

Capital Area Metropolitan Planning Organization



Room 120 320 E. McCarty, Jefferson City, MO 65101 Phone 573.634.6410 Fax 573.634.6457

Bicycle / Pedestrian Plan Steering Committee

Thursday, June 16, 2016 at 9:30 A.M.

Boone/Bancroft Room # 200 - John G. Christy Municipal Building
320 E. McCarty Street, Jefferson City, MO 65101
Enter through Main Lobby

Tentative Agenda

1. **Call to order, roll call, and determination of a quorum**
2. **Adoption of the agenda as printed or amended**
3. **Approval of the minutes from the meeting of March 3, 2016**
4. **New Business**
 - A. Review and discuss Draft Plan
 - Issues and Challenges Section review
 - Review and discuss Strategies Section
 - B. Other Comments and Next Steps
5. **Next Meeting Date** – To be determined.
6. **Adjournment**

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Please call (573) 634-6410 with questions regarding agenda items.

**MINUTES
BICYCLE/PEDESTRIAN PLAN
STEERING COMMITTEE
CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION**

March 3, 2016
8:30 a.m.

MEMBERS PRESENT

David Bange, Chairman
JJ Gates
Jenni Jones
Bob Lynch
Mark Mehmert
Doug Reece, Vice Chairman
Sonny Sanders

STAFF PRESENT

Alex Rotenberry, Transportation Planner
Anne Stratman, Administrative Assistant, City of Jefferson

1. Call to order

Mr. Bange brought the meeting to order at 8:36 a.m.

2. Approval of the minutes from the meeting of February 4, 2016

Mr. Mehmert moved and Ms. Jones seconded to approve the minutes from the meeting of February 4, 2016 as printed. The motion passed unanimously.

3. Adoption of the agenda as printed or amended

Ms. Jones moved and Mr. Mehmert seconded to adopt the agenda as printed. The motion passed unanimously.

4. New Business

A. Review and discuss Vision, Goals, and Objectives

Discussion focused on the five (5) strategies.

Mr. Reece commented that the City of St. Martins would use certain aspects of the plan as a resource for implementation and education on available funds.

Ms. Jones suggested asking smaller communities to acknowledge support of the document and as resources allow these smaller communities can implement practical parts of the plan.

Engineering Strategy

Comments and suggestions:

Combine Strategy I – Post wayfinding signage along greenways, bicycle routes and sidewalks with Strategy J – Install trailblazing signs along bicycling trails going through our area.

Strike Strategy K – Conduct Health Impact Assessments for proposed transportation related laws, regulations, projects and programs. Mr. Sanders suggested investigating the feasibility of whether the study can be performed in-house or by a consultant.

Mr. Mehmert suggested considering topography when developing routes as the general public prefers flat level ground. He also suggested using counters as a performance measure.

Education Strategy

Comments and suggestions:

Distribute bicycle/pedestrian safety educational brochures to bicycle shops, schools, gyms and post on the City's website.

Add social media as a strategy.

Combine Strategy A – Incorporate bicycle and pedestrian safety education into schools and Strategy B – Develop and support public education campaigns targeted toward motorists.

Encouragement Strategy

No comments or suggestions were made.

Enforcement Strategy

Comments and suggestions:

Strategy B – Target motorists for infractions putting vulnerable road users at risk. It was suggested to not use the word “target” when referring to motorists.

Strategy F – Install red light cameras at dangerous intersections or in school zones... It was suggested to reference traffic cameras rather than red light cameras.

Mr. Lynch commented that the enforcement strategies appear to apply to motorists only. The strategies should apply to both motorists and bicyclists.

Ms. Jones suggested including motorcyclists as well.

Evaluation and Planning Strategies

Comments and suggestions:

Strategy D – Creation of a Pedestrian and Bicycle Committee or assign responsibility to an existing committee. It was discussed to create a permanent multi-jurisdictional or citizen committee to oversee the plan.

B. Next Steps

Mr. Sanders explained that staff will integrate the comments and suggestions that were discussed today. He stated that staff will start on the implementation section of the plan.

5. Next Meeting Date – Will be determined at a later date.

6. Adjournment

Mr. Reece moved and Mr. Sanders seconded to adjourn the meeting at 10:35 a.m. The motion passed unanimously.

Respectfully Submitted,

Anne Stratman, Administrative Assistant

Capital Area Pedestrian & Bicycle Plan 2016



The preparation of this plan was financed in part by the U.S. Department of Transportation, Federal Highway Administration, and Federal Transit Administration in cooperation with the Missouri Department of Transportation. The opinions, findings, and conclusions expressed in this report are not necessarily those of the Federal Highway Administration, Federal Transit Administration, or the Missouri Department of Transportation.

Acknowledgement: A large number of people took the time and effort to attend public meetings, respond to questions and surveys, and attend working meetings. Without the dedication and public spirit shown, the task of developing a reasonable transportation plan would have been impossible. CAMPO Board, Technical Committee and MPO staff wishes to thank those who participated in the development of the plan, their comments, and frequently agreed to participate in future, on-going transportation planning efforts.

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MPO Administration is provided by the City of Jefferson, Missouri
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Plan Produced by: Sonny Sanders, GISP, PTP, ACIP, Alex Rotenberry, (AICP) and Katrina Williams, GISP

(Insert Board/Technical Committee, and Staff)

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(Insert Resolution)

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Executive Summary

The Capital Area Pedestrian & Bicycle Plan is intended as a resource to improve safety, connectivity, and mobility for pedestrian and bicycle users in the CAMPO region. The goals, recommendations, and strategies outlined in this plan can be used by jurisdictions to develop an individualized implementation strategy to fit the unique pedestrian and bicycle needs of jurisdictions within the CAMPO region.

With the goal of improving safety, connectivity, and mobility, this plan can be used by CAMPO and regional jurisdictions as a guide for future growth by recommending strategies, policies, and procedures to guide future development and improve existing infrastructure, making the CAMPO region area a great place to walk and bike.

This regional plan includes information for all communities within the CAMPO region, including: Holts Summit, Jefferson City, Lake Mykee, St. Martins, Taos, Wardsville, and parts of Cole and Callaway Counties.

The process to develop the Capital Area Pedestrian and Bicycle Plan included intensive public outreach, gathering input from local, state, regional, and federal planning partners, city and county staff, local business owners, advocacy groups, most importantly the general public. Through the use of surveys, committee recommendations, and open house events, CAMPO staff was able to access a wide range of public input. This public input was used to create the goals and strategies used in this plan.

It is hoped that jurisdictions within the CAMPO region will :

1. Formally adopt the Capital Area Pedestrian and Bicycle Plan
2. Development of an Implementation Strategy, specific to that jurisdiction

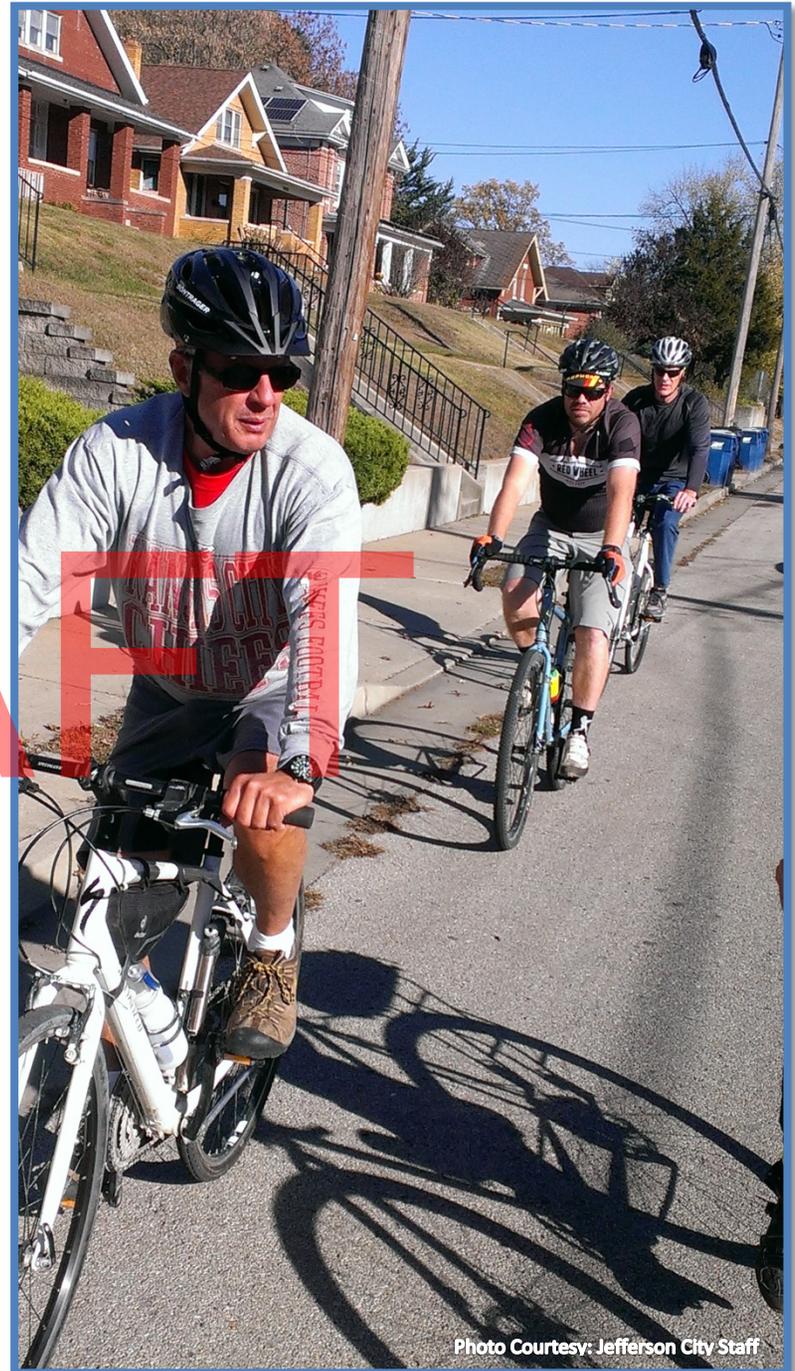


Photo Courtesy: Jefferson City Staff

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1 Introduction

Walking and bicycling are important aspects of a community’s public health, economic development, safety, environmental sustainability, and mobility. These modes of transportation are especially important for children, the elderly, the disabled and those with fixed or low incomes. Additionally, walkability and bikeability are important to attracting tourists and attracting or retaining residents.

Before the automobile and public transportation, walking and bicycling provided an inexpensive and easy to maintain form of transportation for the individual. Referred to as “Active transportation”, walking and bicycling helps people increase their levels of physical activity, resulting in positive health benefits and disease preventions.

Today, the number of people using active transportation is growing. In Missouri the number of persons walking to work increased 14.3% between 2005 and 2013 and number of person bicycling to work increased 79.1% during this same period¹.

The CAMPO region encompasses both urban and rural areas. While the communities of Holts Summit and Jefferson City are generally walkable with sidewalks, trails, and connectivity to Katy Trail State Park smaller communities have limited access and may have little to no public sidewalk. The need for greater connectivity, access, and safety are important. Improving connectivity and access will provide more direct, convenient and safe travel routes for walking and bicycling while also providing more travel choices, reduce dependency on automobiles, and improve general quality of the life across the CAMPO region.

The Capital Area Pedestrian and Bicycle Plan is the first *regional* Pedestrian and Bicycle Plan, although it should be noted that the City of Holts Summit has a *Pedestrian Bicycle, and Transit Plan* and Jefferson City has a *Greenway*

Plan. Portions of this plan will likely be used in updates of the CAMPO Metropolitan Transportation Plan and the City of Jefferson Comprehensive Plan. It is hoped that each jurisdiction will adopt and use this plan to better address pedestrian and bicycle needs in the region.

The goals, objectives, and recommendations contained in this plan were developed through a year-long period of public input with the aim of advising municipalities and jurisdictions within the CAMPO region on addressing pedestrian and bicycle safety, policy, enforcement, infrastructure, and education. **More????????????????**

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¹ U.S. Census Bureau; American Community Survey, 2005 American Community Survey, Table C08006 and 2013 American Community Survey 1-Year Estimates, Table C08006 ; generated by CAMPO staff; using American FactFinder; <<http://factfinder2.census.gov>>; (2 March 2, 2015).

What is CAMPO?

The Capital Area Metropolitan Planning Organization (CAMPO) is the designated metropolitan planning organization for the Jefferson City urbanized area. This area includes Holts Summit, Jefferson City, Lake Mykee, St. Martins, Taos, Wardsville, and portions of Callaway and Cole Counties. Figure 1.1 depicts the CAMPO Planning Area.

CAMPO's core functions include:

- Establish and manage a fair and impartial setting for effective regional decision making in the metropolitan area.
- Identify and evaluate alternative transportation improvement options.
- Prepare and maintain a Metropolitan Transportation Plan (MTP).
- Develop a Transportation Improvement Program (TIP).
- Involve the general public and other affected constituencies in the above activities.

