



# EVANSVILLE, INDIANA BICYCLE AND PEDESTRIAN CONNECTIVITY MASTER PLAN



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# ACKNOWLEDGEMENTS

The City of Evansville appreciates the efforts of the hundreds of citizens and community members who participated in the development of the Evansville Bicycle and Pedestrian Connectivity Master Plan. Their creativity, passion, and commitment to a brighter future for bicycling and walking were integral to the success of this planning effort. The following citizens, City staff, and agency and organization representatives significantly contributed to the development of the Plan.

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Evansville MPO



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***“Anyone that has ridden their bike or walked on Oak Hill Road, Evansville’s first complete street, knows what a pleasure it is. We cannot stop there. Bicycle and pedestrian improvements have been proven to positively impact community health, safety and economic prosperity in cities nationwide, and Evansville can be strengthened with a connected bicycle and pedestrian network. This Plan will provide a road map for Evansville to become a city where bicycling and walking are safe, comfortable, and convenient travel options for all residents.”***

***- Honorable Lloyd Winnecke  
Mayor, City of Evansville***





# 1. INTRODUCTION

## PURPOSE AND BACKGROUND

Bicycling and walking are on the rise in Evansville. From the hustle and bustle of foot traffic in the City's commercial and historic districts to the crowds of cyclists, joggers and hikers on the Pigeon Creek Greenway, residents and visitors alike are choosing walking and bicycling for transportation and recreation. This upward trend in Evansville is representative of larger patterns across the United States. Whether commuting to work or school, taking short trips to the store, visiting friends and family, or getting outside for exercise, people across the country are bicycling and walking more frequently. Cities, in turn, must do their part to provide safe, comfortable and connected facilities.

The City of Evansville and its partners throughout the region have already taken numerous steps to foster a bicycle- and pedestrian-friendly community. Projects like the Pigeon Creek Greenway, streetscape enhancements on Main Street, bicycle lanes on Oak Hill Road, and the annual Evansville Streets Alive! festival demonstrate the region's commitment to supporting healthy lifestyles and active transportation.

In order to guide future investments in bicycle and pedestrian infrastructure and programming, the City of Evansville and the Evansville Metropolitan Planning Organization have undertaken an extensive, community-driven planning process to create the Evansville Bicycle and Pedestrian Connectivity Master Plan (the Plan). The Plan outlines a vision for walking and bicycling in Evansville, with clear and concise goals and objectives to help achieve that vision. The Plan also includes infrastructure and program recommendations that are supported by an action-oriented implementation strategy to sustain momentum and progress for years to come.

The infrastructure projects recommended in the Plan will increase safety, connectivity and accessibility, and education, encouragement and enforcement programs will foster a culture that values active transportation and recreation. These changes will have transformative impacts on Evansville by creating healthier people and places, reducing vehicle miles traveled and associated carbon emissions, supporting economic development, increasing transportation equity, and attracting tourism activity from the Tri-State area and beyond.



*Figure 1.1: Residents out on bike and foot at the Streets Alive! annual street festival.*

# BENEFITS OF A BICYCLE- AND PEDESTRIAN-FRIENDLY COMMUNITY

Safe streets, sidewalks and greenways offer Evansville residents and visitors more than just a fun and invigorating way to travel around town or get some exercise. These infrastructure investments pay significant dividends that benefit the entire community. They produce tangible and quantifiable benefits in the form of improved community health, increased property values, greater tax returns for local governments, lower healthcare costs for residents, safer streets for all users, and a more equitable transportation system.

## Health

Obesity, high blood pressure, type 2 diabetes, and other health problems associated with a sedentary lifestyle and lack of physical activity are growing at unprecedented levels across the United States. In Vanderburgh County, one out of every four residents does not engage in any form of leisure time physical activity.<sup>1</sup> Creating a citywide active transportation system can allow residents to incorporate physical activity into their daily routines, and studies show that if you build it, they will come. People who live near trails are 50% more likely to meet recommended levels of physical activity and 73-80% more likely to bicycle.<sup>2</sup>



<sup>1</sup> Deaconess Health Partners, et al., FY2013 Community Health Needs Assessment for Vanderburgh County. <http://www.deaconess.com/pdfs/dh/vanderburgh-county-chna-document.aspx>

<sup>2</sup> Huston et al., Pierce et al., and Moudon et al., "Active Transportation: Making the Link from Transportation to Physical Activity and Obesity, Active Living Research research brief, Summer 2009.



Figure 1.2: Annual bicycle rodeos teach Evansville youth the basics of bicycling safety.

## Safety

With bicycling and walking on the rise, communities across the country are rethinking the way streets are designed, built, and maintained. After decades of building roads to support more and more automobile traffic, often at the expense of other modes of transport, cities are shifting their focus to safety and comfort for all road users, especially bicyclists and pedestrians. Infrastructure that supports bicycling and walking, including bicycle lanes, sidewalks, and traffic calming, have been shown to reduce injuries and fatalities for all road users, including motorists.<sup>3</sup>

Creating safer, more comfortable streets not only reduces crashes, but encourages and increases responsible bicycling and walking activity. Installing bicycle facilities like bike lanes and cycle tracks increases bicyclist predictability, reduces wrong-way riding and sidewalk riding, and increases traffic control compliance.

## Economy

The economic benefits of bicycling and walking (and associated infrastructure) impact individuals, businesses and local government agencies. For individuals, bicycling and walking represent affordable transportation options. The national annual average for owning, operating and maintaining a private automobile is more than \$8,000, more than 25 times the average cost to of a bicycle (\$308 per year).<sup>4</sup> The affordability of bicycling and walking is particularly important for low-income

<sup>3</sup> Frank L, Kavage S, Devlin A. Health and the built environment: A review. Urban Design 4 Health Ltd., prepared for the Canadian Medical Association, 2012.

<sup>4</sup> Bureau of Labor Statistics. Consumer Expenditure Survey. 2012.

residents, who have similar transportation needs as the rest of the community, yet less financial resources to devote to daily travel.

Homeowners also benefit from trails, sidewalks and bike lanes. On average, houses in areas with above-average levels of bike and walk amenities are worth up to \$34,000 more than similar properties in less walkable and bikeable areas.<sup>5</sup> A study of residential properties in Indianapolis noted that home values increase by 11% just for being a half mile closer to the Monon Trail.<sup>6</sup>

Investments in bicycling and walking infrastructure are cost-efficient catalysts for private development. Bicycle and pedestrian projects create 11-14 jobs per \$1 million spent, compared to just seven jobs for highway projects. Once complete, sidewalks, bikeways and trails attract new businesses and increase retail activity. The Cultural Trail in Indianapolis has been a major catalyst for private development. For every one dollar spent on capital improvements, ten dollars in private investment have been injected into the local economy, and more than 11,000 jobs are projected to be added to the local workforce as a result of the project.<sup>7</sup> In Fort Worth, Texas, retail businesses experienced a 163% increase in sales between 2009 and 2011, following the installation of bicycle lanes and improved bicycle parking.<sup>8</sup>

Bicycle and pedestrian projects are paying significant dividends not just for residents and businesses, but for Cities too. No longer perceived as add-ons, afterthoughts,

or feel good projects, trails, sidewalks and on-street bikeways are cost-effective components of a multi-modal transportation system. Increases in property values, local spending, and tourism activity generate additional tax revenue for local governments, providing strong returns on their investments. In 2009, bicycle and pedestrian activity in Vermont generated \$1.6 million in tax and fee revenues for the state.<sup>9</sup> Bicyclists on Minnesota trails spend \$481 million annually, resulting in \$40.6 million in state and local taxes.<sup>10</sup>

## Environment

Motor vehicle emissions account for 31% of carbon dioxide, 81% of carbon monoxide, and 49% of nitrogen oxides released in the United States.<sup>11</sup> Acknowledging the harmful effects of these automobile emissions on local and global ecosystems, cities around the world are turning to bicycling and walking as sustainable, environmentally-friendly transportation alternatives. Studies have shown that reducing automobile trips and replacing them with bicycling, walking and transit can produce significant benefits. One study noted that a 5% increase in neighborhood walkability is associated with a 6.5% decrease in vehicle miles driven, 5.6% fewer grams of nitrous oxide emitted, and 5.5% fewer grams of volatile organic compounds (VOCs) emitted.<sup>12</sup>



Figure 1.3: Sunset on the Riverfront Corridor of the Pigeon Creek Greenway.

5 Cortright, Joe, Impresa, Inc. *Walking the Walk: How Walkability Raises the Home Values in U.S. Cities*. CEOs for Cities, 2009.

6 Lindsey, G., Man, J., Payton, S., Dickson, K. *Property values, recreation values and urban greenways*. *Journal of Park and Recreation Administration* 22, 69-90, 2004.

7 *Inside Indianapolis Business*. <http://www.insideindianapolisbusiness.com/newsitem.asp?ID=42250#middle> (accessed January 7, 2013).

8 Fort Worth South, Inc., 2011, 2009.

9 Vermont Agency of Transportation. *Economic Impact of Bicycling and Walking in Vermont*. 2012.

10 Venegas, E. C. *Economic Impact of Recreational Trail use in Different Regions of Minnesota*. University of Minnesota Tourism Center. 2009.

