



City of Wasco Bicycle Master Plan

April 2014



City of Wasco

**Final
Bicycle Master Plan**

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Executive Summary

The City of Wasco Bicycle Master Plan (this Plan) will guide the future development of school traffic improvements and bicycle infrastructure and programs in the City. This Executive Summary highlights the Plans recommendations intended to establish a citywide bicycle network.

Plan Purpose

The Bicycle Master Plan provides a vision for the walking and bicycling environment in Wasco and provides specific recommendations, strategies and actions to achieve that vision.

The Plan also readies the City of Wasco for a variety of funding sources that require Bicycle Master Plans as part of their requirements.

Outreach

Extensive public outreach performed throughout the planning process to ensure the recommended facilities and programs meet community desires for safe and enjoyable places to bicycle and walk. A parent survey was conducted in December 2012; school walk audits were conducted in January 2013; and citywide public workshops were held in January and August 2013. The City developed this plan in coordination with the Wasco Union Elementary School District.

Bikeway Project Recommendations Summary

This Plan proposes nearly 24 miles of bikeways to create a citywide comprehensive network that will be accessible for users of all ages and ability levels.

Table ES-1: Existing and Proposed Bikeway Totals

	Existing	Proposed	TOTAL
Class I	0.61	1.41	2.02
Class II	2.33	14.83	17.16
Class III	0.00	7.53	7.53
All Types	2.94	23.76	26.70



Vision

This Plan envisions Wasco to be a livable place where connected infrastructure and thoughtful programs emphasize and support an active and healthy lifestyle. People of all ages will have a diversity of transportation choices and walking and bicycling will be integral to daily life.

Goals

Goal 1: Increase pedestrian mobility.

Goal 2: Increase bicycle mobility.

Goal 3: Supplement infrastructure improvements with education, encouragement, evaluation and enforcement programs.

Goal 4: Increase active mode share for school trips to 50 percent by 2020.

Goal 5: Ensure timely and efficient implementation of bicycle and pedestrian projects.

Wasco School Traffic Safety Study and Bicycle Master Plan

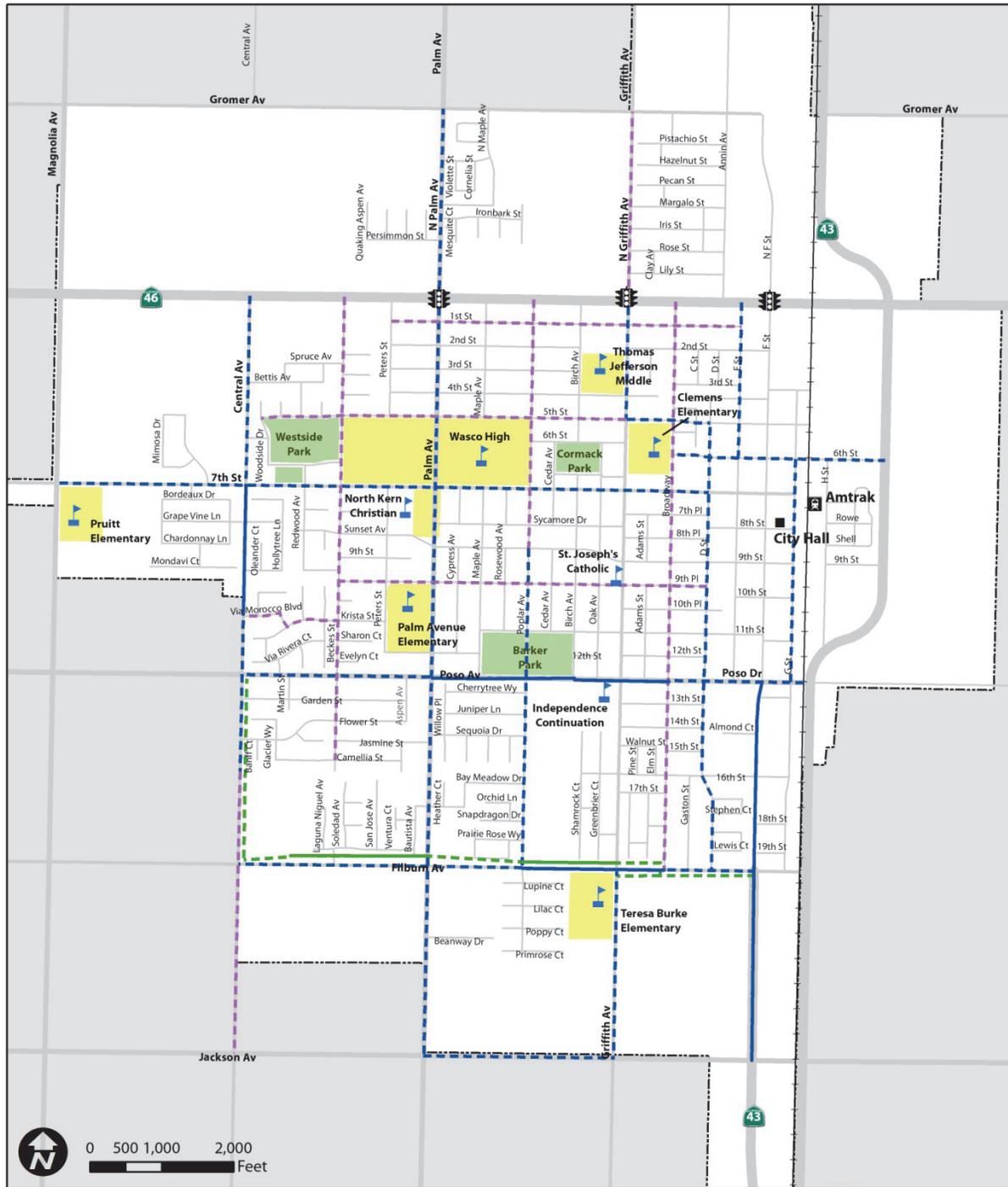


Figure ES-1: Existing and Proposed Bikeways

Table ES-2 presents a summary of bikeway miles and cost estimates by bikeway class. The total estimate for all the bikeway projects in this Plan is \$1.6 million. A significant amount of this cost estimate is due to the cost of the Class I bike paths.

Table ES-2: Summary of Bikeay Costs by Class and Miles

Bikeway Class	Sum of Miles	Sum of Cost
1	1.41	\$905,000
2	14.83	\$631,500
3	7.53	\$43,100
Grand Total	23.76	\$1,579,600

Table ES-3 presents a summary of bikeway projects by implementation tier. Tier 1, intended for implementation within the next five years, is estimated to cost \$317,800.

Table ES-3: Summary of Bikeway Costs by Tier and Miles

Bikeway Class	Sum of Miles	Sum of Cost
1	10.00	\$317,800
2	4.32	\$490,000
3	9.43	\$771,800
Grand Total	23.76	\$1,579,600

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1. Introduction

The City of Wasco Bicycle Master Plan guides the future development of school traffic improvements and bicycle infrastructure and programs in the City. The plan's recommendations facilitate walking and bicycling for transportation, school access, and recreation — supporting an active, healthy, community.

Extensive public outreach performed throughout the planning process ensures the recommended facilities and programs meet community desires for safe and enjoyable places to bicycle and walk.

This Plan is organized as follows:

- **Chapter 1: Introduction** introduces the Plan, describes the planning and policy environment, and sets forth the Vision, Goals, and Policies of the Plan.
- **Chapter 2: Existing Conditions** provides the setting for the Plan and evaluates existing bicycle infrastructure within the City.
- **Chapter 3: Needs Analysis** describes key survey and count information to establish a baseline and identify issues that the Plan's recommendations will help to address.
- **Chapter 4: Bicycle Recommendations** provides recommendations for new bicycle infrastructure within the City of Wasco.
- **Chapter 5: Programmatic Recommendations** identifies other strategies for achieving the goals of the This Plan and provides resources for their successful implementation.
- **Chapter 6: Implementation** develops a framework for prioritizing the recommendations of the Plan.
- **Chapter 7: Funding** identifies resources that will help the City implement the Plan's recommendations.



A sign welcoming travelers to Wasco

1.1. Purpose of this Plan

The Wasco Bicycle Master Plan provides a vision for the walking and bicycling environment in Wasco and provides specific recommendations, strategies and actions to achieve that vision.

This Plan also readies the City of Wasco for a variety of funding sources that require Bicycle Master Plans as part of their requirements.

1.2. Planning Process

The planning process commenced when the City secured a federal Safe Routes to School grant in 2011. The grant funded some physical infrastructure projects near schools and this planning effort.

1.2.1. Public Outreach

An extensive public outreach process guided the recommendations of this Plan. For school site recommendations, a survey was administered to parents of children enrolled in Wasco public elementary and middle schools in December 2012. Key findings from the survey are described in Chapter 3. A series of five walk audits were held on school sites between January 28 and February 1, 2013. Findings from the walk audits are described in the Wasco School Traffic Safety Study, a separate document.

A public workshop was held January 29, 2013 to identify key community issues and possible solutions. Insights and recommendations from the public outreach process have informed all aspects of the Plan.

An additional public workshop to provide the public an opportunity to review the Plan's recommendations is scheduled for August, 2013. The Draft Bicycle Master Plan will be taken to the City Council on September 17, 2013 for adoption.

1.3. Who is this Plan for?

This Plan is for people of all ages that walk or bicycle in Wasco and anyone interested in the City's efforts to make these modes safer and more enjoyable. Community members may be most interested in Chapters 4 and 5, which describe improvement projects and programmatic recommendations. Developers and designers of private property will also be interested in Chapters 4 and 5 to identify how their development projects relate to the pedestrian and bicycle network within Wasco, and Appendix D to learn what sorts of designs they may incorporate into their projects to best accommodate pedestrians and bicyclists.

The Wasco City Council and Committee Members may be most interested in this Plan's recommendations in Chapters 4 and 5 and the implementation strategies and funding sources in Chapters 6 and 7. City staff, ultimately responsible for the Plan's implementation, may be interested in the Plan's recommendations in Chapters 4 and 5 as well as the implementation and funding chapters.

1.4. Vision, Goals and Policies

The Vision, Goals and Policies of this Plan will guide the development and implementation of the City's bicycle network and programming for years to come. The vision is a broad inspirational statement that presents a desired future state. Goals are broad statements of what the City and its residents hope to achieve over time and that ultimately add up to the stated vision. Policies serve as guides to action that the community will undertake to meet the goals.

The City of Wasco Bicycle Master Plan is closely related to the Wasco General Plan. The first two goals of this Plan are taken directly from the Circulation Element. Other goals emerged during the planning process to further realize the plan's Vision.

1.4.1. Vision

This Plan envisions Wasco to be a livable place where connected infrastructure and thoughtful programs emphasize and support an active and healthy lifestyle. People of all ages will have a diversity of transportation choices and walking and bicycling will be integral to daily life.



Plan Vision: *Wasco will be a livable place where connected infrastructure and thoughtful programs emphasize and support an active and healthy lifestyle. People of all ages will have a diversity of transportation choices and walking and bicycling will be integral to daily life.*

1.4.2. Goals and Policies

Goal 1: Increase pedestrian mobility.

- Policy 1.1: In existing developed areas where sidewalks do not exist, the City shall continue to support existing programs and pursue new programs for sidewalk construction.
- Policy 1.2: Promote convenient and safe pedestrian crossings.
- Policy 1.3: Locate sidewalks, pedestrian paths, and appropriate crosswalks to facilitate access to all schools and other areas with significant pedestrian traffic. Whenever feasible, pedestrian paths shall be developed to allow for unobstructed pedestrian flow from within a neighborhood.

Goal 2: Increase bicycle mobility.

- Policy 2.1: Develop a bicycle transportation plan and prioritized capital improvement program that creates and maintains a safe and logical bikeways system.
- Policy 2.2: Increase the mileage of bikeways by 10 percent by 2018 and 20 percent by 2023.
- Policy 2.3: Promote adequate and secure bicycle storage facilities at all public facility locations throughout the City.

Goal 3: Supplement infrastructure improvements with education, encouragement, evaluation and enforcement programs.

- Policy 3.1: Develop and implement educational opportunities for bicyclists, pedestrians and motorists to learn about their rights and responsibilities.
- Policy 3.2: Develop and implement an enforcement program to encourage safe travel behavior and to reduce aggressive and/or negligent behavior of drivers, bicyclists and pedestrians.

Goal 4: Increase active mode share for school trips to 50 percent by 2020.

- Policy 4.1: Work with individual schools to identify parent champions for Safe Routes to School programs.
- Policy 4.2: Prioritize improvements to the pedestrian and bicycle environment that improve access to schools.

Goal 5: Ensure timely and efficient implementation of bicycle and pedestrian projects.

- Policy 5.1: Update this Plan every five years to identify new facility improvements and programmatic opportunities and develop implementation strategies.
- Policy 5.2: Identify and pursue reliable sources of revenue to implement projects identified in the Plan.

Goal 6: Reduce the number of bicycle and pedestrian collisions

- Policy 6.1: Work with community members, schools and Caltrans to reduce the number of bicycle and pedestrian related collisions by 50% by 2020

1.5. Planning and Policy Review

The City of Wasco Bicycle Master Plan should be consistent with other city planning documents and reflect the policy environment created by regional, state, and national plans and policies. This section presents a brief review of the planning and policy documents for the city and their relevance to the Plan.

1.5.1. Local Planning and Policy Documents

Wasco General Plan

The Circulation Element of the General Plan includes several goals and policies to be furthered with this Plan. Table 1-1 lists those that are most supportive of and relevant to the Bicycle Master Plan.

There is strong language in the goals and policies of the circulation element that promote the development of a bicycle network in the City. Policy 2.1 in particular calls for the removal of on-street parking where existing right-of-way does not provide sufficient room for bike lanes.

Table 1-1: General Plan Goals and Policies

Reference	Goal or Policy Language
Policy 1.1:	Bicycle accidents shall continue to be monitored and bicycle paths and lanes shall be established upon need.
Policy 1.7:	Pedestrian and bicycle access shall be provided on local streets and Minor Collectors to enable pedestrians to have access through a neighborhood, to shopping areas, to transit stops, schools, and other such facilities.
Goal 2:	Develop and maintain an integrated Bicycle Access Plan for Wasco.
Policy 2.1:	Require that Collector streets which are identified to function as links for the bicycle transportation system to be provided with Class II bikeways (bike lanes) or show an alternative route. Arterial streets shall provide for a Class I or Class II bike routes. In such cases the City shall accommodate cyclists on these identified streets by widening the street or eliminating on-street parking wherever possible.
Policy 2.2:	Establish an effective program including financing for construction of and maintaining bicycle paths and sidewalks in the City of Wasco.
Policy 2.3	Design bicycle and pedestrian paths so that interaction with vehicular traffic is minimized.
Policy 2.4:	Require the provisions for safe bicycle circulation in all new developments, including bicycle parking facilities and internal bicycle and pedestrian routes.
Policy 2.5:	Promote the safe and convenient use of the bicycle as a means of transportation and recreation
Policy 2.6:	Expand and improve bikeways in accordance with State standards, incorporating bicycle trails within the Belt Park system and the parks.
Policy 2.7:	Utilize available bicycle facility funding for projects in Wasco.
Policy 2.8:	Prevent bicycle accidents through promoting bicycle safety education and improved traffic enforcement related to bicycle use.
Policy 2.9:	Promote adequate and secure bicycle storage facilities at all public facility locations throughout the City.
Policy 2.10:	Include facilities for bicycle users in governmental, commercial, and residential and open space recreational developments.

The Circulation Element also provides a table identifying which speed and volume control measures might be appropriate on different streets in the city. Recommendations for this Plan may include revisiting this table for certain street conditions.

The Circulation Element reflects a general commitment to the existing street hierarchy in Wasco and therefore recommendations for bicycle facilities should reflect that framework.

1.5.2. Regional Planning and Policy Documents

Kern County Bicycle Master Plan and Complete Streets Recommendations (2011)

The Kern County Bicycle Master Plan sets forth a vision for bicycling in Kern County. The Plan’s recommendations are primarily in unincorporated parts of the County, but it does recommend bicycle facilities on several streets adjacent to the City of Wasco. These recommendations include Palm Avenue, Central Avenue, Magnolia Avenue, Highway 46, and Kimberlina Road. Establishing connections within Wasco to these proposed facilities will be a priority of this Plan.

Kern Council of Governments Bicycle Plan (2001)

The 2001 Kern Council of Governments Bicycle Plan is the first plan that established recommended bicycle facilities in Wasco.

Several other bike facilities were proposed in the 2001 Kern Council of Governments Bicycle Plan. While the region has changed significantly since the plan’s adoption and the recommendations of this plan will not be necessarily the same, they are a useful reference and acknowledged in Table 1-2 below:

Table 1-2: 2001 KernCOG Bikeways Proposed in Wasco

Location	Start	End	Distance	Class
Central Avenue	Gromer Avenue	Filburn Avenue	2.00	1
Filburn Avenue	Central Avenue	Poplar Avenue	0.75	1
Filburn Avenue	Broadway	State Highway 43	0.24	1
Gromer Avenue	Leonard Drive	Annin Avenue	2.77	1
1st Street	Birch Avenue	Griffith Avenue	0.13	2
5th Street	Woodside Drive	Broadway	1.09	2
6th Street	Broadway	J Street	0.56	2
7th Street	Valley Rose Parkway	Broadway	2.64	2
7th Street	G Street	H Street	0.07	2
Augusta Manor Drive	Valley Rose Parkway	Leonard Avenue	0.76	2
Beckes Street	5th Street	Parkside Drive	0.13	2
Birch Avenue	1st Street	7th Street	0.44	2
Broadway	5th Street	Poso Drive	0.69	2
E Street	State Highway 46	6th Street	0.41	2
E Street	9th Street	Poso Avenue	0.32	2
G Street	8th Street	7th Street	0.09	2
Griffith Avenue	Gromer Avenue	1st Street	0.56	2
Leonard Avenue	7th Street	Poso Avenue	0.50	2
Leonard Avenue	Augusta Manor Dr	Gromer Avenue	0.10	2
Margalo Street	Central Avenue	N. Griffith Avenue	1.00	2
Palm Avenue	Margalo Street	Filburn Avenue	1.76	2

Location	Start	End	Distance	Class
Parkside Drive	Woodside Drive	Beckes Street	0.19	2
Poplar Drive	5th Street	Filburn Avenue	1.18	2
Poso Avenue	Scotfield Avenue	Palm Avenue	3.00	2
Poso Drive	Broadway	Wasco Avenue	0.38	2
Redwood Avenue	Parkside Drive	7th Street	0.06	2
Sunset Avenue	Palm Avenue	E Street	0.80	2
Valley Rose Parkway	McCombs Road	7th Street	2.03	2
Woodside Drive	5th Street	Parkside Drive	0.13	2

The listed streets would generally achieve the goal of a well-connected bicycle network. However, the facilities may not be proposed on ideal streets within the network, and the absence of a Class III “low-stress” bicycle network suggests that the proposals may not address the needs of younger and older bicyclists.

State Route 43 and State Route 46 Transportation Concept Reports (2006)

The Transportation Concept Reports for State Route 43 and State Route 46 are long-range system planning documents issued by Caltrans that establish planning concepts for the corridors through the year 2030. The Concept Reports establish Level of Service (LOS) standards for each route and identify the types of improvements that might work to achieve those standards. Bicycle travel is considered a part of each concept. There are no improvements identified for Highway 43 within Wasco. The State Route 46 Transportation Concept Report identifies a proposal to widen Highway 46 to a four-lane conventional highway, in order to maintain LOS B.

Main Streets: Flexibility in Design and Operations (2005)

The California Department of Transportation (Caltrans) issued a policy paper that describes special consideration for transportation planning on state highways that happen to be the main streets of communities. Its recommendations are applicable to State Highway 46 and especially to State Highway 43 (F Street). As shown in the sidebar at the right, the document emphasizes the need for a context-sensitive, complete streets approach to roadway design and operations on community main streets. The paper describes possible design elements and the process for seeking design exceptions where necessary and desirable.

Main streets through a community that also happen to be state highways provide access to businesses, residential roads and other nearby properties. Main streets serve pedestrians, bicyclists, businesses and public transit, with motorized traffic typically traveling at speeds of 20 to 40 miles per hour. Main streets give communities their identity and character, they promote multi-modal transportation, support economic growth, and may have scenic or historic value.

1.5.3. State Planning and Policy Documents

State planning and policy documents are the most far-reaching, presenting policies and goals for RTPs and MPOs.

State Assembly Bill 32: Global Warming Solutions (2006)

Signed into law in 2006, the Global Warming Solutions Act sets discrete actions for California to reduce greenhouse gas emissions. The discrete actions focus on reducing emissions by increasing motor vehicle and ship yard efficiency and other strategies involving refrigerants, landfills, and consumer products. While encouraging bicycling is a means for California to reach 1990 greenhouse gas emission levels in 2020, AB 32 does not identify it as a strategy.

State Assembly Bill 1358: Complete Streets (2008)

AB 1358 requires the legislative body of any City or County to, upon revision of a general plan or circulation element, ensure that streets accommodate all user types, e.g. pedestrians, bicyclists, transit riders, motorists, children, persons with disabilities, and elderly persons. Beginning January 1, 2011, Cities and Counties must include accommodation of all street users in Circulation Element revisions.

State Senate Bill 375: Sustainable Communities (2009)

California Senate Bill (SB) 375 requires Metropolitan Planning Organizations, including the Kern COG, to create a Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan. The SCS must identify the ways in which the region will meet the greenhouse gas emissions targets outlined by the California Air Resources Board. One strategy to meet the greenhouse gas emissions targets is to increase the mode share of alternative transportation. Enhancing Kern County's and Wasco's pedestrian and bicycle infrastructure can increase pedestrian, bicycle and transit mode share and reduce Kern County's greenhouse gas emissions.

2. Existing Conditions

This chapter provides context for The City of Wasco Bicycle Master Plan. It considers issues that may affect bicycling, walking and school access in the City of Wasco, establishes a baseline for infrastructure and activity, and identifies issues that the recommendations of the this Plan may help to address.