CAMPO is responsible for long range multimodal transportation planning in the region, including:

- bicycle and pedestrian trails, routes, and greenways
- public transit, and paratransit service
- automobile and truck transportation, passenger and freight
- trains, passenger and freight
- access and mobility

Figure 1.1: CAMPO Structure

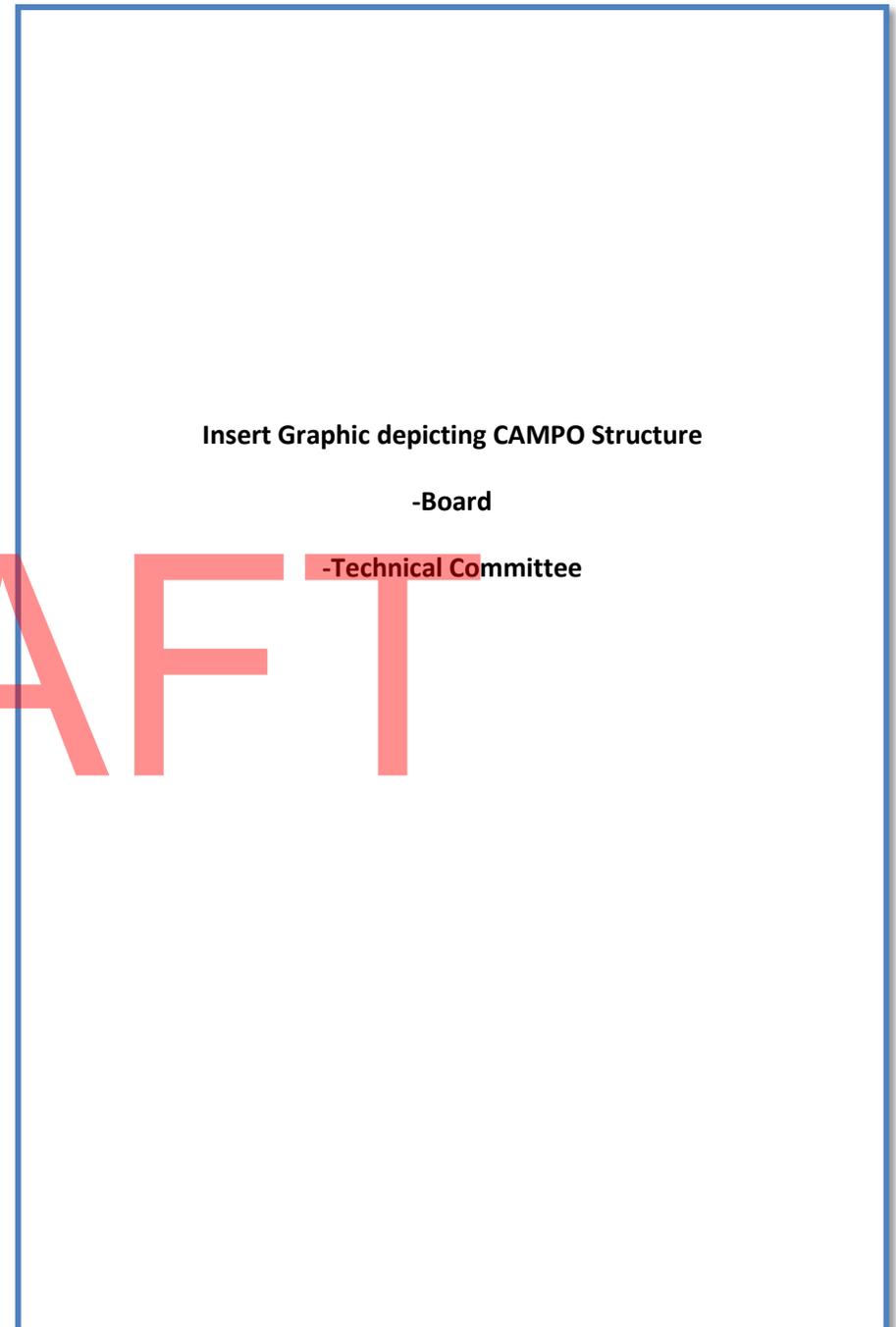


Figure 1.2: CAMPO Planning Area

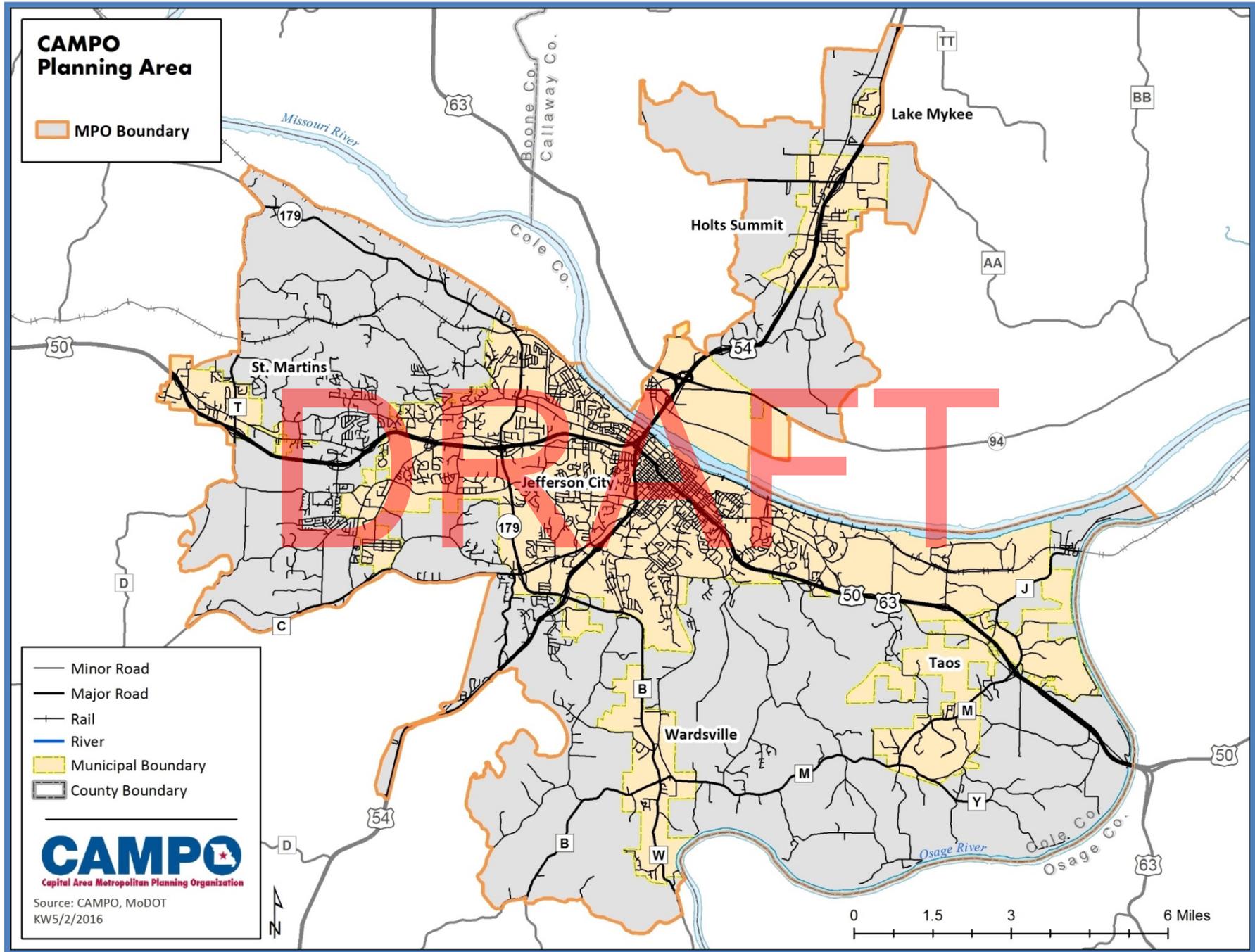


Figure 1.3: Proportions, Distance, and Duration of U.S. Walking and Bicycling Trips by Purpose

Trip Purpose	Walk Only Total Trips: 40,962 million			Bicycle Total Trips: 4,082 million			
	Percent of Trips	Average Trip Length (miles)	Average Travel Time (minutes)	Percent of Trips	Average Trip Length (miles)	Average Travel Time (minutes)	
To or from work	4.5	1.0	16.2	10.9	3.8	21.2	^a Includes business meetings and other work-related activity.
Work-related business ^a	1.7	1.1	14.0	1.8	3.3	21.7	^b Includes going to school, religious activity, school or religious activity, and library for school purposes.
School or church ^b	8.6	0.6	14.5	6.0	1.6	15.2	^c Shopping, buying goods, and buying gas.
Shopping ^c	14.7	0.6	12.7	9.8	1.3	14.0	^d Includes day care, buying services, family or personal business, wedding or funeral, grooming, pet care or dog walk, civic meeting, transporting someone, meals, social event, getting a meal, and getting snacks.
Other family or personal business ^d	21.5	0.5	11.2	8.2	1.4	15.5	^e Includes rest and relaxation or vacation.
Medical or dental	0.9	0.7	16.1	0.2	2.2	26.0	^f Visit only.
Vacation ^e	1.9	0.8	22.5	2.1	2.4	21.0	^g Includes social or recreational; exercise (e.g., walking and jogging); playing sports; going out for entertainment; visiting a public place; eating a meal; social event; getting or eating a meal, coffee, or snacks.
Visit friends or relatives ^f	8.7	0.6	11.7	13.0	1.0	13.9	
Other social or recreational ^g	35.4	0.8	18.3	47.3	2.6	22.5	
Other	1.4	1.2	13.1	0.1	2.3	16.0	
Refused or not available	0.8	0.8	22.0	0.8	2.7	25.7	
All purposes	100.0	0.7	14.9	100.0	2.3	19.4	

Source: [TR NEWS 280 MAY-JUNE 2012](#), 2009 NHTS

Reference to this figure?????

Benefits of Active Transportation

Active Transportation can include walking, bicycling, skating, skateboarding and public transit. Using active transportation to make local trips, such as, accessing local shops, restaurants, parks, entertainment or to visit friends is an easy way for people to get their daily dose of physical activity and contribute to the local economy. While this is not an Active Transportation Plan, it is important to plan for all types of active transportation, including walking and bicycling.

The benefits associated with planning for a more bicycle and pedestrian friendly community are varied and complex. Planning for a more bikable and walkable community contributes to resolving several complex and interrelated issues, including;

- **Health** – Physical activity such as walking and biking can reduce incidences of chronic health problems and improve quality of life.
- **Economic Development** – Walkable and bikable communities encourage the local economy through more traffic to local businesses, tourism, and increased home values.
- **Safety**– More people walking and biking can increase awareness of road users and reduce congestion. Creation of pedestrian and bicycle facilities can also protect non-motorized road users.
- **Environmental Impacts** – fewer cars on the road means less greenhouse gas emissions and a reduction in noise pollution.
- **Accessibility**– Walking and biking are low cost transportation options that all members of the community can access.

By guiding the region toward bicycle and pedestrian friendly development, this plan can affect all of these areas, collectively influencing existing and future quality of life in the CAMPO region.

Health

Almost two of every three Missourians are overweight or obese, according to the Missouri Department of Health and Senior Services (DHSS). These conditions impact all ages, genders, ethnicities, and socioeconomic groups.

“Physical activity doesn't need to be very strenuous for an individual to reap significant health benefits. Even small increases in light to moderate activity, equivalent to walking for about 30 minutes a day, will produce measurable benefits among those who are least active.”

- University of North Carolina - Highway Safety Research Center

According to the Centers for Disease Control (CDC), the health benefits of regular physical activity can include: reduced risk of coronary heart disease, stroke, diabetes, and other chronic diseases; lower health care costs; and improved quality of life. Regular exercise provides the opportunity for health benefits for older adults such as a stronger heart, a more positive mental outlook, and an increased chance of remaining indefinitely independent—a benefit that will become increasingly important as our population ages in the coming years.

Physical activity doesn't need to be very strenuous for an individual to reap significant health benefits. According to a 2009 study on Active Transportation conducted by Active Living Research, a substantial body of research shows that certain aspects of the transportation infrastructure such as: public transit, greenways/trails, sidewalks, bicycle paths, and traffic-calming devices are associated with more walking and bicycling, greater physical activity and lower obesity rates.²

² http://activelivingresearch.org/files/ALR_Brief_ActiveTransportation_0.pdf

Economic Development

Economic benefits are also associated with improved conditions for walking and biking. According to a 2015 study by the American Planning Association, these benefits may include higher property values, an increase in visitors, an increase in pedestrian and bicycle traffic near businesses, and job creation for construction and maintenance of bicycle and pedestrian facilities. Pedestrians and bicyclists may be more likely than motorists to stop at local establishments, as they are moving at a slower pace and may be more likely to notice shops, restaurants, or other services. **Also, nonmotorized travel like walking, bicycling, or using public transit is minimal compared to motorized travel.** Investing in the improvement of active transportation systems not only contributes to a healthier community, but also create dynamic, connected communities which promote small business development, encourage tourism, and improve the economic health of the community.

Across the nation, several states have conducted economic impact studies looking at the impacts of bicycling or active transportation in terms of recreation, bicycle manufacturing, spending, and tourism. Figure 1.4, shows the results of 11 of these studies.