11 *The Green Commuter*, A Publication of the Clean Air Council.

12 Frank, L., et al. *Many pathways from land use to health: Associations between neighborhood walkability and active transportation, body mass index, and air quality*, *Journal of the American Planning Association*, 72, 75-8. 2006.



# THE FIVE E'S FRAMEWORK

Improving bicycle and pedestrian connectivity and safety is a significant component of the Plan, but creating a Bike and Walk Friendly Community takes more than just new trails, bike lanes and sidewalks. In order to create significant and lasting change, the Plan utilizes the Five E's framework to establish bicycling and walking as comfortable, safe and convenient transportation choices for people of all ages and abilities. Initially developed by the League of American Bicyclists, the Five E's framework consists of education, encouragement, enforcement, engineering and evaluation tactics to support active transportation. This unique, holistic approach to community transformation addresses the physical, social, and policy environments

that influence transportation decisions and behaviors, creating meaningful opportunities to build a culture that values and supports walking and bicycling.

An additional E - equity - is often grouped with the Five E's to address access and opportunity for disadvantaged and low income populations within the community. There is, however, an important distinction between equity and the Five E's: equity is a guiding principle and desired outcome, whereas the Five E's are tools used to achieve the vision and goals of the Plan. The graphic below shows how equity is incorporated into the planning framework as an overarching principle that guides planning process and is integrated into all plan recommendations.

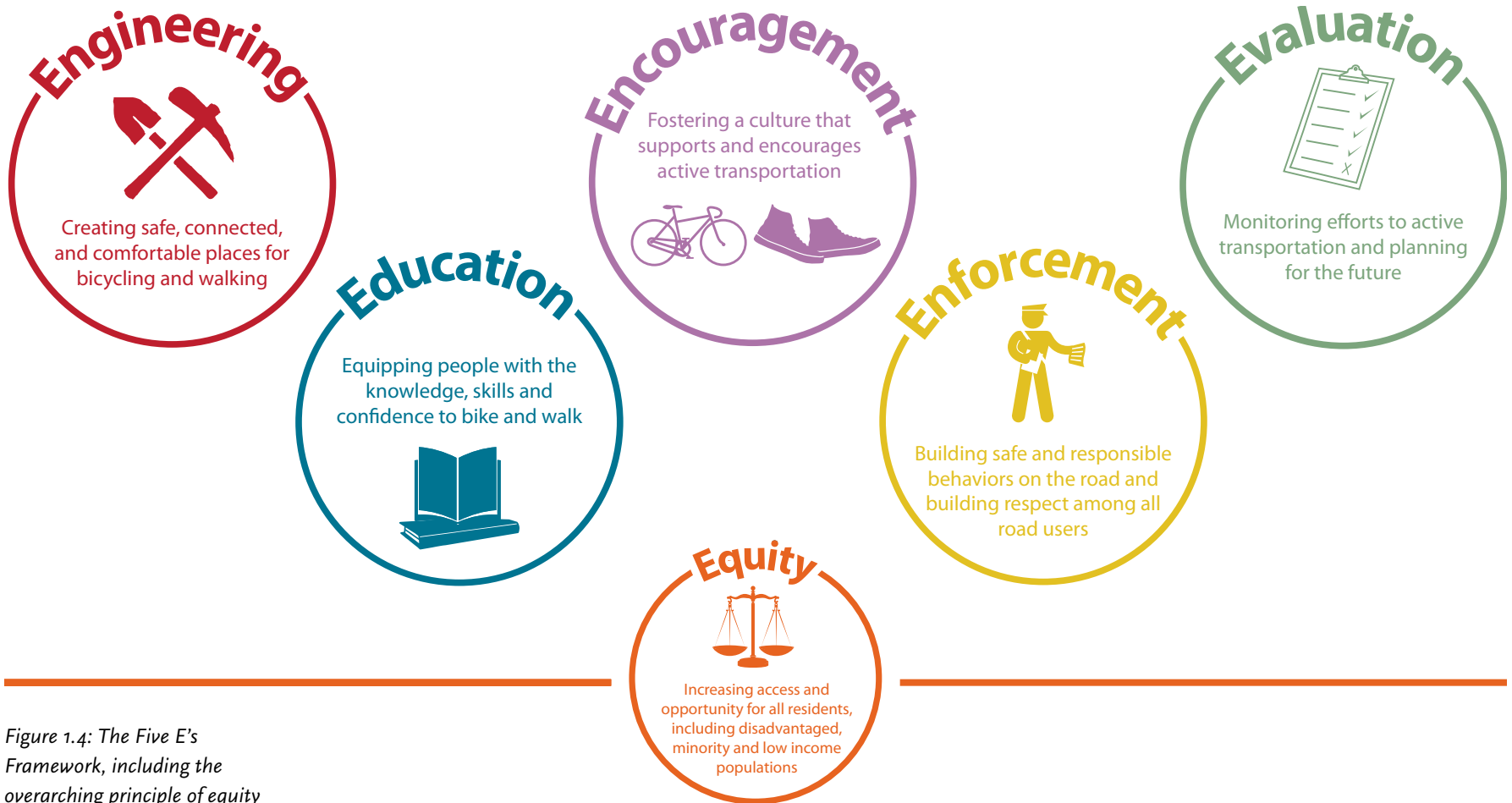


Figure 1.4: The Five E's Framework, including the overarching principle of equity



# THE PLANNING PROCESS

The planning process began in Spring 2014 and concluded in Summer 2015. The diagram below outlines the planning process from project initiation to plan completion and adoption. Community engagement events and activities throughout the course of the planning process provided opportunities for residents and key stakeholders to shape the Plan's vision, goals and recommendations and chart a course for the future of bicycling and walking in Evansville.

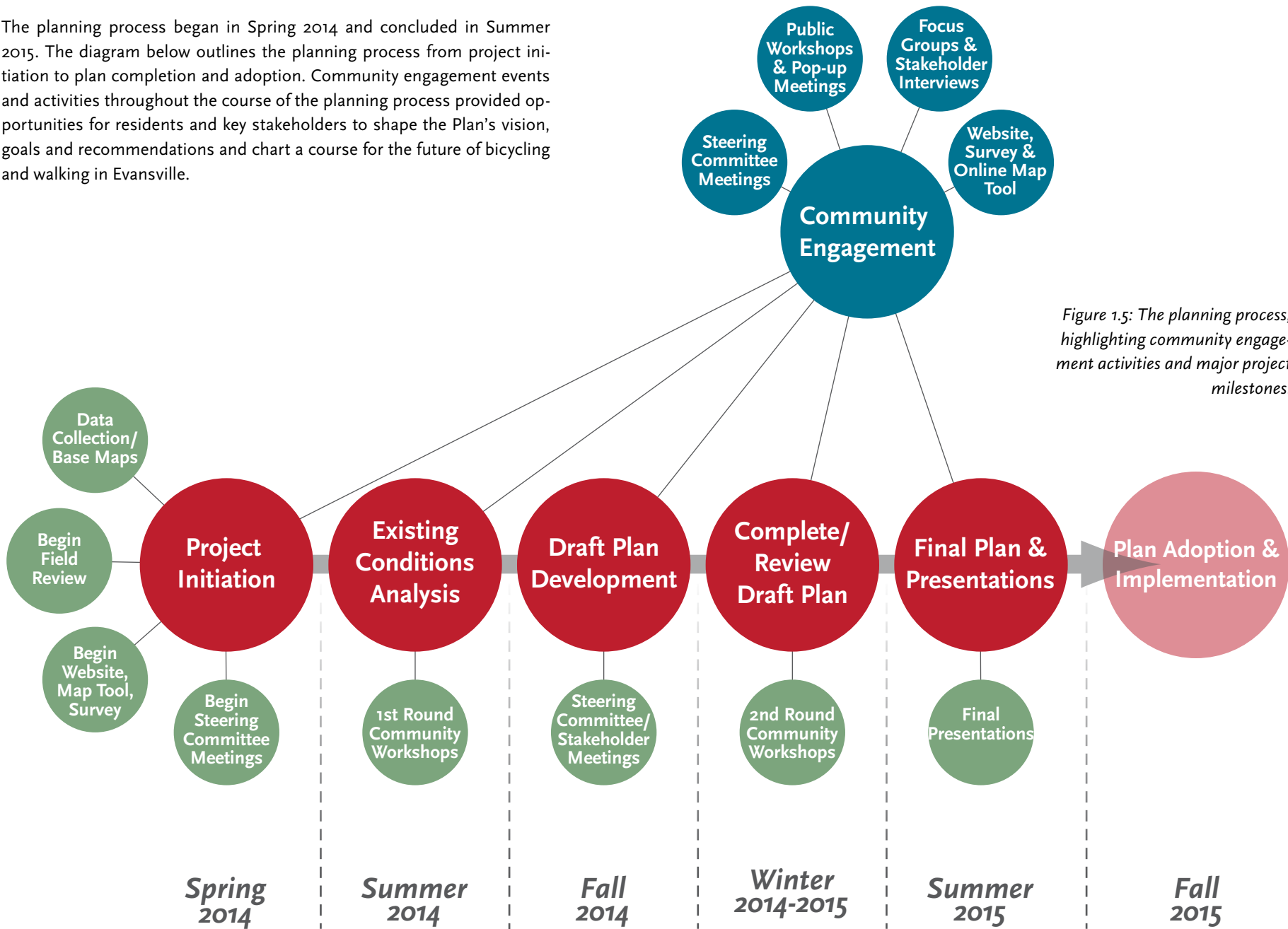


Figure 1.5: The planning process, highlighting community engagement activities and major project milestones.



