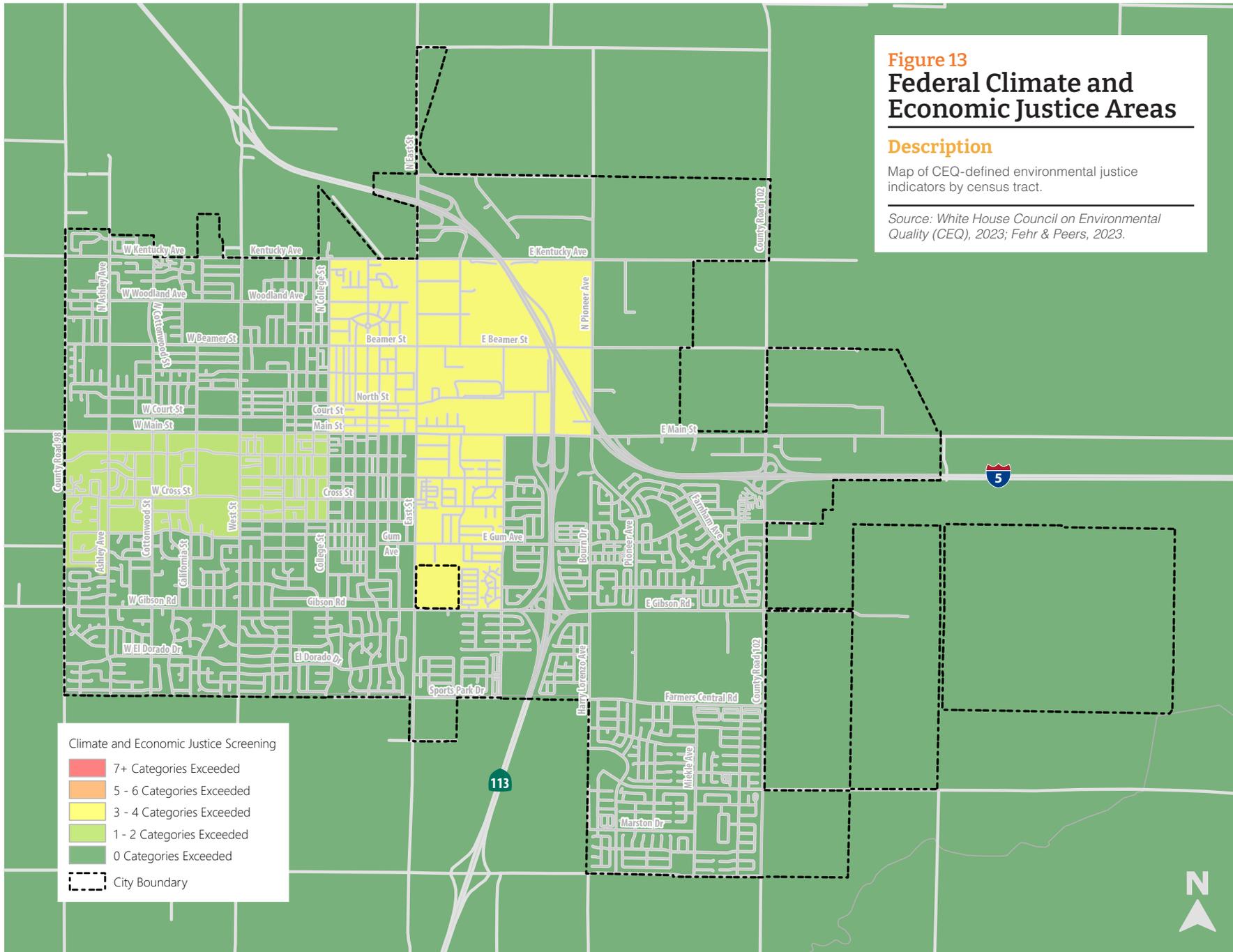


**Figure 13**  
**Federal Climate and Economic Justice Areas**

**Description**

Map of CEQ-defined environmental justice indicators by census tract.

Source: White House Council on Environmental Quality (CEQ), 2023; Fehr & Peers, 2023.



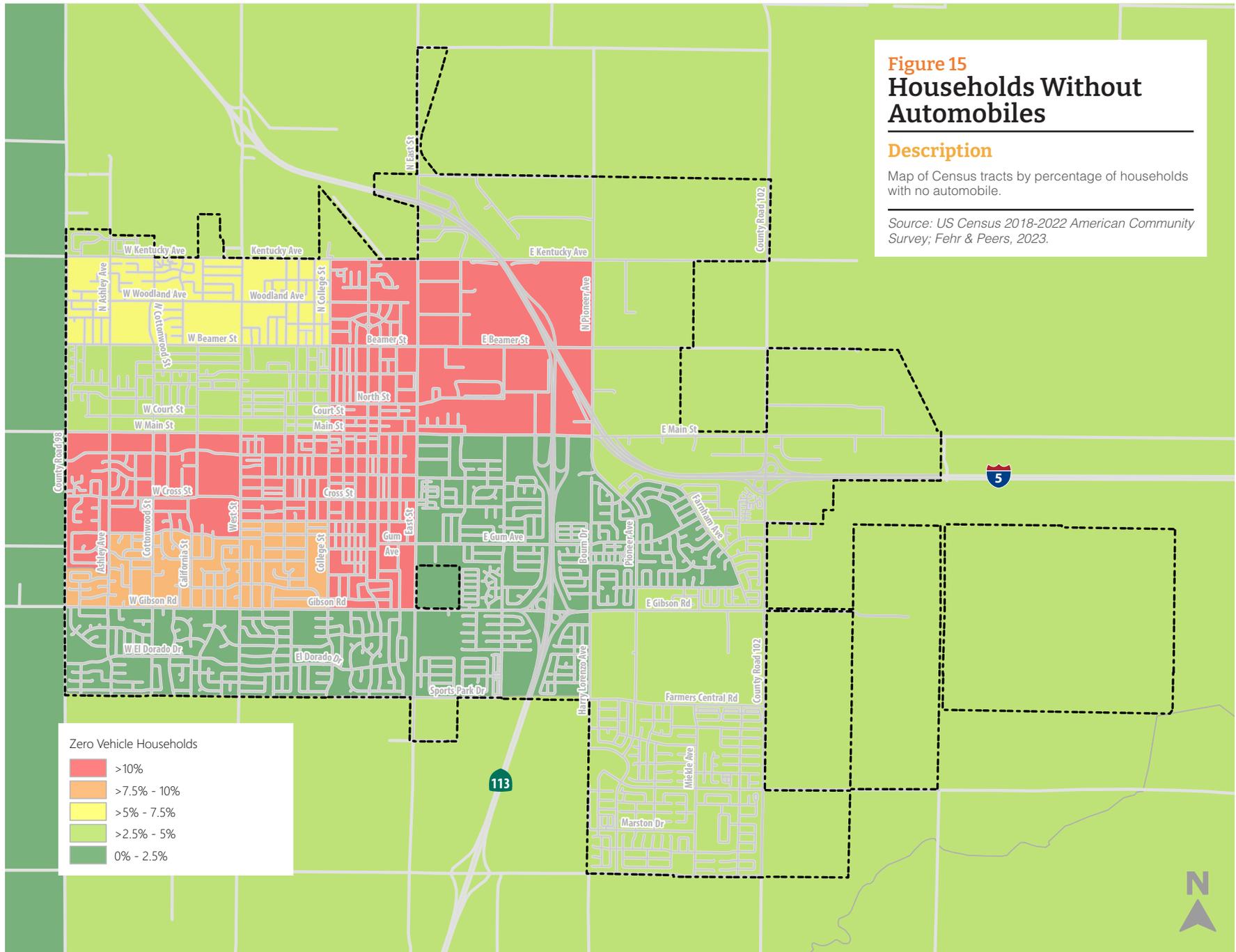


**Figure 15**  
**Households Without Automobiles**

**Description**

Map of Census tracts by percentage of households with no automobile.

Source: US Census 2018-2022 American Community Survey; Fehr & Peers, 2023.



## Active Transportation Infrastructure

Currently there are 17.0 miles of shared-use paths, 45.4 miles of streets with bicycle lanes, 11.7 miles of streets with bicycle routes, and 308 miles of sidewalks within Woodland.

### Walking Facilities

Conditions for walking vary across the city, from industrial districts with little pedestrian infrastructure to suburban neighborhoods with typical sidewalk to the denser, walkable grid of downtown Woodland. The City has emphasized pedestrian travel by enhancing facilities including crosswalks, pedestrian count-down signals, new sidewalks, and traffic calming measures.

Figure 16 shows existing crosswalks, sidewalks, and sidewalk gaps within the city. Sidewalks are present on the majority of roadways within the city. Most arterials, collectors, and residential streets have sidewalks on both sides of the street. A few exceptions are segments of East Street and Main Street adjacent to the railroad tracks, connections on Oak Street and Cross Street, and some undeveloped and industrial lots.

Some of these segments are in industrial areas with low income according to the SACOG criteria. However, residential neighborhoods in these areas generally have sidewalks.

Some principal arterials where development is ongoing, especially those on the periphery of the city, have sidewalks only on one side. Sidewalks are included on all roadways within the city's newer planned communities and downtown grid.

The City of Woodland also has off-street facilities for pedestrian travel. Most of these pathways are located in city parks and serve residents who walk for recreation. The off-street facilities typically do not provide direct access to key destinations like commercial and employment centers. Notable off-street facilities include the William Crawford Senior Park cut-through and a shared-use path that accesses the Woodland Community & Senior Center. Shared-use paths are also present within the Spring Lake community and on E. Main Street.