This chapter is organized as follows:

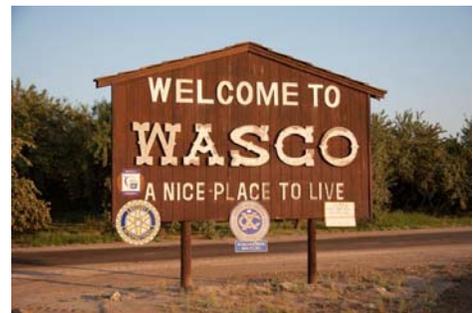
- The **Setting** includes a description of the City of Wasco and its characteristics that affect walking and bicycling.
- **Planning and Policy Review** identifies documents that are relevant to The City of Wasco Bicycle Master Plan.
- A summary of the different types of bicycling facilities and their use in Wasco is provided in the **Existing Bicycle Facilities** section. Existing bikeways are evaluated for their effectiveness.
- **Existing Bicycle Programs** describes programmatic efforts underway in the City.
- The **Schools** section summarizes the conditions of bicycle access to schools in Wasco.

2.1. Setting

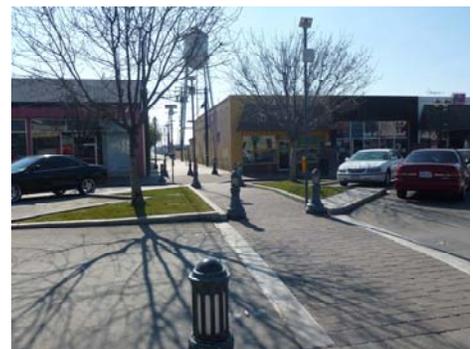
Wasco is located in the San Joaquin Valley of California, 24 miles northwest of Bakersfield. It is home to 25,545 people, concentrated in a 5-square mile area.

The physical conditions of a city affect the travel behavior of its residents. The City's advantages include an absence of any significant hills, and low rainfall throughout the year. Disadvantages include an average high temperature in excess of 90 degrees for much of the summer and foggy conditions in winter.

Unique urban design elements make the City an interesting place for walking and bicycling. The downtown area, centered on 7th Street and E Street, includes landscaping, wide sidewalks, pedestrian-scale lighting, pedestrian pathways, street trees, and a gateway clock.



A sign welcoming travelers to Wasco



Downtown Wasco

2.1.1. Major streets and roadways

California State Highways 43 and 46 are the major regional thoroughfares in Wasco, connecting the community to nearby cities including Bakersfield. State Highway 43, or F Street, is generally one lane in each direction with a two-way left turn lane. South of Poso Avenue, it expands into a divided four-lane highway. Highway 46 is also generally one lane in each direction with a two-way left turn lane. Right-turn lanes are present intermittently to connect to destinations along the street.

Collector roadways include Poso Avenue, Palm Avenue, and 7th Street. These streets are generally one wide lane in each direction with on-street parking. Two-way left turn lanes and bike lanes are present intermittently. There are very few traffic signals in the City of Wasco, all located along State Highway 46.

Wasco has a fairly well-established grid network, providing several options for both motorists and cyclists. However, sidewalks are not consistently provided. Other parts of the city are less connected, posing challenges to bicyclists looking for alternative routes.

One challenge that affects many locations throughout the city is that despite having a well-integrated grid street network, many blocks in Wasco are unusually long. Near Thomas Jefferson Middle School, the block



Broadway at 12th Street is an example of a wide street lacking sidewalks



Underutilized parking on D Street

between Birch Avenue and Griffith Avenue is 600 feet, and the block between 2nd Street and 4th Street is 650 feet. Large block lengths produce less “side friction” for drivers, increasing traffic speeds, and encourage midblock crossings by increasing distance between crosswalks. Near Teresa Burke Elementary School, there is a quarter mile between marked crosswalks across Filburn Street, and many students and parents choose to cross at an uncontrolled location.

Wide streets are another frequent condition in the City of Wasco. The curb-to-curb width for many streets with two travel lanes and two parking lanes is 60 feet, while the most generous guidelines calls for 12-foot lanes and 8-foot parking lanes, totaling 40 feet. Certain streets, such as Filburn Street, provide over 100 for two travel lanes in each direction. This condition poses both challenges and opportunities for walking and bicycling. Wide streets can increase motor vehicle speeds and lengthen crossing distances, but can also provide space for facilities such as bike lanes and buffered bike lanes.

A detailed analysis of parking occupancy is beyond the scope of this study, but field observations suggest that outside of the downtown area, parking supply in Wasco is significantly higher than the amount demanded.

2.1.2. Transit

The City of Wasco does not have a fixed-route transit system in town, but does operate a dial-a-ride service. The service operates Monday through Friday from 8:00 AM to 4:30 PM and picks up passengers at their current location and drops them off at their destination. Thirty to 45 minutes notice is needed. It cannot operate outside the City Limits. Bicycles are not permitted aboard the bus.

An Amtrak station at 7th Street and G Street near the city center provides regional transit connections and serves as a local transit station for the North Kern Express Regional Transit buses. The Amtrak station is part of the San Joaquin line that connects the Bay Area and Sacramento to Bakersfield. It has six departures daily in each direction.

2.1.3. Land Use

The City of Wasco's land uses are generally separated, with a downtown core centered on 7th Street and E Street and other retail locations on State Highways 43 and 46. Industrial areas appear in the northern and eastern parts of the city. The outskirts of town are predominantly agricultural, with the Wasco State Prison an important institutional land use in the far western part of the City. Bicycling attractors include the downtown core and Amtrak station, as well as schools and parks.

The City Land Use map appears in Figure 2-1.



The downtown commercial area centered on 7th Street

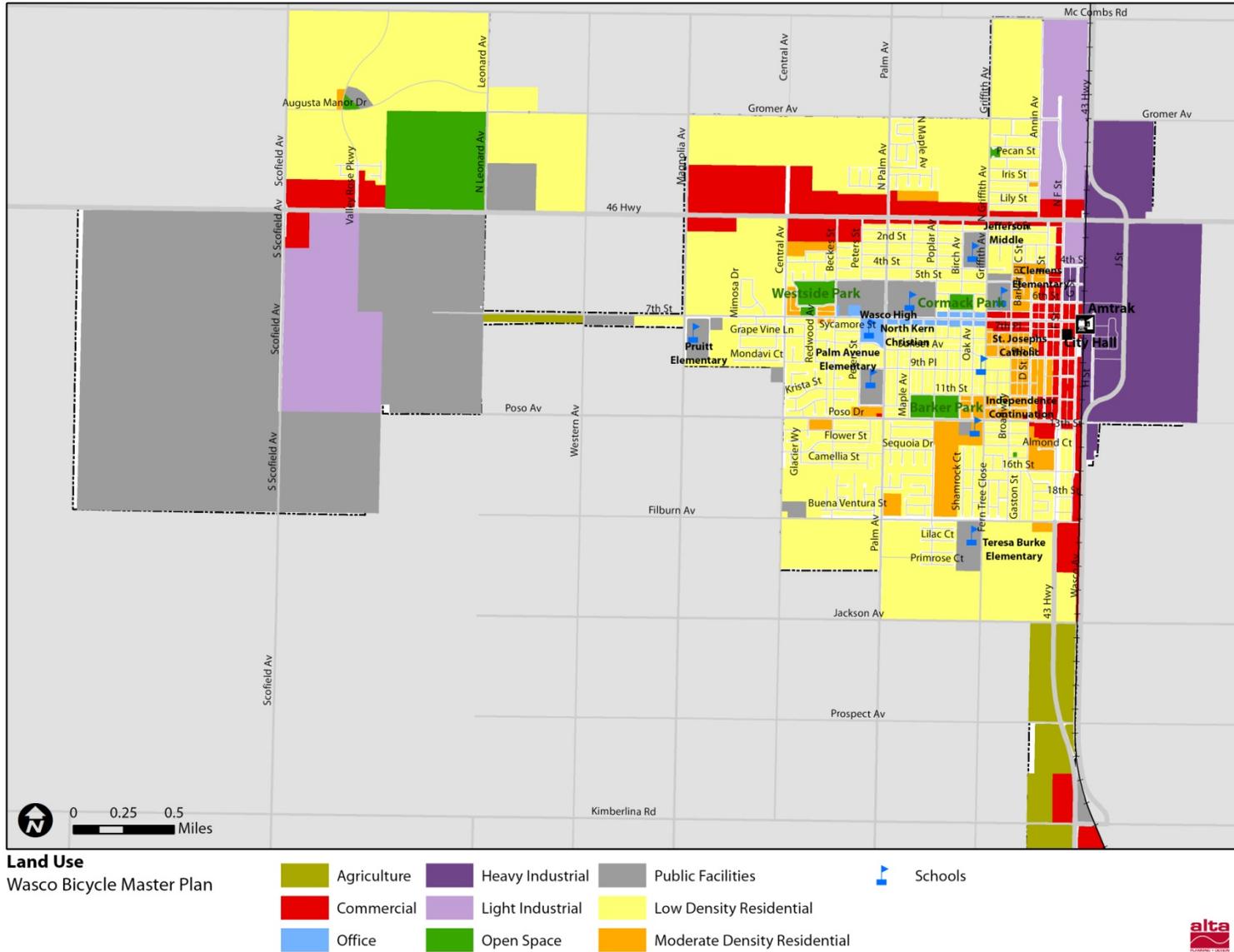
2.1.4. Parks and Open Space

Parks and open space provide community gathering spaces and give children opportunities to play and practice skills. There are three major parks in the City of Wasco. Westside Park, adjacent to Wasco Skate Park in northwest Wasco, includes a walking path and a baseball diamond. Cormack Park is a large open area near the downtown district. Barker Park, in central Wasco, includes a playground and picnic areas and is located directly across from a sports facility.



Westside Park

The City of Wasco Bicycle Master Plan



2.2. Existing Bicycle Facilities

2.2.1. Bikeways

In the State of California, bikeways are classified according to three different types. These include Class I multi-use paths, Class II bike lanes, and Class III bike routes. Each facility type plays a different role in the bicycle network. While bike lanes generally provide a separated facility for streets with higher motor vehicle speeds and volumes, Class I and Class III facilities can be part of a “low-stress” network that appeals to inexperienced bicyclists, including children. The three types are illustrated and described below:

Class I multi-use paths provide for bicycle and pedestrian travel on a paved right-of-way completely separated from roadways. These facilities are typically used by recreational and casual bicyclists. Commuting bicyclists will also use Class I facilities that provide access to work or school.

Class II bicycle lanes provide a signed, striped and stenciled lane for one-way travel on a roadway. These facilities are typically used by commuting bicyclists and bicycle enthusiasts. Casual bicyclists will also use Class II facilities if traffic speeds and volumes are relatively low. Class II bicycle lanes are often recommended on roadways with moderate traffic volumes and speeds where separation from motorists can increase the comfort of bicyclists.

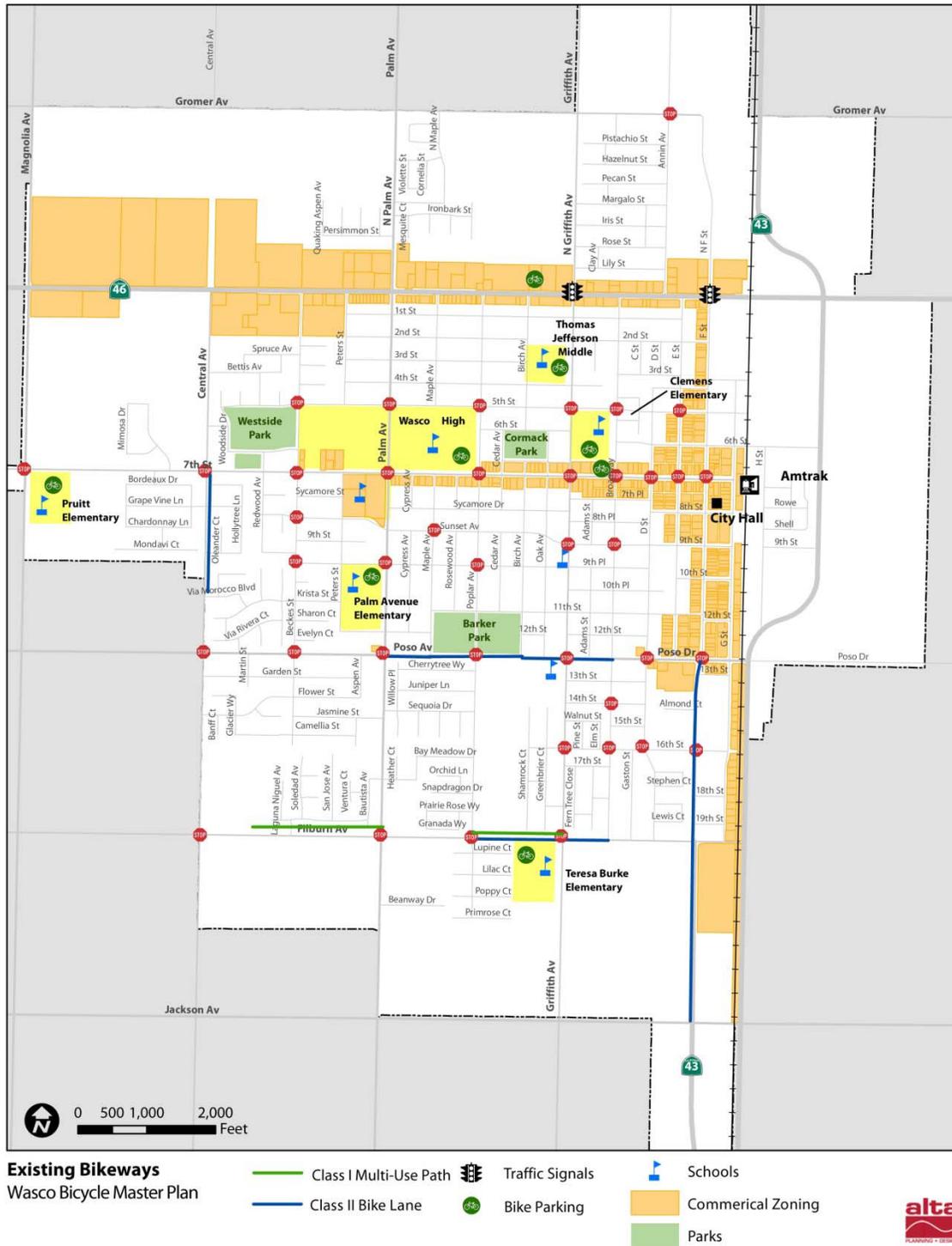
Class III bicycle routes provide for shared roadway use and are generally identified only by signs. These facilities may have a wide travel lane or shoulder that allow for parallel travel with motorists. A network of Class III bicycle routes provides low-traffic alternatives where bicyclists will be sufficiently comfortable that no formal separation from motor vehicle traffic is desired.

Two existing Class I multi-use paths in Wasco provide a separated path for bicyclists. They are located on the north side of Filburn Avenue. One connects Griffith Avenue and Poplar Avenue, and the other begins at Palm Avenue and extends west, stopping short of Central Avenue.

Four existing bikeways (all Class II bike lanes) within the City provide protected right-of-way for bicyclists, shown in Figure 2-2. These are:

- Poso Drive- Palm Avenue to Broadway.
- North side of Filburn Street- Poplar Avenue to Broadway.
- State Highway 43 south of Poso Drive.
- Central Avenue south of 7th Street.

The City of Wasco Bicycle Master Plan



A path along the north side of Filburn Street is open to bicyclists. This path meets the 8' minimum standard for the width of a Class I path, but meanders and does not include signage or crossing treatments that would usually accompany such a facility. Extending this path in both directions would improve bicycling conditions along the corridor.



Filburn Street

2.2.2. End-of-Trip Bicycle Facilities

End-of-trip bicycle facilities refers to the provision of accessible and secure bicycle parking, as well as accessible and secure storage lockers, showers, and toilets.

Bicycle parking provides a secure place for bicyclists to store their vehicles for short or long periods of time. Parking facilities may include simple, conveniently-located bicycle racks for short-term parking or lockers or bike cages that provide longer-term storage. Bike racks are appropriate for any location where a bicyclist may stop for errands, recreational opportunities, shopping, or appointments, such as the Wasco Plaza. Bike lockers are appropriate for offices or intermodal connections such as the Wasco Amtrak station.

A field survey of bicycle parking in the City found bicycle racks at schools, downtown in the pedestrian alleys and at the Kern County Library, and at Carl's Jr. Most school bike racks were "toaster"-style bike racks that use the wheel to support the frame, a model that is no longer recommended by the Association of Pedestrian and Bicycle Professionals.¹ No other facilities, such as storage lockers, showers and toilets specifically for bicycle users, were found.

2.2.3. Neighborhood Connectors

Much of the city developed when new subdivisions were being constructed with cul-de-sacs on residential streets. Many such street hierarchies significantly increase the distance for pedestrians and bicyclists to travel to reach their destinations. However, many neighborhoods in Wasco use neighborhood connectors where pedestrian pathways continue from the end of a street, reducing traveling distance and providing more possible route choices. Such foresight significantly improves pedestrian and bicycling conditions in the city.

In addition, there is a short pedestrian and bicycle path located near Palm Avenue Elementary School, extending from 9th Street to 9th Place as a continuation of Peters Street.

Alleys of varying length reduce reliance on on-street parking in the city and provide additional pedestrian connectivity. However, some residents have personal safety concerns when using these facilities.

2.3. Existing Bicycling Programs

A city's bicycling infrastructure includes more than just a network of bike paths, lanes, and routes. It also includes programmatic elements. The League of American Bicyclists defines these elements as the "Five Es", illustrated in Figure 2-3.

¹ See the APBP Bike Parking Guide.

Engineering

- Signage
- Striping
- Crosswalks



Education

- In-classroom instruction
- Bike rodeos
- Fliers for parents



Encouragement

- Friendly competitions
- Walk across California
- Fliers for Parents



Enforcement

- Police
- Animal Control
- School Staff and Volunteers



Evaluation

- Walk Audits
- Counts and Surveys



Figure 2-3: The Five E's of Pedestrian, Bicycle, and Safe Routes to School Planning

Source: League of American Bicyclists

Engineering elements include on- and off-street bicycle facilities, bicycle parking, and signage. The City’s efforts are documented in the preceding section. Education programs may be directed at youth or adult bicyclists or motorists to improve safety and traffic skills. Encouragement activities include events such as Bike to Work Day or informative maps or pamphlets that help residents to be more confident in riding bicycles. Programs that enforce legal and respectful bicycling and driving improve the safety and security of bicyclists. Evaluation programs monitor the effectiveness of other programs and infrastructure improvements. Evaluation efforts may simply comprise monitoring of publicly available Census data, or more concerted efforts such as regular counts and surveys.

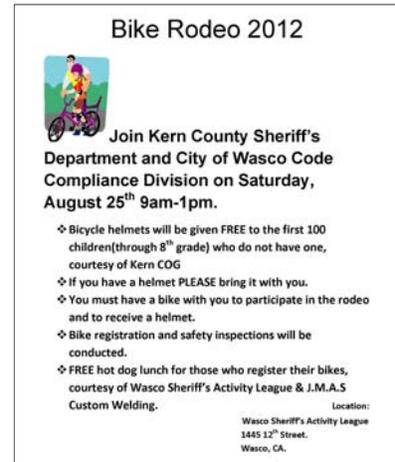
Programmatic elements appear to be growth opportunities for the City, as the City has not participated in Bike to Work Day or other encouragement activities.

2.3.1. Bike Rodeos

The City holds Bike Rodeos once or twice annually in conjunction with local law enforcement. In the past, these rodeos have generally been used to register bikes and distribute helmets, rather than to teach traffic safety skills. These programs have been funded through grants from the Transportation Development Act, Article 3.

2.4. Schools

There are nine schools within the Wasco city limits. These include four public elementary schools, Thomas Jefferson Middle School, Wasco High School, two parochial schools, and a continuation school. Information for the public schools is provided in Table 2-1.



A flyer announcing a bike rodeo

Table 2-1: Public Schools in Wasco

School Name	Address	Grades	Enrollment (2011-2012)
John L. Prueitt Elementary	3501 Seventh Street	K-6	594
Karl F. Clemens Elementary	523 Broadway Avenue	K-6	617
Palm Avenue Elementary	1017 Palm Avenue	K-6	699
Teresa Burke Elementary	1301 Filburn Street	K-6	738
Thomas Jefferson Middle	305 Griffith Avenue	7-8	668
Wasco High School	1900 Seventh Street	9-12	1,644
Wasco Independence High	1445 Poso Drive	9-12	124

The Wasco Union Elementary School district serves many students outside the city limits: The district extends north to Sherwood Avenue, south approximately to Merced Avenue, as far west as Interstate 5 and nearly to the Town of McFarland to the north. Two elementary schools – Prueitt Elementary and Burke Elementary – provide enrollment opportunities for students living outside the City. While the geographic

spread of students does pose challenges for walking and bicycling to school, it also presents opportunities for carpooling.

The Wasco Union School District provides busing for most students that live more than a designated distance away from school sites. This is an especially valuable program for students living past major barriers. All elementary school students living east of Highway 43 are allowed to use the school bus to travel to school.

2.4.1. Safe Routes to School

Although a formal Safe Routes to School program does not exist for the City of Wasco, the City has been active in pursuing Safe Routes to School grants to fund transportation improvements within the community.

In 2008, the California Department of Transportation (Caltrans) awarded the City of Wasco a \$365,200 Safe Routes to School grant to construct a sidewalk, curb, and gutter, and curb ramps within the two-block area surrounding Thomas Jefferson Middle School. Then in 2010, the city received a \$389,000 grant, matched with \$44,000 of local funding, to complete construction projects throughout the city. The grant funded new curbs, gutters, sidewalks, and ramps, bike lanes, and radar speed signs.

The City received federal Safe Routes to School grant funding in 2011, including \$359,100 to install in-pavement flashers at crosswalks on 4th Street at Birch Avenue and 4th Street at Griffith Avenue. An additional \$165,000 in Safe Routes to School funding and \$30,000 in funding from the Kern Council of Governments was received to develop a Safe Routes to School Traffic Safety Study and Bicycle Master Plan. This Plan is funded through these grants.

School crosswalks and crossing signage are frequent design elements within the City. Some intersections near schools, such as the intersection of Sunset Avenue and Peters Street, do not have any type of traffic control on any approach. Such intersections, along with few traffic signals, reflect the rural character of the City that provides important context for the recommendations of this Plan.

The City of Wasco possesses helmets that it may distribute to schools as part of a bicycle helmet giveaway to encourage students to equip themselves to bicycle safely. Thomas Jefferson Middle School is expected to take advantage of the program in the near future. Past helmet giveaways have been funded through Transportation Development Act, Article 3.

2.5. Past Expenditures

Table 2-2 summarizes the City's past expenditures for bicycle and pedestrian facilities and programs.