Figure 1.6: Envisioning community transformation through the North Main Street Pop-Up Cycle Track.

## PLAN COMPONENTS

The Plan document is composed of the following chapters, as well as an appendix that includes valuable resources for plan implementation and additional documentation of the planning process.

### Introduction

The introduction provides a brief overview of the purpose and background of the Plan, the benefits of a Bike and Walk Friendly Community, and the planning framework that guide the recommendations and implementation strategies in the Plan.

### Existing Conditions

The existing conditions chapter describes the physical, social, and policy contexts surrounding the development of this Plan. Included in this chapter are thorough analyses of bicycling and walking facilities, roadway characteristics, bicycle and pedestrian crash data, local and regional plans and policies, and current programs that support and encourage active transportation. Understanding, acknowledging and addressing these existing conditions creates a foundation for the programs, policies, and projects recommended in this Plan.

### Public Involvement

The public involvement chapter summarizes the outreach and participation efforts to engage Evansville residents, planning partners, and key stakeholders. From

public workshops and pop-up meetings to online surveys and mapping tools, the planning process utilized a diversity of media platforms to build consensus for walking and bicycling and solicit ideas to shape the walking and bicycling environment. The community's input is a driving force behind the Plan's vision, goals and recommendations.

### Vision, Goals & Objectives

This chapter establishes a bold and progressive vision for the future of bicycling and walking in Evansville. A series of diverse and holistic goals and objectives are designed to achieve this vision.

### Recommendations

This chapter describes the capital projects and supporting programs recommended to transform Evansville into a Bike and Walk Friendly Community. Recommendations are categorized using the Five E's framework described earlier in the introduction.

### Implementation

This chapter provides a comprehensive strategy to implement the Plan, including early action steps, project prioritization criteria, cut sheets for high priority projects, cost estimates, funding sources, and maintenance activities. These implementation strategies are critical to the immediate and long-term success of the Plan.

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***“Every growing, vibrant community around the country is committed to continuous improvement in quality of life for individuals and families. The Evansville Trails Coalition is a reflection of this commitment shared by members of the Evansville Community. The Bike and Pedestrian Plan for Evansville represents a major step by city and community leaders to address this need by providing convenient access to safe trails for all.”***

***- Don Jones***

***President, Evansville-area Trails Coalition***





# 2. EXISTING CONDITIONS

## INTRODUCTION

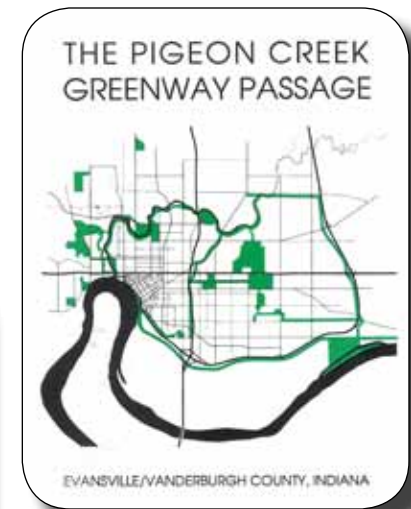
As the City of Evansville continues on its path of making bicycling and walking valued recreation activities and viable modes of transportation, a thorough assessment of the current environment for non-motorized transportation and recreation can inform future investments in bicycle and pedestrian infrastructure and supporting programs. This chapter describes current context for walking and bicycling in Evansville and includes a summary of previous plans and studies, an examination demand for walking and bicycling facilities, documentation and thorough analysis of existing conditions for walking and bicycling, a summary of recent non-motorized crash data, and an overview of programs and activities designed to support walking and bicycling. The chapter concludes with a comparison of Evansville's efforts to create a bicycle and pedestrian-friendly community to the efforts of peer cities. This comparison will shed light on potential opportunities for Evansville to pursue in order to integrate walking and bicycling into the culture, character, and environment of the City.



Figure 2.1: Bicyclists on Franklin Street.

## RELEVANT PLANNING EFFORTS

For more than two decades, the City of Evansville, the Evansville Metropolitan Planning Organization, and other regional partners have been actively planning for transportation and recreation-oriented projects that support bicycling and walking activity. From trail-specific plans like the Pigeon Creek Greenway Passage Master Plan, to long-range, region-wide plans like the Sustainable Evansville Area Coalition Millennial Plan 2040, the community has expressed the value it places on walking and bicycling and its ambition to establish these forms of transportation as viable, desirable, and commonplace. The following plans, policies, and related documents demonstrate Evansville's commitment to creating a bicycle- and pedestrian-friendly community as an economic imperative, an equity imperative, a health imperative, and an environmental imperative. An in-depth



Figures 2.2 and 2.3: Two of Evansville's strong plans - the Metropolitan Transportation Plan 2040 and the Pigeon Creek Greenway Passage Master Plan

summary of each of these documents as they pertain to bicycling and walking is located in the appendix of the Plan.

- Evansville MPO Transportation Improvement Program 2016 - 2019 (2015)
- Evansville MPO Metropolitan Transportation Plan 2040 (2014)
- Sustainable Evansville Area Coalition Millennial Plan for 2040 (2014)
- Evansville Multimodal Connector Tiger Grant Application (2014)
- Evansville MPO Complete Streets Policy (2012)
- Completing the Street: A Complete Streets Toolkit (2012)
- Evansville-Vanderburgh County APC Comprehensive Plan (2004)
- Evansville Urban Transportation Study (EUTS) Regional Bicycle And Pedestrian Plan (2000)
- Pigeon Creek Greenway Passage Master Plan (1994)

Each of these documents adds to the strong foundation of community support, regional collaboration, and commitment from government and business leaders to transform the way Evansville residents and visitors connect with the people and places around them and increase opportunities for walking and bicycling.

## NON-MOTORIZED TRANSPORTATION FACILITY DEMAND

A transportation network is designed to take people to the places they wish and need to reach. Schools, places of employment, retail and shopping centers and other common destinations can generate and attract hundreds and even thousands of trips each day. Whether travelers arrive on foot, by bicycle, or in a car, the roads that service these destinations must be able to provide a higher level of service for a greater number of users. For non-motorized transportation, higher densities of trip generators (such as homes and workplaces) and trip attractors (such as shopping centers and parks) are indicators of demand for bicycle and pedestrian facilities. An examination of citywide demographic and point of interest data give a

better picture of where origins and destinations are concentrated throughout the City, and in turn high-demand areas for facilities.

Map 2.1 on the following page displays the results of a Live, Work, Play demand analysis, which identifies expected pedestrian and bicycle activity by overlaying the locations where people live, work, play, and go to school into a composite sketch of regional demand. A complete summary of the Live, Work, Play analysis and methodology is located in the appendix of the Plan.

The analysis shows that there is a strong composite density in the downtown, North Park Shopping Center, and Mesker Park and Mesker Park Zoo areas. There is also strong demand in the Eastland Mall area with strong commercial and recreation density with pockets of residential and educational facility density nearby. There is a strong linear connection along First Ave from Downtown to the North Park Shopping Center area; this corridor is a strong preliminary candidate for upgraded pedestrian and bicycle facilities to connect the two areas.

It is important to note that this analysis also discovered areas of demand that are not being sufficiently served by the current pedestrian and bicycle facilities. To better represent this, a Pedestrian Level of Service and a Bicycle Level of Traffic Stress Analysis was conducted to establish the reach of facilities and where the supply can be improved to match the current demand. These analyses are described later in this chapter.