Destination accessibility via walk time analysis was performed for the city's two middle schools, downtown Woodland, and city parks, as shown in Appendix A.

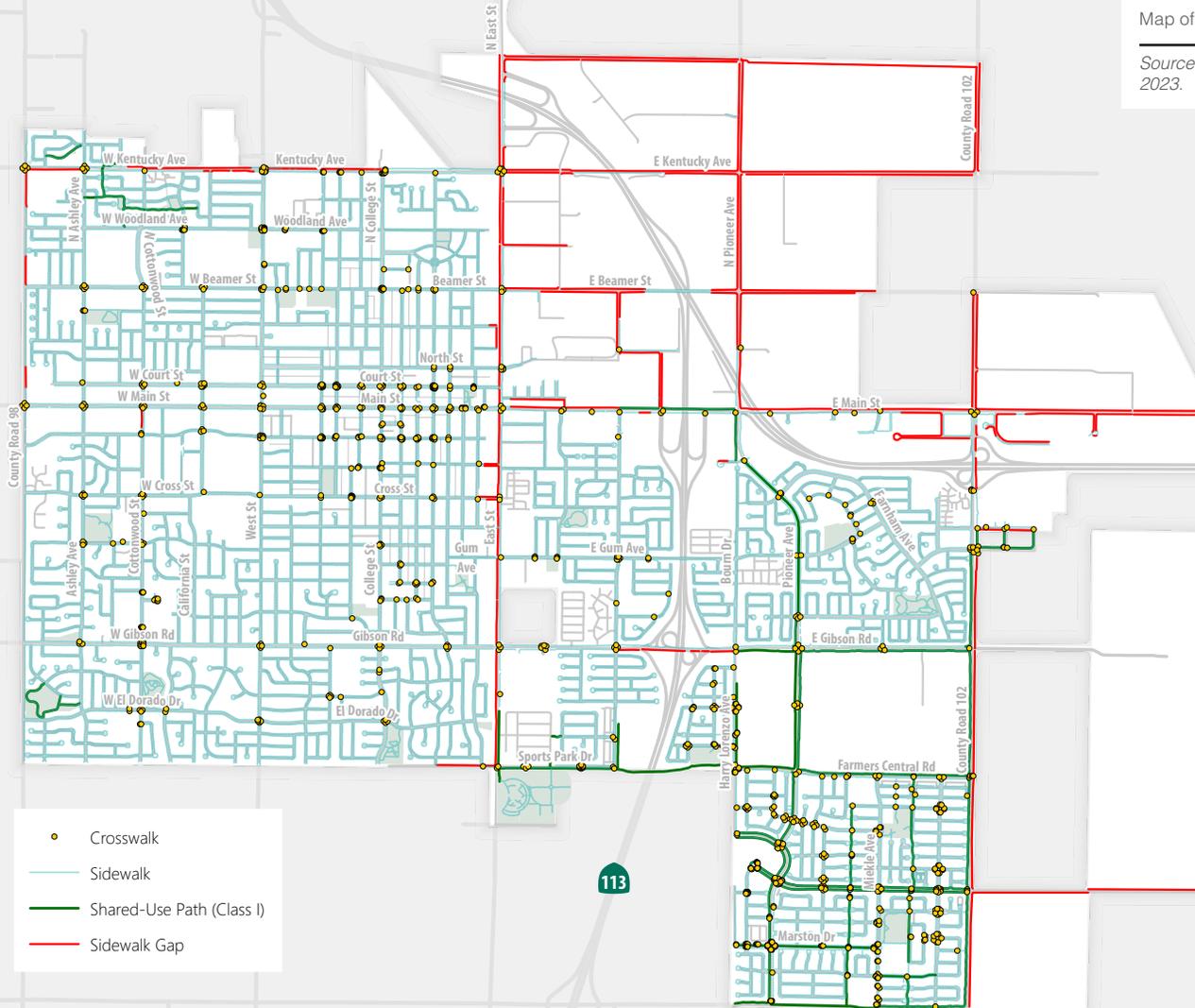


## Figure 16 Sidewalks & Crosswalks

### Description

Map of sidewalks and crosswalks in Woodland.

Source: City of Woodland; Ecopia, Fehr & Peers, 2023.



- Crosswalk
- Sidewalk
- Shared-Use Path (Class I)
- Sidewalk Gap

## Bicycle Facilities

Many roadways have on-street bike lanes (Class II) or are signed as bicycle routes (Class III). Figure 17 shows existing bikeways within the city. Figure 18 shows the Woodland Bike Loop, a set of recreational and transportation bikeways promoted within the city. The Woodland Bike Loop was recently updated to include the newly constructed pedestrian overcrossing of SR 113 and other changes based on public input.

Key observations about these routes include the following:

- Central areas of the city, particularly along Main Street and East Street and the neighborhoods adjacent to them, have fewer bike facilities. These areas frequently have Class III bike routes only or no marked bicycling facilities. East Street between Main Street and Gibson Road is a notable gap in the network with speed limits of 35 mph or more, making it particularly uncomfortable for bicycling. The 2023 Woodland Local Road Safety Plan (LRSP) proposed a road diet on this segment of East Street.
- The western and southern areas of the city are served by Class I shared-use paths and Class II bike lanes.
- Beamer Street and West Street are other arterials with sections of Class III bike routes.

- The Gibson Road overcrossing of State Route (SR) 113, controlled by Caltrans, is an important gap in the network. Eastbound Gibson Road is particularly problematic where the shoulder disappears for the northbound SR 113 on-ramp; an injury collision occurred at this location in 2015. The speed limit on this segment is 40 mph.
- Two existing Class II bike routes pass under freeways: the Beamer Street undercrossing of I-5 and SR 113, and the Pioneer Avenue undercrossing of I-5. These routes, controlled by Caltrans, have speed limits of 45 mph or more and are likely to be uncomfortable to use, deterring bicycling.

When the existing and under construction bicycle network was compared to the disadvantaged community indicators, the following conclusions were noted:

- The areas around Dingle Elementary School and Woodland Prairie Elementary School, two of the schools which meet the FRPM criterion, are less served than other neighborhoods.
- The lowest income area of Woodland is less served than most other neighborhoods in the city.
- Some areas meeting the SACOG high minority and/or low-income criteria are less served.

- Areas exceeding thresholds in three of the Federal Climate and Economic Justice Screening Tool categories are less served.

Figure 19 shows known locations of bike parking within the city. This is not all bike parking; other locations exist but were not mapped.

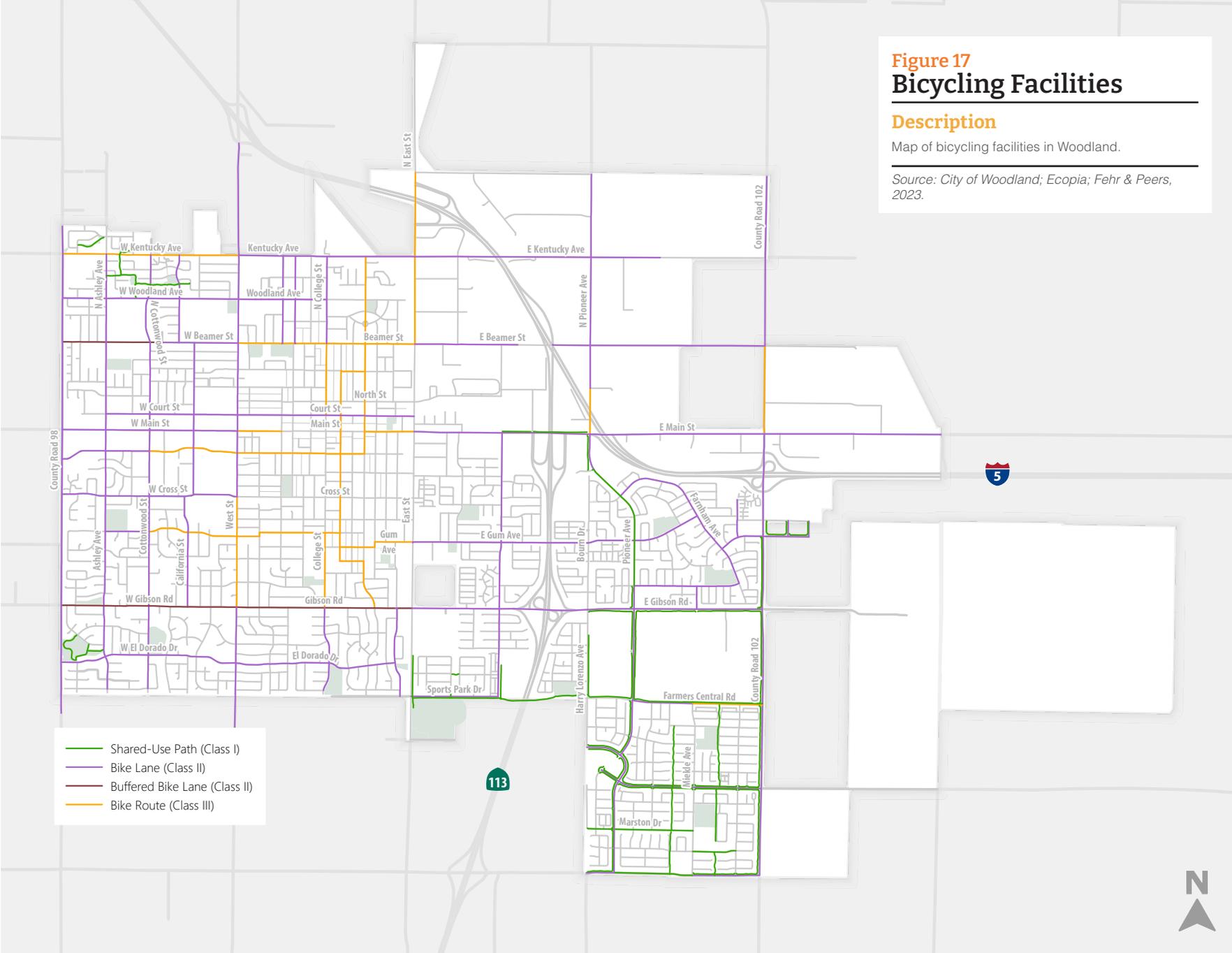
Destination accessibility via walk time analysis was performed for the city's two middle schools, downtown Woodland, and city parks, as shown in Appendix A.