Table 2-2: Past Expenditures

Improvement	Location	Cost	Year
Poso Avenue Bike Lane	E Street to Palm Avenue	\$9,500	2009
In-pavement crosswalk lighting	Intersection of Palm Avenue and 9 th Place	\$152,640	2010
SRTS Infill Sidewalk Project	Thomas Jefferson Middle School: various locations within 2-block radius	\$271,116.94	2011
Infill Sidewalk Project	C Street and D Street between 2 nd Street and 3 rd Street	\$71,993.25	2012
9 th Place Infill Sidewalk Project	9 th Place from Griffith Avenue to Palm Avenue	\$190,882.25	2012
7 th Street Pedestrian Improvements	Griffith Avenue to Palm Avenue	\$174,841	2013
Highway 43 Bike Lane	Filburn Avenue to Poso Drive	\$29,501	2013
Palm Avenue Bike Lane	5 th Street to Poso Drive	\$12,500	2014
Radar Speed Limit Sign Project	2 signs at every school, 14 total	\$182,400	2014
Barker Park Walking Path	Install 8' wide walking/bike path around Barker Park	\$94,000	2014

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3. Needs Analysis

3.1. Types of Bicyclists

This Plan seeks to address the needs of all bicyclists and potential bicyclists. However, bicyclists are a diverse group, encompassing weekend recreational riders confident in their bicycling skills and utilitarian bicyclists who may not be comfortable riding in heavy traffic. A compilation of academic research on bicyclist types has established four principal categories:

- *Strong and Fearless* bicyclists will ride on almost any roadway despite the traffic volume, speed and lack of bikeway designation and are estimated to be less than one percent of the population.
- *Enthusied and Confident* bicyclists will ride on most roadways if traffic volumes and speeds are not high. They are confident in positioning themselves to share the roadway with motorists and are estimated to be nine percent of the population.
- *Interested but Concerned* bicyclists will ride if bicycle paths or lanes are provided on roadways with low traffic volumes and speeds. They are typically not confident cycling with motorists. Interested but Concerned bicyclists are estimated to be 60 percent of the bicyclist population and the primary target group that will bicycle more if encouraged to do so.
- *No Way No How* are people that do not consider cycling part of their transportation or recreation options and are estimated to be 30 percent of the population.

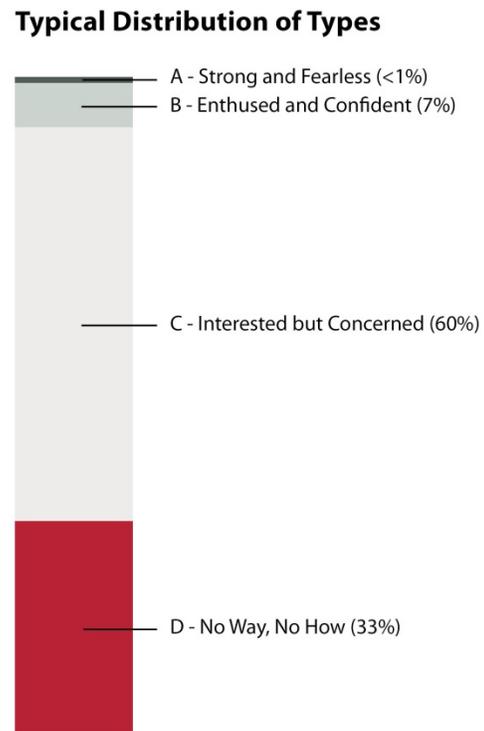


Figure 3-1: Bicyclist Types

Because so many potential bicyclists are “interested but concerned”, engaging this group may lead to the most significant gains in bicycling in Wasco. The added protection of buffered bike lanes or the accessibility of quiet Class III routes may be effective strategies for addressing their concerns.

3.2. Travel in Wasco

3.2.1. American Community Survey Data

In comparison to other communities in California and the state as a whole, fewer people in Wasco walk and bicycle for utilitarian purposes. Table 3-1 below compares travel behavior in Wasco with other geographies

using American Community Survey 2011 5-year estimates. Wasco has a higher incidence of carpooling and a much higher use of “other” modes than other communities, a category that may encompass any number of transportation options such as bicycling to one location and being driven the rest of the way.

Table 3-1: Mode Split in Wasco and Selected Geographies

Geography	Drove Alone	Carpool	Transit	Bicycle	Walk	Other	Work at Home
Wasco	71.7%	21.0%	0.5%	0.0%	1.6%	3.9%	1.3%
Bakersfield	79.5%	13.9%	1.2%	0.4%	1.3%	0.9%	2.8%
Kern County	75.8%	16.5%	1.1%	0.4%	1.9%	1.4%	2.9%
California	73.4%	11.7%	5.1%	1.0%	2.8%	0.9%	5.1%

While census data are generally the best available for most communities, there are limitations: Census questions allow respondents to choose only one travel mode and thus do not reflect trips taken on multiple modes or commuters who may occasionally bike to work. Further, these data only account for the journey to work, which represents approximately 20 percent of trips, and because commute trips are often longer than other utilitarian trips, they are less likely to be taken on foot or bicycle.

3.2.2. Vehicle, Bicycle and Pedestrian Count Data

Several locations were identified to collect vehicle, bicycle, and pedestrian counts.. Counts included hand counts at 39 locations and 24-hour tube counts at eight locations. These locations were chosen based on criteria including:

- Proximity to schools
- Location along potential bicycle corridors
- Collision history
- Geographic balance
- City staff input

The counts were used to understand existing activity and whether or not the count location met warrants for stop control or traffic signals. With consideration for peak volumes and collisions, none of the count locations met minimum warrants for intersection control. The detailed count findings are presented in Appendix D.

3.3. Collision Analysis

Concerns about traffic safety are powerful disincentives for walking and bicycling in any city. This section analyzes pedestrian and bicycle collisions for the six most recent complete years of data (2005-2010). Collisions are an important component of the Needs Analysis because they may help to identify specific locations where improvements are needed or may point to programmatic elements that may be especially effective at improving safety.

From 2005 through 2010, there were 26 bicycle collisions and 51 pedestrian collisions. Without accurate count data it cannot be said whether this is a relatively high or low number. Figure 3-2 gives the number of collisions in each year.

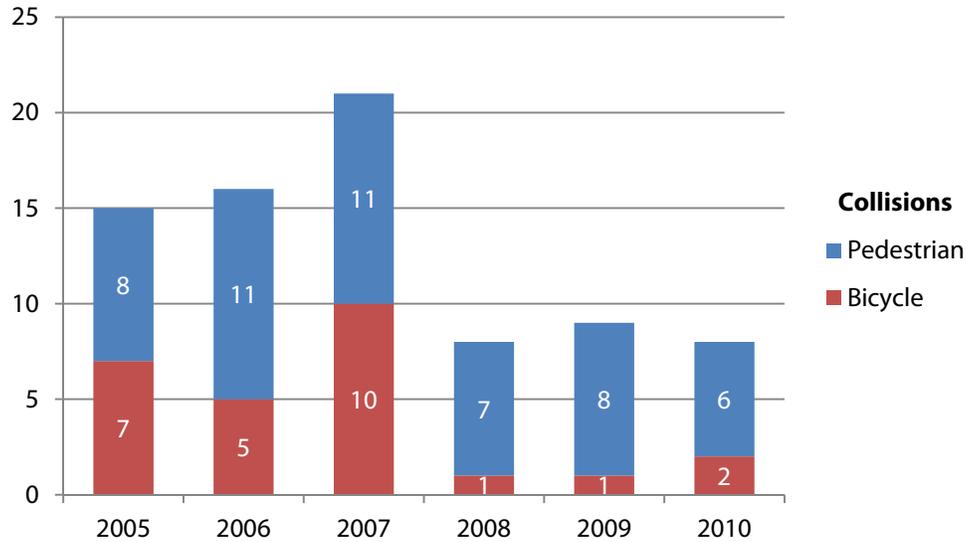


Figure 3-2: Bicycle and Pedestrian Collisions, 2005-2010²

There appears to be a downward trend in bicycle and pedestrian collisions in recent years in Wasco. While this is encouraging, the sample size is small. Figure 3-3 displays the number of collisions by day of the week. There is no discernible pattern between weekdays and weekends here.

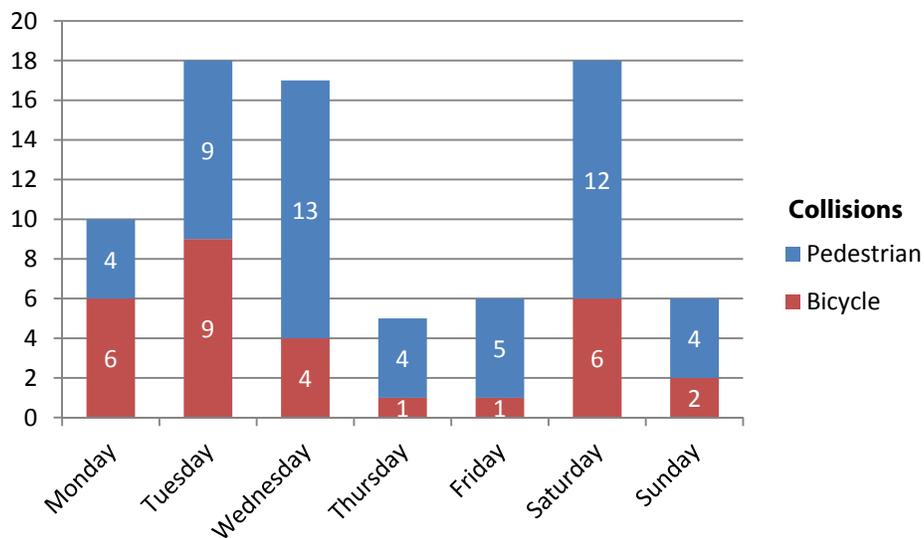


Figure 3-3: Bicycle and Pedestrian Collisions by Day of the Week

While bicycle collisions were most likely to occur between 5:00 and 8:00 P.M., in 21 of 29 incidents the reporting officer recorded daylight conditions, so this appears to be more likely to result from other factors.

Collision locations are mapped with relation to school sites and planned bicycle facilities in Figure 3-4.

² Subsequent data analyses consider three bicycle collisions that occurred in 2011 to produce a more reliable sample size



Figure 3-4: Pedestrian and Bicycle Collisions, 2005-2010

These collisions are distributed throughout the City, with some clusters near the downtown commercial area, but no single location with more than three collisions. This spread of collisions may reflect the city’s grid network, which distributes pedestrians and bicyclists throughout the city.

In 23 of 29 bicycle-related collisions, the bicyclist was deemed to be at fault. In only one instance was the motor vehicle driver deemed to be at fault. Violation of the Automobile Right-of-Way was the most frequent citation associated with the collisions. Table 3-2 lists the most common violations along with locations where they most frequently occurred.

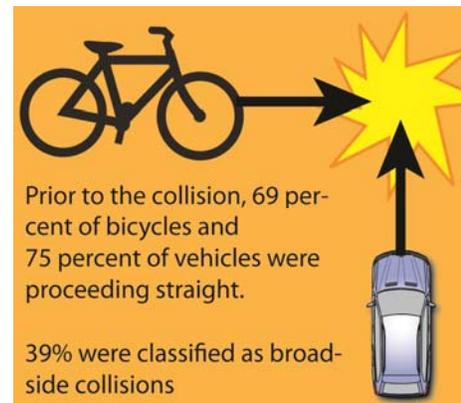
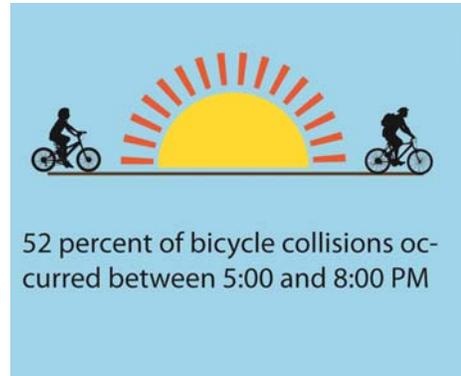
Table 3-2: Violations Associated With Bicycle Collisions

Violation	Collisions	Locations
Automobile ROW	7	2 nd Street D Street
Wrong Side of Road	6	8 th Place
Traffic Signals and Signs	5	No clusters
Improper Turning	4	No clusters

In 20 of 29 bicycle-related collisions, the responding officer recorded the bicyclist proceeding straight as the movement preceding collision. Like the bicyclists, the overwhelming majority of drivers were also proceeding straight immediately prior to the collision. These were mostly broadside collisions; in very few incidents were the bicyclist and motorist traveling in opposite direction. More clearly defined space for bicyclists and motorists and ensuring that both follow traffic rules and regulations should help to reduce the number of collisions in Wasco.

In 16 of 29 bicycle-related collisions, the bicyclist was under the age of 18, with many others only slightly older. This points to the importance of the Safe Routes to School program and the opportunities for educating bicyclists about safe and defensive bicycling behavior. Children are often easier to reach with education campaigns than adults.

Pedestrians were most commonly entering traffic or proceeding straight immediately prior to pedestrian collisions. However, in



over half of pedestrian collisions, the pedestrian’s movement prior to the collision was recorded as “other” or not recorded.

Children and older adults are the most vulnerable road users and are most likely to be walking. Half of pedestrians involved in collisions were younger than 18, and many more were older than 60.

Bicyclist injuries occurred in 15 of the 29 bicycle-related collisions (52 percent), none of which resulted in a fatality. Of the injured bicyclists, one bicyclist was severely injured. Pedestrian injuries occurred in 39 of the 51 pedestrian-related collisions (76 percent), and three fatalities occurred. Of the injured pedestrians, 11 were severely injured. Table 3-3 displays the bicyclist injuries, severe injuries and fatalities, and Table 3-4 shows the same for pedestrians. A detailed list of collision locations and injuries can be found in Appendix G.

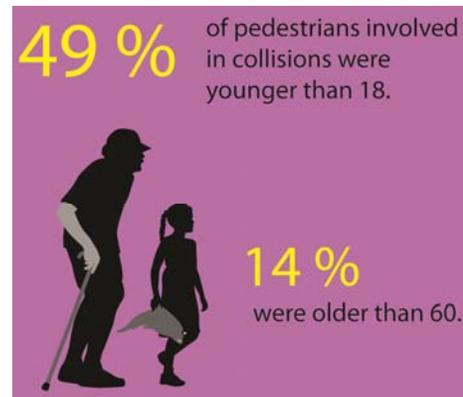
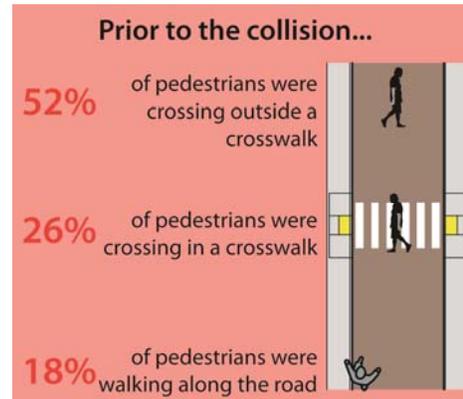
Table 3-3: Bicyclist Injuries

	Number	Percent of injuries	Percent of collisions
Injuries	15	-----	52%
Severe injuries	1	7%	3%
Fatalities	0	0%	0%

Table 3-4: Pedestrian Injuries

	Number	Percent of injuries	Percent of collisions
Injuries	40*	-----	76%
Severe injuries	11	28%	22%
Fatalities	3	8%	6%

*One collision resulted in two pedestrian injuries



3.4. Findings from Public Outreach

The community outreach performed for this phase of the Bicycle Master Plan included a survey administered to the parents of children enrolled in Wasco public schools, a public workshop, and walking audits conducted at school sites.

3.4.1. Parent Survey Analysis

A survey for parents of students enrolled in Wasco's public schools was administered in December, 2012. The survey was given both online and on paper in both English and Spanish and received 1,209 responses. This section describes some of the key findings from the survey. A complete survey report is reproduced in Appendix A.

Current Travel Patterns

Wasco has a neighborhood school system, and 49 percent of students live within a half mile of their school site. Walking is therefore a popular means of transportation to school, comprising 37 percent of trips taken to and from school. Forty-six percent of students are driven, a number that is relatively consistent at different commute distances. As shown in Figure 3-5, many students living further from school use the school bus.

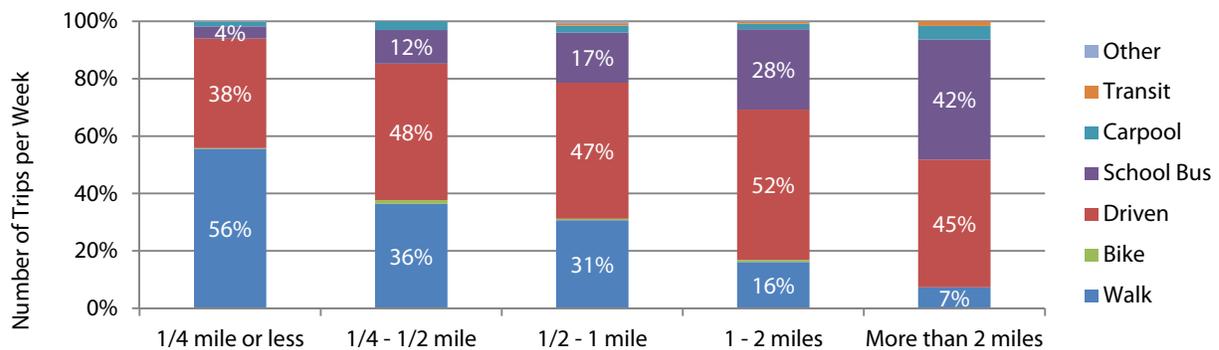


Figure 3-5 : Mode Split by Distance to School

Interest in Walking and Bicycling to School

Parents were asked to agree or disagree with four statements about walking and bicycling to school. Their responses, shown in Figure 3-6, reveal some interest in walking and bicycling to school, especially from the angle of improving the health of their children.

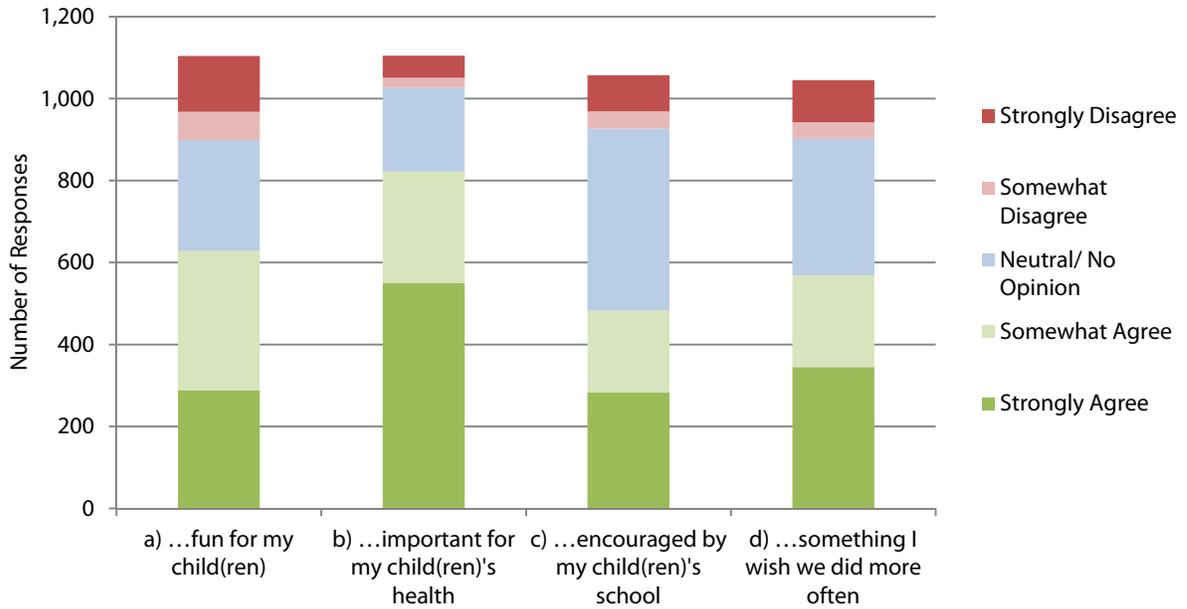


Figure 3-6: Interest in Walking and Bicycling to School

Barriers to Walking and Bicycling

Forty percent of parents indicated that they would not be comfortable with their child walking or bicycling to school alone at any age. Figure 3-7 shows responses given when parents were asked about what barriers would need to be overcome to allow their children to walk or school.

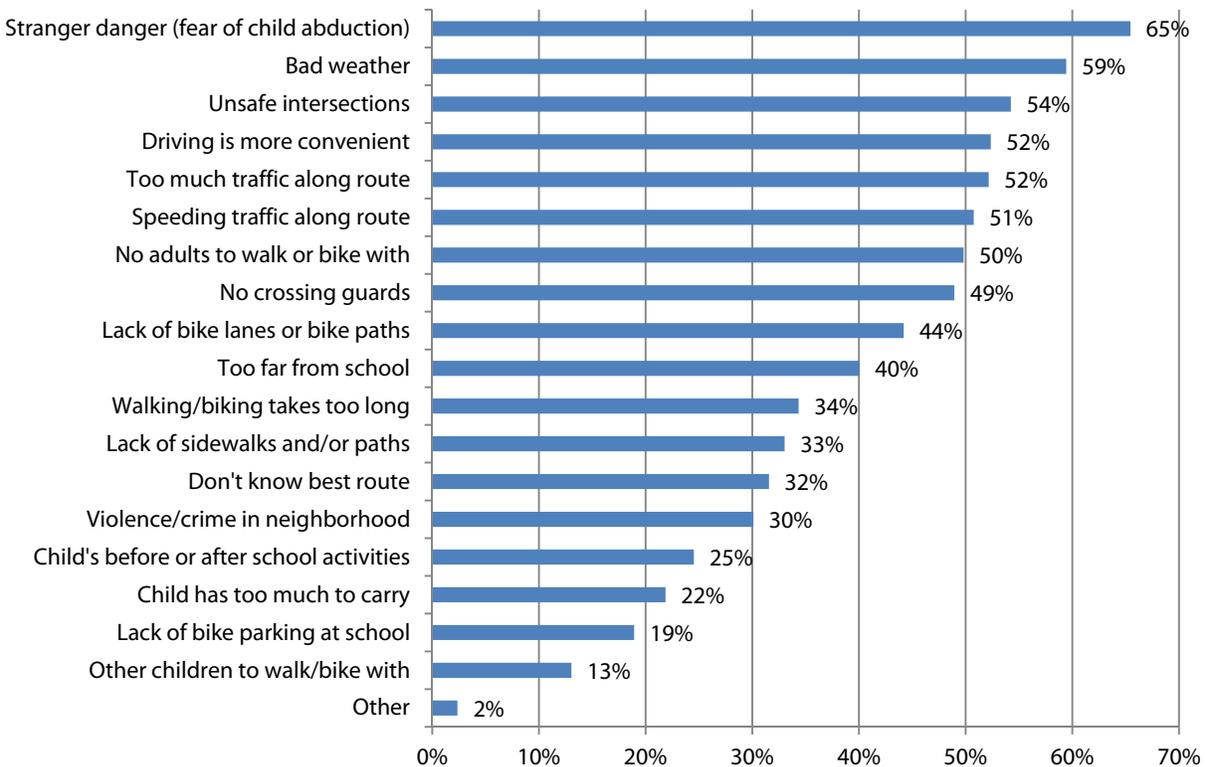


Figure 3-7: Barriers to Walking and Bicycling

The most frequently cited concern regarded personal safety, unrelated to traffic. Such concerns could arise from a variety of sources. Fear of abduction, concerns about fights between students, and stray dogs.