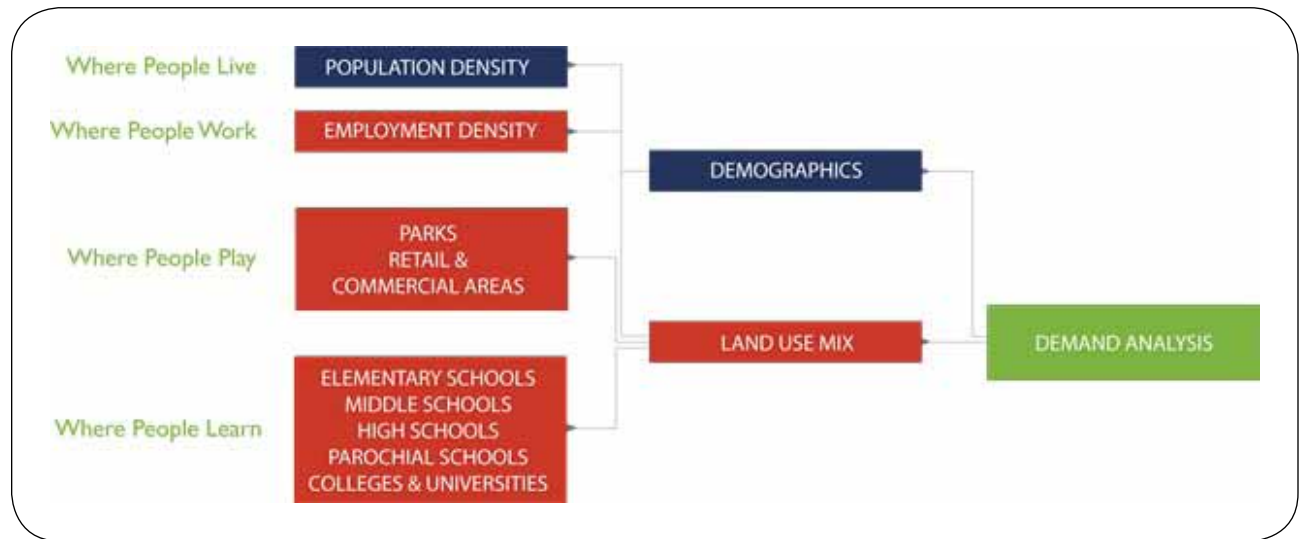
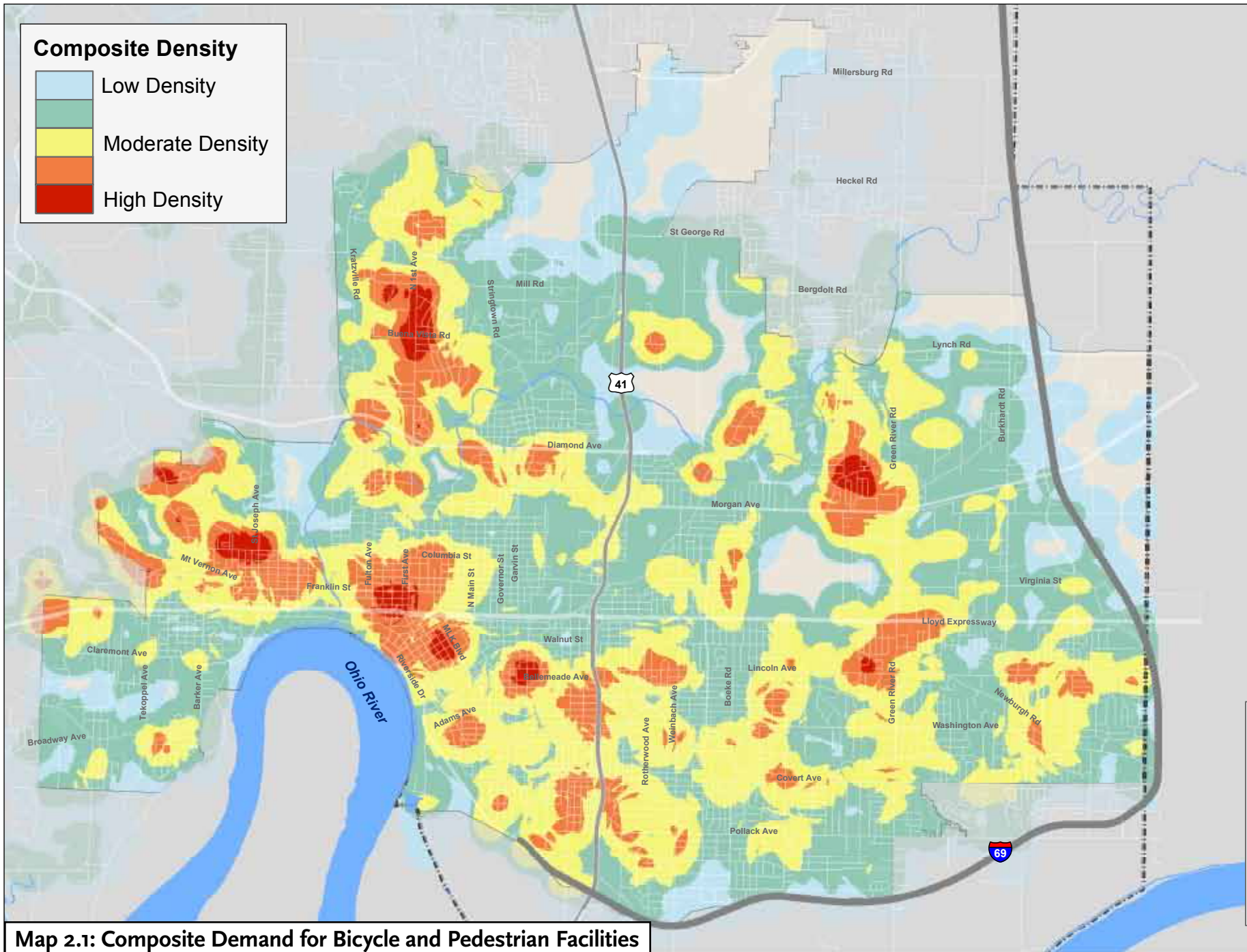


Figure 2.4: Live, Work, Play Model





# EXISTING BICYCLE AND PEDESTRIAN FACILITIES

Evansville has the foundation to become a strong Bike and Walk Friendly City. It has a relatively mild climate year-round, generally flat terrain, a small but growing network of greenways and on-street bikeways, considerable sidewalk coverage, good neighborhood and retail density in the core areas of town, and a well-connected street grid that prevails across most of the City. These characteristics will push Evansville forward on its goals for walking and bicycling.

In addition to the positive traits that characterize Evansville, there are safety concerns, physical barriers to bicycling and walking, and gaps in network connectivity. The following sections present existing and proposed network conditions and discuss the current strengths and barriers of the transportation network for walking and bicycling.

## Bicycle Network

The network of bicycling facilities in Evansville continues to grow year after year. From shared use paths like the Pigeon Creek Greenway to bicycle lanes on Oak Hill Rd and shared lane markings on streets like Franklin St, new bicycle facilities throughout the City are attracting new bicyclists and enhancing safety and comfort for existing riders. The existing and proposed bicycling network is shown in Map 2.2 on the following page. Significant strengths and weaknesses of the current network are listed below:

### *Strengths and Opportunities*

- There are many bike route options that provide good east-west connectivity.
- Parallel neighborhood streets with lower traffic volumes (like East Walnut St) offer good routes for bicycling off of streets with higher vehicular traffic volumes and speeds (like Washington Ave)
- There are several streets in the roadway network with available space for adding bikeways within the existing curb-lines, either through lane width reduction or road diet projects, including Franklin St, Virginia St, Mill Rd and Barker Ave.
- The Pigeon Creek Greenway and many areas of downtown are already very bike-friendly and appeal to a wide variety of users.
- The new bike lanes on Oak Hill Rd provide good connectivity to recreation and also a large residential area of town.

## Existing Conditions Photo Inventory



*Figure 2.5: Designated bike routes are generally well-placed on low-volume routes and wayfinding signage is well-located and informative. However, they mostly travel east-west and their range is generally limited (location: Franklin St and Weinbach Ave).*