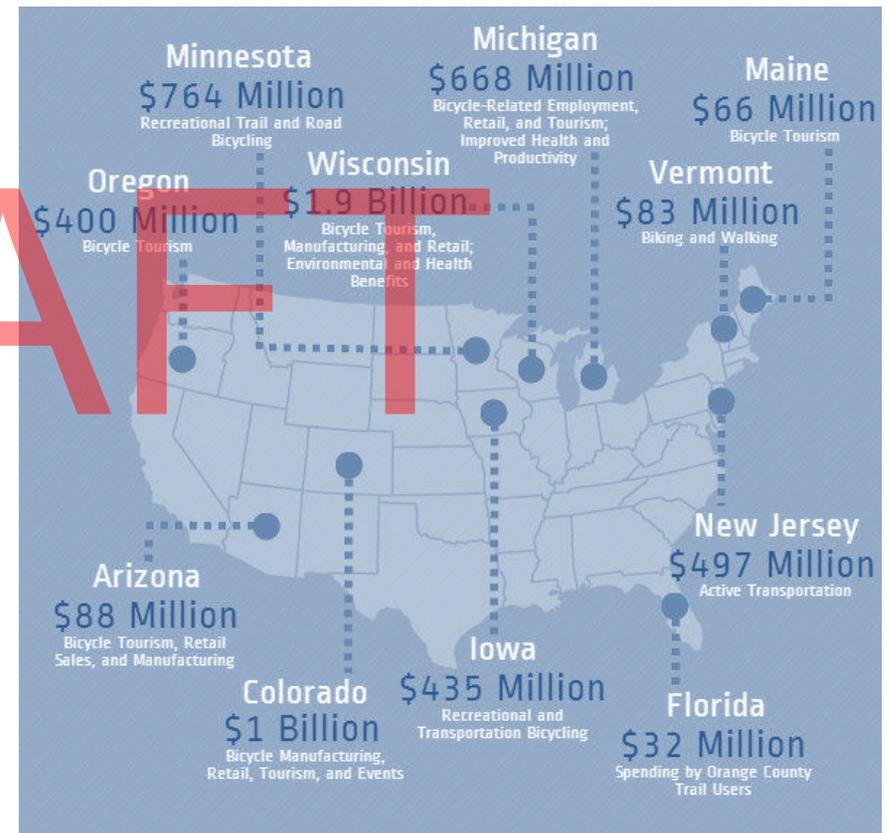
Similar economic impact studies in Washington, North Carolina, Montana, and Missouri show similar economic finding of beneficial economic impact of bicycling activities.

In 2012, the *Katy Trail Economic Impact Report* showed that there are more than 400,000 annual visitors to Missouri's Katy Trail State Park with a total economic impact of \$18,491,000 a year. These visitors support 367 jobs with a total payroll of \$5,128,000. The total value added to local communities from visitor spending is estimated at \$8,204,000.³ The report showed that two-thirds of Katy Trail users were not local, but visitors. The report also estimated that the Tour of Missouri bicycle events, held between 2007 and 2009 had a direct economic impact of more than \$80

million, with \$38 million in tax revenues.⁴ Connectivity to the Katy Trail provides great economic benefits to the CAMPO region.

In addition to economic impacts generated by tourism, walkable and bikable communities can also increase home values and attract home buyers. "Walk Scores" are used to measure walkability within a specific community or neighborhood. The score uses a scale of 0 – 100 and is based on distance along walking routes to amenities such as grocery stores, schools, parks, restaurants, and shopping. **Insert graphic on walk scores – expound!**

Figure 1.4: Nationwide pedestrian and bicycle economic impact studies



Source: Bike Utah

³ http://mostateparks.com/sites/default/files/Katy_Trail_Economic_Impact_Report_Final.pdf

⁴ Tour of Missouri. (2010). Tour of Missouri Set to Cancel for 2010, May 27, 2010. <http://mobikefed.org/content/tour-missouri-set-cancel-2010>

"The walkability of cities translates directly into increases in home values. Houses with the above-average levels of walkability command a premium of about \$4,000 to \$34,000 over houses with just average levels of walkability in the typical metropolitan areas studied."

- CEOs for Cities, August 2009



Obtaining national designations, such as a “Bicycle Friendly Community” sponsored by the League of American Bicyclists or a “Walk Friendly Community” sponsored by the US Department of Transportation, can provide a community with a positive image that can assist with both attraction and retention of people and businesses. These national designations also provide communities with valuable resources, tools, and planning assistance.

CAMPO applied to be a “Bike Friendly Community” in 2014. While CAMPO area does not currently meet the criteria necessary to attain this status, it is hoped that this plan will assist individual communities in future applications. The application feedback provided the League of American Bicyclists can be found in Appendix G.

Additionally, walking and biking is less expensive than driving. Walking is relatively free and according to the Bureau of Transportation Statistics, annual bicycle operating costs are, on average, as low as \$308 per person. According to AAA, in 2015 the average cost to operate a sedan was approximately \$8,698.

Do we need any charts or other graphics?

Safety

Planning for and implementing pedestrian and bicycle improvements such as those referenced in this plan can contribute to safer conditions for all roadway users.

In general, collision involving pedestrians and bicyclists represent a small number of total collisions (1.0% and 0.5% of all crashes, respectively); although when a pedestrian or bicyclist is involved in a collision, the potential for harm is much greater. While pedestrians and bicyclists have primary responsibility for their own safety, the motoring public also has a responsibility to share the road.

According to MoDOT, statewide between 2011 and 2013, there were 234 fatal pedestrian-involved crashes and 807 serious injury pedestrian-involved crashes. During that three-year period, of the 239 persons killed in pedestrian involved crashes, 236 (98.7%) were the pedestrians. Of the 840 seriously injured in pedestrian involved crashes, 807 (96.1%) were the pedestrians. **Insert chart for all these figures**

During that same time period, there were 11 fatal bicycle-involved crashes and 212 serious injury bicycle-involved crashes. Of the 11 persons killed in bicycle-involved crashes, all were the bicyclists. Of the 215 persons seriously injured in bicycle-involved crashes, 212 (98.6%) were the bicyclists.⁵

Between 2006 and 2013 that CAMPO region 121 pedestrian or bicycle collisions occurred, 87 of which involved pedestrians and 34 involved bicyclists. Of these collisions there were 3 pedestrian fatalities, all occurring along US 54.

Creating designated spaces for pedestrians and bicyclists, separated from motorized traffic, can increase safety for all users. Sidewalks, bike lanes, shared lanes, and shared-use paths are all designed to create a safe space for these vulnerable road users. **data from Blueprint, safety assessment?**

⁵ <http://contribute.modot.mo.gov/safety/documents/FY16HSPand405.pdf>

Environmental Impacts

Walking, bicycling, and public transit use can have significant positive impact on the environment. Motor vehicles create a substantial amount of air pollution. According to the U.S. Environmental Protection Agency (EPA), motorized vehicles are responsible for nearly 80 percent of carbon monoxide and 55 percent of nitrogen oxide emissions in the United States. Many metropolitan areas do not meet the air quality standards specified in the 1990 Clean Air Act Amendments. Although cars are much more fuel efficient and cleaner than in previous years, if total traffic continues to grow, overall air quality will deteriorate. Moreover, every day cars and trucks burn millions of barrels of oil, a non-renewable energy source.

Walking and bicycling reduces driving and related pollution. According to a 2011 Centers for Disease Control and Prevention report, between 1990 and 2009, vehicle miles traveled for light-duty trucks and passenger cars increased by 39 percent, which was a result of economic growth, relatively low fuel prices, population growth, and dispersed land use practices.

Multiple studies and reports have concluded that better air quality and increased physical activity can provide quantifiable health benefits which outweigh the cost of building pedestrian and bicycle facilities. In general, reducing vehicle miles traveled offers numerous benefits. Carpooling or vanpooling lowers the number of vehicles on the road, which helps reduce emissions as well as the wearing down of roads and the associated costs of maintaining those roads.

Planning for and implementing pedestrian and bicycle initiatives and infrastructure contribute to a reduction in environmental impacts. This, in turn, contributes to a better quality of life with in a community.

Accessibility

Not providing facilities for alternative transportation options such as walking, bicycling, and public transit can prohibit certain populations from access important local resource. Facilities such as sidewalks, crosswalks, and bike lanes allow people to choose how they want to travel. Travel by personal vehicle is not an option for all people due to income, disability, age or other socio-economic factors. A lack of choice in transportation options creates an inconvenient and socially unjust barrier to mobility. **Photo?**

The high cost of car ownership means that low-income families will have to spend a greater portion of their income on owning and operating a car or choose not to have one. Low-income individuals and families are placed at a great disadvantage motorized travel is the only feasible mode of transportation in a community. By providing safe and convenient pedestrian and bicycle facilities, the community can ensure that all citizens have access to a viable mode of transportation.

Recently, a new term has been used to help identify the majority of those that bicycle as their only means of reliable transportation: the “invisible cyclists”. **Photo?** While the term itself is not without controversy, the main idea is this: that there are a number of people, many of which are minorities or persons living in poverty, that bicycle not for recreation but for transportation purposes. This group is often overlooked by transportation officials and bicycle advocates when planning new bicycle infrastructure.

Many people either choose not to drive or are not able to drive because of some sort of mobility issue. Active transportation alternative such as walking and bicycling provides people with an option to patronize businesses, travel to work, access local resources, or just enjoy the freedom of mobility.

References needed for these items

Figure 1.5: Cyclist on Missouri Blvd



Figure 1.6: Income and mode of transportation.

Household income among U.S residents, and U.S. bike, taxi or motorcycle commuters



SOURCE: U.S. Census Bureau, 2014 American Community Survey 1-Year Estimates

Kinder Institute for Urban Research

Plan Development

In the spring of 2015, the CAMPO Board of Directors approved the creation of two committees to support the development of this plan. These two committees, the Advisory Committee and the Steering Committee, were key participants in the creation of this plan, as they were comprised of a number of public and private stakeholders and provided invaluable input and commentary to CAMPO staff as the plan was developed.

Advisory Committee Members

The Advisory Committee was created to provide a forum to collect thoughts and ideas about how the CAMPO region could improve pedestrian and bicycle condition. These ideas were used to develop goals, objectives, and recommendations that were then passed on to the Steering Committee for review. Along with several private citizens, the following public and private entities listed below participated in the Advisory Committee meetings. A full list of participants is located in the Appendix B.

- City of Jefferson
- Holts Summit
- St. Martins
- Cole County
- Federal Transit Administration
- Federal Highway Administration
- Missouri Department of Health and Senior Services
- Missouri Department of Transportation
- Cole County Health Department
- Missouri Bicycle and Pedestrian Federation
- Lincoln University
- Red Wheel Bike Shop
- Hartsburg Cycle Depot
- Independent Living Resource Center
- Missouri River Regional Library
- Capital Region Medical Center
- Jefferson City Convention and Visitors Bureau
- Jefferson City Area Chamber of Commerce
- Jefferson City Public Schools
- AARP – Missouri

Steering Committee Members

The Steering Committee was created to review and finalize the goals, objectives, and recommendations and look at the feasibility. The Steering Committee was also used to review drafts of the planning document as it was developed. The entities listed below participated in the Steering Committee meetings. A full list of participants is located in the Appendix B.

- City of Jefferson Staff (Planning and Protective Services, Public Works, Parks Recreation, and Forestry, Police Department)
- Cole County Public Works
- Missouri Department of Transportation
- CAMPO Board and Technical Committee Members
- City of St. Martins
- Federal Transit Administration
- Federal Highway Administration
- Missouri Bicycle and Pedestrian Federation

Figure 1.7: Advisory Committee learning about bus bike racks.



Photo Courtesy: CAMPO Staff

Meetings and Public Outreach

From spring 2015 to the summer of 2016 several meetings and public outreach events were held to collect input, including; 10 committee meetings, booths at local festivals, training events, and three open house events. All of these meetings and events are listed below.

- Steering Committee Meeting – April 2, 2015
- Advisory Committee – April 14, 2015
- Joint Committee Meeting – May 19, 2015
- Thursday Night Live – June 18, 2015
- Open House – June 25, 2015
- Joint Committee Meeting – July 14, 2015
- Joint Committee Meeting – September 17, 2015
- Joint Committee Meeting – October 27, 2015
- League of American Bicyclist Visit – November 10, 2015
- Livable Streets Workshop – December 1, 2015
- Joint Committee Meeting – January 27, 2016
- Steering Committee – February 4, 2016
- Steering Committee – March 3, 2016
- Open House – May 25, 2016
- Steering Committee – June 16, 2016
- **Open House - August**

Topics at these meetings or events included identification of problem areas, opportunities for improvement, gaps in connectivity, and discussion of ordinances and policies. Surveys and open house events created a forum for direct interaction with the public.

In addition to the public meetings and committee meetings CAMPO also invited comment and participation of several other stakeholders including:

- Local Law Enforcement
- Private Schools
- Tourism Promoters
- Local Non-Profits and Advocacy Groups

Figure 1.8: June 25, 2015 Open House. More than 50 people attended the event, providing CAMPO staff with a range of useful comments and suggestions on improving pedestrian and bicycle access.



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More information about meeting activities?

Outreach to CAMPO Jurisdictions

Surveys

As a compliment to the public meetings and events, the public was asked to provide comment via survey. The surveys were provided at all public meetings and made available online.

Survey questions included general questions about:

- Reasons for wanting better walking and bicycling facilities
 - Tourism and economic development
 - Improved access and mobility option
 - Increasing health and physical activity
 - Safety
 - Environmental impact
 - Quality of life
- Existing facilities that are used
- Challenges to walking and bicycling in the region
- Demographics

More than 162 online or paper surveys were completed by the public. Survey results were an important resource during the development of the goals and recommendations used in this plan and guided much of the content. Survey results showed a great interest in:

- Improvement of trails, sidewalks, and bike lanes
- Relief of traffic congestion
- Improvement of safety
- Improvement of access to natural areas in the region

Issues and Challenges

After reviewing public comments, survey responses, and committee input, several repeated concerns became evident. These areas of concern were used to develop a list of challenges and opportunity areas across the region. These areas are listed below and shown in Figure 1.1.