While the ability of Safe Routes to school programs to address concerns related to weather and convenience of driving is limited, many of its strategies can address other major concerns. For instance, a walking school bus program can help to overcome fears about personal safety, engineering improvements and safety education can address traffic concerns, and encouragement programs can turn distance to school from a seemingly insurmountable barrier into an enjoyable challenge.

3.4.2. Public Workshop

A public workshop was held on January 29, 2013 at Palm Avenue Elementary School. Seven community members attended, joining City and school district staff to discuss the Bicycle Master Plan. While other public outreach activities emphasized school traffic safety, the workshop emphasized the Bicycle Master Plan. However, important locations for school travel were identified, such as the intersection of 6th Street and F Street.

3.4.3. Walk Audits

During a walk audit, a group of stakeholders at each school site meets to discuss school travel issues for their communities. Participants might include interested parents, school principals, school district staff, law enforcement officers, and engineers and planners working with the City. Walk audits were conducted from January 28 through February 1, 2013, and their attendance suggests that there may be community interest in volunteering.

During each walk audit, the consultant team observed students arriving at school, and then met with parents and school administrators to introduce the planning effort and identify key locations to visit and continue the discussion. While each discussion focused on school-specific issues and opportunities, common themes included enthusiasm for intersection improvements and traffic calming programs that might increase safety or comfort during the walk or bicycle to school. Appendix B gives brief summaries for each audit.

3.5. Summary of Needs

Enhancements to bicycling infrastructure and programs will help the City to realize the goals of the Bicycle Master Plan.

Infrastructure needs include:

- More bicycle facilities to help address the needs of bicyclists in Wasco, including continuous bicycle routes on low-traffic streets with controlled major street crossings and bike lanes on busier streets.
- More bicycle parking facilities designed for convenience and ease of use will help for bicyclists to have secure locations to leave their bicycles.
- Sidewalk infill where sidewalk gaps exist, particularly near schools.
- Improved pedestrian crossing treatments, particularly near schools and along school routes.
- Addressing key walking and bicycling corridors such as 6th Street and Griffith Avenue that may lack pedestrian or bicycle facilities.
- Opportunities for crossing barriers such as Highway 43 and Highway 46.

Programmatic needs include:

- Traffic safety campaigns focused on drivers.
- Education programs that teach students bicycle and pedestrian traffic safety.
- Encouragement programs that connect parents with each other and with students to facilitate school commute alternatives.

4. Bikeway Recommendations

4.1. Introduction

This chapter presents proposed bikeways and bicycle support facilities identified through input from the community, City staff and the needs analysis. The proposed improvements are intended to make bicycling more comfortable and accessible for bicyclists of all skill levels and trip purposes.

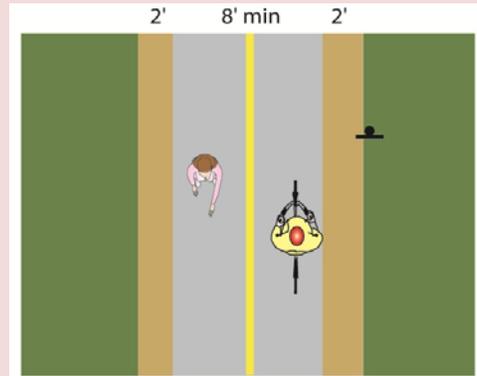
An effective bicycle network meets the needs of all kinds of bicyclists and potential bicyclists. This is known as the “8 to 80” principle, which suggests that a bicycle network should be accessible for young, old, and novice bicyclists as well as those who might be comfortable riding in traffic.

The connectivity of a bicycle network has proven to be the single most significant predictor of bicycle ridership.

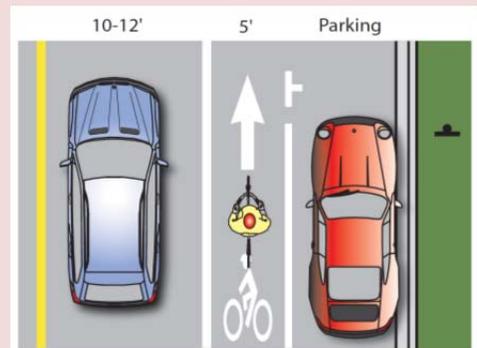
³ While there are existing bicycle facilities in the City of Wasco, they do not intersect each other, and therefore do not create the network effect that will be most effective at encouraging the community to ride bicycles.

The following recommendations are based on the concept of providing a connected bicycle network with facilities that will be accessible for users of all ages and ability levels.

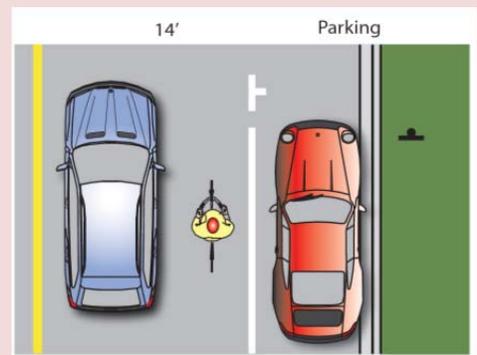
A variety of bicycle facilities are recommended in the City of Wasco. The Caltrans standard facility types are described in Chapter 2 and shown to the right.



Class I bikeways are separated from the roadway.



Class II bike lanes provide a striped travel lane on roadways for bicyclists.



Class III bicycle routes are signed roadways indicating a preferred bicycle route.

³ Schroener, Jessica: *The Missing Link: Bicycle Infrastructure Networks and Ridership in 74 US Cities*, 2012. <http://nexus.umn.edu/Papers/MissingLink.pdf>

4.2. Fitting Bike Lanes In

Because Class II bike lanes should be at least 5 feet wide, narrow roadways can present an obstacle to their installation. Where roadway width is constrained, there are three principal strategies for establishing separated bicycle facilities. These strategies may or may not be advised at specific locations in this Plan's recommendations, but are described to illustrate a range of possibilities.

Twelve-foot motorized vehicle lanes are a guideline for the Caltrans Highway Design Manual. Lane widths in excess of 12 feet can encourage higher traffic speeds and lane-splitting, and therefore provide a straightforward opportunity to dedicate roadway space to bike lanes to improve conditions for all road users. However, even 12-foot lanes can often be narrowed to create space for bicycle lanes. Studies have shown that lane widths can be reduced to 10 feet without adverse impacts on capacity and safety.⁴

Using minimum widths for all aspects of a roadway – parking lanes, bike lanes, and travel lanes – can result in challenging conditions for all road users. However, many streets in Wasco have significant unused space, so this situation is unlikely to occur.

⁴ Potts et al, *Relationship of Lane Width to Saturation Flow Rate on Urban and Suburban Signalized Intersection Approaches*.

4.3. Bikeway Recommendations

This Plan adds over 23 miles of bikeways to the City of Wasco in a connected network of off-street paths and on-street bike lanes and bike routes. The recommended facilities provide connections to major destinations within Wasco and provide alternatives that accommodate bicyclists of all ability levels. Table 4-1 summarizes new bikeways added to this Plan. Figure 4-1 maps the existing and recommended bikeways.

Table 4-1: Existing and Proposed Bikeway Totals

	Existing	Proposed	TOTAL
Class I	0.61	1.41	2.02
Class II	2.33	14.83	17.16
Class III	0.00	7.53	7.53
All Types	2.94	23.76	26.70

The following sections discuss each recommendation by Caltrans classification individually. Each project is given a title and extents corresponding to the GIS database provided as part of this Plan. Projects are ordered alphabetically within each bikeway classification.

Traffic volumes are estimated by taking the proportion of 24-hour traffic volumes to 2-hour traffic counts at known locations and extrapolating for unknown locations. Complete traffic data are available in Appendix D.

Cost estimates are based on unit costs described in Chapter 7: Implementation. The number of collisions for pedestrians and bicycles is reported from Chapter 3: Needs Analysis. Priority ratings are given according to the criteria discussed in Chapter 7: Implementation.

Projects are described along with any related improvements to assist with intersection crossings or parking reconfigurations. A possible cross section is shown, and should be interpreted as a conceptual drawing, rather than a formal design. Street widths change over the course of some projects, and further information is given in each project description.

The construction of recommended facilities will also require additional field work to verify conditions. These include but are not limited to: roadway width, travel lane width, actual motor vehicle speeds, motor vehicle volumes, bicycle and motor vehicle travel patterns and conflicts, and pavement conditions. Final bikeway treatments should be selected based on verified conditions.

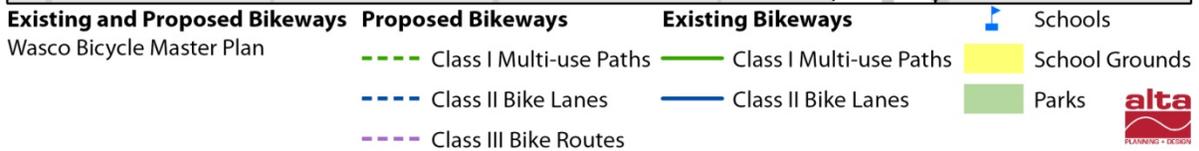
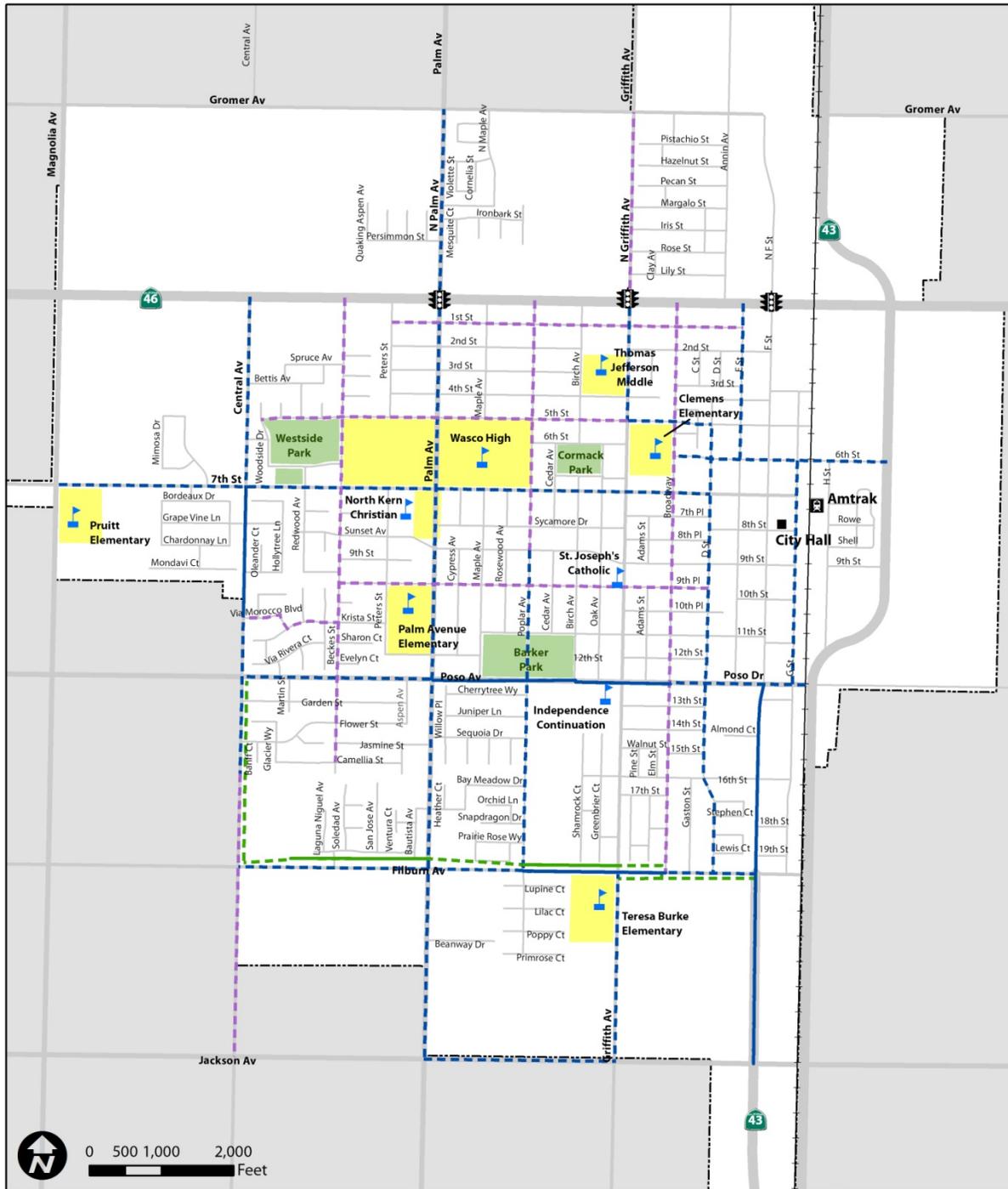


Figure 4-1: Existing and Proposed Bikeways Overview

4.4. Class I Multi-use Paths

4.4.1. Central Avenue Path from Poso Drive to Filburn Avenue

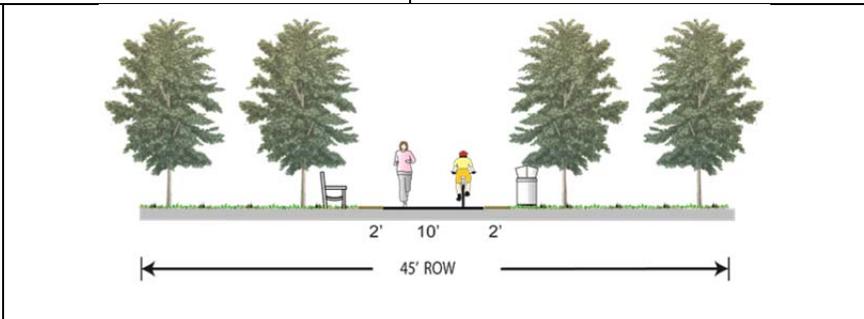
Class I Multi-use Path **0.51 Miles**

Estimated ADT:	N/A	Cost:	\$325,000
Collisions:	1 Pedestrian	Priority:	



In addition to a proposed Class II/III on-street bicycle facility along Central Avenue (see 0 below), this segment has sufficient right-of-way on the eastern side of Central Avenue to construct a concrete multi-use path, continuing the Class I path from Filburn Avenue.

Related improvements:
None



4.4.2. Filburn Avenue Path from Palm Avenue to Highway 43

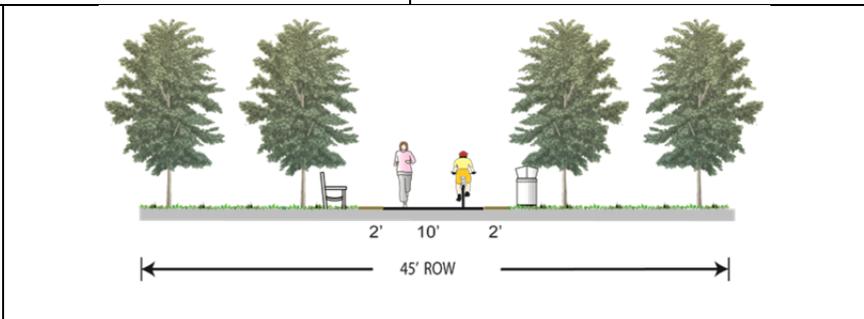
Class I Multi-use Path **0.65 Miles**

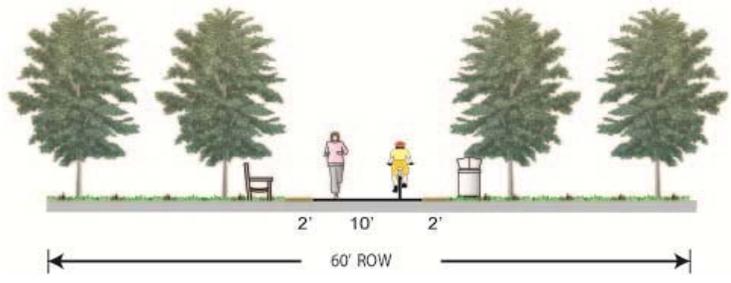
Estimated ADT:	3,600	Cost:	\$415,000
Collisions:	3 Pedestrian 1 Bicycle	Priority:	



Filburn Avenue has an existing multi-use path west of Palm Avenue and between Poplar Avenue and Griffith Avenue and this recommended path would provide a continuous concrete off-street path along the corridor. This path connects Teresa Burke Elementary School with neighborhoods along Filburn Avenue. With 45-60' between the housing developments and the sidewalk of Filburn Avenue, there is ample opportunity to fill gaps in the path. The path may also continue on the south side of Filburn east of Broadway.

Related improvements:
The proposed path crosses Filburn Avenue at Broadway. Install a high-visibility crosswalk, yield teeth, and trail crossing signage at this intersection, and consider additional crossing treatments. Include existing path repair.



4.4.3. Filburn Avenue Path from Central Avenue to 700' West of Beckes Street			
Class I Multi-use Path			0.14 Miles
Estimated ADT:	N/A	Cost:	\$91,000
Collisions:	1 Pedestrian	Priority:	
<p>This small proposed segment would close a gap in the Filburn Avenue Path between its current western terminus midway between Central Avenue and Beckes Street, creating a link to proposed bicycle facilities along Central Avenue. Currently, the land needed for this segment is occupied by a lone residence and a vacant lot. The space that would be used for a path is about 60 feet wide.</p>			
<p>Related improvements: None</p>			

4.5. Class II Bike Lanes

4.5.1. 6th Street from D Street to J Street

Class II Bike Lanes

0.56 Miles

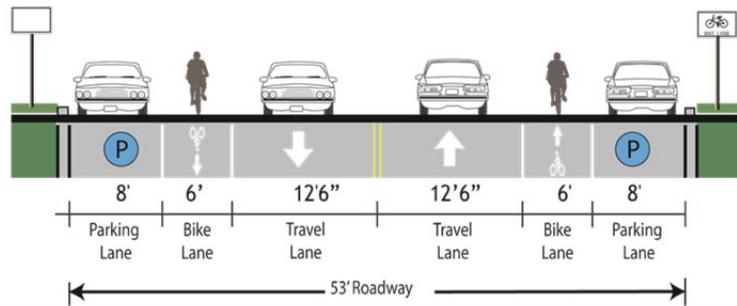
Estimated ADT:	1,600 – 3,200	Cost:	\$24,000
Collisions:	2 Pedestrian 3 Bicycle	Priority:	



The community identified 6th Street as a priority corridor during public outreach for this Plan. The street serves Karl Clemens elementary school, the north edge of downtown, and a worker center east of Highway 43. Community members cited high traffic speeds, suggesting that separated facilities may be appropriate. The street has a 53-foot cross-section.

Related improvements:

Visibility improvements at the corner of Highway 43 and 6th Street will improve safety for pedestrians and bicyclists.



4.5.2. 7th Street from Magnolia Avenue to D Street

Class II Bike Lanes

1.72 Miles

Estimated ADT:	3,500	Cost:	\$74,000
Collisions:	3 Pedestrian	Priority:	

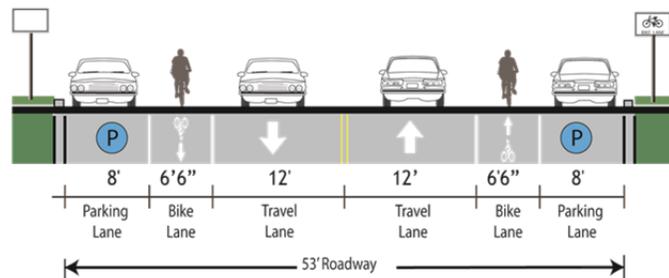


7th Street acts as a main street through the community, providing access to numerous destinations of all types. The street receives equal or priority right of way at nearly every intersection, yet traffic volumes and speeds remain moderate. East of D Street, median angled parking makes it more challenging to navigate.

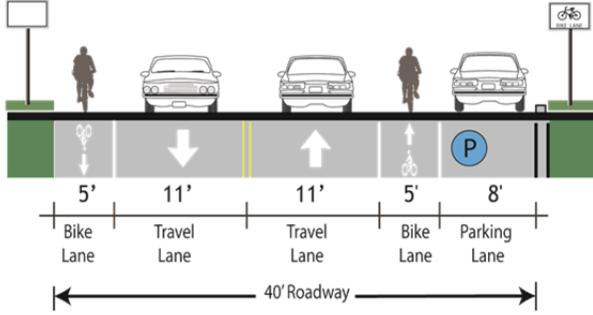
Related improvements:

Wayfinding signage that directs bicyclists up D Street to a continuing facility on 6th Street

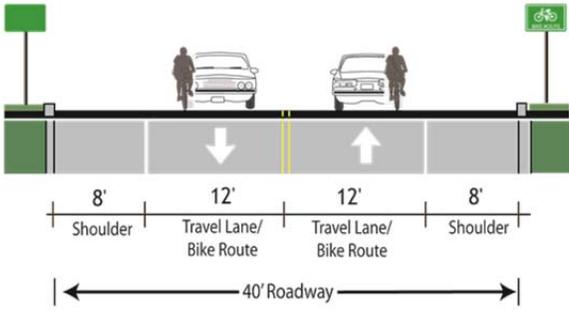
West of Beckes Street, space allows for streetscape improvements such as a landscaped median or other gateway treatment.