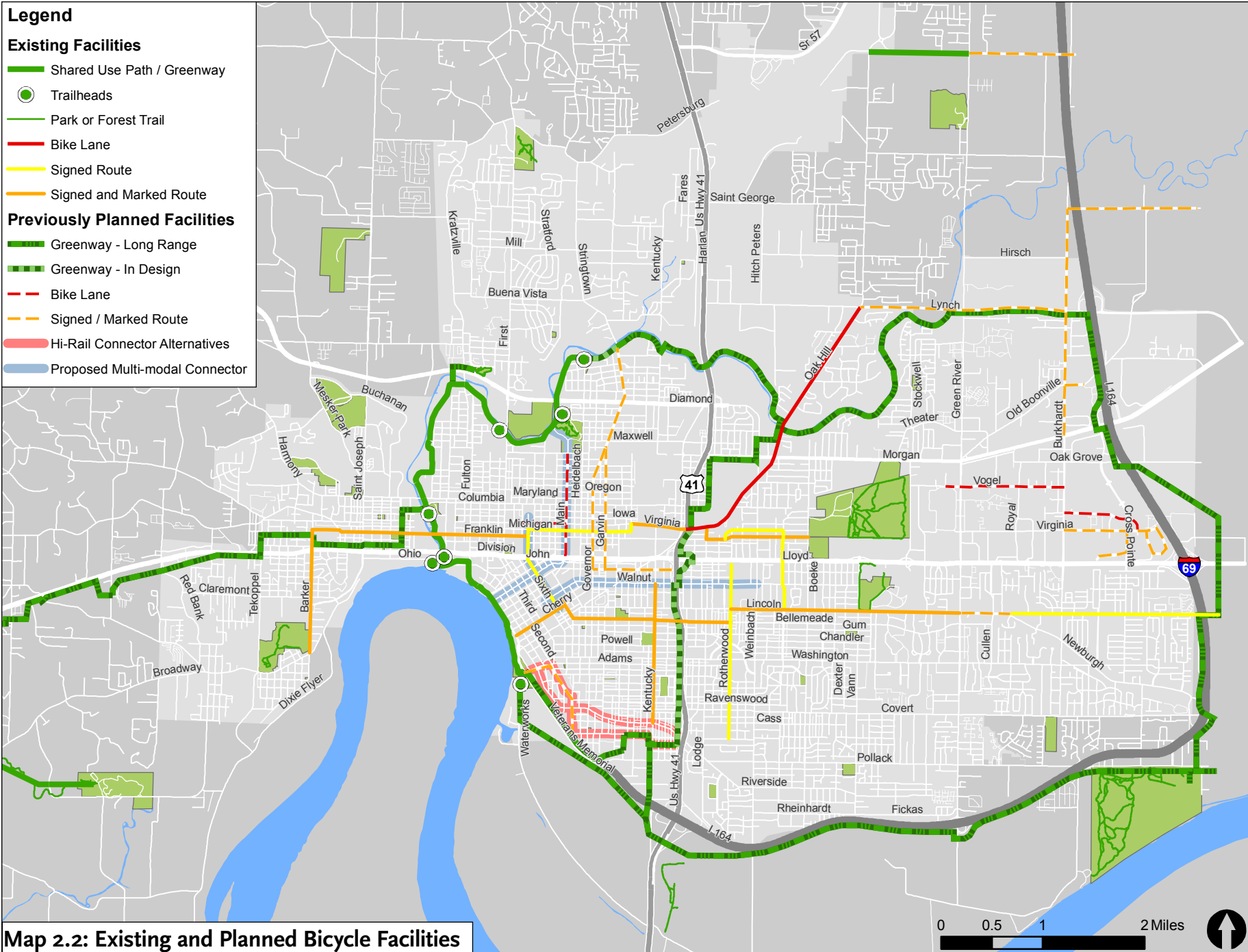


*Figure 2.6: The designated bike lanes on Oak Hill Rd and Virginia St provide added comfort for users connecting along these routes because of their separation from motor-vehicle traffic (location: Virginia St).*



*Figure 2.7: The Pigeon Creek Greenway is the longest, most popular corridor for bicycling in Evansville. Commuters, tourists, and recreational riders all share this wonderful community asset.*





**Map 2.2: Existing and Planned Bicycle Facilities**

- The bike route wayfinding signs are effective at communicating preferred on-street bicycle routes and how to reach likely destinations for bicyclists.
- Many programmed improvements such as the Hi-Rail Corridor and North Main St improvements will provide needed connectivity for bicyclists.
- Destinations are fairly well dispersed throughout town and density and street connectivity are supportive of bicycling near Evansville's downtown core.
- Buses have front-mounted bike racks that assist with bicycle connectivity to transit.

### ***Weaknesses and Areas for Improvement***

- Large vehicular corridors such as Lloyd Expressway, Highway 41, Diamond Ave, Green River Rd, First Ave and Burkhardt Rd are barriers for bicyclists trying to cross or traverse these roads.
- Many of the City's busiest retail, employment, recreation and learning centers are difficult to access by bike due to their location along high-traffic, high-speed and wide roadways. Also, the low density of development, high-frequency of curb-cuts and large parking lots in front of businesses along these corridors decreases bicycling comfort and increases bicycling distances and potential safety issues.
- While bike routes offer some east-west connectivity, north/south bikeway connectivity is limited, especially over Lloyd Expressway.
- Separated bike facilities such as bike lanes or off-street paths are limited. These are important as they create a more comfortable environment for bicyclists of multiple ages and abilities.
- Street connectivity and neighborhood density worsens as one moves out from downtown. This results in longer distances and the necessity to travel on higher speed and volume roadways for those travelling by bicycle.
- The surface condition and debris on some roadways make it difficult for bicyclists, who are more greatly susceptible to poor maintenance conditions.
- Bicycle parking is limited throughout town, even in bike-friendly areas such as downtown.
- Bikeway connectivity to transit and secure bike parking at transit stations is limited.

### **Existing Conditions Photo Inventory**



*Figure 2.8: Some roads in Evansville, like Shawnee Drive, lack adequate facilities for bicycling and walking, yet many people still travel the corridor on bike and foot to access Sunset Park and Eagle Slough Natural Area (location: Shawnee Dr).*



*Figure 2.9: Many roads that could serve as direct connections for bicyclists are only attractive to the most "strong and fearless" bicyclists due to high volumes of traffic, high traffic speeds and no separated bicycle facilities (location: Newburgh Rd)*



*Figure 2.10: These improperly placed shared lane markings along MLK Blvd encourage bicyclists to ride against the curb rather than the middle of the lane, where cyclists can remain visible, predictable, and more safe. (location: MLK Blvd)*

## Existing Conditions Photo Inventory



*Figure 2.11: Shaded plazas, wayfinding signs and water features create an inviting atmosphere for walking in Haynie's Corner Arts District.*



*Figure 2.12: This high visibility crosswalk and median refuge island provides a safe connection across Riverside Drive to the Pigeon Creek Greenway and the Riverfront Esplanade.*



*Figure 2.13: Overpasses, like this one at Cullen Ave over Lloyd Expressway, offer bicyclists and pedestrians safe crossing points over high-speed limited access arterials and increase route directness.*

## Pedestrian Network

Long before the automobile became the dominant mode of transportation, the City of Evansville was platted and built to support walking as the most common means of transportation. Neighborhoods sprang up in walking distance to places of employment and commerce, block lengths were shorter, sidewalks were built along every street, and Evansville residents could access most places they needed to reach on foot. As transportation and land use patterns in Evansville and across the United States began to change in the mid-20th Century, neighborhood- and pedestrian-scale development gave way to the ubiquitous private automobile, drastically altering people's relationships to one another and to the places around them. New suburban development (and the roadways and infrastructure that supported them) catered to the private automobile and were often inaccessible to those traveling by foot.

As Evansville residents and leaders look to re-establish walking as a viable mode of transportation, an assessment of the pedestrian network reveals a number strengths and opportunities, many of which are a legacy of the pre-automobile era, like the dense and character-rich historic neighborhoods and commercial districts. There are also a number of weaknesses and areas of concern that must be addressed in order to make walking an everyday activity for more and more Evansville residents. Map 2.3 on the following page displays existing and planned pedestrian facilities in the City of Evansville.







### ***Strengths and Opportunities***

- The street and sidewalk network is well connected in the downtown core and surrounding older neighborhoods of Evansville. There are many existing streets in this area that are walk friendly and easy to cross.
- Recently implemented crossing improvements along Highway 41 make it safer and easier for pedestrians to cross this busy corridor.
- The Pigeon Creek Greenway and downtown business district offer a walk-friendly environment that many residents currently utilize.
- Programmed greenway expansions such as the Hi-Rail Corridor and the Pigeon Creek Greenway extension to Highway 41 will improve access to high-quality walking facilities.
- Many civic destinations such as schools, libraries and parks are accessible by walking and destinations for recreational walking, especially in older and flat areas of Evansville.