- Lack of connectivity of sidewalks and transit stops, especially in regard to ADA compliance
- Lack of sidewalk connectivity between businesses and residential areas
- Very few areas with designated bike lanes or “share the road” signage
- Not enough pedestrian and/or bicycle signalized crossings along US 50/63 or on Missouri Boulevard
- Many sidewalks are not ADA compliant, especially important in commercial areas and dense residential areas such as downtown Jefferson City, school zones in most communities, and along Missouri Boulevard
- Lack of trees along sidewalks
- Need for walking school bus programs at local schools
- Install traffic cameras at dangerous intersections, areas, or in school zones.
- Not enough bicycle parking at bus stops, along the greenway, and at commercial businesses
- Install wayfinding signage along greenways, bicycle routes, and sidewalks
- Need for better speed limit enforcement on Missouri Boulevard, McCarty St., Summit Dr., and Business 50.
- Lack of shoulders for walking or bicycle along state routes in rural areas.

*Map of identified problem areas,
highlighting areas with gaps in
connectivity and access and areas of
opportunity*

Trailnet

Trailnet, based in St. Louis, provided support to CAMPO in the development Capital Area Pedestrian and Bicycle Plan. CAMPO entered into a Memorandum of Understanding (MOU) with Trailnet to assist with the development of the plan's vision and goals. Trailnet has contracted with the Missouri Department of Health and Senior Services (DHSS) to promote the Missouri Livable Streets Initiative, which "seeks to support and improve the health, well-being and economic vitality of all people and communities across the state through transportation and active living policy development and education."

The MOU included several goals and community responsibilities that were used to guide the planning process, including:

- Attending or hosting a Livable Streets Training
- Technical assistance to help guide develop policy and street design standards
- Assistance implementing Livable Streets Policies within the CAMPO region
- Identifying best practices
- Creation of informational & policy briefs

Livable Streets

In December 2015 CAMPO hosted a Livable Streets Workshop, funded by DHSS and lead by Trailnet. CAMPO partnered with the Mid-Missouri Regional Planning Commission in hosting the event, which was attended by staff and elected officials from several communities in the Mid-Missouri region.

Livable Streets, also known as Complete Streets, is a design and planning approach that considers the needs and safety concerns of all residents and users, including vehicles, pedestrians, bicyclists, transit users, seniors and the mobility-impaired. The workshop was meant to enable local planners to apply designs that accommodate all users of the roadway whether they are on foot, bicycle, bus, or wheelchair. Participants in the workshop took part in walking, biking, and wheelchair tours to better understand Livable Streets

designs. Attendees included both Jefferson City and Fulton mayors, MoDOT staff, and public works staff, planners, and engineers from several cities and counties.

Jefferson City is the only community within the CAMPO region to have passed resolution in support of Livable Streets. The resolution was passed in November of 2011. A copy of the resolution can be found in **Appendix E**.

CAMPO Livable Streets Policy???? Appendix E

A template for a livable streets policy can be found in **Appendix D**.

*Figure 1.10
Attendees of the Livable Streets workshop take a bicycle tour of downtown Jefferson City, looking at infrastructure gaps and challenges.*



League of American Bicyclists

The League of American Bicyclists conducted an assessment and provided assistance to CAMPO and Jefferson City staff with the goal of helping Jefferson City become a “Bicycle Friendly Community”. The Bicycle Friendly Community program “provides a roadmap to improve conditions for bicycling and the guidance to make a community’s distinct vision for a better, bikable community a reality.”

According to the League, “between 2000 and 2013 the percentage increase of people commuting by bike was more than three times the growth in cities that have received BFC designation than those that have not.”

The assessment event included:

- Hands-on technical assessment of city bicycling infrastructure (via a group bicycle ride/audit) and review of efforts to encourage cycling;
- Meeting with planners, city staff, and local bike advocates to discuss best practices and provide feedback on how to achieve the Bicycle Friendly Community designation;
- A post-visit Bicycle Friendly Community Report Card that will provide a quick action plan and an initial assessment, focusing on priority actions that will have the greatest impact.

The event was a great opportunity to leverage the League’s knowledge and expertise during the development of the Capital Area Pedestrian and Bicycle plan. While Jefferson City and CAMPO have both submitted applications to become a Bicycle Friendly Community, infrastructure improvements and changes in policies and planning are still needed before either entity can be approved. [The CAMPO feedback and report card from the 2014 application can be found in Appendix G.](#)

Figure 1.10: League of American Bicyclists and CAMPO Board and staff members take a bicycle tour of downtown Jefferson City, pointing out best practice recommendations.



Myth:

Bicyclists should ride on the sidewalk.

- A review of 23 studies on bicycling injuries found that bike facilities (e.g. off-road paths, on-road marked bike lanes, and on-road bike routes) are where bicyclists are safest.
- One would think that bicyclists are safest on sidewalks, separated from automobile traffic. Riding on the sidewalk does reduce the incidence of crashes involving cars passing bicyclists, but sidewalk riders significantly increase the risk of being hit by turning drivers. It also endangers pedestrians.

Previous Planning Efforts

Prior to this document, several previous planning efforts have identified projects, strategies, and/or activities that indicate the desire to improve pedestrian and bicycle facilities and access in the CAMPO region.

The following list includes local planning documents that identify these improvements:

- 2013-2035 Metropolitan Transportation Plan
- Jefferson City Area Greenway Master Plan – 2007
- A Sidewalk Plan for Jefferson City, Missouri
- Holt Summit’s Bicycle, Pedestrian, and Transit Plan 2014
- Cole and Callaway Counties Sidewalk Inventories
- City of Jefferson’s Central East Side Neighborhood Plan
- CAMPO Regional Wayfinding Plan
- City of Jefferson 1996 Comprehensive Plan

Due to the specific nature of each plan, some provided more pertinent information than others. Those plans have been highlighted below.

Jefferson City Area Greenway Master Plan – 2007

Continuing the efforts of the *1991 Greenway Develop Plan*, the purpose of the Jefferson City Area Greenway Master Plan – 2007 is to create a cohesive greenway network to serve both recreation and transportation needs of Jefferson City area residents. This plan includes on-street, off-street, and mountain trail bicycle and shared path facilities, not only within the municipal limits, but extending into Callaway and Cole counties. Two projects to note outside of the municipal limit which have been developed include a connector from the Katy Trail to S. Summit Drive in Callaway County and a section of greenway on Business 50 West near Pioneer Trail Elementary school in Cole County. These two examples demonstrate various regional entities willingness to work together to ensure the safety of pedestrians and bicyclists, as well as working towards connecting jurisdictions together for pedestrians and bicyclists.

Sidewalk Plan for Jefferson City, Missouri

The *2010 Sidewalk Plan* was intended to complement the Greenway Plan and help set the expectation that sidewalks are an important component of the entire transportation system. The goals of the plan include: develop a Master Sidewalk Plan to guide private and public investments in sidewalks; promote and encourage personal mobility by providing a pleasant, safe and efficient walking experience; and strive for responsible stewardship of existing and planned pedestrian facilities. The outcome of this plan was a city ordinance adopting the plan and associated map of required sidewalks, which identifies most arterial and collector streets as requiring sidewalks.

2013-2035 Metropolitan Transportation Plan

The CAMPO *2013-2035 Metropolitan Transportation Plan* addresses all modes of surface transportation. The overarching vision of the plan is to “Enhance regional quality of life.” The goal to provide “Infrastructure support for community health and economic growth,” and many of the plans objectives, such as increase sidewalk mileage, improve the number and locations of crosswalks, corridor preservation for non-motorized transportation, improve transit connectivity, and build and maintain sidewalks and greenways can be directly related to support active transportation systems.

Additionally, this plan will serve as a component of the Capital Area Metropolitan Planning Organization’s (CAMPO) Metropolitan Transportation Plan, the long-range transportation plan for the region. The plan is updated at least every 5 years and covers at least a 20-year planning horizon. The plan is the outcome of the ongoing process of examining travel and transportation issues and needs in the metropolitan planning area surrounding the Jefferson City Urbanized Area.

Holts Summit Bicycle, Pedestrian, and Transit Plan 2014

The 2014 Plan is the most recent plan in the Holts Summit area. “The vision of this program is to provide Holts Summit residents with increased opportunities to walk or ride a bicycle as part of their everyday life. To improve the transportation network that offers choices (bike, pedestrian, transit, or personal auto) among travel modes for specific trips, but more importantly presents these options in a way that they are real choices that meet the needs of individuals and the community as a whole.” The Holts Summit plan identifies sidewalk improvements along all of the city’s arterial streets, pedestrian overpass, greenway trail connection to the Katy Trail, and future transit stops for the City of Jefferson’s JEFFTRAN bus service.

City of Jefferson Central East Side Neighborhood Plan

In 2005, the City of Jefferson Central East Side Neighborhood Plan was published. In it, the community identified the need for “tree lined streets and sidewalks”. Additionally, a key planning provision of the Plan is the need to improve the streetscape environment in order to meet the needs of the neighborhood. The plan further identified safe walkable sidewalks and to “provide [a] pleasant sidewalk environment” as necessary for continued and future growth of the neighborhood. The plan continues by further discussing ideal neighborhood elements as identified by stakeholders, which includes walkable and safe streets, open space, and a pedestrian oriented retail district.

CAMPO Regional Wayfinding Plan

The 2015 CAMPO Regional Wayfinding Plan was written to help the jurisdictions within the region have an economic development tool, one identified by many local business groups and the Chamber of Commerce. The implementation aspect of this however will also benefit those pedestrians and bicyclists that are unfamiliar with the region connect to and from the Katy Trail and the City of Jefferson greenway trail system.

Missouri on the Move

As part of MoDOT's *Missouri on the Move*, long range planning process a massive public involvement process lead to the development of four goal areas. Two important goals to note is:

- “Keep all travelers safe, no matter the mode of transportation.”
- “Give Missourians better transportation choices (more viable urban and rural transit, friendlier bike and pedestrian accommodations, improvements in rail, ports and airport operations).”

MoDOT also sought feedback from Missourians in the Central District about projects to include in Missouri’s transportation future. Types of important projects identified:

- Consider bike/pedestrian elements on all projects and integrate bike/pedestrian elements as much as possible.
- Upgrade sidewalks in smaller cities to improve mobility for residents.
- Provide wayfinding signs on all major national bike routes and add shoulders where possible.

Katy Trail Economic Impact Report

??

Missouri State Penitentiary Redevelopment Plan

??

Conclusion.....The desire for infrastructure for active transportation is not a new desire by the region. So some sort of conclusion stating this in not a new idea but folks have been planning and desiring more bike ped facilities and mindset change. .

2 Vision, Goals, and Objectives

The Vision, Goals, and Objectives developed for this plan are the foundation for developing and improving pedestrian and bicycle travel in the CAMPO region. A wide variety of stakeholders, and the public contributed to the development of the vision statement, which establishes the basic principles used to develop the goals, objectives, and recommendations identified. This Plan seeks to provide guidance for the region to become more pedestrian and bicycle friendly through improvements to safety, access, and mobility.

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Vision

"A vibrant, comprehensive transportation network where all persons can safely walk, bike, & ride the bus efficiently and conveniently with continuous collaboration from the community."

Goals and Objectives

The goals have been created to complement the Vision statement. Working with St. Louis-based Trailnet, through the Missouri Department of Health and Senior Services, a joint Advisory and Steering Committee meeting helped refine the goals. Both the vision statement and goals were subsequently approved by the Steering Committee.

Each goal was assigned specific and measurable objectives, which supports the achievement of the goal and realization of the vision. Each objective has at least one strategy to help achieve the objective. A performance measure represents data to be collected and analyzed, *more details about performance measures may be found in Appendix X*. Performance measures will be reported at the next update of this plan. Some of these performance elements may be used help prioritize future transportation projects and investments and become part of the CAMPO overall transportation performance management system.



Photo Courtesy: CAMPO Staff

1. ***Improve user safety of all modes of transportation.***
 - Review existing laws regarding safety for people walking and biking.
 - Improve planning and engineering procedures and policies.
 - Improve enforcement and increase penalties for violation of traffic laws.
 - Create an ongoing education program for pedestrians, bicyclist, and motorists.
2. ***Increase the number of people walking, bicycling and using transit.***
 - Encourage people to walk, bike and ride public transit.
 - Increase walking, bicycling, and bus access to existing community events.
 - Educate people about walking, bicycling and riding public transit.
3. ***Stimulate economic development within the community.***
 - Enhance tourism.
 - Increase access to local stores, restaurants, and other businesses.
 - Improve access to employment and commerce.
4. ***Educate the community on the benefits of well-connected transportation system that includes vehicles, walking, biking, and transit.***
 - Increase awareness regarding transportation using non-personal motor vehicles.
5. ***Improve the health and well-being of all members of the community.***
 - Incorporate a health consideration component in all policies.
 - Reduce health issues associated with sedentary lifestyles (e.g. type 2 diabetes, heart disease and obesity).
6. ***Foster a continued, collaborative, cooperative relationship with the public in the development of a well-connected transportation system.***
 - Encourage community and regional involvement.