4.5.3. Central Avenue from Highway 46 to 7th Street

Class II Bike Lanes				0.50 Miles
Estimated ADT:	2,800 – 6,700	Cost:	\$21,000	
Collisions:	1 Pedestrian	Priority:		
<p>Central Avenue is the western spine of the City of Wasco, serves Westside Park and is on walking and bicycling routes to John Prueitt Elementary School. There is currently no on-street parking on the west side of the street.</p>				
<p>Related improvements: Retain the possibility of installing sidewalks on the west side of the street. These may be implemented concurrent with new development</p>	 <p style="text-align: center;">40' Roadway</p>			

4.5.4. Central Avenue from Via Morocco to City Limits

Class II Bike Lanes/Class III Bike Route				0.94 Miles
Estimated ADT:	3,600	Cost:	\$20,000	
Collisions:	1 Pedestrian	Priority:		
<p>Where the existing bicycle facilities terminate, Central Avenue still has sufficient right-of-way to accommodate bike lanes. Approximately 400' south of Flower Street, the roadway narrows and paved shoulders would be the most suitable bicycle facility. Over the long term, consider a Class I path that connects with the Filburn Avenue path.</p>				
<p>Related improvements: Concurrent with additional development along Central Avenue, install sidewalks and bike lanes</p>	 <p style="text-align: center;">40' Roadway</p>			

4.5.5. D Street from 5th Street to Filburn Avenue

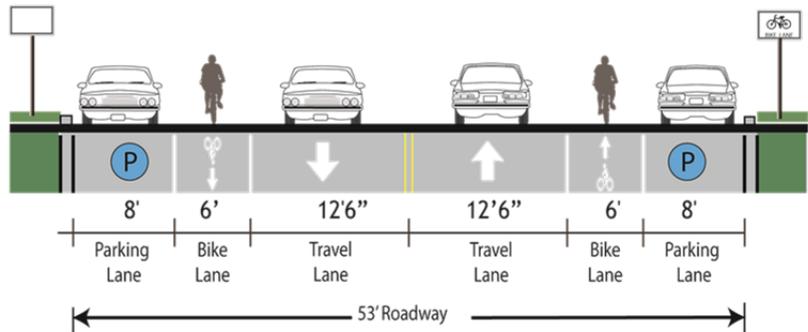
Class II Bike Lanes **1.19 Miles**

Estimated ADT:	N/A	Cost:	\$51,000
Collisions:	3 Pedestrian 1 Bicycle	Priority:	



D Street skirts the western edge of the downtown business district and provides access to many residences and businesses. Bicyclists need a continuous parallel route to Highway 43.

Related improvements:
 Replace angled parking with parallel parking between 6th Street and 8th Street. Parking occupancy in central Wasco is low except for the median parking on 7th Street, so the loss of parking should not result in adverse impacts.



4.5.6. E Street from Highway 46 to 6th Street

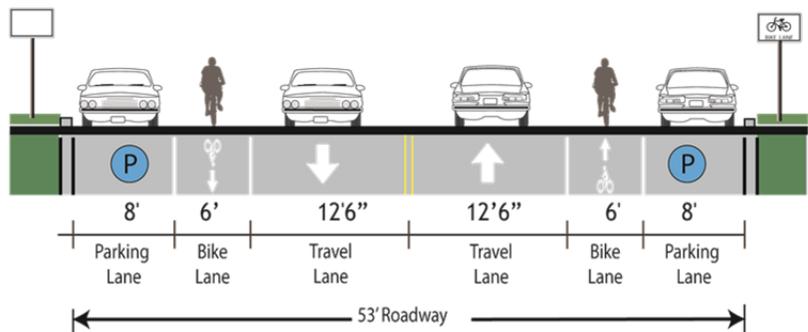
Class II Bike Lanes **0.41 Miles**

Estimated ADT:	1,100	Cost:	\$18,000
Collisions:	1 Bicycle	Priority:	



E Street provides a continuation of the D Street bikeway up to Highway 46 via 6th Street.

Related improvements:
 Replace angled parking with parallel parking between 6th Street and 8th Street. Parking occupancy in central Wasco is low except for the median parking on 7th Street, so the loss of parking should not result in adverse impacts.



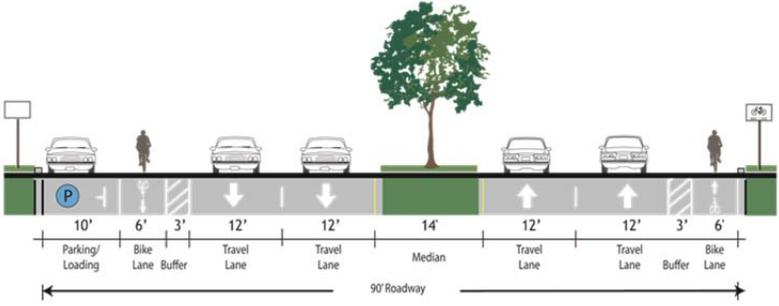
4.5.7. Filburn Avenue from Highway 43 to Central Avenue

Buffered Bike Lanes/Standard Class II Bike Lanes				0.99 Miles
Estimated ADT:	3,600	Cost:	\$42,000	
Collisions:	2 Pedestrian	Priority:		

Filburn Avenue provides access to Teresa Burke Elementary School and to residences. Its location in southern Wasco suggests that it may play an important role in future growth. There is an existing Class II bike lane on the north side from Poplar Avenue to Broadway. Filburn Avenue's lane configuration changes along its length. There is sufficient width between Central Avenue and Broadway to implement a buffered bike lane and only enough width from Broadway to Highway 43 to include standard bike lanes.

Related improvements:

Possible conflicts between school loading zones and the bike lane. Because school loading traffic occurs for very brief periods of the day, and the peak period for bicyclists does not coincide with school dismissal time, this concern should not prevent the installation of bike lanes.



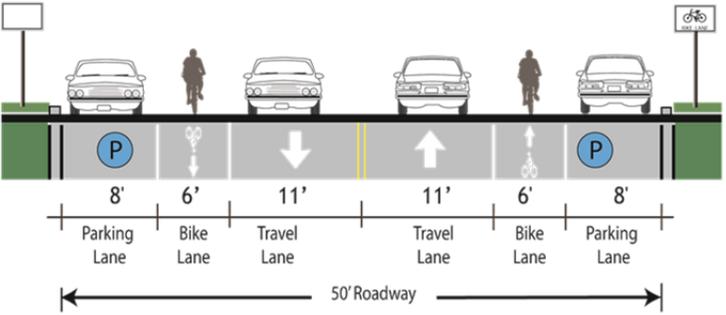
4.5.8. Griffith Avenue from Filburn Avenue to Jackson Avenue

Class II Bike Lanes				0.50 Miles
Estimated ADT:	N/A	Cost:	\$21,000	
Collisions:	None	Priority:		

Between Filburn Avenue and the southern edge of Teresa Burke Elementary School, Griffith Avenue has a curb-to-curb width of 50 feet, with a sidewalk only on the western side. South of the school property, the paved portion of Griffith Avenue narrows considerably, but the right-of-way appears to remain at 50 feet in width. As these roads are widened to accommodate future development, bike lanes can easily be striped in each direction.

Related improvements:

To discourage unsafe driver behavior, strip a double yellow line from Filburn Street to the school entrance and loading loop. In addition, post signage prohibiting U-turns.



4.5.9. Griffith Avenue from Gromer Avenue to 5th Street

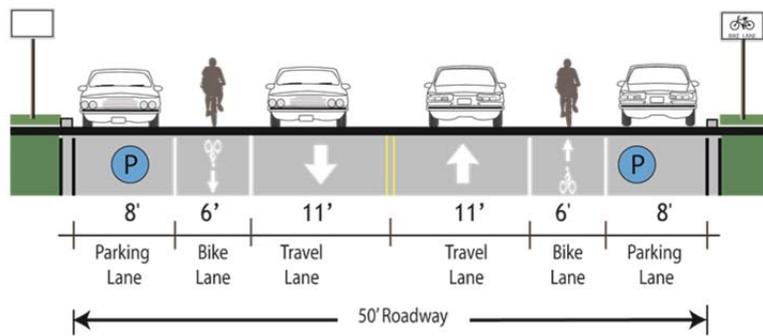
Class II Bike Lanes/Class III Bike Route **0.81 Miles**

Estimated ADT:	3,700 – 4,300	Cost:	\$15,000
Collisions:	1 Pedestrian 1 Bicycle	Priority:	



Griffith Avenue connects to Thomas Jefferson Middle School and provides a key opportunity for bicyclists to cross Highway 46 at a signalized intersection. Its width between Highway 46 and 5th Street allows for bike lanes under the present configuration. North of Highway 46, Class III bike routes are recommended in the short term as a travel lane would need to be removed.

Related improvements:
Pedestrian improvements including a crosswalk at the intersection of Highway 46 and Griffith Avenue.



4.5.10. Gromer Avenue from Palm Avenue to Griffith Avenue

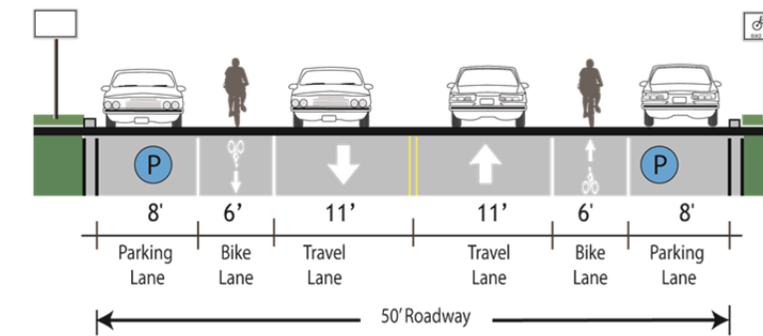
Class II Bike Lanes **0.50 Miles**

Estimated ADT:	N/A	Cost:	\$21,000
Collisions:	None	Priority:	



A Class II bike lane on Gromer Avenue will connect proposed bicycle facilities on Palm Avenue and Griffith Avenue, serving the existing residential neighborhood south of Gromer Avenue as well as future development on surrounding plots. Gromer Avenue's right-of-way is 50 feet wide.

Related improvements:
None



4.5.11. Highway 46 from Magnolia Avenue to Highway 43

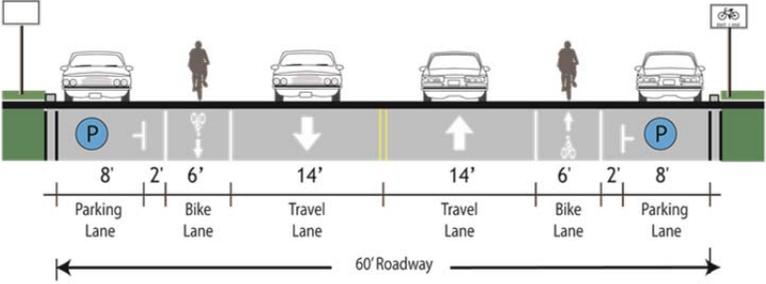
Class II Bike Lanes			2.19 Miles
Estimated ADT:	N/A	Cost:	\$93,000
Collisions:	2 Pedestrian	Priority:	

Highway 46 is a major route through the City, carrying high volumes of heavy trucks on a wide road with the right-of-way ranging from 60 to 74 feet. There is one lane in each direction, along with a center left turn lane. The speed limit is 45 mph. East of F Street, Highway 46 narrows to 36 feet, containing one lane in each direction with shoulders.

1. Related improvements:

Work with Caltrans to designate a pedestrian crossing across Highway 46 on the west side of Griffith Avenue to connect neighborhoods north of the highway to Thomas Jefferson Middle School.





4.5.12. Jackson Avenue from Palm Avenue to Griffith Avenue

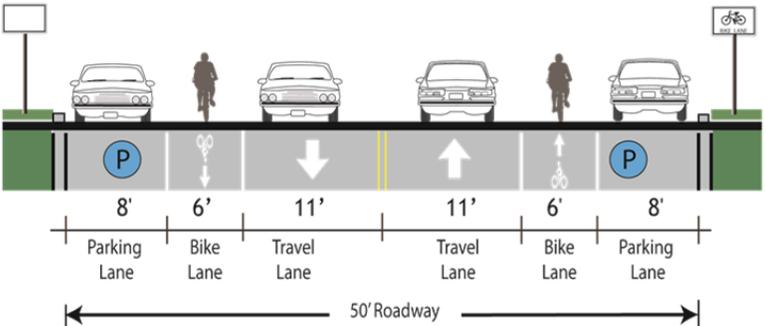
Class II Bike Lanes			0.50 Miles
Estimated ADT:	N/A	Cost:	\$21,000
Collisions:	None	Priority:	

Jackson Avenue is a two-lane rural road currently, with agricultural land on both sides. With future development, however, Jackson Avenue would serve as a critical bikeway link between proposed bike lanes on both Palm Avenue and Griffith Avenue. The right-of-way, including unpaved shoulders, is 50 feet wide.

Related improvements:

None





4.5.13. Palm Avenue from Filburn Avenue to Jackson Avenue

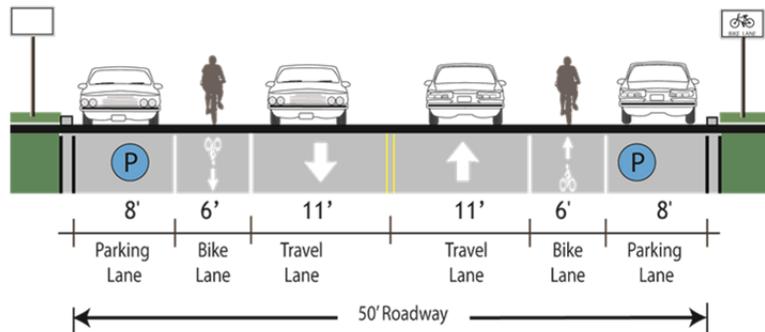
Class II Bike Lanes **0.50 Miles**

Estimated ADT:	N/A	Cost:	\$21,000
Collisions:	2. None	3. Priority:	



Also a small two-lane road currently, Palm Avenue’s right-of-way in this southern portion of the City is a wide 50 feet. Thus, Class II bike lanes are feasible and would create another connection for future residential neighborhoods.

Related improvements:
None



4.5.14. Palm Avenue from Gromer Street to Filburn Avenue

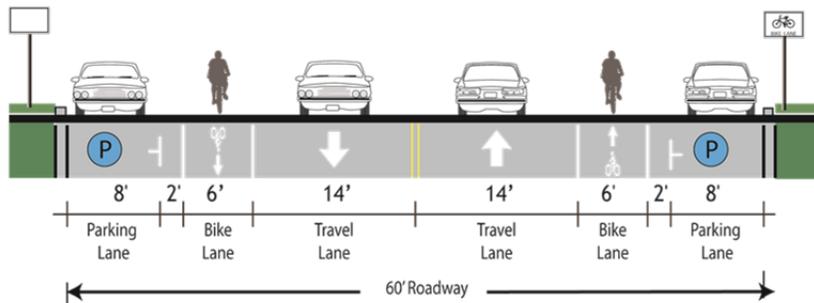
Class II Bike Lanes **2.00 Miles**

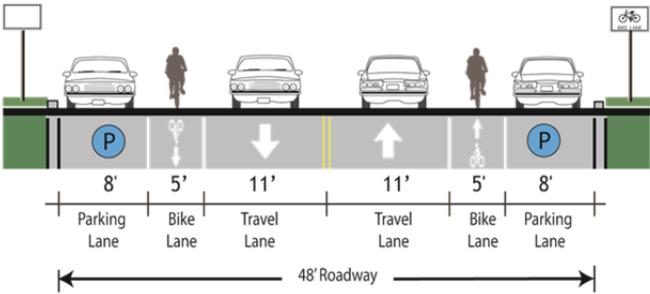
Estimated ADT:	4,700	Cost:	\$86,000
Collisions:	1 Pedestrian 2 Bicycle	Priority:	

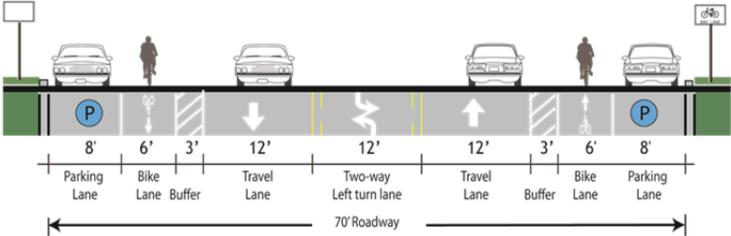


Palm Avenue is a collector street that runs continuously through central Wasco. It provides access to Wasco High School and Palm Avenue Elementary and provides a signalized crossing of Highway 46. It is a wide street, typically measuring 60 feet from curb to curb.

Related improvements:
To continue the bike lane through State Highway 46, this Plan recommends consolidating the three northbound lanes into a through-left lane and a right-turn lane, with the bicycle lane striped between the lanes.



4.5.15. Poplar Avenue from Sunset Avenue to Filburn Avenue			
Class II Bike Lanes			0.84 Miles
Estimated ADT:	7,600	Cost:	\$36,000
Collisions:	2 Bicycle	Priority:	
<p>Poplar Avenue provides a continuous route for bicyclists through the center of Wasco. It connects residential developments at the south of town with parks and schools further north. South of Sunset Avenue, the street provides sufficient width for Class II bikeways.</p>			
Related improvements: None			

4.5.16. Poso Drive from Central Avenue to G Street			
Class II Bike Lanes			0.86 Miles
Estimated ADT:	6,600	Cost:	\$37,000
Collisions:	1 Pedestrian 8 Bicycle	Priority:	
<p>Poso Avenue currently has Class II bike lanes on both sides of the street between Palm Avenue and Broadway and provides access to Barker Park, several residential areas, and senior housing adjacent to Highway 43. It also provides a four-way stop for crossing Highway 43. Poso Avenue has a speed limit of 35 MPH, curb-to-curb width of 70 feet, and has one lane in each direction and a two-way left turn lane. West of Palm Avenue, the roadway narrows, but the two-way left turn lane does not continue. These dimensions provide sufficient room for buffered bike lanes and additional separation from motor vehicle traffic.</p>			
Related improvements: None			

4.6. Class III Bike Routes

4.6.1. 1st Street from Peters Street to E Street

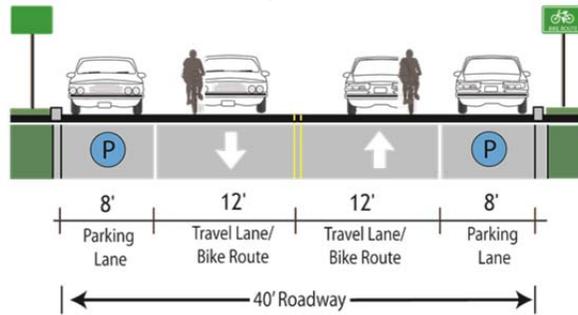
Class III Bike Route **0.92 Miles**

Estimated ADT:	N/A	Cost:	\$7,400
Collisions:	3 Pedestrian 1 Bicycle	Priority:	



1st Street provides a parallel alternative to Highway 46. It is a relatively narrow street, ranging in width from 36 to 40 feet, with parallel parking on both sides.

Related improvements:
Traffic calming may be necessary to assure that 1st Street's advantages as a bike route do not attract undesirable amounts of motorized traffic.



4.6.2. 5th Street from Woodside Drive to Griffith Avenue

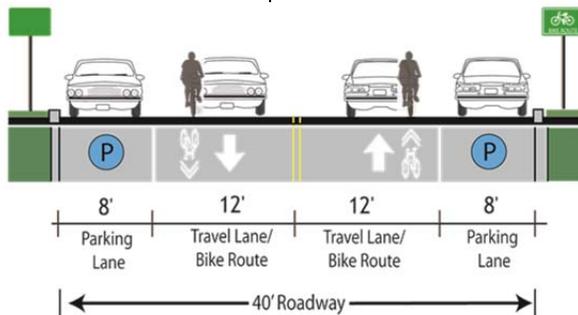
Class III Bike Route/Class II Bike Lanes **0.97 Miles**

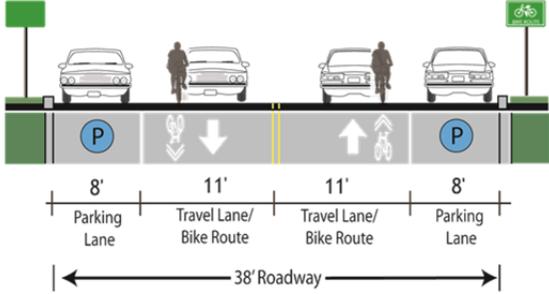
Estimated ADT:	900 – 3,900	Cost:	\$7,700
Collisions:	3 Pedestrian 2 Bicycle	Priority:	

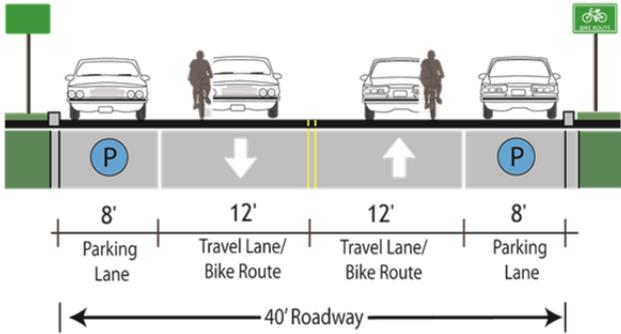


5th Street is a continuous street that serves many important destinations within Wasco, including Westside Park, Wasco High School, and Clemens Elementary. It provides a good alternative to 7th Street which generally experiences higher traffic volumes. 5th Street also connects proposed facilities on Griffith Avenue and D Street, allowing for a controlled crossing of Highway 46.

Related improvements:
Consider passenger loading and unloading activities north of Clemens Elementary School. See Chapter 5 for school site improvements.