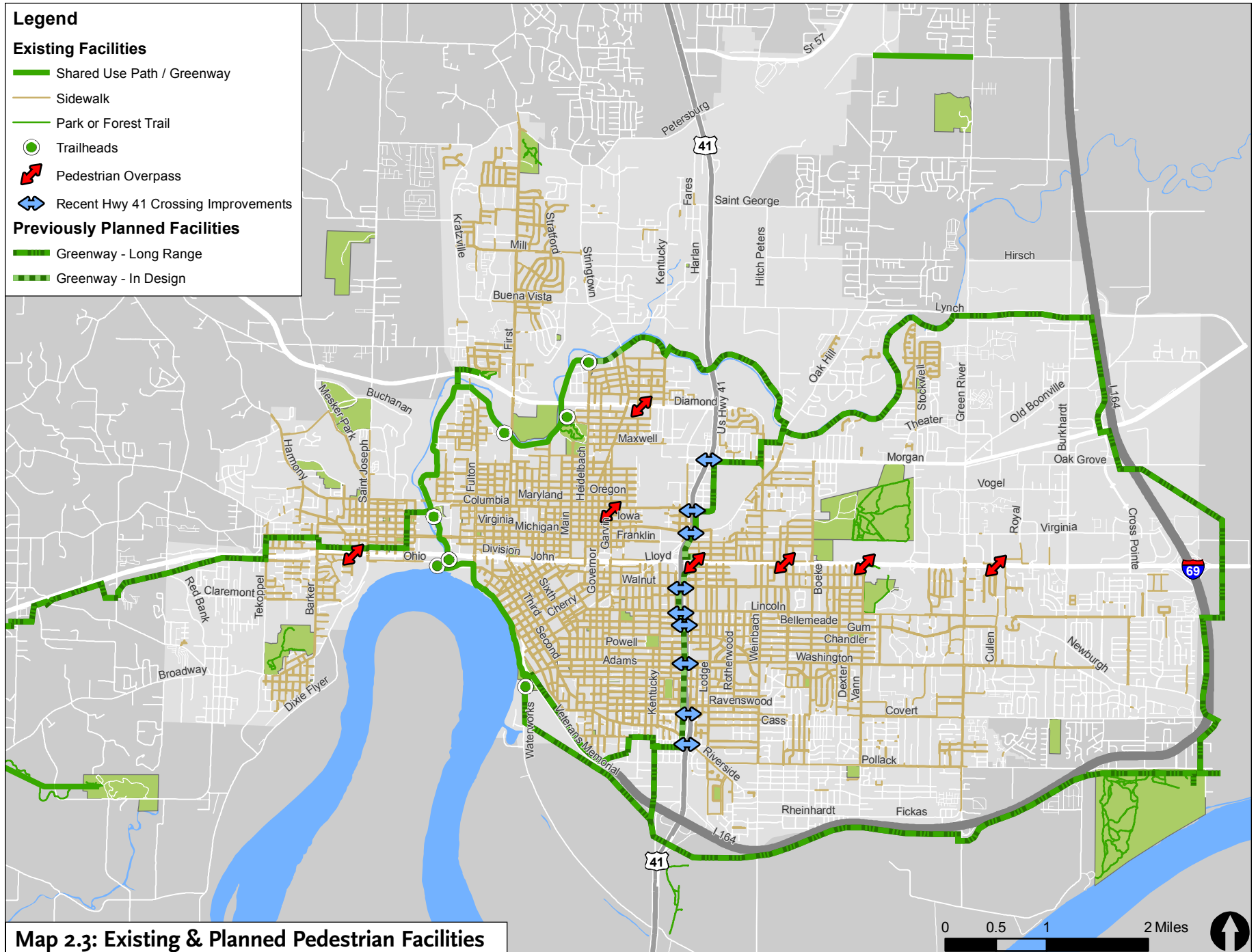
**Legend**

**Existing Facilities**

-  Shared Use Path / Greenway
-  Sidewalk
-  Park or Forest Trail
-  Trailheads
-  Pedestrian Overpass
-  Recent Hwy 41 Crossing Improvements

**Previously Planned Facilities**

-  Greenway - Long Range
-  Greenway - In Design



**Map 2.3: Existing & Planned Pedestrian Facilities**





## Existing Conditions Photo Inventory



*Figure 2.14: Sidewalks are needed on many corridors, especially outside the downtown and core neighborhoods (location: Vogel Rd)*



*Figure 2.15: The low frequency of crossing locations for pedestrians along many major corridors such as Green River Road (pictured) not only discourages walking in general, but encourages crossing at unsafe locations for pedestrians who do walk.*



*Figure 2.16: The lack of a curb ramp and narrow functional width of the sidewalk make this a difficult environment for users with mobility impairments, or even two pedestrians walking side by side or passing each other (location: Weinbach Ave)*

- The city utilizes high-visibility crosswalk markings in highly-trafficked pedestrian areas such as downtown and near schools.

### ***Weaknesses and Areas for Improvement***

- Large vehicular corridors such as Lloyd Expressway, Highway 41, Diamond Ave, Green River Rd, First Ave and Burkhardt Rd are barriers for pedestrians trying to cross or traverse these roads due to large distances between safe crossings, long distances across roadways, and long wait times for traffic signals to change. Also, many of these roadways don't currently have sidewalks.
- Many of the City's busiest retail, employment, recreation and learning centers are difficult to access by foot due to their location along high-traffic, high-speed and wide roadways. Also, the low density of development, high-frequency of curb-cuts and large parking lots in front of businesses along these corridors decrease walking comfort and increase walking distances and potential safety issues.
- Many residents are concerned about the lack of access and surveillance in some areas of the Pigeon Creek Greenway. This discourages use.
- Access to several significant City and regional parks such as Wesselman Woods and the State Hospital Grounds is limited by foot, with limited access points and safety concerns at designated access points.
- As ones moves away from the City core, presence of sidewalks, sidewalk connectivity and street connectivity worsens, rendering many areas of town unwalkable.
- Many existing sidewalks are narrow or constrained by obstructions such as utility poles or maintenance issues such as along Weinbach Ave. This forces pedestrians with assisted mobility devices to ride in the roadway in some areas.
- Many bus stops lack sidewalk connectivity.
- Many crosswalks lack curb ramps or do not meet ADA requirements for accessibility.



## PIGEON CREEK GREENWAY PASSAGE

Stretching more than six miles along Pigeon Creek and the banks of the Ohio River, the Pigeon Creek Greenway Passage, also referred to as the Pigeon Creek Greenway, is one of the greatest assets in the region. The success of the greenway is reflected in (and strengthened by) the facility's designation by the United States Secretary of the Interior as a National Recreation Trail; however, the greenway's impact extends beyond traditional health and recreation benefits often associated with trails and greenways. The greenway also creates social, economic, and environmental benefits through reduced automobile use, increased tourist activity and spending, increased access to and awareness of the region's natural resources, and new opportunities for local events that strengthen community cohesion and build a shared sense of place. As the Pigeon Creek Greenway Passage expands over time, these benefits will increase, further solidifying Evansville as the region's premier destination for bicycling and walking.

### Origins of the Pigeon Creek Greenway Passage

The beginnings of the Pigeon Creek Greenway Passage precede the trail's first groundbreaking in 1997 by decades. In 1970, the City of Evansville and the United States Army Corps of Engineers signed an agreement for the construction of the Pigeon Creek Levee, which would include a "greenbelt parkway" component along Pigeon Creek. While the levee was constructed, the greenway concept sat dormant for nearly ten years. In 1980, the Corps of Engineers refined the greenway concept in the *Special Recreation Resources Report and Master Plan for Facility Development*. This report sat on the shelf for another decade, only to be revived by the City of Evansville in the early 1990s.

Prompted by the enactment of Intermodal Surface Transportation Enhancement Act (ISTEA), the federal transportation funding bill that allocated funding for recreational trails. In 1994, the City completed the *Pigeon Creek Greenway Passage Master Plan*, an expanded and ambitious vision for a 40-mile greenway system encompassing the City and extending to USI, Burdette Park, Angel Mounds, Newburgh, and other regional destinations in and around Evansville. The development of this master plan energized the community and built momentum for trails and greenways, eventually leading to successful applications for federal trails funding through the ISTEA program.

Figure 2.17: The existing Pigeon Creek Greenway stretches from Sunset Park northward along the Ohio River and Pigeon Creek to Heidelberg Ave (Source: Pigeon Creek Greenway Passage tri-fold brochure, Evansville Parks Foundation).



Since construction began in 1997, over six of the 42 miles of the planned greenway network have been completed. While this may represent just a small portion of the total network envisioned in the master plan, the completion of the existing facilities is a significant accomplishment. These existing segments are in high-visibility areas and serve a broad spectrum of neighborhood residents, regional commuters, visiting tourists, and the daytime population of employees in Downtown Evansville. Their presence has had a major impact on Evansville, raising the number of bicycling and walking trips for both transportation and recreation, and increasing the community's interest in safe places for bicycling and walking.

## Funding, Maintenance and Operations Partnerships

The continued expansion and enduring success of the Pigeon Creek Greenway will require ongoing coordination between local agencies, non-profits and foundations, and other partners throughout the community. Local partners can support the City by acting as a fiduciary partner for the greenway, coordinating fundraising and donations to support greenway development, installing amenities to create a world-class experiences for greenway users, and building community interest in and support for the facility.