Recommendations

In order to reach the Goals and Objectives that were developed as part of the planning process, the Steering Committee and CAMPO staff created a list of recommendations. These recommendations represent a range of activities that jurisdictions within CAMPO can use to develop a community specific implement strategy. The CAMPO Implementation Strategy can be found in Chapter 5.

The Steering Committee developed the list of recommendations by using the “5E” approach⁶. The League of American Bicyclists and the Federal Highway Administration both recommend this approach when developing a plan for pedestrian and bicycle improvements.

The Five “E”s

Engineering – Creating operational and physical improvements to the infrastructure surrounding schools that reduce speeds and potential conflicts with motor vehicle traffic, and establish safer and fully accessible crossings, walkways, trails and bikeways.

Education – Teaching children about the broad range of transportation choices, instructing them in important lifelong bicycling and walking safety skills, and launching driver safety campaigns in the vicinity of schools.

Enforcement – Partnering with local law enforcement to ensure traffic laws are obeyed in the vicinity of schools (this includes enforcement of speeds, yielding to pedestrians in crossings, and proper walking and bicycling behaviors), and initiating community enforcement such as crossing guard programs.

Encouragement – Using events and activities to promote walking and bicycling.

Evaluation – Monitoring and documenting outcomes and trends through the collection of data, including the collection of data before and after the intervention(s).

⁶[FHWA Safe Routes To School guidance](#)



Photo Courtesy: CAMPO Staff

Engineering

1. Improve pedestrian and bicycle routes connecting communities in the area.
2. Develop a bicycle route between the Katy Trail and Rock Island Trail.
3. Improve multi-modal access to on-street and off-street. (bike lanes, public racks, bus stop racks, crosswalks, wayfinding etc.)
4. Connect walking, bicycling, and transit facilities to housing, employment, businesses, and essential services.
5. Install wayfinding signage along greenways, bicycle routes, and sidewalks as well as trailblazing signs (e.g. a connection between the Katy and Rock Island Trails through the region) throughout the CAMPO area.
6. Provide support to CAMPO jurisdictions with the development of routes for pedestrians and bicyclists. (i.e. landuse, topography, design standards, etc.)
7. Incorporate trees and other plantings into the design of existing and future pedestrian and bicycling routes.

Education

8. Develop and support public education campaigns.
 - Bicycling skills and bicycle maintenance classes for adults.
 - Training for use of public transportation for the general public and disabled persons.
 - Distribute bicycle/pedestrian safety educational brochures to bicycle shops, schools, gyms and post on the City's website.

Encouragement

9. Join alliances such as MoCAN (Missouri council on Action and Nutrition), Central Missouri WeCan (Ways to Enhance Children's Activity), Healthy Living Alliance (HLA), and other organizations working to encourage healthy, active living.
10. Conduct transit awareness activities, such as free ride the bus periods.
11. Encourage membership in the Bicycle Friendly America program.
 - Obtain Bicycle Friendly Community status for each jurisdiction and strive to reach the Diamond Level.
 - Obtain Bicycle Friendly University status for Lincoln University.
 - Obtain Bicycle Friendly Business status for local business.
12. Encourage employers to incentivize and promote walking and bicycling for their employees and customers (provide shower / locker facilities, for example).
13. Encourage event or festival organizers to provide bicycle parking and free transit.
14. Promote walking, cycling, and transit throughout the year with family-oriented community and charity rides, free bike valet parking and transit at events, and bicycle-themed festivals, parades, or shows.
15. Organize walking- and bicycling-centric tourism events.
16. Promote mobility options available to tourists visiting the area.
17. Publish bicycle maps and make maps easily available online by providing links (QR code, bar code, etc.) along bicycling routes.
18. Leverage social media in regard to activities, events, news releases, etc. about pedestrian and bicycling in the area.
19. Issue proclamations recognizing important dates and events related to walking, bicycling and transit.
20. Establish walking school bus programs.

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Enforcement

21. Adopt/Enforce ordinances to protect vulnerable road users. (Anti-harassment, etc...)
22. Develop an education and enforcement campaign for all modes, emphasizing changing behavior, not as a ticketing campaign, but through education in an instructive atmosphere.
23. Investigate crashes involving pedestrians and bicycles to ensure proper citations are issued.
24. Ensure law enforcement agencies are aware of changes in traffic laws concerning pedestrians/bicyclist and drivers.
25. Install traffic cameras at dangerous intersections, areas, or in school zones.
26. Research interventions to increase the safety surrounding off-street bicycle facilities during peak hours and evenings.
27. Review existing bicycle registration programs (local and national) to determine the best registration program to meet the needs of area bicyclists and to increase bicycle registrations.

"Our most fundamental problem with pedestrian travel in Jefferson City is a lack of [an] overall sidewalk network to businesses from residential areas and other businesses. (there are sidewalks, but in many cases they aren't connected)"

- Public comment from June 2015 Open House event

Evaluation & Planning

28. Adopt a Livable Streets policy in jurisdictions currently without such a policy.
29. Adopt and implement streetscape design guidelines (e.g. specifications for lights, trees and landscaping, and street furniture), such as the National Association of City Transportation Officials Urban Bikeway Design Guide.
30. Require a mix of uses throughout the community or adopt a form or design-based code to allow for flexible land uses.
31. Creation of a Pedestrian & Bicycle Committee or assign responsibility to an existing committee.
32. Increase the amount of bicycle parking throughout the community, including high density residential areas.
33. Develop an on-street bicycle plan.
 - Evaluate new road plans for potential pedestrian and bicycle facilities.
 - Review pedestrian and bicycle related crash report data in order to mitigate future crashes.
 - Develop a procedure to review speed limits on streets for possible reduction where pedestrian and bicycle safety warrants a review.
34. Develop a plan to improve pedestrian and bicycle access across US highways in the CAMPO area.
35. Require bicycle parking for new commercial and medium to higher density (multi-family) residential developments.
36. Encourage the use of Health Impact Assessments for regionally significant transportation projects within the CAMPO region.
37. Create a schedule to maintain/update the CAMPO Bicycle and Pedestrian Plan
38. Encourage adoption of the CAMPO Bicycle and Pedestrian Plan by all CAMPO jurisdictions

3 Existing Conditions

This chapter highlights the existing conditions of the transportation network, walking and bicycling infrastructure in the, and pedestrian and bicycle crash data in the CAMPO region.

Transportation Network

The CAMPO region’s transportation network is used by more than 72,000 residents, plus commuters and tourists. **Nearly 00% of all trips are walk trips (based on travel survey that does not exist) and about 0% of work trips are walk-only. Most other work trips, particularly transit trips, have a walking component. Safe pedestrian access to transit is critical for all residents and visitors who want to or must use transit. Transit access is particularly important for the young and elderly populations, who have less access to vehicles.**

Bicycling is a growing mode of transportation in the CAMPO region. According to the American Community Survey, the citywide bicycle commuting mode share for 2009 was 2.16%, twice the rate of any other big city in the U.S. Bicycle commuting in the CAMPO region increased 151% from 2000 to 2009, and this dramatic increase is confirmed by bicycle counts taken over the years by the

Bicycle Coalition. In fact, according to BCGP’s 2011 report, Mode Shift, “Between 1990 and 2009, the number of bicyclists crossing the Schuylkill River grew by 361%” (see figure 3).

Myth:

A pedestrian is always safe in a crosswalk.

Many pedestrians are in crosswalks when hit by a motor vehicle. Many motorists do not look for pedestrians when approaching a crosswalk, especially when preparing to make a turn. A motorist may be looking for a gap in traffic or distracted.

Roadway Classification

CAMPO’s streets provide the basic network for walking and bicycling throughout the city. This network is defined using a classification system similar to the U.S.

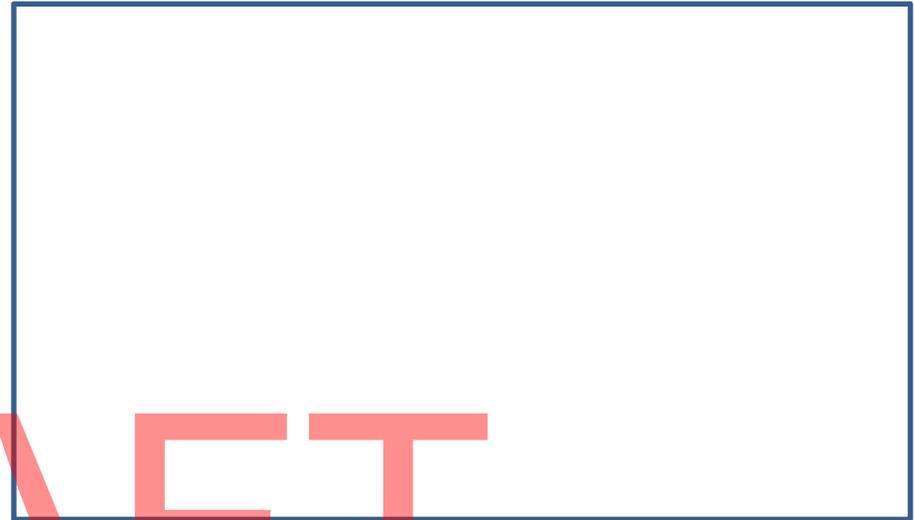


Chart of functional class by region and jurisdiction

Federal Highway Administration’s functional classification system, which must be used for certain funding purposes. A summary of the characteristics of each roadway class, excluding expressways, and the total linear miles in the CAMPO region is included in Table 5.

A major recommendation of this Plan, presented in the following chapter, is the addition of a new street classification system. The new street classification is more context sensitive, incorporating adjacent land use and levels of pedestrian activity along with vehicular function, and will serve as the basis for new sidewalk design standards.

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Multi-Modal Connectivity Map

Trails

Trails make an important contribution to the connectivity of the existing pedestrian, transit, and bicycle networks. Existing trail connectivity between Holts Summit and Callaway County, the Katy Trail, and Jefferson City serves as a complement to existing pedestrian, bicycle, and transit networks. Figure 3.x depicts the miles and types of trails that exist in the CAMPO region.

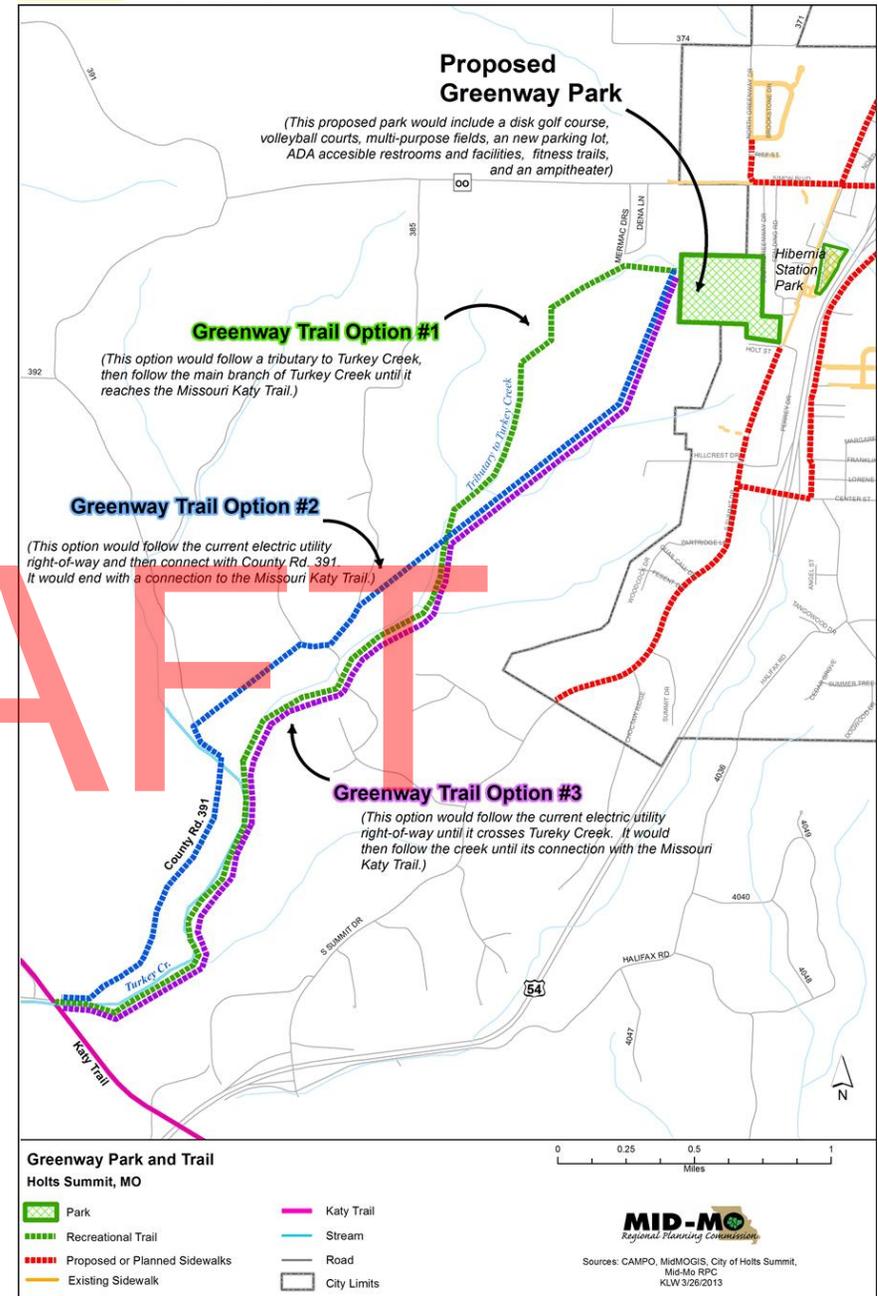
Figure 3.x Miles and types of trails in the CAMPO region



Both Holts Summit and Jefferson City have plans to expand their existing trail systems. Improvements in Holts Summit include creation of a Greenway Trail that would link the Greenway Park with the Katy Trail along the western side of the City. This trail would be located in unincorporated Callaway County. Figure 3.x, taken from the 2014 *Holts Summit Bicycle, Pedestrian, and Transit Plan*, depicts existing and future trails and sidewalks in Holts Summit.