# Figure 17 Bicycling Facilities

## Description

Map of bicycling facilities in Woodland.

Source: City of Woodland; Ecopia; Fehr & Peers, 2023.





**Figure 18**  
**Woodland Bike Loop**

**Description**

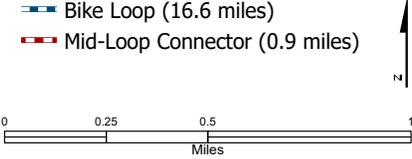
Promotes bikeways within the city for transportation and recreation.

Source: City of Woodland, 2024.



**Woodland Bike Loop**

- Bike Loop (16.6 miles)
- Mid-Loop Connector (0.9 miles)



Open: Sat. 9am-noon (year round)  
 Wed. 2-5pm (Summer 9am-2pm)

[www.thebikecampaign.com](http://www.thebikecampaign.com)

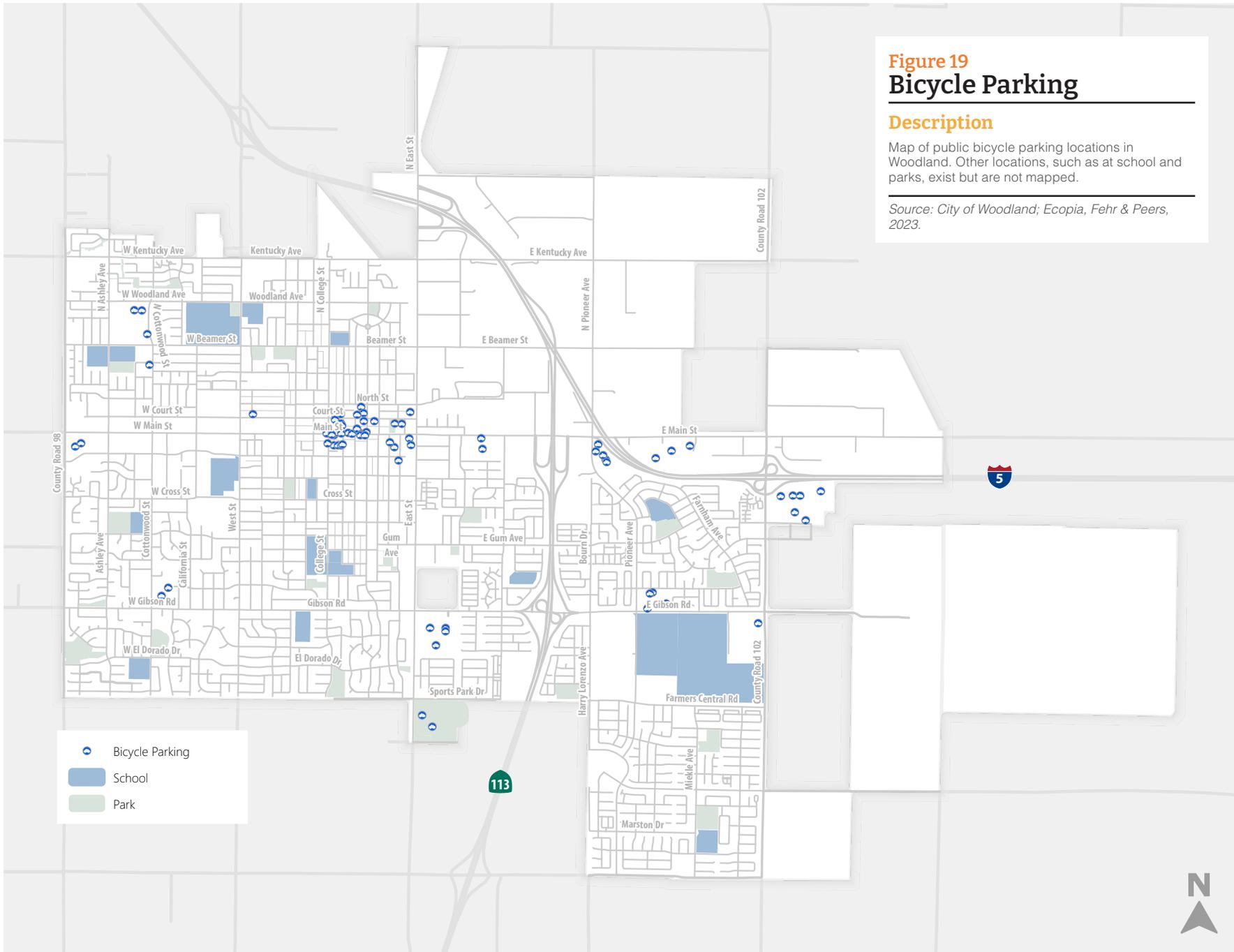
**“Together we’re making our community a cleaner, healthier, friendlier & more prosperous place through biking”**

## Figure 19 Bicycle Parking

### Description

Map of public bicycle parking locations in Woodland. Other locations, such as at school and parks, exist but are not mapped.

Source: City of Woodland; Ecopia, Fehr & Peers, 2023.



## Collisions

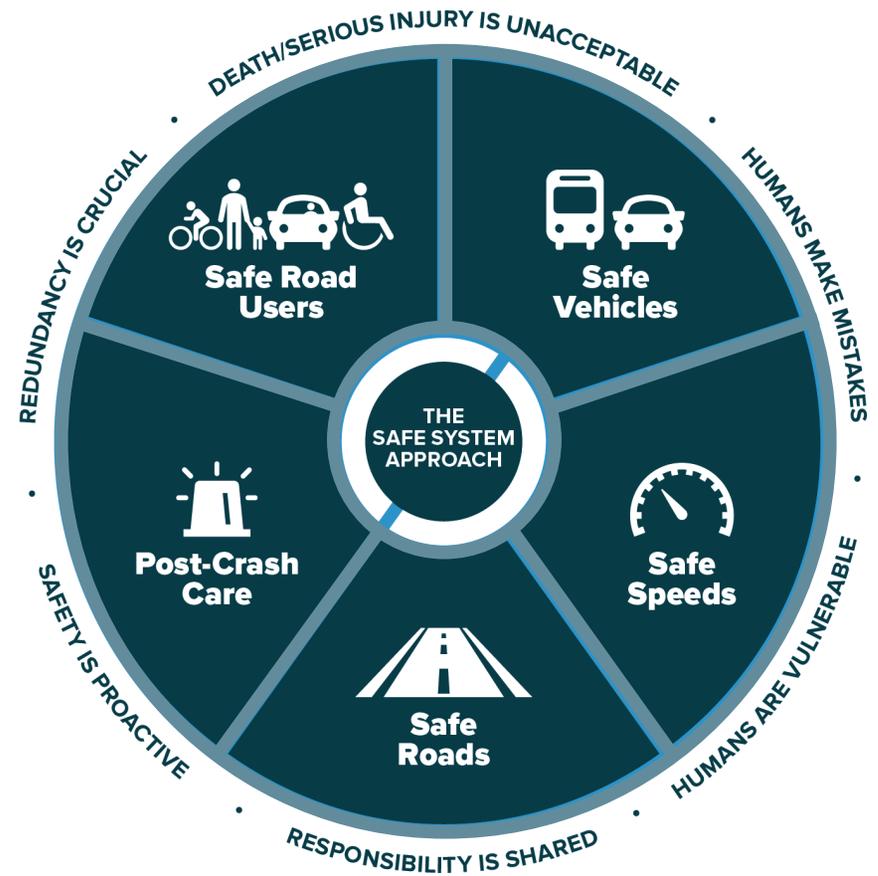
As described in the Woodland LRSP, the City of Woodland has a vision to eliminate fatalities and serious injuries on its roadways by 2050. The LRSP as well as safety considerations for this active transportation plan are based upon the Safe System approach. The Safe System approach acknowledges that humans make mistakes but seeks to ensure that those mistakes do not result in serious injuries for any road user. Knowing that the human body is vulnerable, it seeks to limit the kinetic energy transferred in a crash to a level a body can withstand when designing and operating a transportation network.

The Safe System approach incorporates five elements of a safe transportation system – safe road users, safe vehicles, safe speeds, safe roads, and post-crash care. This approach means that responsibility for road safety is not born solely by road users. While road users are responsible for their own behavior and abiding by laws and regulations and exhibiting due care and proper behavior on the transportation system, safety is a shared responsibility with those who design, operate, and maintain the transportation network, including the automotive industry, law enforcement, elected officials, and government bodies.

In a Safe System, roadway system designers provide safe roadways by using engineering standards, guidance from organizations such as Caltrans and the American Association of State Highway and Transportation Officials (AASHTO), and engineering judgment to create context-sensitive safety solutions.

To evaluate walking and biking safety, collisions from 2009 to 2020 involving people walking or biking as collected for the LRSP were reviewed. Further details of this analysis are included in Appendix C.