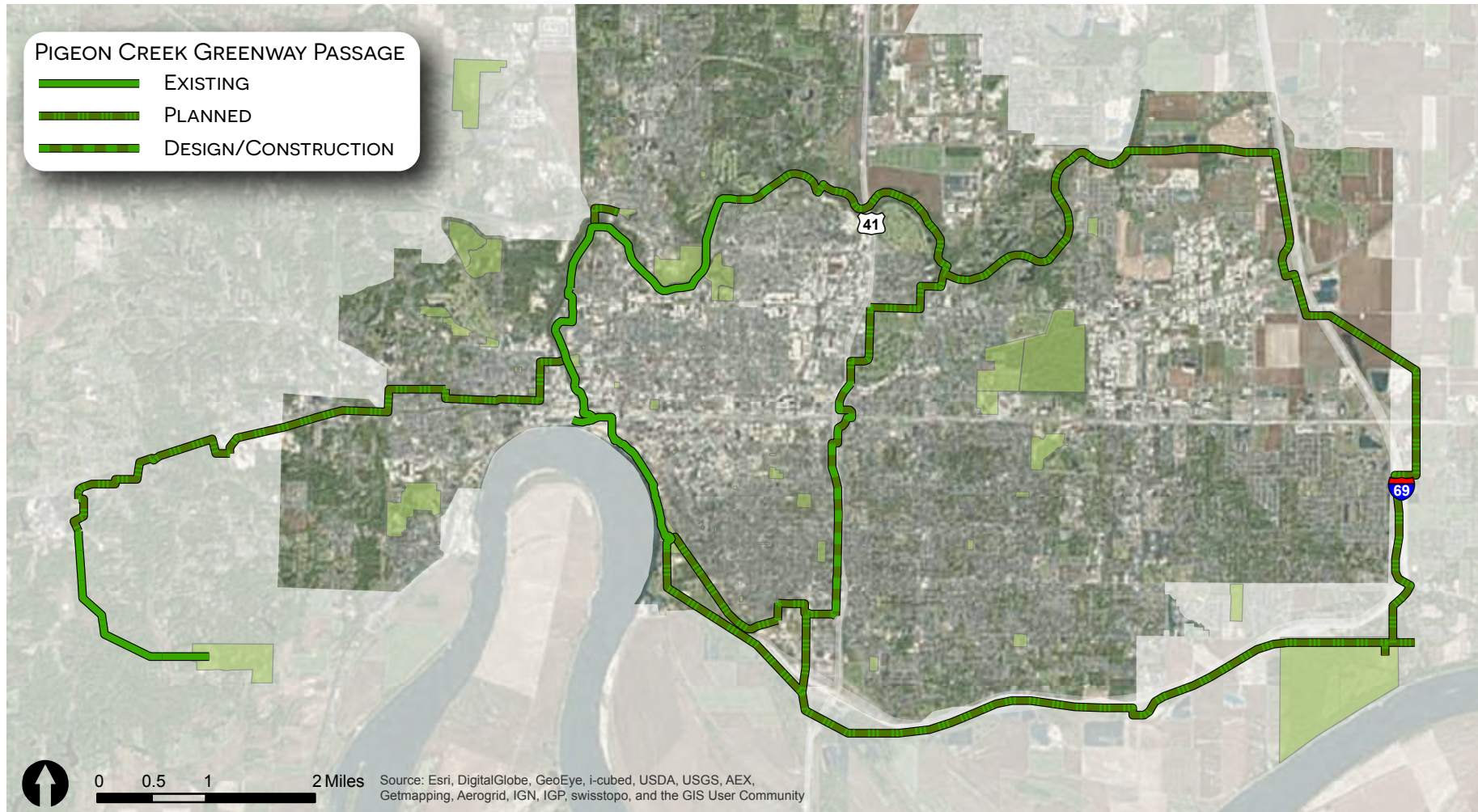


Figure 2.18: When complete, the Pigeon Creek Greenway will circle the City of Evansville and provide direct access to some of the region's greatest cultural and recreational assets.

## ROADWAY SUITABILITY ANALYSIS

While bicycling and walking can be subjective and unique experiences for each individual, there are basic roadway characteristics that impact the user experience. When aggregated, these characteristics can be used to determine general levels of comfort for bicyclists and pedestrians. Using GIS-based roadway data pertaining to sidewalks, on-street parking, existing bicycle facilities, speed limits, number of travel lanes, average daily traffic volume, and other characteristics, Evansville's roadway network has been analyzed to determine current roadway suitability for bicycling and walking, as well as suitability for road diet projects that reallocate motor vehicle travel lanes for bicycle facilities, pedestrian facilities, or other streetscape enhancements that support walking and bicycling. The following analyses were performed as part of the inventory of existing conditions:

- Pedestrian Level of Service (PLOS) Analysis
- Bicycle Level of Traffic Stress (BLTS) Plus Analysis
- Low-Stress Bicycle Connectivity Analysis
- Road Diet Suitability Analysis

Summaries and maps of each of these analyses are provided below, and complete documentation of each is included in the appendix of the Plan. The results of these models will be used to identify pedestrian and bicycle network gaps as potential projects and aid in system-wide prioritization.

### Pedestrian Level of Service

Pedestrian Level of Service (PLOS) analysis is based on a users' safety in a given street segment. More physical space dedicated to pedestrians corresponds with a higher comfort level. Complete sidewalks with a parking and/or bike lane buffer on both sides of a lower-speed roadway are generally the most comfortable facilities. Comfort decreases when pedestrians encounter sidewalks on only one side of a roadway, or when they have no dedicated space.

Pedestrian level of service in the City of Evansville is displayed in Map 2.4 on the following page. Low speed roadways with buffers and sidewalks, the links with the highest level a pedestrian comfort, are shown in dark green. Roads with a higher level of stress for pedestrians are shown in orange and red.

The highest levels of comfort are found in Downtown Evansville and many surrounding neighborhoods, including Jacobsville, Center City, Ballard, Wheeler, Culver, Tepe Park, and Lamasco. This is largely due to the extensive sidewalk network in these areas, as well as the traditional grid street network, which allows pedestrians to

incorporate low-volume residential streets into their travel routes. Collector and arterial corridors radiating from Downtown Evansville have medium levels of comfort due to sidewalks and moderate speed limits, but comfort decreases on major roadways further out as speed limits and numbers of lanes increase, and sidewalk infrastructure disappears. Many neighborhoods farther from the city's core lack sidewalks altogether. There are scattered subdivisions north of Diamond Ave and Morgan Ave that have well-connected sidewalk networks, but these safe walking environments are segmented from one another by low comfort links.

### Bicycle Level of Traffic Stress (BLTS) "Plus"

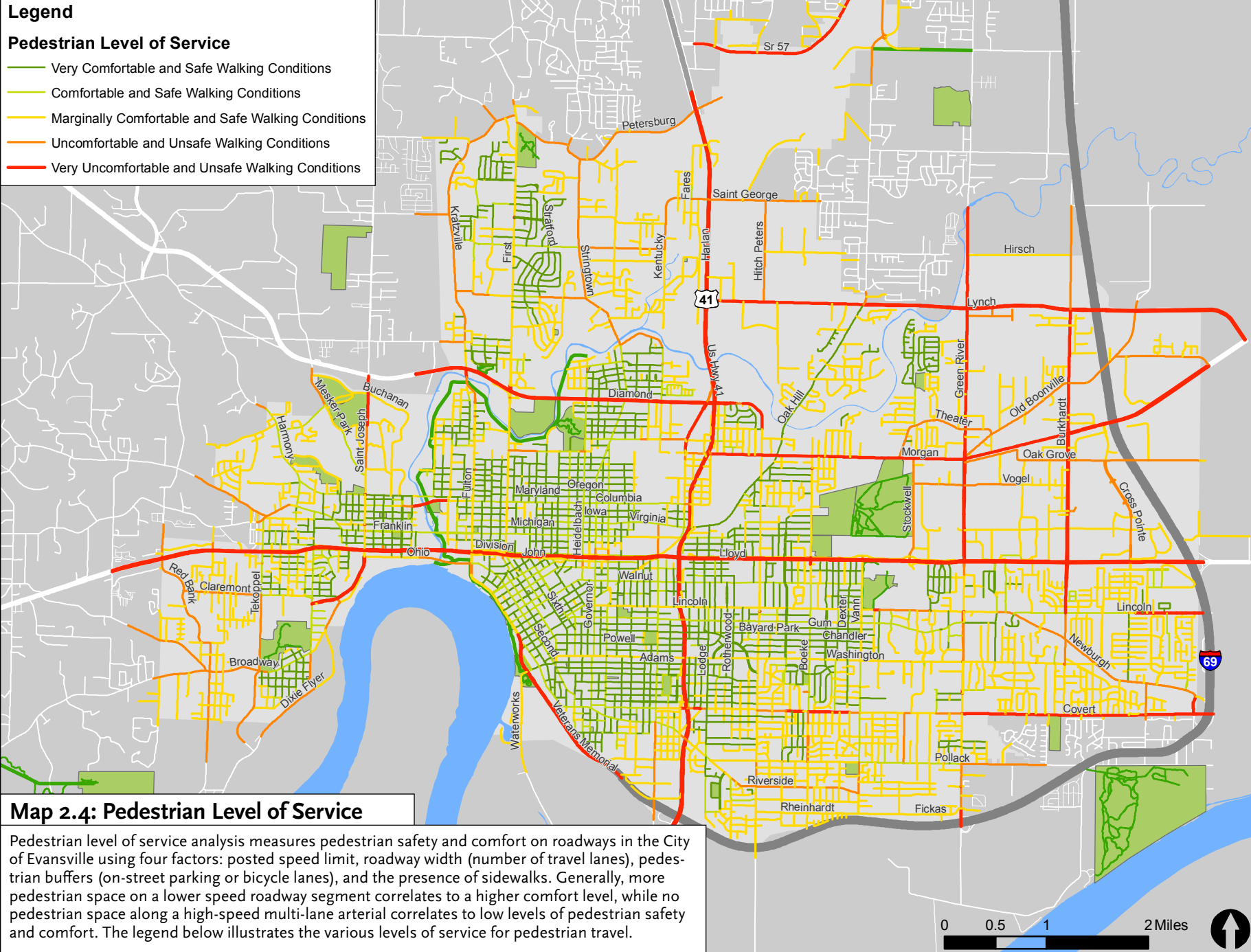
The Bicycle Level of Traffic Stress Plus (BLTS Plus) analysis is based on the 2012 Mineta Transportation Institute (MTI) approach in which roadway segments are classified into one of four levels of traffic stress based on factors such as posted speed limit, number of travel lanes, and presence of bike lanes. The BLTS Plus analysis expands this basic Level of Traffic Stress technique to incorporate the impact of traffic volumes and sharrows on rider comfort. The lowest level of traffic stress includes roads that would be tolerable for most children to ride, while more confidence is needed to travel on roads with higher stress ratings. An intersection level of service analysis helped identify difficult crossings to refine segment BLTS Plus results.

The results of this analysis are shown in Map 2.5 on page 12. Disconnected clusters of moderately low-stress streets characterize most of the street network; however, large, high-speed roads like Highway 41 and Lloyd Expressway function as barriers to bicycle mobility. The lack of dedicated bicycle facilities like bicycle lanes and cycle tracks also limits bicycle travel throughout Evansville.