4.6.3. 9th Place from Beckes Street to D Street			
Class III Bike Route			0.97 Miles
Estimated ADT:	1,400 – 6,700	Cost:	\$7,800
Collisions:	3 Pedestrian 1 Bicycle	Priority:	
<p>9th Place provides a low-traffic route through the center of Wasco and parents identified it as a key walking and bicycling route to school. Signage, shared lane markings, and crossing treatments would enhance the route’s safety.</p>			
<p>Related improvements:</p> <p>Sightline improvements at the intersection of 9th Place and Griffith Avenue will enhance safety for crossing pedestrians and bicyclists. Sidewalk gaps should also be closed.</p>			

4.6.4. Beckes Street from Highway 46 to Camellia Street			
Class III Bike Route			1.22 Miles
Estimated ADT:	2,300	Cost:	\$9,800
Collisions:	1 Pedestrian	Priority:	
<p>Beckes Street provides access to residential neighborhoods, Westside Park, Wasco High School, and businesses along Highway 46. As a continuous facility parallel to Palm Avenue and Central Avenue, Beckes Street meets many of the ideal criteria for a bike route, including controlled crossings of Poso Avenue and 7th Street.</p>			
<p>Related improvements:</p> <p>Consider a wayfinding program that directs bicyclists to Palm Avenue to provide a signalized crossing of Highway 46.</p>			

4.6.5. Broadway from Highway 46 to Filburn Avenue

Class III Bike Route **1.50 Miles**

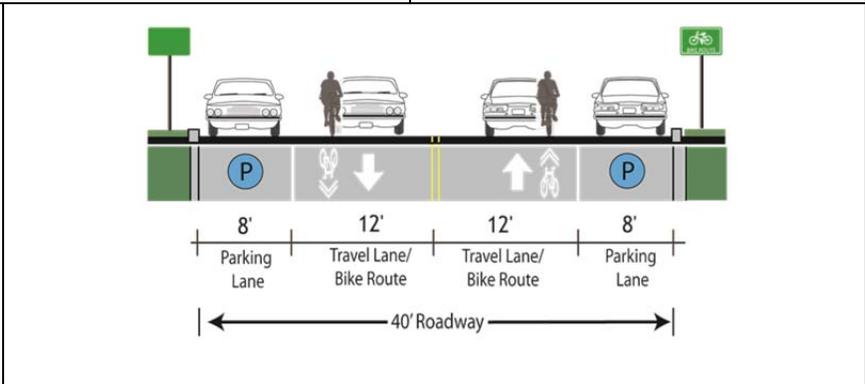
Estimated ADT:	1,600 – 7,000	Cost:	\$12,000
Collisions:	5 Pedestrian 3 Bicycle	Priority:	



Broadway meets many of the qualifications for an effective bike route: It is relatively narrow, low-traffic, and continuous. Broadway provides access to Karl Clemens Elementary and nearby moderate-density residential areas, and crosses 5th Street and 7th Street at all-way stops. Bike route signage is recommended, with shared lane markings stenciled at locations north of Poso Avenue where the roadway is only 40 feet wide.

Related improvements:
 Visibility improvements at the intersection of Broadway and Poso Avenue. A high-visibility crosswalk would allow bicyclists to walk their bicycles if more comfortable.

 Traffic volumes are highest at 7th Street. Study removal of on-street parking to accommodate bike lanes.



4.6.6. Krista – Via Morocco Bike Route

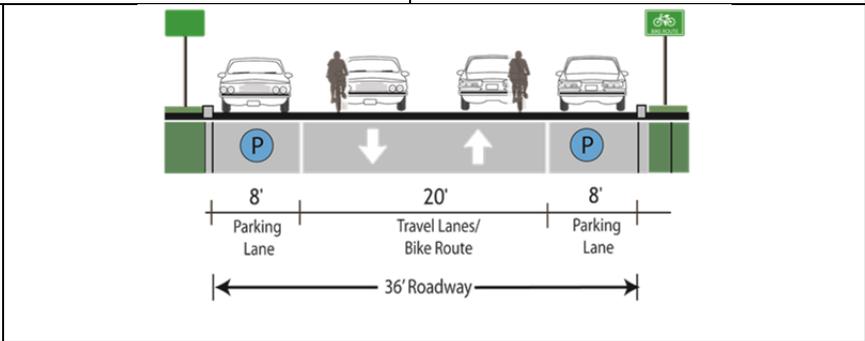
Class III Bike Route **0.28 Miles**

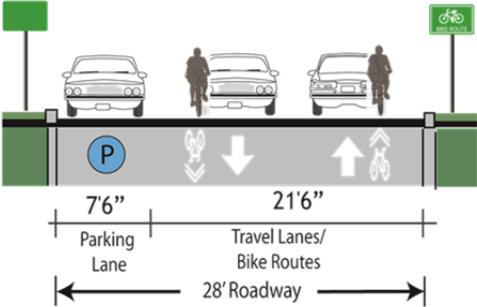
Estimated ADT	N/A	Cost:	\$2,200
Collisions:	3 Pedestrian 1 Bicycle	Priority:	



A Class III bike route on Krista Street and Via Morocco Boulevard continues the proposed facility on 9th Place to the west to meet the bike lane on Central Avenue. This facility would serve existing residents and forthcoming residential development and could be implemented concurrently

Related improvements:
 None



4.6.7. Poplar Avenue from Highway 46 to Sunset Avenue			
Class III Bike Route			0.66 Miles
Estimated ADT:	6,300	Cost:	\$5,300
Collisions:	2 Pedestrian	Priority:	
<p>Class III bike facilities extend the Poplar Avenue bike lanes through a relatively narrow stretch of roadway between Highway 46 and Sunset Avenue.</p>			
<p>Related improvements: None</p>	 <p style="text-align: center;"> 7'6" 21'6" </p> <p style="text-align: center;"> Parking Lane Travel Lanes/ Bike Routes </p> <p style="text-align: center;"> ← 28' Roadway → </p>		

4.7. Transit Station Improvements

Many transit users begin and end their trip on foot or by bike, therefore pedestrian and bicycle access is a critical component of a successful transit system. The Amtrak Station on G Street is the major transit hub in Wasco.

There are currently standard textured crosswalks on all three legs of the intersection with 7th Street outside of the station. The two crosswalks on G Street have pedestrian crossing signage with push buttons to activate in-pavement flashing lights. The northwest and southwest corners of the intersection have pedestrian-scale lighting, curb ramps and bollards. There is no bicycle parking provided at the station.

Recommendations for the transit station area are displayed in Figure 4-2. These include:

- Additional pedestrian-scale lighting immediately outside of the transit station along the east side of G Street
- Stop bar and stencil on 7th Street
- Yield lines on the north and south approaches from G Street
- Short term bicycle parking with 4 u-racks at the front of the station accommodating 8 parked bicycles
- Long term bicycle parking with 3 double loading electronic lockers to accommodate 6 park bicycles



Figure 4-2: Amtrak Station Access Pedestrian and Bicycle Improvements

4.8. Bicycle Wayfinding Signage

Placing signs along the bikeway network indicating to bicyclists their direction of travel, location of destinations, and the riding time/distance to those destinations will increase users' comfort and accessibility to the bicycle system. Wayfinding signage also visually cue motorists that they are driving along a bicycle route and should use caution.

The City should consider the installation of destination signs on all bikeways. Destination signs may display directional or mileage information.



Example CA MUTCD destination sign

4.9. Pedestrian Wayfinding Signage

Pedestrian wayfinding signage and maps enable people to navigate along pedestrian networks and can enhance the walking experience to help make trips safe and easy. Most cities lack sufficient signage and map information for pedestrians. Pedestrian-oriented signage can help conceptualize a space, area or city as a whole. Maps and signage can help orient both residents and visitors and enable them to calculate the time to reach a destination.

The City should consider pedestrian wayfinding signage providing information on direct and safe routes between key origins and destinations, where it is possible to cross streets, access buildings, connect to public transit and find community facilities such as public restrooms. The City should also consider installing walking maps at the Amtrak Station and other high-volume pedestrian locations.

4.10. Bicycle Parking and End-of-Trip Facilities

Bicycle parking can range from a simple bicycle rack to storage in a bicycle locker or cage that protects against weather, vandalism and theft. As discussed earlier, bicycle racks were found to be at schools and at the Kern County Library and at Carl's Jr. Most school bike racks were “wheelbender” style bike racks that use the wheel to support the frame, a model that is no longer recommended by the Association of Pedestrian and Bicycle Professionals.⁵

Wasco bicyclists visiting downtown and schools do not have available bicycle parking and instead many lock their bikes to street fixtures such as parking meters, trees, telephone poles, and sign poles. Use of these street fixtures is problematic for a variety of reasons including pedestrian accessibility and stability of the locked bicycle.

4.1.1. Recommended Types of Bicycle Parking

Bicycle racks are the preferred device for short-term bike parking (less than two-hours). These racks serve people who leave their bicycles for relatively short periods of time, typically for shopping or errands, eating or recreation. Bicycle racks provide a high level of convenience and moderate level of security.

This Plan recommends the City and private developers only install bicycle parking that meets the following criteria. Short-term parking should support the bicycle at two points and have a design that is intuitive to use. A “U-rack” is an example of a standard and accepted bicycle rack and is the recommended standard for the City of Wasco, while “wave racks” and “wheelbender” racks are not acceptable because they do not provide two points of contact, among other issues. Acceptable types of bicycle racks are shown in Figure 4-3.

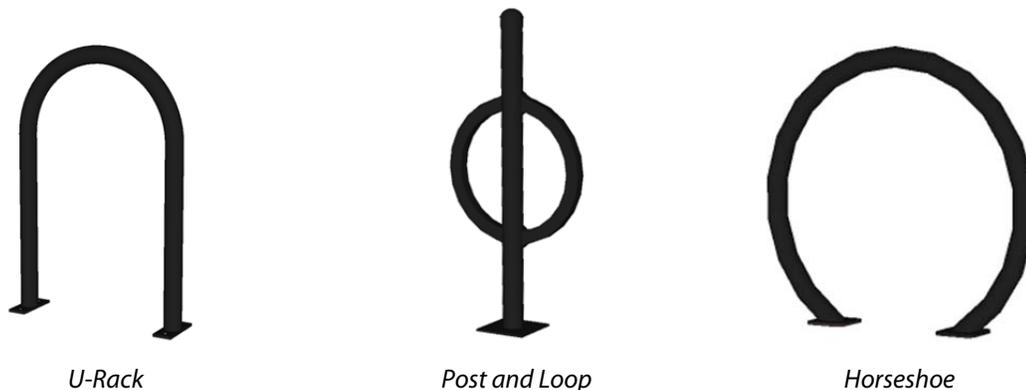


Figure 4-3: Recommended Types of Short-Term Bicycle Parking

Long-term bike parking includes bike lockers and bike stations and serve people who intend to leave their bicycles for longer periods of time and are typically found at transit stations, multifamily residential buildings and commercial buildings. These facilities provide a high level of security but are less convenient than bicycle racks.

⁵ See the APBP Bike Parking Guide.

4.1.2. Citywide Bicycle Parking Recommendations

This Plan recommends bicycle parking be installed at the following locations:

- Downtown (2 bicycle racks per block face)
- City schools (upgrade existing bicycle racks to “U-racks”)

Additionally, this Plan recommends the City adopt the following bicycle parking requirements for new development:

Type of Activity	Long-term Bicycle Parking Requirement	Short-term Bicycle Parking Requirement
Residential		
Multifamily Dwelling – without private garage for each unit	0.5 spaces for each bedroom. Minimum is 2 spaces.	0.05 spaces for each bedroom. Minimum is 2 spaces.
Civic: Cultural/Recreational		
Non-assembly cultural (library, government buildings, etc.)	1 space for each 10 employees. Minimum is 2 spaces.	1 space for each 10,000 s.f. of floor area. Minimum is 2 spaces.
Assembly (church, theatres, stadiums, parks, beaches, etc.)	1 space for each 20 employees. Minimum is 2 spaces.	Spaces for 2% of maximum expected daily attendance.
Education		
Public, parochial, and private day-care centers for 15 or more children	1 space for each 20 employees. Minimum is 2 spaces.	1 space for each 20 students of planned capacity. Minimum is 2 spaces.
Public, parochial, and private nursery school, kindergartens, and elementary schools (1-3)	1 space for each 10 employees. Minimum is 2 spaces.	1 space for each 20 students of planned capacity. Minimum is 2 spaces.
Public, parochial, and elementary (4-6), junior high, and high schools	1 space for each 10 employees plus 1 space for each 20 students of planned capacity. Minimum is 2 spaces.	1 space for each 20 students of planned capacity. Minimum is 2 spaces.
Commercial		
General food sales or groceries	1 space for each 12,000 s.f. of floor area. Minimum is 2 spaces.	1 space for each 2,000 s.f. of floor area. Minimum is 2 spaces.
General retail	1 space for each 12,000 s.f. of floor area. Minimum is 2 spaces.	1 space for each 5,000 s.f. of floor area. Minimum is 2 spaces.
Office	1 space for each 10,000 s.f. of floor area. Minimum is 2 spaces.	1 space for each 20,000 s.f. of floor area. Minimum is 2 spaces.

4.1.3. End-of-Trip Facilities

End-of-trip facilities also complement the bicycle network and encourage people to bicycle. Showers and changing facilities accommodate bicyclists who need to freshen up after their trip. Because of the small town nature of the City of Wasco and because end-of-trip facilities were not a community-identified need, this Plan does not recommend specific facilities for changing and storing clothing and equipment but instead recommends consideration be made as the need is identified by the community in the future.

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5. Program Improvements

Of the Five Es of bicycle, pedestrian and Safe Routes to School planning, four are related to programs: encouragement, education, enforcement and evaluation. Programs will complement engineering improvements such as bike paths, lanes and routes by giving Wasco students and adults the tools they need to safely and confidently travel by walking and bicycling.

The following section presents recommended programs to support the vision and goals of this Plan. The recommendations include continuation of those the City currently administers and those identified by the community, as well additional programs that have proven to be popular and effective in other California cities.

5.1. Education

Education programs are important for teaching safety rules and laws as well as increasing awareness regarding walking and bicycling opportunities and existing facilities. Education programs may need to be designed to reach groups at varying levels of knowledge and there may be many different audiences: pre-school age children, elementary school students, teenage and college students, workers and commuters, families, retirees, the elderly, new immigrants, and non-English speakers. Education plays a key role for all these groups in reducing risk and the number of crashes.

5.1.1. Traffic Safety Campaign

On a citywide scale, the City could start a StreetSmarts media campaign, similar to those in San Jose, Marin County, Davis, and other California cities. Developed by the City of San Jose, StreetSmarts uses print media, radio spots and television spots to educate people about safe driving, bicycling, skateboarding, and walking behavior. More information about StreetSmarts can be found at www.getstreetsmarts.org.

Local resources for conducting a StreetsSmarts campaign can be maximized by assembling a group of local experts, law enforcement officers, businesspeople, civic leaders, and dedicated community volunteers. These allies could assist with a successful safety campaign goals based on the local concerns and issues. It may be necessary to develop creative strategies for successful media placement in order to achieve campaign goals.

The Federal Highway Administration provides a resource on their website detailing the elements required to conduct a successful local safety campaign. (http://safety.fhwa.dot.gov/local_rural/pedcampaign/guide.htm#2).

This Plan recommends the City consider implementation of a traffic safety program such as StreetsSmarts.

5.1.2. Student Bicycle and Pedestrian Traffic Safety Education Classes

Student education programs are an essential component of a Safe Routes to School effort. Students are taught traffic safety skills that help students understand basic traffic laws and safety rules. Such education programs can occur inside the classroom with outside experts or in a school assembly. Potential pedestrian education curriculum elements include traffic sign identification and how to use a crosswalk.

Typical school-based bicycle education programs educate students about the rules of the road, proper use of bicycle equipment, biking skills, street crossing skills, and the benefits of biking. Education programs can be part of a Safe Routes to School program. These types of education programs are usually sponsored by a joint City/School District committee that includes appointed parents, teachers, student representatives, administrators, police, active bicyclists and engineering department staff.



Youth bicycle safety education provides children with knowledge and training about safe and proper bicycle use.

This Plan recommends the City pursue a Safe Routes to School Program that includes annual youth pedestrian and bicycle safety education classes. The City should consider the need for multi-lingual instruction.

Sample programs:

- National Highway Traffic Safety Administration
<http://www.nhtsa.gov/ChildPedestrianSafetyCurriculum>
- League of American Bicyclists:
<http://www.bikeleague.org/content/ride-smart-0>
- Bicycle Transportation Alliance – Portland, OR:
<http://www.bta4bikes.org/resources/educational.php>

5.1.3. Bike Rodeos

The City has recently developed a new Bike Rodeo curriculum that will provide age-appropriate materials about bicycling safely to children enrolled in district schools. Bike rodeos often include a bicycle safety check, helmet giveaway and fit check, and hands-on instruction for pulling out of driveways, bicycling in traffic, safe turning, and identifying and managing hazardous situations. The first rodeo utilizing the new curriculum was held on June 18, 2013.

This Plan recommends implementing this updated curriculum on an annual basis.

5.1.4. Share the Road Outreach

Share the Road outreach is a way for the City to actively disseminate the rules of the road in person to residents. One way to conduct outreach is for the City conduct “checkpoints.” Working with volunteers from a local advocacy group and the police department, officers could stop motorists and bicyclists to offer a brochure on the rules of the road as they pertain to motorists and bicyclists. An example of the Marin County Bicycle Coalition’s Share the Road Checkpoints can be found at the link below.

<http://www.marinbike.org/Campaigns/ShareTheRoad/Index.shtml>

The City may also consider tabling at community events such as the Festival of Roses to conduct Share the Road outreach. Much like the checkpoints, the City could distribute Share the Road brochures and present illustrations of common misconceptions motorists and bicyclists have of one another.

5.1.5. Diversion Class

Diversion classes are classes offered to first-time offenders of certain traffic violations, such as running a stoplight. The classes can be aimed at pedestrians, bicyclists, and/or motorists. In lieu of a citation and/or fine, individuals can take a one-time, free or inexpensive class. For example, in Marin County (www.marinbike.org/Campaigns/ShareTheRoad/Index.shtml#StreetSkills), interested citizens can take the class even if they did not receive a ticket.

This program is a good way to educate road users about rights and responsibilities, and can also increase public acceptance of enforcement actions against pedestrians.

This Plan recommends the City consider offering diversion classes for first-time offenders of minor traffic violations.

5.1.6. Home Mailings

Travel behaviors are established in the first couple of weeks of school travel. This period thus provides opportunities to reach out to parents to suggest safe walking and bicycling routes, remind them of appropriate pick-up and drop-off procedures, and provide resources to coordinate for walking and carpooling to school.

5.2. Encouragement

5.2.1. Walking School Bus

Walking school buses and bike trains are organized groups of children walking or biking to school with an adult. They address parental concerns about children walking or biking to school alone. In addition, shifting parents away from driving to school may reduce congestion, improve air quality, and encourage active communities.

The relatively high attendance at the school walk audits suggests that there may be many parents interested in helping to facilitate walking school buses, both coordinating with other parents to establish walking routes and leading groups of students one or more days per week. Walking school buses were especially popular among parents at Teresa Burke, John Prueitt, and Karl Clemens elementary schools.

This Plan recommends the City support the development of walking school buses.

http://guide.saferoutesinfo.org/walking_school_bus/index.cfm

5.2.2. Monthly Walk and Bike to School Days

Walk and Bike to School Day is a special event encouraging students to try walking or bicycle to school. Walk and Bike to School Day can be held yearly, monthly, or even weekly— depending on the level of support and participation from students, parents, and school and local officials. Some schools organize more frequent days – such as Walk and Roll Fridays – to give people an opportunity to enjoy the event on a regular basis. Parents and other volunteers accompany the students and staging areas can be designated along the route to school where groups can gather and walk or bike together. These events can be promoted through press releases, articles in school newsletters, and posters and flyers for students to take home and circulate around the community.

This Plan recommends the City support the development of monthly walk and bike to school days.

5.3. Enforcement

5.3.1. Crossing Guard Program

Crossing guards serve a critical function to ensure safe school crossings, and they act as ad-hoc traffic controllers. The school district currently employs several crossing guards and they have proven to be essential for pedestrian safety and orderly traffic operations and extremely popular among parents.

This Plan recommends the school district ensure that a crossing guard program is provided for every future school year. To support the program, additional training should be available to ensure that crossing guards are well-equipped to deal with challenging traffic situations in the city. Audit attendees were especially enthusiastic about crossing guard training at Teresa Burke Elementary School. Additional crossing guards may be beneficial for some locations in Wasco.

5.3.2. Parent and Student Valet

School loading areas often become congested and disorderly without supervision. At the same time, expecting teachers or school staff to manage all the loading zones of a school can be infeasible. Training parent and student volunteers to manage traffic and assist in loading can significantly improve safety and the traffic flow around schools.

Under a valet program, parents and students are trained in how to keep traffic moving in a loading zone, how to properly assist students in and out of vehicles, and how to properly discourage unsafe or undesirable habits in the loading zone. Volunteers are often outfitted with florescent vests to increase their visibility and denote their role as a school representative.

While valet duties are not suitable for young children, students in the 4th grade and above can act effectively as valets when under adult supervision. Such programs also provide responsibilities and valuable character-building opportunities for students.

This Plan recommends the school district consider a parent and student valet program.

5.3.3. Animal Control Program

This Plan recommends the school district should continue its relationship with animal control and work with community members to encourage neighbors to secure their dogs, especially when children are present. This issue was particularly important for Karl Clemens Elementary School and Thomas Jefferson Middle School.

5.3.4. Targeted Enforcement

Targeted enforcement is focused efforts of police officers. For example, the Police Department conducts pedestrian stings at locations where pedestrians and motorists conflict and do not comply with traffic signals. Similar strategies may be applied to areas with bicycle traffic, however the Police Department has not implemented such strategies.

This Plan recommends the City coordinate with the Police Department to conduct targeted enforcement stings at locations known for noncompliance with traffic laws and at high conflict or high bicycle-related collision areas.

5.4. Evaluation

5.4.1. Student Hand Tallies and Parent Surveys

Student hand tallies and parent surveys were conducted as part of the School Traffic Safety Study and Bicycle Master Plan. While distributing and collecting parent surveys is very time- and labor-intensive, hand tally data are relatively easy to collect and can be analyzed quickly. The National Center for Safe Routes to School provides Student Hand Tally and Parent Survey forms and will enter the data from those forms. This can be a cost effective way to understand how families get to and from school and the reasons for their mode choice.

This Plan recommends the City and School District conduct student hand tallies and parent surveys every other year.

<http://www.saferoutesinfo.org/data-central/data-collection-forms>

5.4.2. Counts Program

As a part of this Plan, peak hour hand counts of pedestrians, bicycles, and automobiles were performed at 32 intersections, with 24-hour ADT counts performed at 7 additional locations in the city. These counts have provided a baseline for pedestrian and bicycling activity. Establishing a system for annual counts would ensure that the effectiveness of Safe Routes to School improvements could be monitored. The National Bicycle and Pedestrian Documentation Project provides resources for counting and tabulating in a consistent, informative manner.