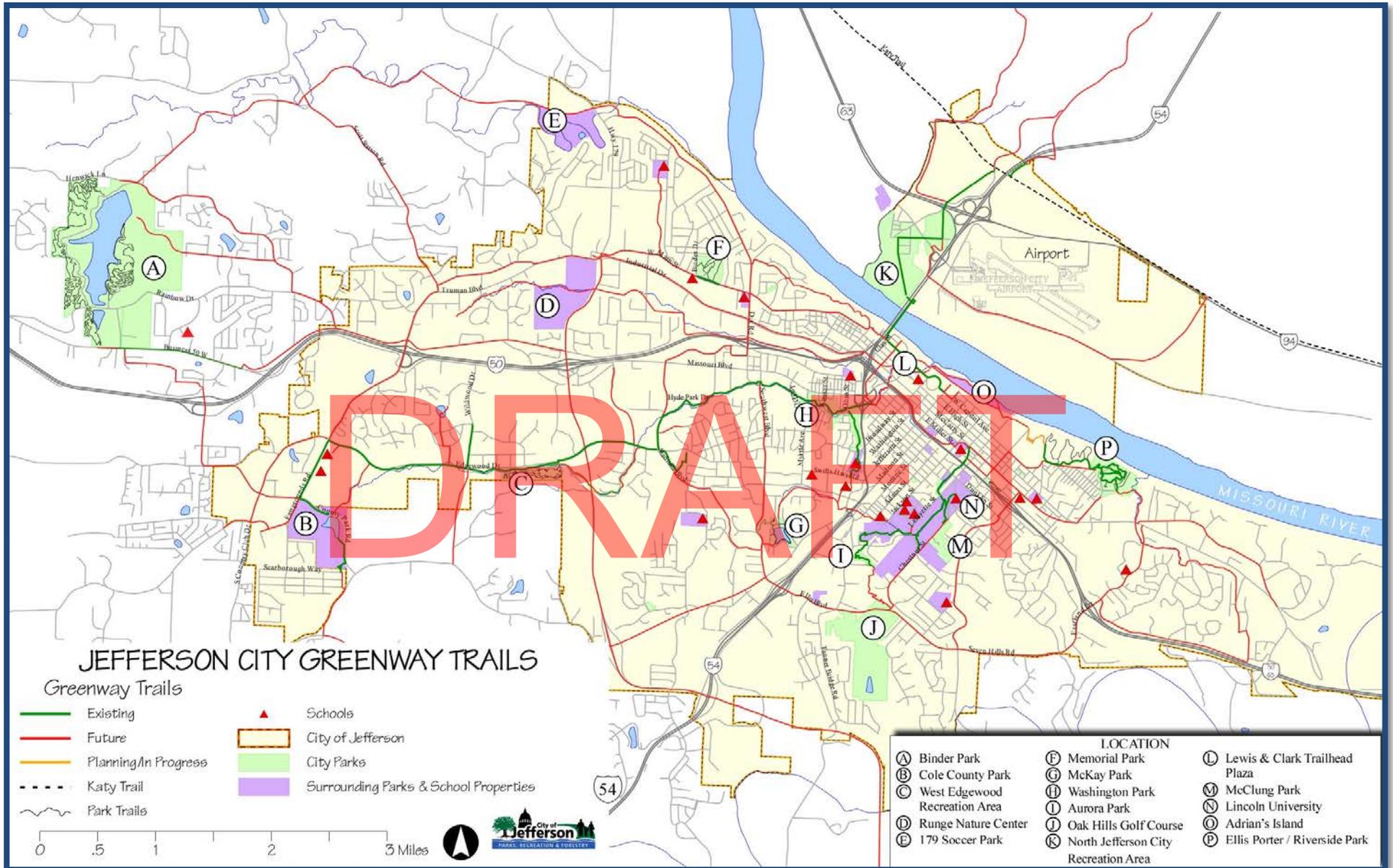
Improvements in Jefferson City include several miles of trail that would increase connectivity across the City, into portions of unincorporated Cole County and Binder Lake. Figure 3.x, taken from 2015 update of the Greenway Master Plan depicts existing and future trails in Jefferson City.

Figure 3.x: Map of proposed Greenway Trails in Holts Summit



Source: 2014 Holts Summit Bicycle, Pedestrian, and Transit Plan

Figure x: Jefferson City Greenway Trails – existing and planned (2015 update)



Source: 2007 Greenway Master Plan

- **Holts Summit Plan**
- **Sidewalk Inventory**
- **Jefferson City Sidewalk Plan**

Connectivity

Existing Conditions

Constraints

Opportunities

Commuter needs

Recreational Needs

Attractors & Generators

Existing Conditions Database (I'd like a comprehensive listing of bike racks in the city!)

Existing data collection

Field Survey

Crash data!

Bicycle and/or Pedestrian Accidents

In the five year period from 2007-2011 there were 60 pedestrian and 23 bicyclist accidents. This is up from the 2003 -2006 time period.

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Photo Courtesy: CAMPO Staff

Table 13: Bicycle/Pedestrian Accidents from 2007 to 2011

Accident severity	Pedestrian	Bicycle
Disabling injury	18	12
Fatal	3	0
Minor injury	37	9
Property damage only	2	2

Source: MoDOT 2007-2011 Accident Data

Figure x: CAMPO Sidewalks and Trails

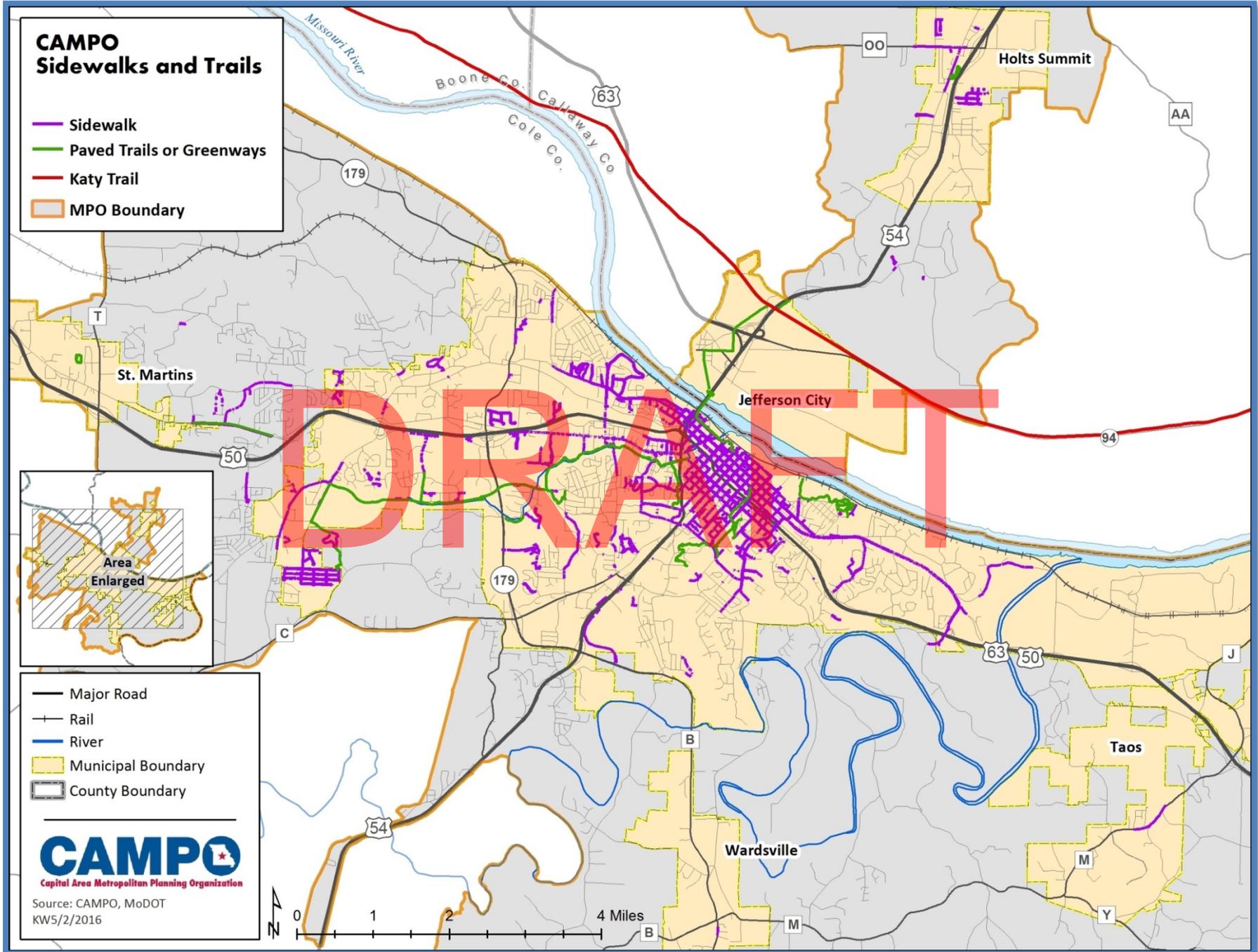
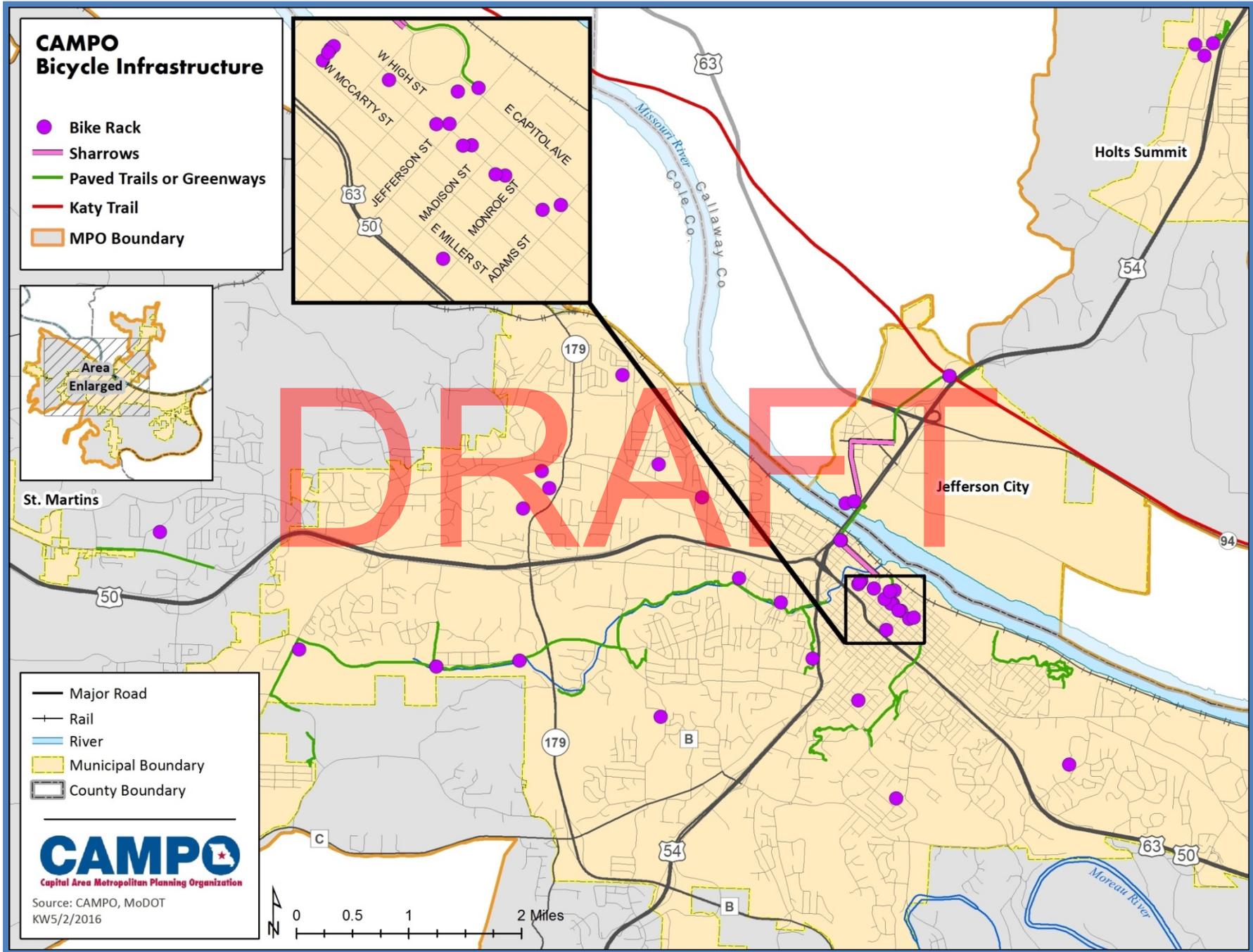