Of collisions involving a pedestrian, 35 percent were pedestrian violations and thus considered to be the fault of the pedestrian. Most other collisions, 57 percent, were the fault of the driver. Another 8 percent of collisions had no clearly stated primary collision factor (PCF).



Of collisions involving a bicycle, most PCFs (62 percent) could be either the fault of the bicyclist or driver, as bicycles are generally treated as motor vehicles, so fault is not directly clear from the stated PCF. However, 24 percent were related to riding on the wrong side of the road or were pedestrian violations, and thus more likely the fault of the bicyclist, while 8 percent were related to unsafe speed or unsafe starting or backing, thus more likely the fault of the driver. Another 6 percent of collisions had no clearly stated PCF.

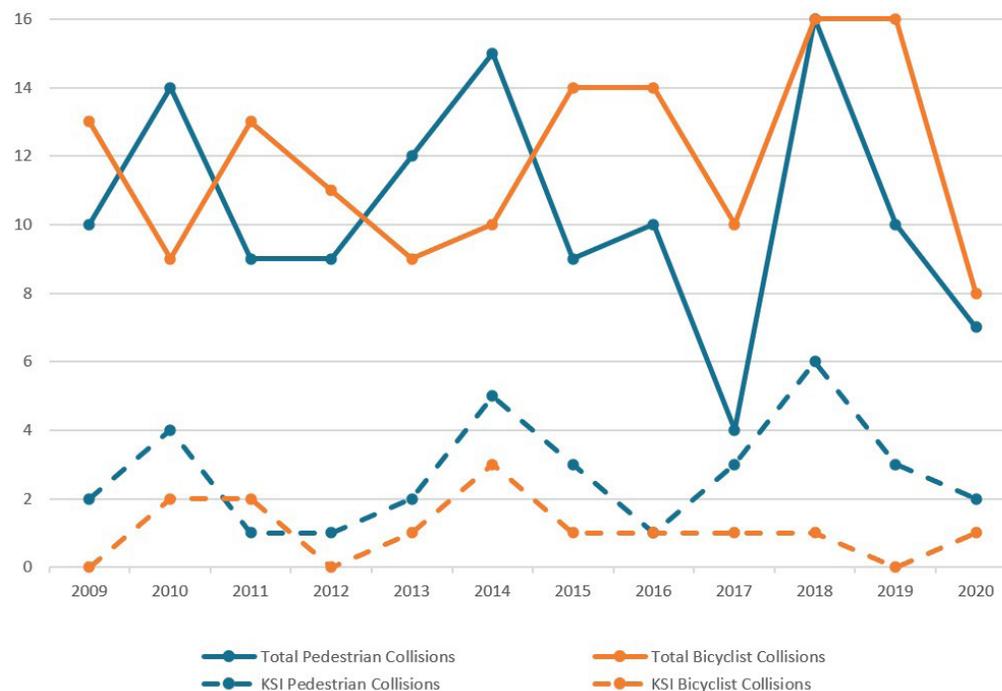
Table 2 and Chart 1 summarize these collisions by year. As shown in the table, though collisions involving people walking or biking are a small share (less than 5 percent combined) of all collisions, they are a much larger share of collisions in which a person is killed or severely injured (KSI) (nearly 45 percent). Similarly, though a relatively low number of people (18) were killed during this period, two-thirds of them were pedestrians. When reviewed by year, no clear trends were evident.

**Table 2. Collisions Involving Pedestrians and Bicyclists, 2009-2020**

Year	All Collisions	Pedestrian		Bicyclist	
		Number	Share	Number	Share
2009	385	10	2.6%	13	3.4%
2010	433	14	3.2%	9	2.1%
2011	519	9	1.7%	13	2.5%
2012	419	9	2.1%	11	2.6%
2013	424	12	2.8%	9	2.1%
2014	459	15	3.3%	10	2.2%
2015	480	9	1.9%	14	2.9%
2016	445	10	2.2%	14	3.1%
2017	323	4	1.2%	10	3.1%
2018	465	16	3.4%	16	3.4%
2019	626	10	1.6%	16	2.6%
2020	473	7	1.5%	8	1.7%
<b>Total</b>	<b>5,451</b>	<b>125</b>	<b>2.3%</b>	<b>143</b>	<b>2.6%</b>

Source: UC Berkeley SafeTREC; SWITRS; Fehr & Peers, 2023.

**Chart 1. Collisions Involving Pedestrians and Bicyclists, 2009-2020**





**Table 3. Location of Collisions Involving Pedestrians, 2009-2020**

Location	Share
Crossing In Crosswalk at Intersection	48.0%
Crossing Not in Crosswalk	32.0%
In Road	13.6%
Not in Road	3.2%
Crossing In Crosswalk Not at Intersection	2.4%
Unknown	0.8%

Source: UC Berkeley SafeTREC; SWITRS; Fehr & Peers, 2023.

Figure 20 shows locations of collisions involving people who were walking. Table 3 shows the reported location of collisions, based on collision data. Nearly half of pedestrian collisions occurred while the pedestrian was crossing in a crosswalk.

The largest collision concentrations included the following:

- Intersections of Main Street and East Street and Main Street and 6th Street. The LRSP proposed high-visibility crosswalks and advance stop bars at crosswalks on Main Street and red and yellow signal timing adjustments.
- Intersection of East Street and Gum Avenue. The LRSP proposed red and yellow signal timing adjustments at this location.
- SR 113 ramp intersections at Main Street. The LRSP proposed red and yellow signal timing adjustments at these locations.
- Intersection of Main Street and West Street. The LRSP proposed red and yellow signal timing adjustments at this location.

Figure 21 shows locations of collisions involving people who were biking. The largest collision concentrations included the following:

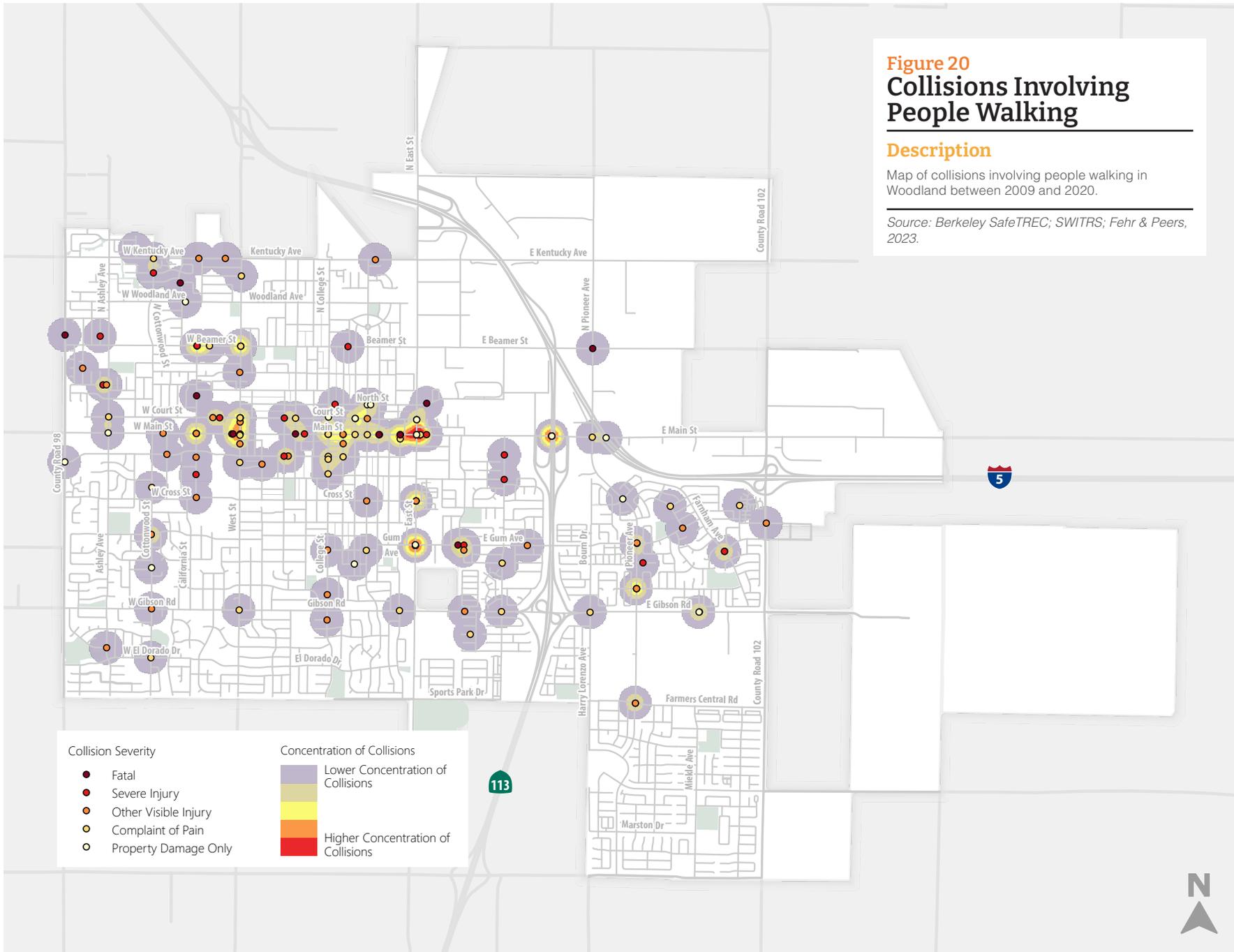
- East Street between North Street/ Lemen Avenue and Main Street had a concentration of collisions. The LRSP also proposes a road diet on East Street and red and yellow signal timing adjustments for this segment.
- Main Street passes through downtown and is a connection to destinations throughout the city, and consequently has high traffic volumes and the most collisions. Collisions were particularly concentrated between Matmor Road and Pioneer Avenue including the vicinity of the SR 113 ramp intersections. The LRSP proposed a road diet between West Street and Walnut Street. It also proposed retiming all signals to consider bicycle movements and redesign northbound approaches at Thomas Street, Matmor Road, and Pioneer Avenue to help get bicycles to the north side of Main Street.