This Plan recommends the City conduct bicycle and pedestrian counts on a regular basis.

<http://bikepeddocumentation.org/>

6. Implementation

6.1. Prioritization of Improvements

Every recommendation in this Plan will improve walking and bicycling conditions in Wasco. However, because funding and other constraints for the implementation of pedestrian and bicycle improvements may be unknown or limited, this section prioritizes recommendations so that the most effective improvements will be implemented first.

6.1.1. Prioritization Criteria

Projects were evaluated based on their effectiveness at achieving the goals of the Plan. Safety, connectivity, and importance to the community are all represented in the criteria listed below. The maximum possible score is 8 points. Because of their differing circumstances, bikeway and Safe Routes to School projects are evaluated separately.

Table 6-1: Prioritization Criteria

Criteria	Description	Points Possible
Located in School Zone	A "School Zone" is defined as the area within 500 feet of the grounds of a school. Improvements to traffic safety near schools are a critical focus of this Plan, and therefore, projects located within a school zone receive one point.	1
Community Outreach	This criterion emphasizes those recommendations directly from the community outreach process that included five walk audits and a community meeting in January 2013. Community members provided project recommendations and were asked to identify their highest priorities of the projects discussed. Consensus community priorities receive two points and other community-identified improvements receive one point.	2
Located on Walking Route to School	During the series of walk audits held at each school, the community suggested walking and bicycling routes to schools. Improvements along these routes will be especially important because of their location on streets where students are encouraged to walk and bike. Projects located on suggested walking and bicycling routes receive one point.	1
Land Use (Commercial Zone)	Schools are a major destination for both children and adults, but are otherwise well-represented in the prioritization criteria. The city's commercial areas provide employment, shopping, and community gathering spaces. This criterion assigns one point to recommendations that serve areas with commercial zoning classifications.	1
Barrier Crossing	While many streets within Wasco have low traffic speeds and volumes and are therefore comfortable for pedestrians and bicyclists, other streets pose barriers. Providing infrastructure that allows pedestrians and bicyclists of all ages and ability levels to cross barriers is a priority of this planning effort. Projects that improve barrier crossing receive one point.	1
Collision Score	Pedestrian and bicycle-related collisions between 2006 and 2010 that occurred within 300 feet of each recommended bicycle facility are tabulated to represent an estimate of the range of influence of one intersection's walking and bicycling conditions. For corridors, the number of collisions is divided by the length of the facility. Three clusters of projects emerged through this analysis: projects with little or no collision history, projects with occasional collisions, and projects located in areas with the highest frequency of pedestrian and bicycle collisions in the city. Projects receive between zero and two points for this criterion.	2
Total points possible		8

Projects were then placed into three phasing groups: Tier 1, Tier 2, and Tier 3.

- 4-8 points: Tier 1 projects have the highest potential for addressing the City's goals for bicycle transportation and are intended for near-term project implementation within one to five years.
- 3 points: Tier 2 projects are intended for development within 6 to 10 years.
- 1-2 points: Tier 3 projects are not currently ready for implementation but are included as long-term potential bicycle-specific projects over the next 11 to 20 years.

6.1.2. Project List

Table 6-2 lists bikeway projects in order from highest scoring projects to lowest, organized into the three phasing tiers. Scores for each criterion are given along with a composite score.

Table 6-2: Bikeway Project Ranking

Location	Start	End	Miles	Class	School Zone	Outreach	Walking Route	Land Use	Barrier Cross	Collision Score	Total Score	Tier
6th Street	D Street	J Street	0.56	2	1	2	1	1	1	2	8	1
Broadway	Highway 46	Filburn Avenue	1.50	3	1	0	1	1	0	2	5	1
Griffith Avenue	Highway 46	5th Street	0.31	2	1	0	1	0	1	2	5	1
Palm Avenue	Gromer Avenue	Filburn Avenue	2.00	2	1	1	1	1	1	0	5	1
Poso Drive	Central Avenue	G Street	0.86	2	1	0	0	1	1	2	5	1
5th Street	Griffith Avenue	D Street	0.22	2	1	0	1	0	0	2	4	1
7th Street	Magnolia Avenue	D Street	1.72	2	1	0	1	1	0	1	4	1
9th Place	Beckes Street	D Street	0.97	3	1	1	1	0	0	1	4	1
D Street	5th Street	Filburn Avenue	1.19	2	0	0	1	1	0	2	4	1
Poplar Avenue	Highway 46	Sunset Avenue	0.66	3	1	0	1	1	0	1	4	1
5th Street	Griffith Avenue	Woodside Drive	0.97	3	1	0	1	0	0	1	3	2
Beckes Street	Highway 46	Camellia Street	1.22	3	1	0	1	1	0	0	3	2
Central Avenue	Highway 46	7th Street	0.50	2	0	0	1	1	0	1	3	2
Filburn Avenue	Highway 43	Central Avenue	0.99	2	0	2	1	0	0	0	3	2
Filburn Ave Path	Palm Avenue	Highway 43	0.65	1	1	0	1	0	1	0	3	2
Filburn Ave Path	Griffith Avenue	Broadway	0.16	1	1	0	0	0	0	0	3	2
E Street	Highway 46	6th Street	0.41	2	0	0	0	1	0	1	2	3
Filburn Ave Path	Central Avenue	700' West of Beckes Street	0.14	1	0	0	0	0	0	2	2	3
G Street	6th Street	Poso Drive	0.59	2	0	0	0	1	0	1	2	3
N. Griffith Avenue	Gromer Avenue	Highway 46	0.50	3	0	0	1	1	0	0	2	3
Poplar Avenue	Sunset Avenue	Filburn Avenue	0.84	2	0	0	1	0	0	1	2	3
1st Street	Peters Street	E Street	0.92	3	1	0	0	0	0	0	1	3
Central Avenue	Via Morocco	400' South of Flower Street	0.43	2	0	0	1	0	0	0	1	3
Central Avenue	400' South of Flower Street	City Limits	0.51	3	0	0	1	0	0	0	1	3

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Location	Start	End	Miles	Class	School Zone	Outreach	Walking Route	Land Use	Barrier Cross	Collision Score	Total Score	Tier
Central Ave Path	Poso Drive	Filburn Avenue	0.51	1	0	0	1	0	0	0	1	3
Griffith Avenue	Filburn Avenue	Jackson Avenue	0.50	2	1	0	0	0	0	0	1	3
Highway 46	Magnolia Avenue	Highway 43	2.19	2	0	0	0	1	0	0	1	3
Krista - Via Morocco Route	Central Avenue	Beckes Street	0.28	3	0	0	1	0	0	0	1	3
Gromer Avenue	Palm Avenue	Griffith Avenue	0.50	2	0	0	0	0	0	0	0	3
Jackson Avenue	Palm Avenue	Griffith Avenue	0.50	2	0	0	0	0	0	0	0	3
Palm Avenue	Filburn Avenue	Jackson Avenue	0.50	2	0	0	0	0	0	0	0	3

6.2. Project Cost Estimates

This section presents typical planning-level unit costs for bicycle network projects and Safe Routes to School projects. Table 6-3 below lists summary cost estimates for each type of bikeway facility. While these costs reflect expenses of construction within Kern County, California, they do not consider right-of-way acquisition, drainage modifications, or other costs that may arise during the implementation process.

Table 6-3: Estimated Bikeway Unit Costs

Item	Quantity	Units	Unit Cost	Total
Class III Bike Route - Per Mile				
Bike Route Sign/Wayfinding ¹	10	EA	\$300	\$3,000
Shared Lane Marking (for key corridors) ²	20	EA	\$250	\$5,000
Total Cost Per Mile				\$8,000
Class II Bike Lanes				
Bike Lane Sign/Wayfinding	10	EA	\$300	\$3,000
Striping Removal	10,560	LF	\$1.25	\$13,200
Striping and Stenciling	10,560	LF	\$2.50	\$26,400
Total Cost Per Mile				\$42,600
Class I Shared Use Path - 10' paved, 2' shoulders				
Wayfinding	4	EA	\$300	\$1,200
Clear and Grub	73,920	SF	\$1.00	\$73,920
Asphalt Concrete Pavement	52,800	SF	\$8.00	\$422,400
Decomposed Granite Shoulders	21,120	SF	\$5.00	\$105,600
Striping ⁴	15,840	LF	\$2.50	\$39,600
Total Cost Per Mile				\$642,720

¹ Assumes five signs per mile in each direction.

² Assumes shared lane marking are placed every 265 feet.

³ Assumes two signs per mile in each direction.

⁴ Includes center stripe and striping along path edges.

While the recommendations presented in Chapters 4 include possible roadway sections and designs, these should be considered as conceptual alternatives. The unit cost estimates do not reflect the additional field verification and design work needed prior to construction.

Table 6-4 presents a summary of bikeway miles and cost estimates by bikeway class. The total estimate for all the bikeway projects in this Plan is \$1.6 million.

Table 6-4: Summary of Costs by Class and Miles

Bikeway Class	Sum of Miles	Sum of Cost
1	1.41	\$905,000
2	14.83	\$631,500
3	7.53	\$43,100
Grand Total	23.76	\$1,579,600

Table 6-5 presents a summary of bikeway projects by implementation tier. Tier 1, intended for implementation within the next five years, is estimated to cost \$317,800.

Table 6-5: Summary of Costs by Tier and Miles

Bikeway Class	Sum of Miles	Sum of Cost
1	10.00	\$317,800
2	4.32	\$490,000
3	9.43	\$771,800
Grand Total	23.76	\$1,579,600

6.3. Maintenance

One of the goals of this Plan is to develop a maintenance plan for recommended projects. Although much of the maintenance required for on-street bikeways can be seamlessly incorporated into present roadway maintenance activities, there may be additional costs to ensure that facilities remain safe and accessible. Table 6-6 describes typical maintenance activities for the existing and proposed facility types recommended in this Plan and provides estimated annual maintenance costs. These costs can be an important consideration for municipal budgets because outside funding for capital improvements is generally more readily available than outside funding for maintenance.

Table 6-6: Typical Bikeway Maintenance Costs

Facility Type	Unit Cost	Description	Length (Miles)	Annual Cost	Notes
Class I	\$8,500	Miles/Year	2.02	\$17,200	Lighting and removal of debris and vegetation overgrowth
Class II	\$2,000	Miles/Year	17.16	\$34,300	Repainting lane stripes and stencils, sign replacement as needed
Class III	\$1,000	Miles/Year	7.53	\$7,500	Sign replacement as needed
Annual Cost				\$59,000	

There are many examples of maintenance assessments, checklists, plans, standards, and guidelines available via general internet search and from pedestrian, bikeway and trail related organization sites such as American Trails, the Rails-to-Trails Conservancy and the Federal Highway Administration.

In order to take maintenance and operation efficiency and effectiveness to meet community needs it is recommended staff could develop a Maintenance Management System – a more detailed and systematic way of inventorying, planning, executing and monitoring maintenance.

Develop a Maintenance Management System

A good overview of the goals and steps to create a Maintenance Management System is provided in an article by U.S. Forest Service staff posted on the American Trails website.¹ The article describes how trail work on federal lands is planned through a maintenance management system. It describes the elements and steps of developing such an organized detailed system, which are outlined below:

1. **Scope** (of what needs maintenance)
2. **Information Requirements** (determine what data is available and what is needed to plan and manage maintenance such as where collisions occur– see section below on inventory of facilities).
3. **Maintenance Logs** (detailed form used in field to note conditions and needs - an example from the Ontario Waterfront Trail is provided in the digital documents supplement. A digital version specific to the Parkway would need to be developed)
4. **Maintenance Activities** (determining what to track, and in what detail)
5. **Maintenance Standards** (detail on what is to be done)
6. **Condition Surveys** (filling in and analyzing the information from the Maintenance Logs)
7. **Maintenance Prescription** (specific to-do lists based on conditions and the standards)
8. **Maintenance Plans** (specific action plan/budget for a given period)
9. **Deferred Maintenance** (what falls out of the Plan, based on resources and priorities, and how and when it will be addressed – if feasible)
10. **Scheduling** (day, time, and person specific)
11. **Monitoring and Follow-Up** (feedback on efficiency and effectiveness, for adjustments to maintenance efforts)

¹ Maintenance Management Systems for Trails, Lois Bachensky, U.S. Forest Service, Rocky Mountain Region, 2000.

Recommended Maintenance Schedule

Table 6-7 presents a recommended maintenance schedule to ensure bicycle and pedestrian facilities remain attractive and usable. Frequency of maintenance is informed by best practices.

Table 6-7: Recommended Maintenance Tasks and Frequency

Maintenance Performed	Recommended Frequency
Written inspection	Monthly
Inspect bollards	Monthly
Lighting check	Monthly
Sweep bikeways	Monthly
Tree, shrub, bush pruning	Twice a year and as needed
Sign cleaning	As needed; annual review
Sign repair & replacement	As needed; annual review
Stencil replacement	As needed; annual review
Weed removal	As needed; annual review
Trail crack repair	As needed; annual review
Paint curbs, posts	Inspect monthly, repaint as needed
Graffiti removal	As needed
Restripe bikeways	As needed

6.4. Implementation Steps

Most recommended projects will require further exploration and analysis by the City before they can be implemented. While this Plan identifies recommended treatments for specific projects, all design level issues will be determined during project implementation by the City. Unanticipated opportunities and challenges may arise during the City's analysis, design and funding of each project, and as a result, the specific designs recommended in this Plan may change. Project implementation typically includes the following steps:

1. Secure funding for any and all additional project study, analysis, design and implementation (this may happen during, before or after any of the steps listed below).
2. Conduct additional public outreach as needed or required (this may happen during, before or after any of the steps listed below). It is recommended the City of Wasco advertise and celebrate project implementation with the community.
3. Identify Projects that Require a Feasibility Study and Conduct Study. This will include conceptual design (with consideration of possible alternatives and environmental issues), public input and cost estimate for individual projects as needed.
4. Conduct CEQA (California Environmental Quality Act) project review, analysis and approvals for any projects identified as needing CEQA analysis. Conduct NEPA (National Environmental Policy Act) environmental review if needed.
5. Approval of the project by City Commissions and City Council, including the commitment by the latter to provide for any local match grant requirements.
6. Completion of final plans, specifications and estimates, advertising for bids, receipt of bids and award of contract(s).
7. Project construction.

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7. Funding

This chapter describes various sources of funding available to plan and construct bicycle and pedestrian facilities, including those related to school access and area improvement, as well as sources to provide education or encouragement programs.

Projects such as those described in this Plan can be funded through multiple sources, and not all sources apply to all projects. Many sources require a local funding match and most are competitive based on project merit and adherence to grant criteria.

This chapter covers federal, state, regional, local sources of funding, as well as some non-traditional funding sources that have been used by local agencies to fund bicycle, pedestrian, and safe routes to school infrastructure and programs.

To support City efforts to find outside funding sources to implement projects and programs, a summary by source type is provided below. Table 7-1 through Table 7-4 list these and other funding sources and summarize important funding source components, such as funding amount available, application deadlines, and local match requirement.

7.1. Federal Sources

7.1.1. Moving Ahead for Progress in the Twenty-First Century (MAP-21)

The largest source of federal funding for bicyclists and pedestrians is the US DOT's Federal-Aid Highway Program, which Congress has reauthorized roughly every six years since the passage of the Federal-Aid Road Act of 1916. The latest act, Moving Ahead for Progress in the Twenty-First Century (MAP-21) was enacted in July 2012 as Public Law 112-141. The Act replaces the Safe, Accountable, Flexible, Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU), which was valid from August 2005 - June 2012. SAFETEA-LU contained dedicated programs including Transportation Enhancements, Safe Routes to School, and Recreational Trails, which were all commonly tapped sources of funding to make non-motorized improvements nationwide. MAP-21 combines these programs into a single source called 'Transportation Alternatives' programs (TAP). More information on TAP, including eligible activities, can be found below and at: <http://www.fhwa.dot.gov/map21/guidance/guidetap.cfm>

MAP-21 authorizes funding for federal surface transportation programs including highways and transit for the 27 month period between July 2012 and September 2014. It is not possible to guarantee the continued availability of any listed MAP-21 programs, or to predict their future funding levels or policy guidance. Nevertheless, many of these programs have been included in some form since the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991, and thus may continue to provide capital for active transportation projects and programs.

In California (see Section 7.2.1 Active Transportation Program), federal monies are administered through the California Department of Transportation (Caltrans) and Metropolitan Planning Organizations (MPOs) such as the Southern California Association of Governments (SCAG). Most, but not all, of these programs are

oriented toward transportation versus recreation, with an emphasis on reducing auto trips and providing inter-modal connections. Federal funding is intended for capital improvements and safety and education programs, and projects must relate to the surface transportation system.

There are a number of programs identified within MAP-21 that are applicable to bicycle and pedestrian projects. These programs are discussed below.

More information: <http://www.fhwa.dot.gov/map21/summaryinfo.cfm>

Transportation Alternatives

Transportation Alternatives (TA) is a new funding source under MAP-21 that consolidates three formerly separate programs under SAFETEA-LU: Transportation Enhancements (TE), Safe Routes to School (SR2S), and the Recreational Trails Program (RTP). These funds may be used for a variety of pedestrian, bicycle, and streetscape projects including sidewalks, bikeways, multi-use paths, and rail-trails. TA funds may also be used for selected education and encouragement programming such as Safe Routes to School, despite the fact that TA does not provide a guaranteed set-aside for this activity as SAFETEA-LU did. MAP-21 provides \$85 million nationally for the RTP.

Complete eligibilities for TA include:

1. **Transportation Alternatives** as defined by Section 1103 (a)(29). This category includes the construction, planning, and design of a range of bicycle and pedestrian infrastructure including “on-road and off-road trail facilities for pedestrians, bicyclists, and other active forms of transportation, including sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting and other safety-related infrastructure, and transportation projects to achieve compliance with the Americans with Disabilities Act of 1990.” Infrastructure projects and systems that provide “Safe Routes for Non-Drivers” is a new eligible activity.

For the complete list of eligible activities, visit:

http://www.fhwa.dot.gov/environment/transportation_enhancements/legislation/map21.cfm

2. **Recreational Trails.** TA funds may be used to develop and maintain recreational trails and trail-related facilities for both active and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other active and motorized uses. These funds are available for both paved and unpaved trails, but may not be used to improve roads for general passenger vehicle use or to provide shoulders or sidewalks along roads.

Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails, including unpaved trails
- Acquisition or easements of property for trails
- State administrative costs related to this program (limited to seven percent of a state’s funds)
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a state’s funds)

Under MAP-21, dedicated funding for the RTP continues at FY 2009 levels – roughly \$85 million annually. California will receive \$5,756,189 in RTP funds per year through FY2014 (http://www.fhwa.dot.gov/environment/recreational_trails/funding/apportionments_obligations/recfunds_2009.cfm).

3. **Safe Routes to School.** There are two separate Safe Routes to School Programs administered by Caltrans. There is the Federal program referred to as SRTS, and the state-legislated program referred to as SR2S. Both programs are intended to achieve the same basic goal of increasing the number of children walking and bicycling to school by making it safer for them to do so. All projects must be within two miles of primary or middle schools (K-8).

The Safe Routes to School Program funds non-motorized facilities in conjunction with improving access to schools through the Caltrans Safe Routes to School Coordinator. For more information visit: <http://www.dot.ca.gov/hq/LocalPrograms/saferoutes/saferoutes.htm>

Eligible projects may include:

- **Engineering improvements.** These physical improvements are designed to reduce potential bicycle and pedestrian conflicts with motor vehicles. Physical improvements may also reduce motor vehicle traffic volumes around schools, establish safer and more accessible crossings, or construct walkways, trails or bikeways. Eligible improvements include sidewalk improvements, traffic calming/speed reduction, pedestrian and bicycle crossing improvements, on-street bicycle facilities, off-street bicycle and pedestrian facilities, and secure bicycle parking facilities.
- **Education and Encouragement Efforts.** These programs are designed to teach children safe bicycling and walking skills while educating them about the health benefits, and environmental impacts. Projects and programs may include creation, distribution and implementation of educational materials; safety based field trips; interactive bicycle/pedestrian safety video games; and promotional events and activities (e.g., assemblies, bicycle rodeos, walking school buses).
- **Enforcement Efforts.** These programs aim to ensure that traffic laws near schools are obeyed. Law enforcement activities apply to cyclists, pedestrians and motor vehicles alike. Projects may include development of a crossing guard program, enforcement equipment, photo enforcement, and pedestrian sting operations.

4. **Planning, designing, or constructing roadways within the right-of-way of former Interstate routes or divided highways.** At the time of writing, detailed guidance from the Federal Highway Administration on this new eligible activity was not available.

Average annual funds available through TA over the life of MAP-21 equal \$814 million nationally, which is based on a 2% set-aside of total MAP-21 authorizations. Projected MAP-21 apportionments for California total \$3,546,492,430 for FY 2013 and \$3,576,886,247 for FY 2014 (<http://www.fhwa.dot.gov/MAP21/funding.cfm>). The 2% set-aside for TA funds in California will be about \$71,000,000 for the next two fiscal cycles. State DOTs may elect to transfer up to 50% of TA funds to other highway programs, so the amount listed above represents the maximum potential funding.

TA funds are typically allocated through MPOs and require a 20 percent local match.

Surface Transportation Program (STP)

The Surface Transportation Program (STP) provides states with flexible funds which may be used for a variety of highway, road, bridge, and transit projects. A wide variety of bicycle and pedestrian improvements are eligible, including on-street bicycle facilities, off-street trails, sidewalks, crosswalks, bicycle and pedestrian signals, parking, and other ancillary facilities. Modification of sidewalks to comply with the requirements of the Americans with Disabilities Act (ADA) is also an eligible activity. Unlike most highway projects, STP-funded bicycle and pedestrian facilities may be located on local and collector roads which are not part of the Federal-aid Highway System. Fifty percent of each state's STP funds are suballocated geographically by population. These funds are funneled through Caltrans to the MPOs in the state. The remaining 50% may be spent in any area of the state.

Highway Safety Improvement Program (HSIP)

MAP-21 doubles the amount of funding available through the Highway Safety Improvement Program (HSIP) relative to SAFETEA-LU. HSIP provides \$2.4 billion nationally for projects and programs that help communities achieve significant reductions in traffic fatalities and serious injuries on all public roads, bikeways, and walkways. MAP-21 preserves the Railway-Highway Crossings Program within HSIP but discontinues the High-Risk Rural roads set-aside unless safety statistics demonstrate that fatalities are increasing on these roads HSIP is a data-driven funding program and eligible projects must be identified through analysis of crash experience, crash potential, crash rate, or other similar metrics. Infrastructure and non-infrastructure projects are eligible for HSIP funds. Bicycle and pedestrian safety improvements, enforcement activities, traffic calming projects, and crossing treatments for active transportation users in school zones are examples of eligible projects. All HSIP projects must be consistent with the state's Strategic Highway Safety Plan.