Figure x: CAMPO Bicycle Infrastructure

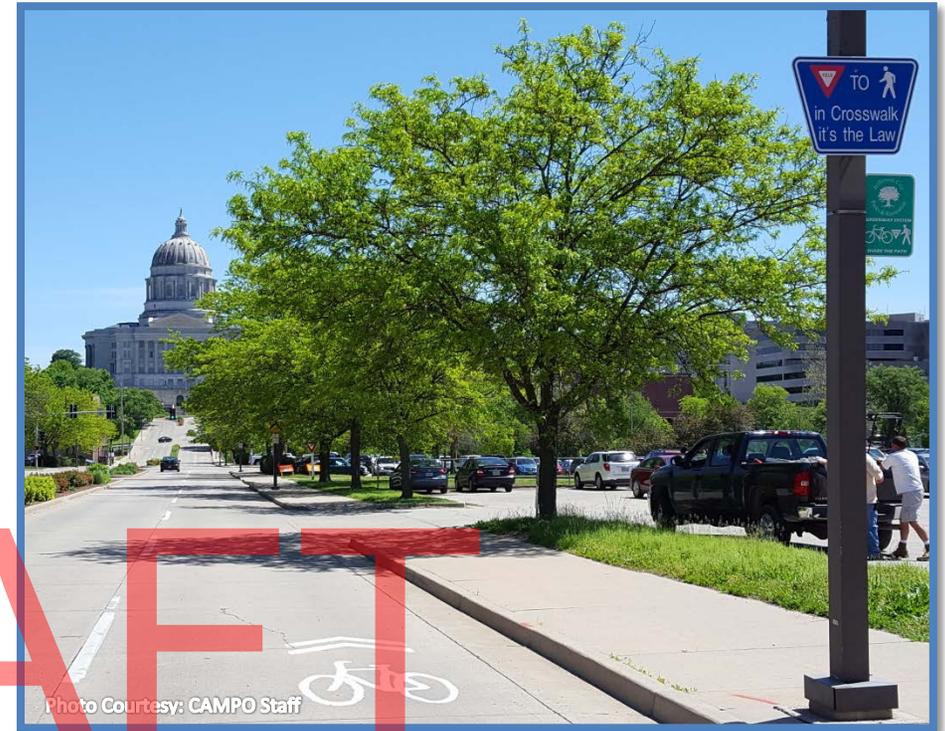


4 Types of Pedestrian and Bicycle Facilities

The world has long embraced the use of many kinds of transportation, including many people that still travel by foot alone. While there is little argument that the majority of people in the United States primarily travel by some sort of motorized vehicle: be it bus, taxi, car or truck, motorcycle, diesel or electric powered trains and trolleys or streetcars; many communities are now retrofitting or creating new infrastructure intended for bicycles or joint bicycle or pedestrian facilities. This section will take a look at the various types of facilities that either exist or could exist in the Jefferson City region. This list is not exhaustive, as the plan will exclude those facilities that would not fit in this region.

According to the American Association of State Highway and Transportation Officials (AASHTO), defines bicycle facilities as “a general term denoting improvements and provisions to accommodate or encourage bicycling, including parking and storage facilities, and shared roadways not specifically defined for bicycle use.” There have been a number of different types of facilities that have been used, varying from the advanced, such as bicycle boulevards, to the relatively common rudimentary, such as shared roadway. Additionally, these various types of facilities have seen use in a wide and varied number of locations, varying from bicycle utopias such as Portland or Seattle to places people may not associate readily with bicycling, such as Tucson or Milwaukee (home to weather extremes, an argument often used against the construction of bicycle facilities). There is no reason, therefore, that a rural community of under 45,000 or a region in the rural middle part of Missouri could not construct even the most rudimentary facility, investing not only in the public health of its population, but also encourage alternative transportation methods and a safe way for connecting the recreational trails in the area as well. (this section brought to you by Alex)

Figure 4.1 “Sharrows” marking on Main St. in Jefferson City.



AASHTO has assembled and researched a number of bicycle facilities, some of which may double for pedestrian facilities. It is important to recognize and decide where the improvements are needed ahead of time.

With the help of extensive public participation utilizing the two committees created for this document and multiple open houses, the areas that are being selectively target by this plan have been identified (see chapter XXX). Among the considerations in deciding where improvements are need that AASHTO has suggested include: user needs, traffic volumes, overcoming barriers (geographic in nature), the connection to land uses, safety, and overall feasibility. These considerations also will help define the areas and types of facilities that may reasonably be expected to be located within the CAMPO boundaries, in order to avoid “inappropriate and underutilized facilities.”

There are a variety of ways to accommodate bicyclists on roadways. This section provides information on shared roadways, which can encompass the following:

- Regular roads and streets with no special bicycle provisions.
- Wide curb lanes.
- Roadway shoulders or shoulder bikeways.
- Designated bicycle routes.
- Bicycle boulevards.

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TO
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Shared Roadway (No Bikeway Designation)

According to the Federal Highway Administration (FHWA), most bicycle travel in the United States now occurs on streets and highways without bikeway designations. This will likely be true in the future as well. In some instances, a community's existing street system may be fully adequate for efficient bicycle travel, and signing and striping for bicycle use may be unnecessary. In other cases, some streets and highways may be unsuitable for bicycle travel at present, and it would be inappropriate to encourage bicycle travel by designating the routes as bikeways. Finally, some routes may not be considered high bicycle demand corridors, and it would be inappropriate to designate them as bikeways regardless of roadway conditions (e.g., minor residential streets). Some rural highways are used by touring bicyclists for intercity and recreational travel. In most cases, such routes should only be designated as bikeways where there is a need for enhanced continuity with other bicycle routes. However, the development and maintenance of 4-foot paved shoulders with a 4-inch edge stripe can significantly improve the safety and convenience of bicyclists and motorists along such routes.

Signed Shared Roadway

Signed shared roadways are designated by bike route signs, and serve to either:

- a) Provide continuity to other bicycle facilities (usually Bike Lanes); or
- b) Designate preferred routes through high-demand corridors.

As with bike lanes, signing of shared roadways should indicate to bicyclists that particular advantages exist to using these routes compared with alternative routes. This means that responsible agencies have taken actions to assure that these routes are suitable as shared routes and will be maintained in a manner consistent with the needs of bicyclists. Signing also serves to advise vehicle drivers that bicycles are present.

Figure 4.2: Example of a "Shared Roadway"



[Source: FHWA University Course on Bicycle and Pedestrian Transportation](#)

Figure 4.3: Example of shared roadway signage

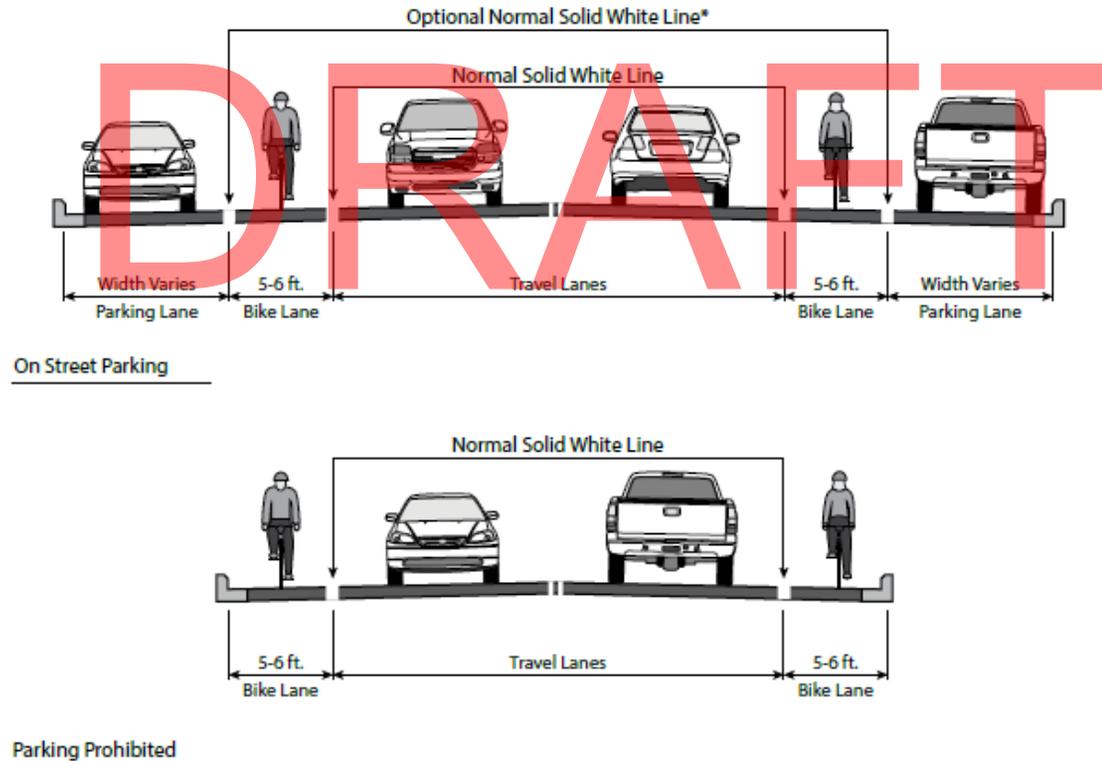


Designated Bike Lane

Bike lanes are established with appropriate pavement markings and signing along streets in corridors where there is significant bicycle demand and where there are distinct needs that can be served by them. The purpose should be to improve conditions for bicyclists on the streets. Bike lanes are intended to delineate the right of way assigned to bicyclists and motorists and to provide for more predictable movements by each. Bike lanes also help to increase the total capacities of highways carrying mixed bicycle and motor vehicle traffic. Another important reason for constructing bike lanes is to better accommodate bicyclists where insufficient space exists for comfortable bicycling on existing streets.

This may be accomplished by reducing the width of vehicular lanes or prohibiting parking in order to delineate bike lanes. In addition to lane striping, other measures should be taken to ensure that bicycle lanes are effective facilities. In particular, bicycle-safe drainage inlet grates should be used, pavement surfaces should be smooth, and traffic signals should be responsive to bicyclists. Regular maintenance of bicycle lanes should be a top priority, since bicyclists are unable to use a lane with potholes, debris or broken glass. If bicycle travel is to be improved, special efforts should be made to assure that a high quality network is provided with these lanes. However, the needs of both the motorist and the bicyclist must be considered in the decision to provide bike lanes.

Figure 4.4 Designated Bike Lane



Source: FHWA

Shared Use Path

Generally, shared use paths should be used to serve corridors not served by streets and highways or where wide utility or former railroad right-of-way exists, permitting such facilities to be constructed away from the influence of parallel streets.

Shared use paths should offer opportunities not provided by the road system. They can provide a recreational opportunity or, in some instances, can serve as direct commute routes if cross flow by motor vehicles and pedestrians is minimized. The most common applications are:

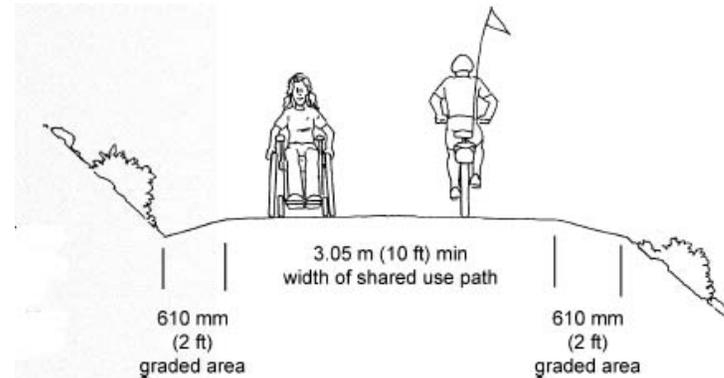
- along rivers, flood plains, or riparian corridors
- ocean fronts or canals
- rights-of-way, (utilities, former or active railroads)
- college campuses or parks

There may also be situations where such facilities can be provided as part of planned developments. While shared use paths should be designed with the bicyclist's safety in mind, pedestrians will likely also use such paths.

In selecting the proper facility, an overriding concern is to assure that the proposed facility will not encourage or require bicyclists or motorists to operate in a manner that is inconsistent with the rules of the road. The needs of both motorists and bicyclists must be considered in selecting the appropriate type of facility.

Shared use paths in the CAMPO region include the Katy Trail, the Jefferson City Greenway Trail, which links Jefferson City and Holts Summit, and several paved park trails in Holts Summit, Jefferson City, and St. Martins.

Figure 4.5 Shared Use Path



Source: FHWA

Figure 4.6 A family using the Greenway Trail in Jefferson City. Photo courtesy Jefferson City Parks, Recreations, and Forestry Department



5 Implementation

This section lays out an implementation strategy for the CAMPO region to achieve the goals and objectives of this plan. Included, are strategies, performance measures, and timelines to guide and track the implementation process. Also included is a list of funding options that can be used to support these items.

It is important to reiterate the role of CAMPO in the implementation of this plan. Although the CAMPO region includes six incorporated communities and portions of two counties, it has no direct influence over any jurisdiction within its borders. However, CAMPO can assist local jurisdictions with developing a community specific implementation strategy referencing the goals and recommendations laid out in this plan.

Individualized implementation strategies will contain projects and policies that will fit the needs and capabilities of the small communities and/or rural areas that lie within the CAMPO region. These “Community Implementation Strategies” are located in Appendix A.