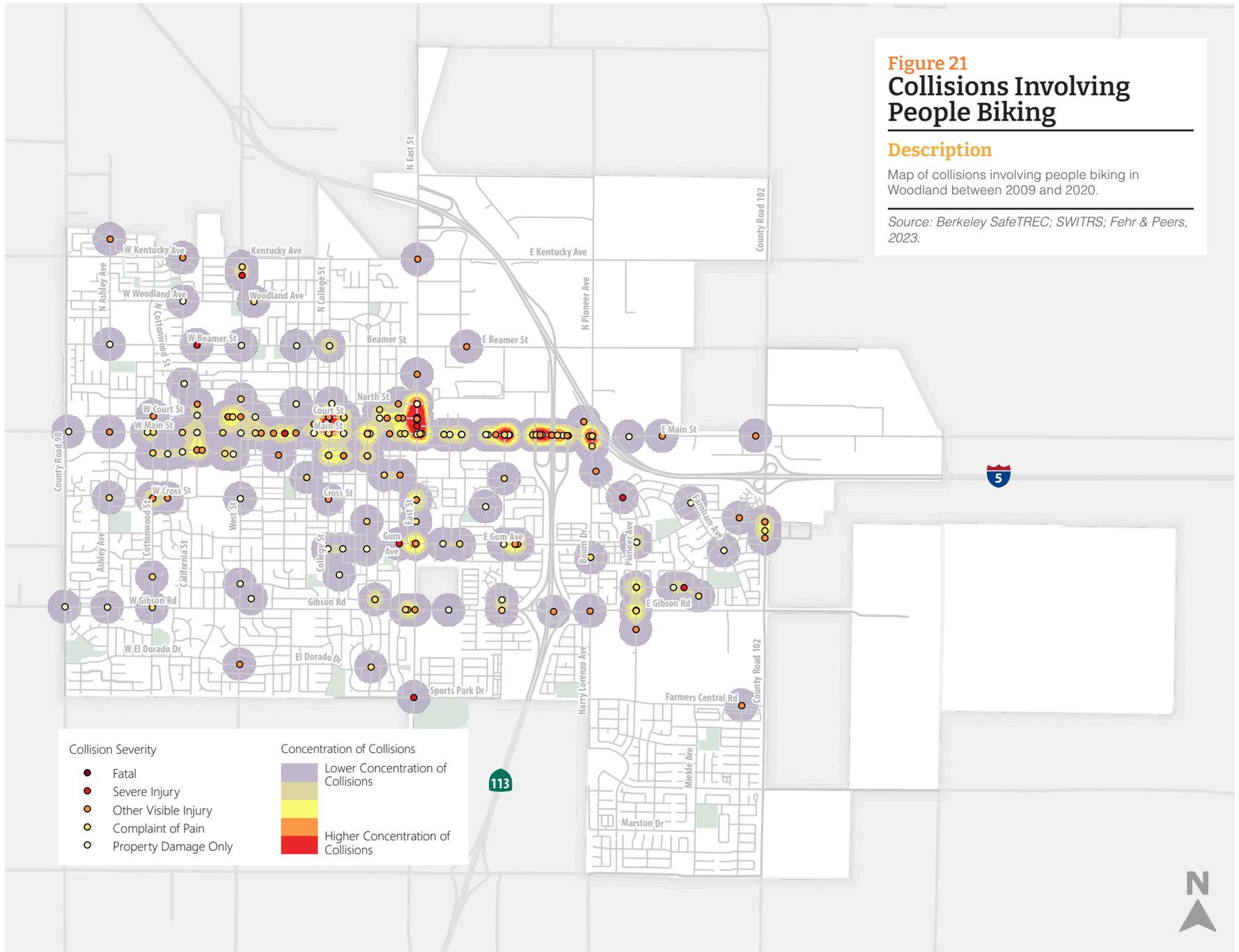
## Figure 20 Collisions Involving People Walking

### Description

Map of collisions involving people walking in Woodland between 2009 and 2020.

Source: Berkeley SafeTREC; SWITRS; Fehr & Peers, 2023.





**Figure 21**  
**Collisions Involving People Biking**

**Description**  
 Map of collisions involving people biking in Woodland between 2009 and 2020.

*Source: Berkeley SafeTREC; SWITRS; Fehr & Peers, 2023.*



## Level of Traffic Stress

Traffic stress is the discomfort and unease that a person riding a bicycle may feel due to vehicle traffic, roadway conditions, facility design, and other factors. Level of traffic stress (LTS) was analyzed for both biking and walking along major corridors in the city. High vehicle speeds make conditions uncomfortable for both pedestrians and bicyclists on many streets. Reducing vehicle speeds can increase comfort on many corridors; where that is not feasible, parallel routes for pedestrians and bicyclists on quieter streets can provide alternatives for pedestrians and bicyclists.

### Walking

People walking vary in confidence. Some people who walk are comfortable walking close to busy traffic on narrow sidewalks, while others will only walk if there is greater separation from rapidly traveling vehicles. Factors affecting walking comfort include the following:

- Usable sidewalk width
- Frequency of driveways
- Lighting
- Street trees and landscaping
- Sidewalk quality
- Speed of traffic
- Number of vehicles
- Number of vehicle travel lanes

Using these factors, a pedestrian level of traffic stress (PLTS) score can be assigned from 1 to 4 for each roadway segment, with 1 being the least stressful and 4 being the most stressful.

Pedestrian level of traffic stress on streets and at signalized intersections in the city is shown in Figure 21. High speed limits (40 mph or more) create uncomfortable PLTS 4 conditions on many streets within the city. Lack of sidewalks, narrow sidewalks, and frequent curb cuts also worsen pedestrian conditions on a number of streets. Due to these conditions, no facilities achieved PLTS 1 or 2, the lowest stress levels.

### Biking

People who bicycle vary in experience, skill, ability, and confidence. Some are comfortable riding in traffic and value bicycling facilities and routes that are direct and limit unnecessary delay. These cyclists more comfortably utilize facilities that share the roadway with automobiles or have limited bicycle infrastructure. Other people with less confidence bicycling and lower or developing bicycle skills, such as children and older adult riders, may need more separation from traffic to feel comfortable enough to ride. Different bicycle types (such as trailers for children, cargo bicycles, or adult tricycles) also require more space in bicycle facilities. For these reasons, facilities should be designed to accommodate less skilled riders and a wide

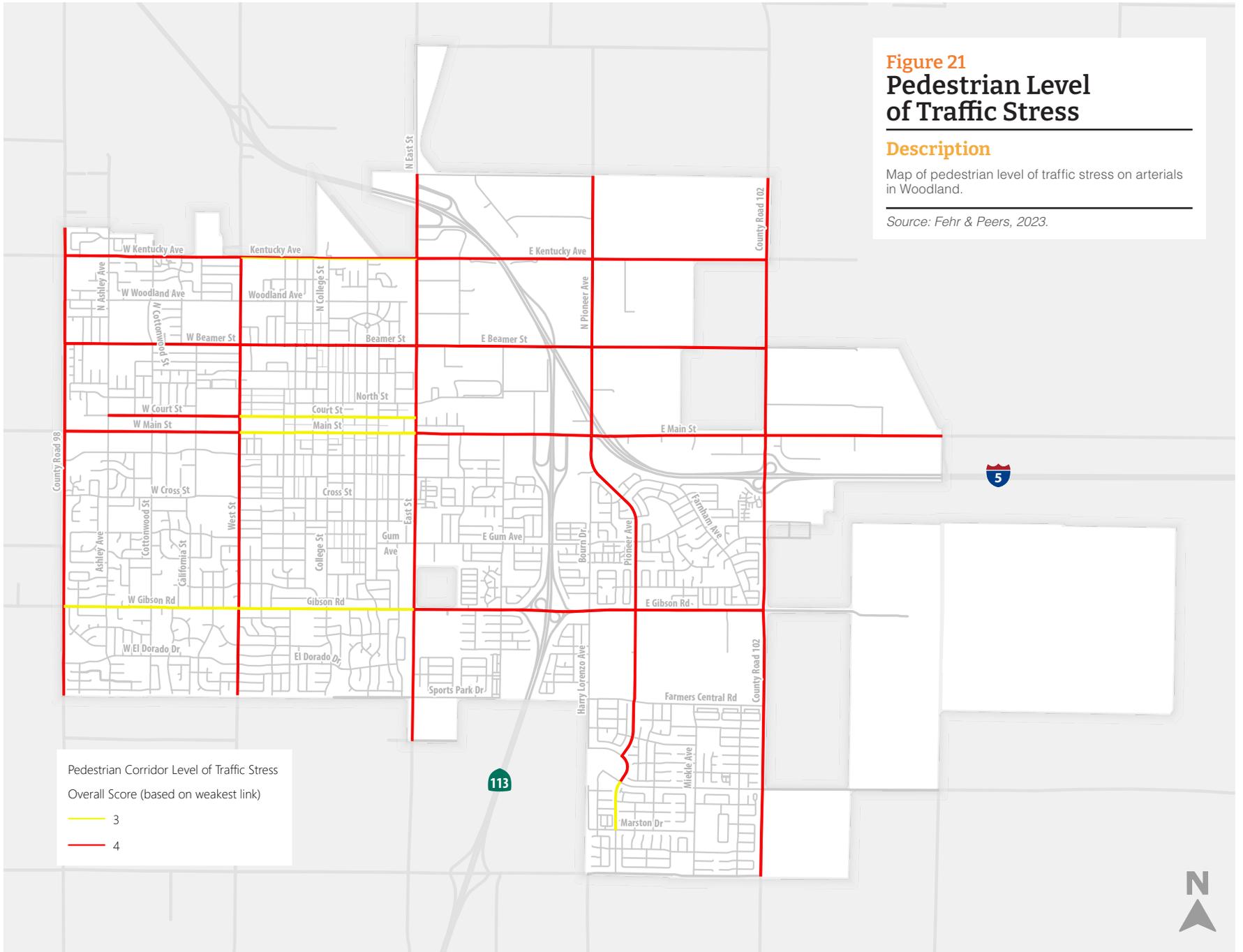
variety of bicycle types, especially in heavily traveled areas.