Last updated in 2006, the California SHSP is located here:

http://www.dot.ca.gov/hq/traffops/survey/SHSP/SHSP_Final_Draft_Print_Version.pdf

Pilot Transit-Oriented Development Planning

MAP-21 establishes a new pilot program to promote planning for Transit-Oriented Development. At the time of writing the details of this program are not fully clear, although the bill text states that the Secretary of Transportation may make grants available for the planning of projects that seek to “facilitate multimodal connectivity and accessibility,” and “increase access to transit hubs for pedestrian and bicycle traffic.”

7.1.2. Congestion Mitigation and Air Quality Improvement Program (CMAQ)

The Congestion Mitigation and Air Quality Improvement Program (CMAQ) provides funding for projects and programs in air quality nonattainment and maintenance areas for ozone, carbon monoxide, and particulate matter which reduce transportation related emissions. These federal dollars can be used to build bicycle and pedestrian facilities that reduce travel by automobile. Purely recreational facilities generally are not eligible.

To be funded under this program, projects and programs must come from a transportation plan (or State (STIP) or Regional (RTIP) Transportation Improvement Program) that conforms to the SIP and must be consistent with the conformity provisions of Section 176 of the Clean Air Act.

CMAQ funding is administered through Kern County on the local level. Within Kern County, these funds are eligible for transportation projects that contribute to the attainment or maintenance of National Ambient Air Quality Standards in non-attainment or air-quality maintenance areas. Examples of eligible projects include enhancements to existing transit services, rideshare and vanpool programs, projects that encourage bicycle and pedestrian transportation options, traffic light synchronization projects that improve air quality, grade separation projects, and construction of high-occupancy vehicle (HOV) lanes.

7.1.3. Partnership for Sustainable Communities

Founded in 2009, the Partnership for Sustainable Communities is a joint project of the Environmental Protection Agency (EPA), the U.S. Department of Housing and Urban Development (HUD), and the U.S. Department of Transportation (USDOT). The partnership aims to “improve access to affordable housing, more transportation options, and lower transportation costs while protecting the environment in communities nationwide.” The Partnership is based on five Livability Principles, one of which explicitly addresses the need for bicycle and pedestrian infrastructure (“Provide more transportation choices: Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation’s dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health”).

The Partnership is not a formal agency with a regular annual grant program. Nevertheless, it is an important effort that has already led to some new grant opportunities (including the TIGER grants). The City of Wasco should track Partnership communications and be prepared to respond proactively to announcements of new grant programs.

More information: <http://www.epa.gov/smartgrowth/partnership/>

7.1.4. Federal Transit Act

Section 25 of the 1964 Urban Mass Transportation Act states that: “For the purposes of this Act a project to provide access for bicycles to mass transportation facilities, to provide shelters and parking facilities for bicycles in and around mass transportation facilities, or to install racks or other equipment for transporting bicycles on mass transportation vehicles shall be deemed to be a construction project eligible for assistance under sections 3, 9 and 18 of this Act.” The Federal share for such projects is 90 percent and the remaining 10 percent must come from sources other than Federal funds or fare box revenues. Typical funded projects have included bike lockers at transit stations and bike parking near major bus stops. To date, no projects to provide bikeways for quicker, safer or easier access to transit stations have been requested or funded.

7.1.5. Community Transformation Grants

Community Transformation Grants administered through the Center for Disease Control support community-level efforts to reduce chronic diseases such as heart disease, cancer, stroke, and diabetes. Active transportation infrastructure and programs that promote healthy lifestyles are a good fit for this program, particularly if the benefits of such improvements accrue to population groups experiencing the greatest burden of chronic disease.

More info: <http://www.cdc.gov/communitytransformation/>

7.1.6. Other Federal Bicycle and Pedestrian Infrastructure Funding Options

As part of the federal Recovery Act of 2009, States will receive \$53.6 billion in state fiscal stabilization funding. States must use 18.2 percent of their funding – or \$9.7 billion – for public safety and government services. An eligible activity under this section is to provide funding to K-12 schools and institutions of higher education to make repairs, modernize and make renovations to meet green building standards. The Leadership in Energy and Environmental Design (LEED) Green Building Rating System, developed by the U.S. Green Building Council (USGBC), addresses green standards for schools that include bicycle and pedestrian facilities and access to schools.

Another \$5 billion is provided for the Energy Efficiency and Conservation Block Grant Program. This provides formula funding to cities, counties and states to undertake a range of energy efficiency activities. One eligible use of funding is for bicycle and pedestrian infrastructure.

More info: <http://www2.ed.gov/policy/gen/leg/recovery/factsheet/stabilization-fund.html>

<http://www1.eere.energy.gov/wip/eccbg.html>

7.2. State Sources

7.2.1. Active Transportation Program (ATP)

In 2013, Governor Brown signed legislation creating the Active Transportation Program (ATP). This program is a consolidation of the Federal Transportation Alternatives Program (TAP), California's Bicycle Transportation Account (BTA), and Federal and California Safe Routes to School (SRTS) programs.

The ATP program is administered by Caltrans Division of Local Assistance, Office of Active Transportation and Special Programs.

The ATP program goals include:

- Increase the proportion of trips accomplished by biking and walking,
- Increase safety and mobility for nonmotorized users,
- Advance the active transportation efforts of regional agencies to achieve greenhouse gas reduction goals,
- Enhance public health,
- Ensure that disadvantaged communities fully share in the benefits of the program, and
- Provide a broad spectrum of projects to benefit many types of active transportation users.

As of this Plan (April 2014), the first call for projects is underway. The California Transportation Commission ATP Guidelines are available here: http://www.catc.ca.gov/meetings/agenda/2014Agenda/2014_03/03_4.12.pdf

Eligible bicycle, pedestrian and Safe Routes to School projects include:

- Infrastructure Projects: Capital improvements that will further program goals. This category typically includes planning, design, and construction.
- Non-Infrastructure Projects: Education, encouragement, enforcement, and planning activities that further program goals. The focus of this category is on pilot and start-up projects that can demonstrate funding for ongoing efforts.
- Infrastructure projects with non-infrastructure components

The minimum request for non-SRTS projects is \$250,000. There is no minimum for SRTS projects.

The local match requirement for non-SRTS projects is 11.47%. There is no local match requirement for projects benefiting a disadvantage community, stand along non-infrastructure projects and SRTS projects.

Annual funds will be approximately \$130 million for fiscal year 2013-2014. In the initial program, a minimum of \$24 million per year is available for SRTS projects, with at least \$7.2 million for non-infrastructure grants.

More info: <http://www.dot.ca.gov/hq/LocalPrograms/atp/>

7.2.2. State Highway Account

Section 157.4 of the Streets and Highways Code requires Caltrans to set aside \$360,000 for the construction of non-motorized facilities that will be used in conjunction with the State highway system. The Office of Bicycle Facilities also administers the State Highway Account fund. Funding is divided into different project categories. Minor B projects (less than \$42,000) are funded by a lump sum allocation by the CTC and are used at the discretion of each Caltrans District office. Minor A projects (estimated to cost between \$42,000 and \$300,000) must be approved by the CTC. Major projects (more than \$300,000) must be included in the State Transportation Improvement Program and approved by the CTC. Funded projects have included fencing and bicycle warning signs related to rail corridors.

7.2.3. Climate Ready Grant Program - California State Coastal Conservancy

Climate Ready grants are intended to encourage local governments and non-governmental organizations to advance planning and implementation of on-the-ground actions that reduce greenhouse gas emissions and lessen the impacts of climate change on California's coastal communities. The grant program makes eligible "development of multi-use trails with clearly identified GHG reduction goals; (and) protecting and managing open space lands with clearly identified GHG reduction goals." A total of \$1,500,000 is available on a competitive basis, with a minimum award of \$50,000 and a maximum of \$200,000. The size of awarded grants will be based on each project's needs, its overall benefits, and the extent of competing demands for funds.

7.2.4. Office of Traffic Safety (OTS) Grants

Office of Traffic Safety Grants are supported by Federal funding under the National Highway Safety Act and SAFETEA-LU. In California, the grants are administered by the Office of Traffic Safety.

Grants are used to establish new traffic safety programs, expand ongoing programs or address deficiencies in current programs. Bicycle safety is included in the list of traffic safety priority areas. Eligible grantees are governmental agencies, state colleges, state universities, local city and county government agencies, school

districts, fire departments, and public emergency services providers. Grant funding cannot replace existing program expenditures, nor can traffic safety funds be used for program maintenance, research, rehabilitation, or construction. Grants are awarded on a competitive basis, and priority is given to agencies with the greatest need. Evaluation criteria to assess need include potential traffic safety impact, collision statistics and rankings, seriousness of problems, and performance on previous OTS grants.

The California application deadline is January of each year. There is no maximum cap to the amount requested, but all items in the proposal must be justified to meet the objectives of the proposal.

7.3. Regional & Local Sources

7.3.1. Developer Impact Fees

As a condition for development approval, municipalities can require developers to provide certain infrastructure improvements, which can include bikeway projects. These projects have commonly provided Class 2 facilities for portions of on street, previously planned routes. They can also be used to provide bicycle parking or shower and locker facilities. The type of facility that should be required to be built by developers should reflect the greatest need for the particular project and its local area. Legal challenges to these types of fees have resulted in the requirement to illustrate a clear nexus between the particular project and the mandated improvement and cost.

7.3.2. New Construction

Future road widening and construction projects are one means of providing on street bicycle facilities. To ensure that roadway construction projects provide bike lanes where needed, it is important that the review process includes input pertaining to consistency with the proposed system. In addition, California's 2008 Complete Streets Act and Caltrans's Deputy Directive 64 require that the needs of all roadway users be considered during "all phases of state highway projects, from planning to construction to maintenance and repair."

More info: http://www.dot.ca.gov/hq/tpp/offices/ocp/complete_streets.html

7.3.3. Restoration

Cable TV and telephone companies sometimes need new cable routes within public rights of way. Recently, this has most commonly occurred during expansion of fiber optic networks. Since these projects require a significant amount of advance planning and disruption of curb lanes, it may be possible to request reimbursement for affected bicycle facilities to mitigate construction impacts. In cases where cable routes cross undeveloped areas, it may be possible to provide for new bikeway facilities following completion of the cable trenching, such as sharing the use of maintenance roads.

7.4. Private Sources

Private funding sources can be acquired by applying through the advocacy groups such as the League of American Bicyclists and the Bikes Belong Coalition. Most of the private funding comes from foundations wanting to enhance and improve bicycle facilities and advocacy. Grant applications will typically be through the advocacy groups as they leverage funding from federal, state and private sources. Below are several examples of private funding opportunities available.

7.4.1. Bikes Belong Grant Program

The Bikes Belong Coalition of bicycle suppliers and retailers has awarded \$1.2 million and leveraged an additional \$470 million since its inception in 1999. The program funds corridor improvements, mountain bike trails, BMX parks, trails, and park access. It is funded by the Bikes Belong Employee Pro Purchase Program.

More information: <http://www.bikesbelong.org/grants/>

7.4.2. Bank of America Charitable Foundation, Inc.

The Bank of America Charitable Foundation is one of the largest in the nation. The primary grants program is called Neighborhood Excellence, which seeks to identify critical issues in local communities. Another program that applies to greenways is the Community Development Programs, and specifically the Program Related Investments. This program targets low and moderate income communities and serves to encourage entrepreneurial business development.

More information: <http://www.bankofamerica.com/foundation>

7.4.3. Robert Wood Johnson Foundation

The Robert Wood Johnson Foundation was established as a national philanthropy in 1972 and today it is the largest U.S. foundation devoted to improving the health and health care of all Americans. Grant making is concentrated in four areas:

- To assure that all Americans have access to basic health care at a reasonable cost
- To improve care and support for people with chronic health conditions
- To promote healthy communities and lifestyles
- To reduce the personal, social and economic harm caused by substance abuse: tobacco, alcohol, and illicit drugs

More information: <http://www.rwjf.org/applications/>

7.4.4. Community Action for a Renewed Environment (CARE)

CARE is a competitive grant program that offers an innovative way for a community to organize and take action to re-duce toxic pollution in its local environment. Through CARE, a community creates a partnership that implements solutions to reduce releases of toxic pollutants and minimize people’s exposure to them. By providing financial and technical assistance, EPA helps CARE communities get on the path to a renewed environment. Transportation and “smart-growth” types of projects are eligible. Grants range between \$90,000 and \$275,000.

More information: <http://www.epa.gov/care/>

7.4.5. Corporate Donations

Corporate donations are often received in the form of liquid investments (i.e. cash, stock, bonds) and in the form of land. Employers recognize that creating places to bike and walk is one way to build community and attract a quality work force. Bicycling and outdoor recreation businesses often support local projects and programs. Municipalities typically create funds to facilitate and simplify a transaction from a corporation’s donation to the given municipality. Donations are mainly received when a widely supported capital improvement program is implemented. Such donations can improve capital budgets and/or projects.

7.5. Other Sources

Local sales taxes, fees and permits may be implemented as new funding sources for bicycle projects. However, any of these potential sources would require a local election. Volunteer programs may be developed to substantially reduce the cost of implementing some routes, particularly multi use paths. For example, a local college design class may use such a multi-use route as a student project, working with a local landscape architectural or engineering firm. Work parties could be formed to help clear the right of way for the route. A local construction company may donate or discount services beyond what the volunteers can do. A challenge grant program with local businesses may be a good source of local funding, in which the businesses can “adopt” a route or segment of one to help construct and maintain it.

Table 7-1: Federal Funding Sources

FEDERAL SOURCES					
Grant Source	Annual Total	Agency	Application Deadline	Match Required	Remarks
Surface Transportation Program (STP)	\$10 billion nationally	FHWA	Not available	Not available	A wide variety of bicycle and pedestrian improvements are eligible, including on-street bicycle facilities, off-street trails, sidewalks, crosswalks, bicycle and pedestrian signals, parking, and other ancillary facilities.
Highway Safety Improvement Program (HSIP)	\$2.4 billion nationally; \$75 million in California in 2011	FHWA/Caltrans	October	10%	Projects must address a safety issue and may include education and enforcement programs. This program includes the Railroad-Highway Crossings and High Risk Rural Roads programs.
Pilot Transit-Oriented Development Planning Program	\$10 million nationally	Federal Transit Administration	Not available	Not available	Makes eligible planning efforts that seek to increase access to transit hubs for pedestrian and bicycle traffic.
Congestion Mitigation and Air Quality Improvement Program (CMAQ)	\$445-467 million annually between FY2012 and FY2014 (California). In FY2012-13, \$10 million to Kern County	FHWA / Caltrans	Not available	20%	The amount of CMAQ funds depends on the state's population share and on the degree of air pollution.
Partnership for Sustainable Communities	\$68 million nationally	HUD/DOT/EPA	Ongoing	20%	Funding for preparing or implementing regional plans for sustainable development.
Federal Transit Act	Not available	FTA	Not available	10%	Typical funded projects have included bike lockers at transit stations and bike parking near major bus stops. To date, no projects to provide bikeways for quicker, safer or easier access to transit stations have been requested or funded.
Rivers, Trails, and Conservation Assistance Program (RTCA)	Staff time is awarded for technical assistance	National Parks Service	August 1st for the following fiscal year	Not applicable	RTCA staff provides technical assistance to communities so they can conserve rivers, preserve open space, and develop trails and greenways.

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FEDERAL SOURCES					
Grant Source	Annual Total	Agency	Application Deadline	Match Required	Remarks
Community Transformation Grants	\$35 million in 2012 (California)	Centers for Disease Control and Prevention	N/A	N/A	Funds to implement broad, sustainable strategies that will reduce health disparities and expand preventive health care services.
Transportation Investment Generating Economic Recovery Program (TIGER)	\$131 million through 2013 (California)	FHWA	October	20%	Can be used for innovative, multi-modal and multi-jurisdictional transportation projects that promise significant economic and environmental benefits to an entire metropolitan area, a region, or the nation. These include bicycle and pedestrian projects. Project minimum is \$10 million.
Bus and Bus Facilities Program: State of Good Repair	\$650 million in 2012	Federal Transit Administration	March	10%	Can be used for projects that provide access for bicycles to public transportation facilities, to provide shelters and parking facilities for bicycles in or around public transportation facilities, or to install equipment for transporting bicycles on public transportation vehicles.
Bus Livability Initiative	\$125 million in 2012	Federal Transit Administration	March	10%	Can be used for bicycle and pedestrian support facilities, such as bicycle parking, bike racks on buses, pedestrian amenities, and educational materials.

Table 7-2: State Funding Sources

STATE SOURCES					
Grant Source	Annual Total	Agency	Application Deadline	Match Required	Remarks
Active Transportation Program	\$130 million	Caltrans	May 2014	Minimum 11.47% local match on construction	Funds bicycle, pedestrian and SRTS infrastructure and non-infrastructure projects. http://www.dot.ca.gov/hq/LocalPrograms/atp/
State Highway Account	\$360,000	Caltrans	Not available	Not available	Dedicated set aside for construction of non-motorized facilities that will be used in conjunction with the State highway system.
Safe Routes to School Program (SR2S)	\$24.25 million	Caltrans	Varies	10%	SR2S is primarily a construction program to enhance safety of pedestrian and bicycle facilities near schools. A small percentage of funds can be used for programmatic improvements.
Office of Traffic Safety Program (OTS)	Varies annually	Caltrans	January	None	Funds safety improvements to existing facilities, safety promotions including bicycle helmet giveaways and studies to improve traffic safety.
Community Based Transportation Planning Grants	\$3 million, each project not to exceed \$300,000	Caltrans	March/April	10%	Eligible projects that exemplify livable community concepts including enhancing bicycle and pedestrian access.
AB 2766 Vehicle Registration Funds	\$325,000 in 2013	Eastern Kern Air Pollution Control District (EKAPCD)	January	None	Competitive program for projects that benefit air quality, including education initiatives.
Petroleum Violation Escrow Account (PVEA)	Varies annually	Caltrans, California Community Services and Development Air Resources Board	March	None	Funds programs based on public transportation, computerized bus routing and ride sharing, home weatherization, energy assistance and building energy audits, highway and bridge maintenance, and reducing airport user fees.
Environmental Justice: Context-Sensitive Planning	\$3 million, each grant not to exceed \$250,000	Caltrans	March/April	10% (up to one half of local match may be in-kind)	Funds projects that foster sustainable economies, encourage transit oriented and mixed use development, and expand transportation choices, including walking and biking. Projects can be design and education, as well as planning.

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STATE SOURCES					
Grant Source	Annual Total	Agency	Application Deadline	Match Required	Remarks
Environmental Enhancement and Mitigation Program (EEM)	\$10 million; annual project average of \$250,000	California Natural Resources Agency	September/October (sign up on website for notification)	None required, but favored	Funds may be used for land acquisition. Individual grants limited to \$350,000.
State Gas Tax (local share)	Varies	Allocated by State Auditor-Controller	Varies	None	Major Projects, i.e., at least \$300,000.
State Highway Operations and Protection Program (SHOPP)	\$1.69 million statewide annually through FY 2013/14	Caltrans	Not Available	Not Available	Capital improvements and maintenance projects that relate to maintenance, safety and rehabilitation of state highways and bridges.

Table 7-3: Regional and Local Funding Sources

REGIONAL & LOCAL SOURCES					
Grant Source	Annual Total	Agency	Application Deadline	Match Required	Remarks
TDA Article 3 funds	Not available	Kern COG	Not applicable	50%	Provides grants to states and local agencies, individuals and nonprofit organizations for projects that incorporate urban design, historic preservation, planning, architecture, landscape architecture and other community improvement activities, including greenway development. Grants to organizations and agencies must be matched by a 50% local contribution. Agencies can receive up to \$50,000.
Parking Meter Districts	Varies	City	Annual Budget	N/A	Parking Meter Districts can use parking meter revenues for streetscape improvements such as pedestrian facilities, landscaping & lighting.
Developer Fees or Exactions	Project-specific	Cities	Varies	None	Mitigation required during land use approval process.

Table 7-4: Private Funding Sources

PRIVATE SOURCES					
Grant Source	Annual Total	Organization	Application Deadline	Match Required	Remarks
Bikes Belong	\$160,000 in 2012	Bikes Belong Coalition	Three times per year	50%	Bikes Belong provides grants for up to \$10,000 with a 50% match that recipients may use towards paths, bridges and parks, as well as programs.
Bank of America Charitable Foundation	\$200 million in 2012	Bank of America Charitable Foundation	May	N/A	Funds initiatives that drive economic development and contribute to the vitality and livability of communities.
Robert Wood Johnson Foundation	Varies	Robert Wood Johnson Foundation	Varies	N/A	One focus of the Foundation is "to promote healthy communities and lifestyles." Most grants are in the \$100,000 to \$300,000 range, and run from one to three years.
Community Action for a Renewed Environment (CARE)	Varies	US EPA	March	Not Available	Grant program to help community organize and take action to reduce toxic pollution in its local environment

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PRIVATE SOURCES					
Grant Source	Annual Total	Organization	Application Deadline	Match Required	Remarks
SRAM Cycling Fund	\$1.2 million nationally	SRAM	Ongoing	None	Bicycle organization that donates funds to Bikes Belong, Safe Routes to School, and other bicycle associations to enhance lobbying and advocacy efforts.
Surdna Foundation	Project-specific	Surdna Foundation	Ongoing	None	The Surdna Foundation makes grants to nonprofit organizations in the areas of environment, community revitalization, effective citizenry, the arts, and the nonprofit sector.
Kaiser Permanente Community Health Initiatives	\$54 million nationally	Kaiser Permanente	Ongoing	None	Numerous programs to help with Healthy Initiatives, including the Healthy Eating Active Living (HEAL) initiative to address obesity.
Health Foundations	Varies	Various foundations	Ongoing	Varies	Focus pedestrian improvements for an obesity prevention strategy. Examples include California Wellness Foundation, Kaiser & California Endowment.
Donations	Varies	Depends on nature of project	Ongoing	Varies	Corporate or individual donations, sponsorships, merchandising or special events.
In-kind Services	Varies	Depends on nature of project	Ongoing	Varies	Donated labor & materials for facility construction or maintenance such as tree planting programs or trail construction.