All activities undertaken by CAMPO staff must be supported by the Unified Planning Work Program (UPWP). The UPWP identifies the planning priorities and activities to be carried out by CAMPO within a fiscal year. For CAMPO, that fiscal year runs from November 1 to October 31. The UPWP also serves as a management tool for scheduling, budgeting, and monitoring planning activities and serves as the basis for funding agreements with the Missouri Department of Transportation (MoDOT). All implementation activities identified within the following “CAMPO Strategy” will be guided by the UPWP. These activities may provide guidance for the next year’s UPWP.

The “CAMPO Strategy”

The following pages include a list of strategies that CAMPO has identified as tasks that can be addressed or started within the next one to five years. Using the goals and recommendations as a guide, the strategies were grouped into four categories reflective of the public comments and input received.

- Policy & Planning
- Education and Safety
- Tourism
- Pedestrian & Bicycle Network Improvements

Figure 5.1 People using the Missouri River Pedestrian bridge that connects Downtown Jefferson City with the Katy Trail, River access, community garden which lies on the north side of the Missouri River.



Policy & Planning

Strategies	Implementation and Measures	Timeline
<p>Participation in or support of a Pedestrian & Bicycle Committee</p> <ul style="list-style-type: none"> o CAMPO staff may participate or support committee activities in making recommendations on policies and ordinances within a jurisdiction. 	<p>This would likely be formed by a jurisdiction in reviewing local projects and programs. The committee would provide a forum to review or make recommendations specific to the pedestrian, bicycle, or transit implications of a proposed project, program, or policy. Performance measures may include tracking of membership, meetings, and public outreach.</p>	<p>2017</p>
<p>Cooperate with jurisdictions in the development of community specific plans, policies, ordinances, or grant applications. These activities may need to be incorporated into the UPWP depending on time and data needs.</p> <ul style="list-style-type: none"> o On-Street Bicycle Plans o Livable Streets Policies o Design Guidelines o Land use and/or Zoning o Provide assistance with RFP and RFQ as needed 	<p>CAMPO staff will work with jurisdictions in the development or implementation of plans, policies, ordinances, or other pertinent documents as they relate to pedestrian or bicycle improvements. These activities may need to be incorporated into the UPWP depending on time and data needs. Assistance by other regional or state agencies may be utilized.</p> <p>Performance measures may include: number of communities assisted, number of grant applications, number of documents produced</p>	<p>2016-2017</p>
<p>Encourage the adoption of the Capital Area Pedestrian and Bicycle Plan by jurisdictions.</p>	<p>CAMPO staff will present the plan to each jurisdiction. Staff will encourage adoption of the plan and provide assistance in the development of an individualized Implementation Strategy. Performance measures may include number of jurisdictions that adopt the plan</p>	<p>2016</p>
<p>Collaborate with or form partnerships with local, state, and national organizations.</p> <ul style="list-style-type: none"> o MoCAN (Missouri Council on Action and Nutrition) o Central Missouri WeCan (Ways to Enhance Children's Activity) o HLA (Healthy Living Alliance) o APBP o MO BikeFed o Bicycle Friendly America Program 	<p>CAMPO staff will actively pursue increased engagement with groups promoting active transportation and/or healthy living initiatives. Performance measures may include partnering with these groups to hold events, serving on a board, or applying for a certification. CAMPO staff will also provide assistance to individual jurisdictions seeking similar involvement.</p>	<p>2017-2021</p>

Education and Safety

Strategies	Implementation and Measures	Timeline
Assist communities with development of education campaigns that support or promote: <ul style="list-style-type: none"> ○ Pedestrian and bicycle events ○ Pedestrian and bicycle safety ○ Bicycle skills classes ○ Education PSAs, events, or other media on public transit use ○ PSAs or other media to remind motorists to “Share the Road” 	CAMPO will continue to support and promote regional pedestrian and bicycle safety and education. Additionally, CAMPO staff will assist jurisdictions in promoting and hosting events or educational programs. Performance measures may include: number of events, number of attendees at events, number of people contacted during public outreach.	2016 (currently in progress)
Assist communities with development of a Walking School Bus Program.	CAMPO staff will provide support and/or assist with grant applications in the development of Walking School Bus Programs for any interested jurisdiction or school in the region. Performance measures may include: number of applications submitted, number of programs created, number of volunteers, and number of children served.	2017 -2021

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Tourism

Strategies	Implementation and Measures	Timeline
Provide information for mobility options for tourists and the general public. <ul style="list-style-type: none"> ○ Develop or assist with development of maps or brochures identifying bicycle or pedestrian routes 	CAMPO staff will work with public transit groups, the Jefferson City Convention and Visitors Bureau, and local jurisdictions to help develop and/or support the development of maps or other media that can be disseminated to the tourists and the general public. Performance measures may include: number of brochures or maps produced, distribution locations.	2017-2021
Assist communities or local organizations with promotion of walking and bicycling tourism events.	CAMPO will provide assistance to and/or partner with jurisdictions or organizations seeking to host walking or bicycling tourism events. Performance measures may include number of events created, number of attendees, number of sponsors, economic impacts.	2017-2021

Pedestrian & Bicycle Network Improvements

Strategies	Implementation and Measures	Timeline
Identify gaps in connectivity, including pedestrian, bicycle, and transit. <ul style="list-style-type: none"> ○ Within communities ○ Between communities 	CAMPO staff will map areas where there are gaps in connectivity between pedestrian, bicycle, and transit networks. Performance measures may include: maps depicting missing sidewalk, lack of bike lanes, lack of pedestrian or bicycle connectivity to transit stops.	2017-2021
Evaluate sidewalk condition and ADA compliance.	CAMPO staff will update existing sidewalk data to include more information regarding condition and ADA compliance. Performance measures may include: percent of jurisdictions mapped, identification of problem areas, identification of future needs.	2017-2021
Identify and prioritize future sidewalk locations.	CAMPO staff will update mapping of "future sidewalks", integrating data on high demand areas and current deferral areas. Performance measures may include: creation of a "future sidewalk" map, assisting with the update of the Jefferson City Sidewalk Plan, assisting local jurisdictions with mapping sidewalk needs and connectivity gaps.	2017-2021
Develop a recommendation for bicycle route options linking Katy Trail and Rock Island Trail.	CAMPO staff can work with Jefferson City, Cole County, and MoDOT staff to delineate multiple options that can be designated as a connecting route. Performance measures may include: a map of suggested routes, meetings to discuss route alternatives.	2017-2021
Designate additional areas to enhance wayfinding signage.	CAMPO will work with local jurisdictions and stakeholders to develop and maintain a list of future sites for signage if and when funding is available. Performance measures may include: a map of suggested locations, meetings to discuss location suggestions, identification of funding options.	2017-2021
Identify areas where infrastructure is needed: <ul style="list-style-type: none"> ○ Bicycle parking ○ Bicycle lanes ○ Crosswalks ○ Bus stop bicycle racks ○ Bus shelters 	CAMPO staff will work closely with local jurisdictions to inventory existing conditions and provide input on suggested improvements or enhancements. CAMPO staff will also assist jurisdictions with identifying funding sources and other resources to achieve these improvements. Performance measures may include: inventory maps, improvement strategies and maps, development of design guidelines, number of facilities installed or improved.	2017-2021

Funding

There are several funding sources available for pedestrian and bicycle improvements, including; federal, state, local, and private-sector funds. A list of available funding sources is provided below.

Local Funding Sources

Local funds may include taxes, impact fees, and capital improvement set asides. These local funds can and should be leveraged as match for external funding. For some programs, match requirements may range from 20 to 55 percent.

Additionally, jurisdictions should look into forming local partnerships with private entities to invest in the growing nonmotorized network. These partnerships may be financial in nature or include other resources such as data sharing, technical assistance (either planning or engineering in nature), outreach to citizens or the media, and encouragement, such as organizing a community bike ride or a walk.

Local Sales Tax

Missouri counties and cities have the option to institute a sales tax to pay for infrastructure improvements. These taxes require a public vote every five years, which gives the public an opportunity to investigate how the sales tax improves their community. In Jefferson City the City has a half cent sales tax and City's Parks and Recreation Department has a separate half-cent sales tax that may be used for greenway development.

Special Tax Districts

Other funding mechanisms available to communities include special tax districts. Special tax districts provide funding within a specific geographic area the funds collected may be used for studies, plans, or construction of new infrastructure within the area. These include:

- Tax Increment Financing (TIF) districts,
- Transportation Development Districts (TDD), and
- Community Improvement Districts (CID)
- Neighborhood Improvement Districts (NID)

Federal Funding Sources

In December 2015, a new transportation bill was authorized, Fixing America's Surface Transportation Act (FAST Act). There are several programs within the FAST Act that are available to fund pedestrian and bicycle improvements. In addition to the FAST Act, there are other federal funding options. All of these funding options are listed below.

Highway Safety Improvement Program (HSIP)

The HSIP emphasizes a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance. Eligible projects include safety improvements for all roadway users.

Transportation Alternatives Program (TAP)

The TAP program provides for a variety of alternative transportation projects that were previously eligible activities under separately federally funded programs. **This program is funded at a level equal to two percent of the total of all FAST Act authorized Federal-aid highway and highway research funds, with the amount for each State set aside from the State's formula apportionments.** TAP is administered by the Missouri Department of Transportation.

Pedestrian, bicycle, trails, and safe routes to school projects are eligible for TAP funding, including:

- Construction, planning, and design of on- and off-road trail facilities for pedestrians, bicyclists, and other nonmotorized forms of transportation.
- Construction, planning, and design of infrastructure related projects and systems that will provide safe routes for non-drivers.

National Highway Performance Program (NHPP)

The NHPP provides funding for projects including bicycle transportation and pedestrian walkways on principle arterials and on the Interstate Highway System.

Recreational Trails Program (RTP)

RTP funds also stem from FAST Act Federal Highway Funds, but are administered by the Missouri Department of Natural Resources. Grants are available for trail development and renovation and require a minimum of a 20 percent local match.

Land and Water Conservation Fund (LWCF)

LWCF is a federal grant program administered through the National Park Service. The program is intended to create and maintain a nationwide legacy of high-quality outdoor recreation areas and facilities.

In Missouri, LWCF grants are administered through the Missouri Department of Natural Resources and are open to any local government or public school.

Federal funding availability varies each year, but in recent years the maximum amount awarded per project sponsor has been \$75,000 with minimum 55 percent match.

Project examples include but are not limited to:

- Playgrounds
- Ball fields
- Pools and water parks
- Archery and shooting ranges
- Camping facilities
- Picnic areas
- Golf courses
- Boating and fishing facilities
- Trails
- Passive areas

State and Community Highway Safety Grant Program (Section 402)

Section 402 funds are used to support state and community programs to reduce deaths and injuries. Pedestrian safety has been identified as a national priority. Section 402 funds can be used for a variety of safety initiatives including conducting data analyses, developing safety education programs, and conducting community-wide pedestrian safety campaigns.

Community Development Block Grant (CDBG) Program

The Community Development Block Grant Program (CDBG) is administered by US Department of Housing and Urban Development (HUD) and offers grants to small communities to improve local facilities, address critical health and safety concerns and develop a greater capacity for growth.

The program offers funds for projects that can range from housing and street repairs to industrial loans and job training. Annual CDBG funds are allocated between States and local jurisdictions called "non-entitlement" and "entitlement" communities respectively. Entitlement communities are comprised of central cities of Metropolitan Statistical Areas (MSAs); metropolitan cities with populations of at least 50,000; and qualified urban counties with a population of 200,000 or more (excluding the populations of entitlement cities). States distribute CDBG funds to non-entitlement localities not qualified as entitlement communities.

Jefferson City is an "entitlement" area and therefore receives annual funding from the HUD. One program supported through this funding is the Public Facility and Infrastructure Improvements Program. The City utilizes CDBG funds for infrastructure upgrades in order to preserve and improve low- to moderate- income area neighborhoods. Improvements may include but are not limited to sidewalks, curb, guttering, water, sewer, roads, or other infrastructure.

Plan Adoption by Jurisdictions

A critical part of making this plan a success and moving forward with needed improvements is the development of a strong Implementation Strategy for each jurisdiction within the CAMPO region.

As a jurisdiction moves forward with adopting the Capital Area Pedestrian and Bicycle Plan, CAMPO staff will be available to assist with the development of a community specific Implementation Strategy. The Implementation Strategy will include the projects and activities that are specific to the unique needs of each jurisdiction.

CAMPO staff can also assist with the development of adoption resolutions, ordinances, and policy language as requested.

Adoption resolutions passed by CAMPO jurisdictions can be found in Appendix B. *(this needs to be specified in the executive summary)*

Plan Maintenance

Many of the documents that CAMPO produces require continual maintenance. While each document is on its own timeline, many are updated annually or at some other regular interval. The timeline for these updates are laid out in the CAMPO Unified Planning Work Program.

It is anticipated that this plan will be incorporated into the CAMPO Metropolitan Transportation Plan (MTP). The MTP is the Long-Range Transportation Plan for the CAMPO region. The entire MTP is updated every five years, while specific portions may be updated more frequently. The Capital Area Pedestrian and Bicycle Plan may be updated on a more frequent basis as deemed necessary by the CAMPO board.

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Appendix A:

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Implementation Strategies
(by jurisdiction)

Appendix B:

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Adoption Resolutions
(by jurisdiction)

Appendix C:

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Sample Ordinances

Appendix D:

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Sample Livable Streets Policy

Appendix E:

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CAMPO Livable Streets Policy