Research has correlated these different types of bicycle riders with the LTS that they are willing to experience while cycling. Metrics have been developed to quantify the LTS that a typical rider may experience so that new bicycle facilities can be targeted to reduce this stress. Factors influencing LTS include the following:

- Number of travel lanes
- Speed of traffic
- Number of vehicles
- Presence of bike lanes
- Width of bike lanes
- Presence of physical barrier

Using these factors, a bicyclist level of traffic stress (BLTS) score can be assigned from 1 to 4 for each roadway segment, with 1 being the least stressful and 4 being the most stressful.

Bicyclist level of traffic stress on streets in the city is shown in Figure 22. High posted speed limits (40 mph or more) were the primary factor resulting in BLTS 4 conditions on many corridors with bike lanes, including Beamer Road and Pioneer Avenue. On corridors without bike lanes, bicyclist stress is high at even lower speeds (25 mph or more). Due to these conditions, no arterials achieved BLTS 1, the lowest stress level.



**Figure 21**  
**Pedestrian Level of Traffic Stress**

**Description**

Map of pedestrian level of traffic stress on arterials in Woodland.

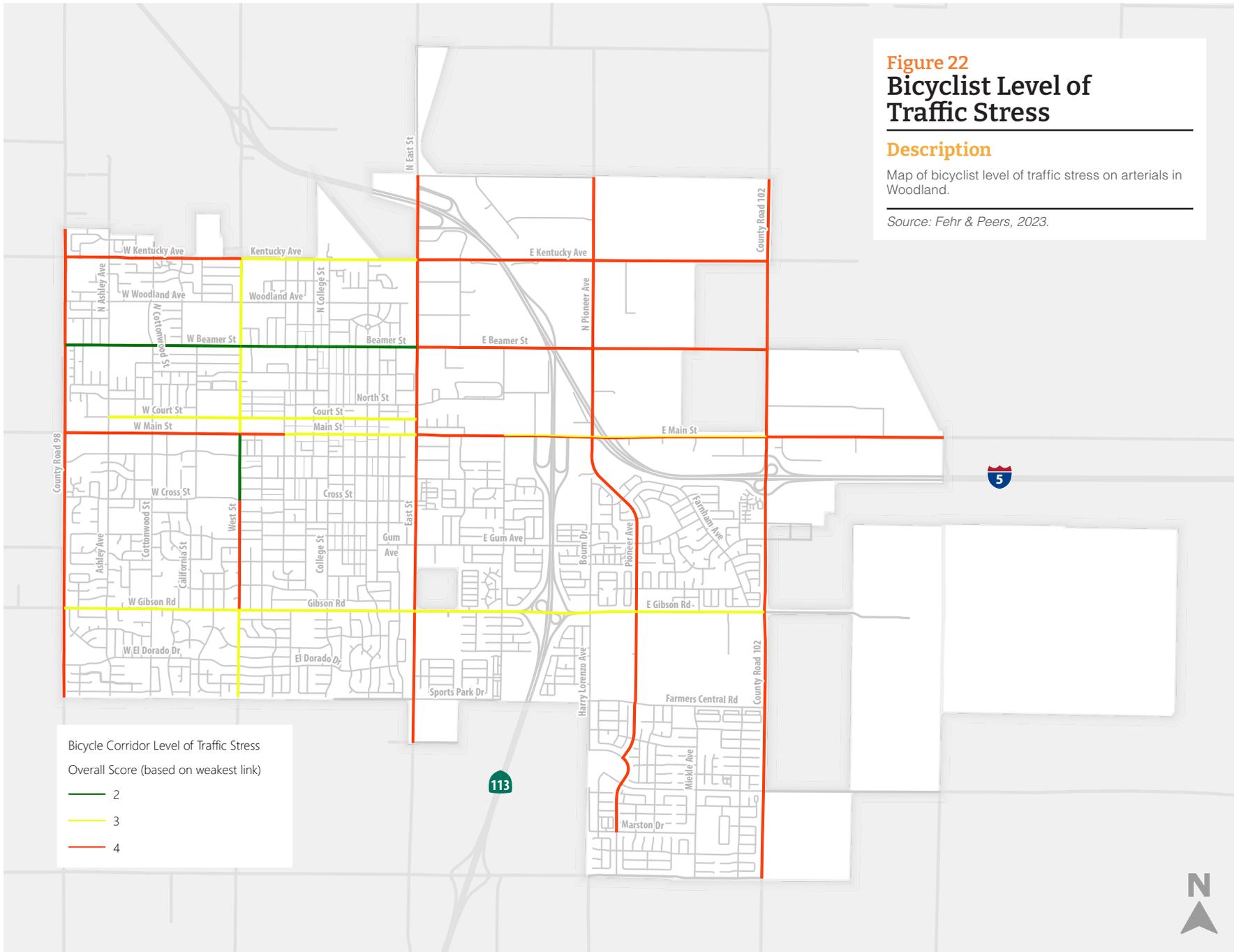
Source: Fehr & Peers, 2023.

## Figure 22 Bicyclist Level of Traffic Stress

### Description

Map of bicyclist level of traffic stress on arterials in Woodland.

Source: Fehr & Peers, 2023.



# Planned Networks & Programs

This chapter discusses the planned bicycle networks, pedestrian networks, and supporting facilities and programs for the City of Woodland. The plan was developed to improve connectivity to key destinations, close gaps in the existing networks, and enhance the safety and comfort of pedestrians and bicyclists. Planned facilities were developed based on the following:

- Previous bicycle and pedestrian plans
- Local general plans and community plans
- Discussion and input from the public
- Connectivity to key destinations, especially schools, parks, and civic buildings
- Collision history
- Discussions with jurisdiction staff and stakeholders

## Pedestrian & Bicycle Networks

Planned walking and biking facilities are summarized in Table 4 and presented in Figure 23 and Figure 24. These pedestrian and bicycle networks are the long-term vision of the active transportation facilities for the city. The networks include sidewalks, crosswalks, shared-use paths, separated bikeways, bike lanes, and bike routes. The proposed networks are designed to connect neighborhoods to key destinations and to serve as recreational assets. Appendix E includes a list of these network improvements, including locations and extents, lengths, high-level estimated costs, and priorities.

## Crossing Improvements

Several crossing improvement projects are included to increase pedestrian comfort and safety, as shown in Figure 23. The decision to install a marked crosswalk or other crosswalk enhancement should be based on engineering judgment/study, and other necessary considerations as appropriate. Some of these considerations include the following:

- Pedestrian travel demand. Demand should include both existing demand and latent demand, the increase in pedestrians that would result from the improvement.
- Service of a facility or use that generates higher pedestrian travel or serves a vulnerable population (e.g., children, elderly, persons with disabilities). This may include schools, hospitals, senior centers, recreation/community centers, libraries, parks, or trails.
- Sight distance requirements, using appropriate stopping sight distance guidance from AASHTO's A Policy on Geometric Design for Highways and Streets or Caltrans' Highway Design Manual.
- Distance to nearest marked crossing.
- Guidance of the California Manual on Uniform Traffic Control Devices (MUTCD).

**Table 4. Summary of Planned Walking and Biking Facilities**

Location	Existing (miles)	Planned (miles)	Total (miles)
Sidewalk	308.0	9.6	317.6
Shared-Use Path (Class I)	17.0	9.9	26.9
Bike Lane (Class II)*	42.9	9.8	52.7
Buffered Bike Lane (Class II)*	2.6	11.1	13.7
Bike Route (Class III)*	11.7	9.7	21.4

*\*Distance measured by centerline*

Source: City of Woodland, 2023; Fehr & Peers, 2023.

- Depending on the characteristics of a specific location, a marked crosswalk alone may not be sufficient to ensure efficient function for all users and maintain pedestrian safety. FHWA's Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations provides information on how to select the most appropriate treatment for a specific location. That guide and other resources should be used as appropriate by the designer when the recommendations of this plan are implemented.

Appendix D provides additional guidance on selecting crosswalk improvements



## Supporting Facilities

### Wayfinding

Wayfinding signage can be used on both bicycle and pedestrian facilities to direct users to connecting facilities and key destinations. Good wayfinding signs can also encourage pedestrians and bicyclists to visit local businesses. These signs provide the most value at trail junctions and at intersections of key bicycling and walking routes. The city has existing wayfinding signage that provides directions to key destinations. Chapter 9B of the California MUTCD provides guidance on sign design and installation. These standard signs and the city's existing signs may be augmented by signs depicting distances in miles to encourage walking and bicycling. As discussed in the Introduction, Class III bike routes designations and signage can also be used to assist with wayfinding on roadways without other marked bike facilities.

Pavement markings can also be used to identify and highlight notable active transportation routes. The Davis Bike Loop is an example of a facility that uses pavement markings to provide wayfinding cues and promote use of the Loop. The city is developing pavement markings and signs specifically for the **Woodland Bike Loop** (see Figure 18). The city was awarded about \$10,000 from Yolo Solano Air Quality Management District for improved Bike Loop wayfinding and promotion.

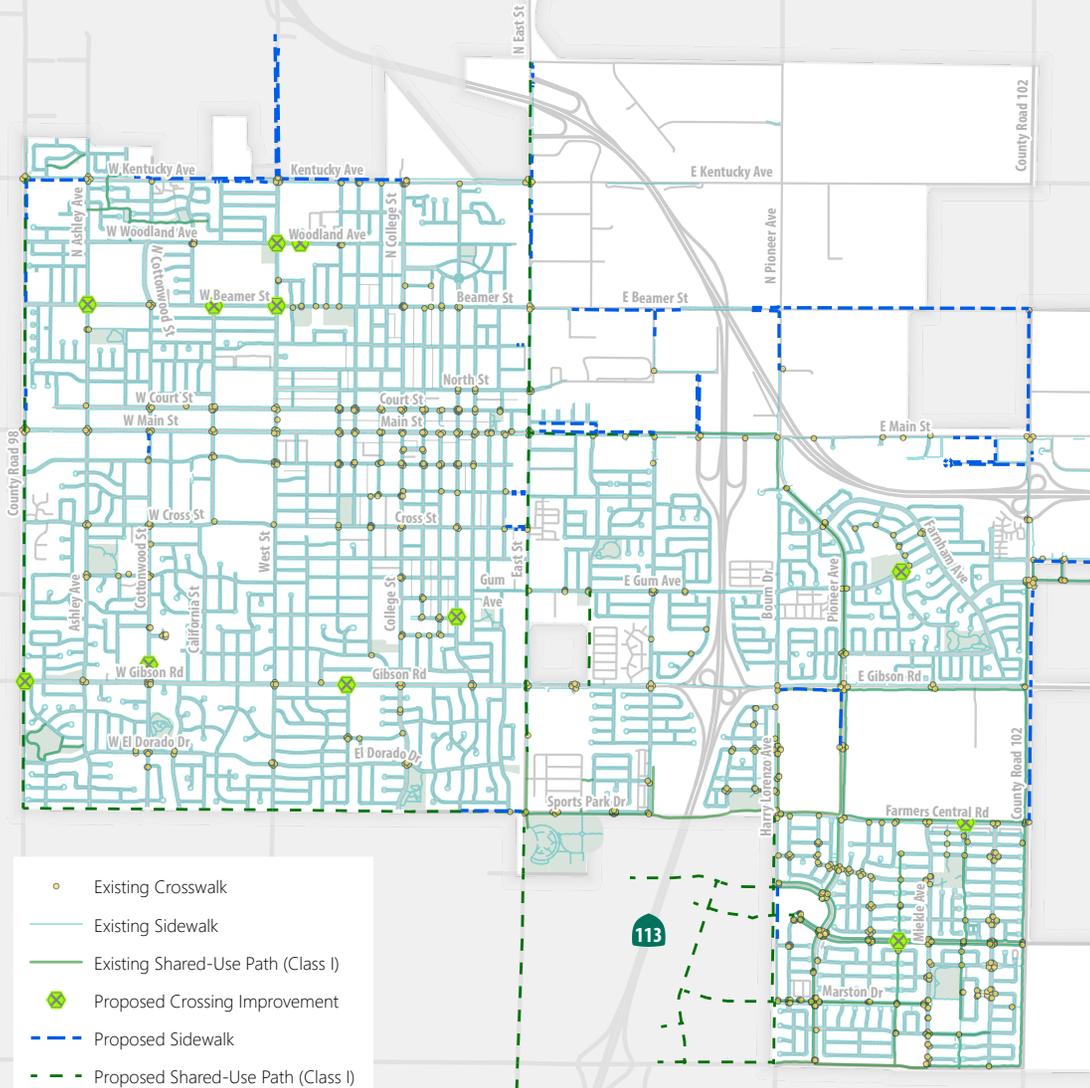


### Figure 23 Planned Sidewalk and Crossing Facilities

#### Description

Proposed walking facilities in Woodland.

Source: Fehr & Peers, 2023.



- Existing Crosswalk
- Existing Sidewalk
- Existing Shared-Use Path (Class I)
- ◆ Proposed Crossing Improvement
- - - Proposed Sidewalk
- - - Proposed Shared-Use Path (Class I)

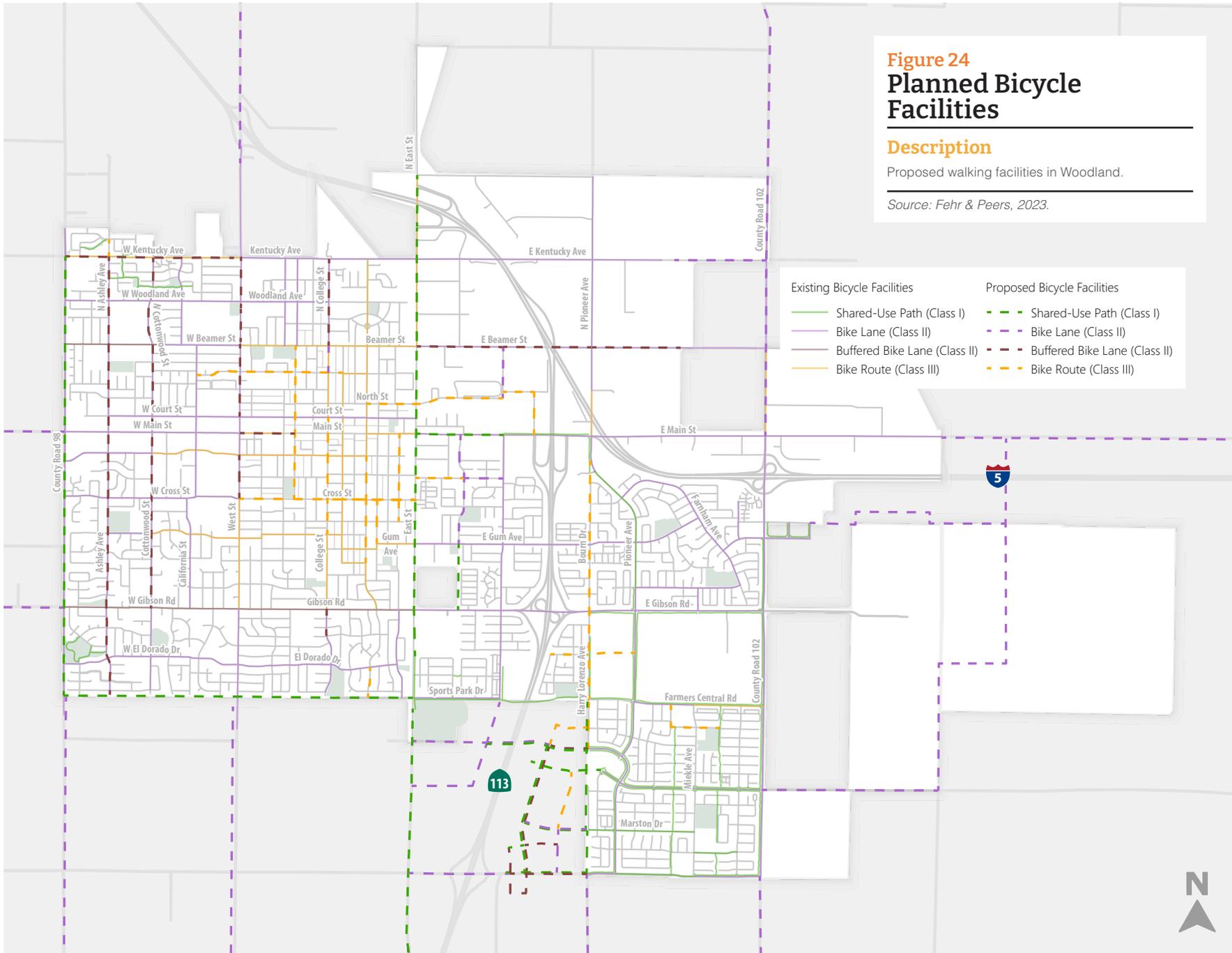


## Figure 24 Planned Bicycle Facilities

### Description

Proposed walking facilities in Woodland.

Source: Fehr & Peers, 2023.





## Lighting

Sufficient lighting on walking and biking facilities reduces the fear of crime and prevents collisions that occur due to decreased visibility. Pedestrian walkways should have lighting that allows people to identify faces from a distance of about 30 feet.

## Traffic Calming

Additional traffic calming measures can be considered in tandem with the network recommendations. Calming traffic has the co-benefit of enhancing perceptions of safety and enhancing comfort walking or bicycling.

## Bicycle Parking

New bicycle parking should meet the standards discussed in the Introduction. Both short- and long-term bicycle parking should be supplied where appropriate, such as at schools, parks, grocery stores, and other key destinations. Business owners should be encouraged to work with the City to provide bicycle parking in visible areas in commercial districts to entice riders to stop and frequent local businesses.

## Non-Infrastructure Programs

Several improvements to other supporting programs are also recommended for Woodland. The California Office of Traffic Safety provides grants for education, encouragement, and enforcement efforts aimed at improving pedestrian and bicyclist safety. Appendix F, Funding Sources, provides more details on this and other grants.

### Education & Encouragement

The City has supported several efforts to encourage walking and biking. Prior to the Covid-19 pandemic, the Woodland Police Department provided bike safety programs to kids. These programs involved bike skills training at local elementary schools, teaching kids to ride bikes in a safe, supportive, and fun environment to make them life-long riders.

The City has also partnered with bicycle advocacy groups to promote community bike rides such as the 4th of July bike parade on Main Street. These groups also collaborated on the Woodland Bike Map that promotes preferred bike routes. In addition, the City closes Main Street to vehicular traffic throughout the year to hold events such as Movies on Main Street, car shows, Dinner on Main Street, a Christmas parade, the Honey Festival, and other events that promote walking and biking to downtown.

Programs such as walking school buses and biking school buses (also known as bike trains), programs where kids and families walk or bike to school in groups, are other good opportunities for neighborhood schools to encourage walking.



**Walking School Bus in Washington D.C.**

(Source: <https://ggwash.org/view/90958/how-and-why-to-start-a-walking-school-bus>)

The events described above encourage active engagement for adults. Adding activities for bike to work events and increasing the number of casual walking events could expand this effort.

## Enforcement

At the beginning of the school year, the police department partners with local schools to monitor driver compliance with speed limits and yielding at crosswalks.

Reports of speeding near school zones was a frequent concern heard from the community throughout the plan process. Continuing enforcement efforts periodically throughout the school year, and expanding to other places frequented by pedestrians, can further help pedestrians and bicyclists. Periodic enforcement actions along trails can also help alleviate concerns about personal safety along trails.

## Pedestrian and Bicyclist Counts

Active transportation count data has not been routinely collected within the city. Creating a citywide program to count bicyclists and pedestrians using on-street facilities as well as shared-use paths would allow the collection of data to support future grant applications and direct future improvement efforts. Bicycle and pedestrian counts, frequently included as part of traffic counts that are often performed when developing roadway improvements, could be collected centrally.

## Maintenance

The City does not have formal policies for maintaining existing bicycle and pedestrian facilities. However, street sweeping is done regularly and also on request. Bicycle lanes are restriped when they become worn or during concurrent pavement treatment or repairs on City streets. Crosswalks are restriped in summer prior to the start of the school year as necessary.

More formal policies would help assure that regular maintenance is used to keep facilities accessible and safe. Implementing a formal maintenance policy that addresses both incidental and periodic maintenance for pedestrian and bicycle facilities would systematize existing good practices, ensuring that they carry forward, and address other ongoing or periodic maintenance issues. A regular program of vegetation maintenance would reduce issues on bikeways, sidewalks, and trails.

Sidewalk maintenance is frequently the responsibility of the property owner. Adding or increasing assistance or advisory programs for sidewalk and vegetation maintenance would also help improve pedestrian conditions.

## Homelessness and Active Transportation

Transportation infrastructure, including bicycle facilities and trails, is sometimes the site of temporary encampments and shelter locations for those experiencing homelessness. This situation can lead to concerns regarding

accessibility and personal safety on paths and trails. At the same time, a lack of access to affordable transportation options is often a challenge to upward mobility within vulnerable populations.

While homelessness is a multi-faceted issue, a few approaches can assist with addressing concerns and removing transportation as a barrier to upward mobility. Transitional and temporary housing locations, when possible, should be located near service providers to allow bicycling and walking as a viable access option. In Woodland, community partners that provide on-site services at the Fourth and Hope Yolo Wayfarer Center include City of Woodland, County of Yolo Health and Human Services Agency, Legal Services of Northern California, Empower Yolo, CommuniCare, Elica Health Centers, and University of California at Davis. The recommended networks for Woodland include connections to the Yolo Wayfarer Center at 1901 E. Beamer Street.

Programs that repair or refurbish used bicycles for donation can aid in providing transportation to work and services. The Bike Garage in Woodland provides such services. Partnerships can be cultivated or continued with appropriate agencies and community-based organizations, such as those mentioned above.



Oak AVE  
College St



# Implementation

Implementation of the planned pedestrian and bicycle networks is anticipated to occur:

- through active transportation projects pursued to implement this plan;
- in conjunction with adjacent land development projects; and
- in conjunction with maintenance and capacity enhancement projects, such as slurry seals, pavement reconstruction, roadway widening, or sidewalk rehabilitation projects.

Implementation requires years to complete. Priority projects will be targeted for completion in the next five to ten years. Implementation of each project is dependent upon availability and acquisition of funding; projects requiring land acquisition or utility relocation require extra time to implement. Improvements associated with work on adjacent roadways or development of adjacent land uses provides opportunities for implementation relatively easily or at lower cost than if implemented separately. In these cases, lower priority improvements may be implemented before higher-priority improvements, depending on the location of these land development and roadway projects. Implementation of each project is also dependent on detailed feasibility and design studies based on local conditions.

Completion of projects in this plan will be reported by staff to the City Council and on the City's website. The City of Woodland will periodically update this plan to reflect evolving needs and progress toward completion.

## Prioritization

The projects identified to create these networks were prioritized based on several criteria;

- Proximity to key destinations, including schools, parks, medical facilities, and activity centers
- Collision locations
- Disadvantaged community indicators
- Population density
- Judgment of City staff

These projects and further explanation of the prioritization process are in Appendix E, Project Priorities and Cost Estimates. Lists of projects with priority status are also provided in Appendix E.

Several of the projects in the project lists were grouped into priority corridors, which will be the focus of near-term implementation. Each group of projects will contribute to growing the backbone network of pedestrian and bicycle facilities for the city and fulfill needs in the bicycle and pedestrian networks. Appendix G, Project Fact Sheets, provides summaries, costs, and information to support applications for project funding.



# Costs

The estimated costs to implement each type of facility are provided in Appendix E and summarized in Table 5. If utilities must be relocated or land acquired to implement any of these facilities, costs will increase. However, many of these facilities may be implemented during development of adjacent land uses or in conjunction with other projects. Therefore, some of these costs will not be directly borne by the City.

Project cost estimates are based on local unit cost estimates. These estimates were developed based on relevant project experience in the area. Estimate assumptions for each bikeway type are described in Appendix E. Note that these cost estimates are high-level, therefore more detailed study and design of individual project will be required to refine them.

**Table 5. Project Cost Estimates**

Location	Cost per mile	High Priority Projects	All Projects
Sidewalk	\$2,270,400	\$2,092,400	\$21,873,800
Shared-Use Path (Class I)	\$2,085,600	\$5,226,500	\$20,713,500
Bike Lane (Class II)*	\$168,960	\$63,600	\$1,657,300
Buffered Bike Lane (Class II)*	\$179,520	\$1,158,000	\$1,910,500
Bike Route (Class III)*	\$55,440	\$231,000	\$535,200
Crossing Improvements		\$219,500	\$478,500

*\*Distance measured by centerline*

Source: City of Woodland, 2024; Fehr & Peers, 2024.





## Funding

Federal, state, regional, county, and local organizations provide funding for pedestrian and bicycle projects and programs. A summary of funding sources is provided in Appendix F.

The following funding sources are recommended as the most applicable for the projects in this plan:

### Regional

- SACOG Regional Active Transportation Program
- SACOG Engage, Empower, Implement
- (SACOG also supports regional distribution of funds from several state and federal programs listed below)

### State

- Active Transportation Program
- Highway Safety Improvement Program
- Local Partnership Program
- California Department of Parks & Recreation Recreational Trails Program

**Federal**

- Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant Program
- Congestion Mitigation and Air Quality (CMAQ) Improvement Program
- Surface Transportation Block Grant (STBG) Program
- Reconnecting Communities: Highways to Boulevards
- Strengthening Mobility and Revolutionizing Transportation (SMART) Grant Programs
- Safe Streets and Roads for All (SS4A) Grant Program
- Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Grant Program

In addition to these funding programs, local developer fees may be considered. These local fees from land development projects can provide match funding or full implementation of projects where there is a nexus to the project.

**Potential Outcomes**

Following implementation of the planned networks and supporting programs, substantial improvements may be achieved in active transportation use and safety of pedestrians and bicyclists.

By increasing the facilities available to users, mode share may increase. Usage may be expected to be similar to cities with comparable characteristics. For example, Sacramento currently has a 3.0 percent walking mode share and a 1.5 percent bicycling mode share. Davis, a college town just seven miles south of Woodland with even more developed infrastructure, has a walking mode share of 2.8 percent and a bicycling mode share of 10.6 percent. Though no single city is exactly comparable, these comparisons provide reasonable targets to achieve by implementing the ATP. Achieving comparable mode shares in Woodland would result in large trip increases, as shown in Table 6.

As discussed in the Existing Conditions chapter, because these numbers are based on commute trips and do not include shopping, school, or recreational trips, or commuters who only walk or bike to work part time, the actual number of future trips is likely to be higher than these estimates.

By implementing this plan, pedestrian and bicyclist safety will be improved and the number of collisions involving pedestrians and bicyclists will also be reduced. A 50 percent or greater reduction in injuries and fatalities is a reasonable expectation if all aspects of this plan, including supporting programs, are implemented. In addition to these direct health improvements due to collision reduction, implementation will also support increased physical activity, which will improve community health by reducing incidence of heart disease, high blood pressure, Type 2 diabetes, mental illness, and obesity.

**Table 6. Future Trips to Work by Walking and Bicycling**

Mode	Current Trips	Current Share	Future Trips	Future Share
Walking	239	0.8%	836	2.8%
Biking	179	0.6%	3,163	10.6%

*Note: Workers aged 16 years and older.  
Sources: U.S. Census 2018 -2022 American Community Survey, 2023; Fehr & Peers, 2024.*



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