### Low-Stress Bicycle Connectivity Analysis

The limited bicycle connectivity described above is further illustrated in the Bicycle Level of Traffic Stress 1 & 2 Connectivity Clusters Map 2.6 on page 13. This map aggregates all segments of roadway that are categorized as BLTS Plus 1 and BLTS 2 into clusters that represent a cyclists' potential reach using only low-stress roadways and bicycle facilities. Each cluster is assigned a different color on the map. As is evident from this map, bicycle connectivity erodes further and further from the core of the City. Although low-stress roads exist outside of the central area, there is a notable lack of connectivity between neighborhoods. Just as safe and comfortable crossings are integral to support pedestrian mobility, bicycle facilities leading up to and through major and minor intersections are necessary in order to increase the viability of bicycling as a legitimate transportation mode.

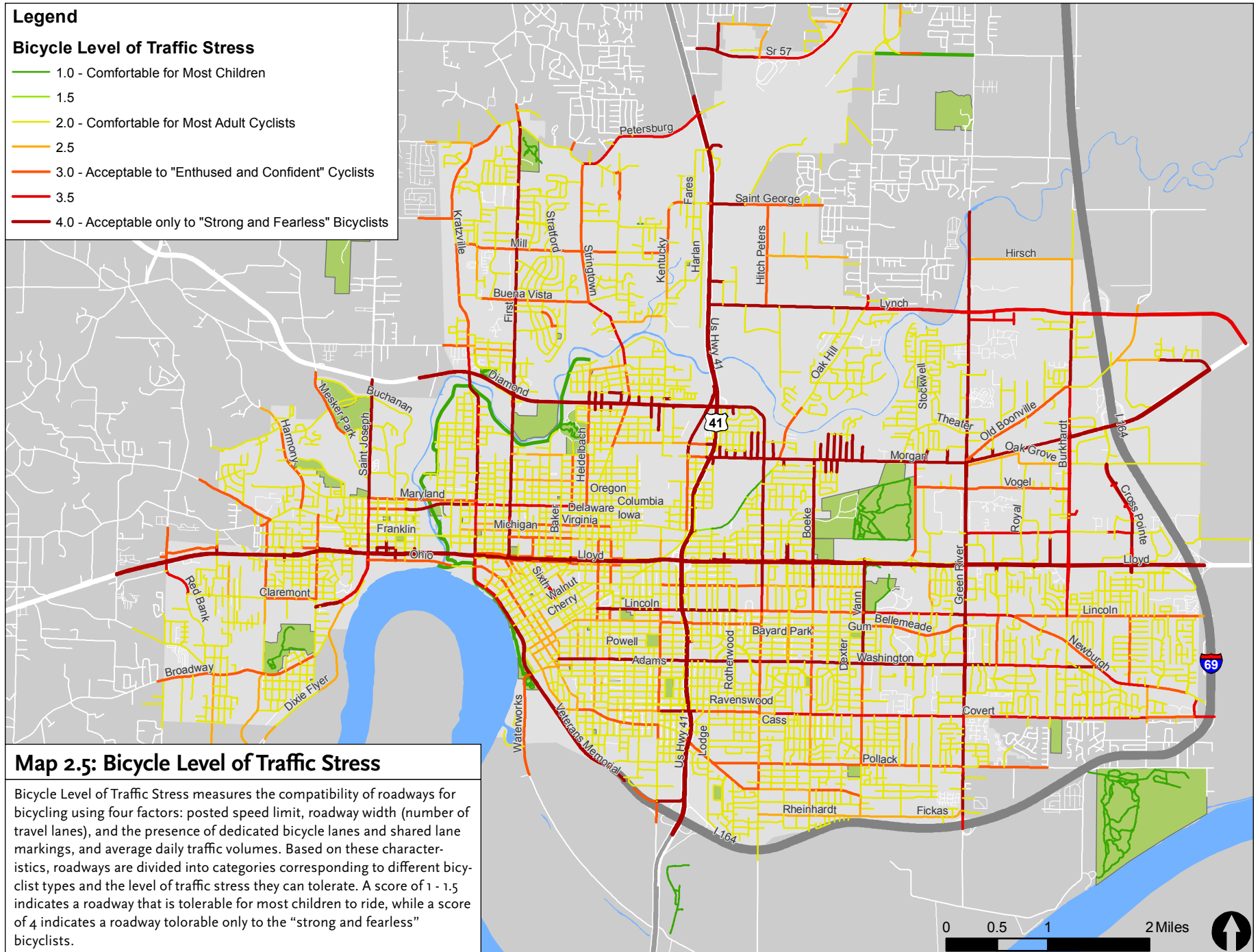




### Legend

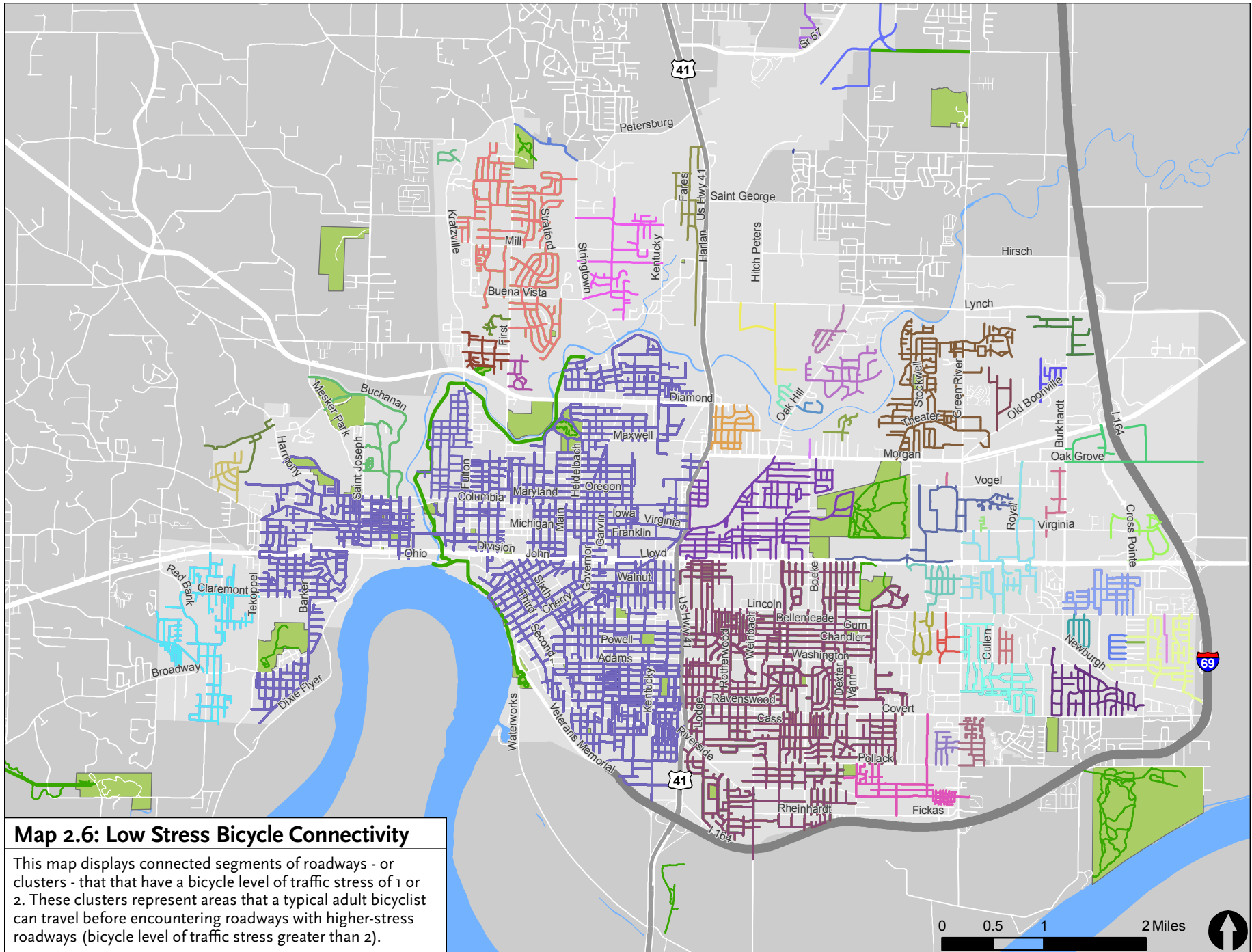
#### Bicycle Level of Traffic Stress

- 1.0 - Comfortable for Most Children
- 1.5
- 2.0 - Comfortable for Most Adult Cyclists
- 2.5
- 3.0 - Acceptable to "Enthusiased and Confident" Cyclists
- 3.5
- 4.0 - Acceptable only to "Strong and Fearless" Bicyclists



### Map 2.5: Bicycle Level of Traffic Stress

Bicycle Level of Traffic Stress measures the compatibility of roadways for bicycling using four factors: posted speed limit, roadway width (number of travel lanes), and the presence of dedicated bicycle lanes and shared lane markings, and average daily traffic volumes. Based on these characteristics, roadways are divided into categories corresponding to different bicyclist types and the level of traffic stress they can tolerate. A score of 1 - 1.5 indicates a roadway that is tolerable for most children to ride, while a score of 4 indicates a roadway tolerable only to the "strong and fearless" bicyclists.



## Road Diet Suitability Analysis

The road diet analysis investigates the Evansville road network's potential for converting motor vehicle lanes to other uses. Travel lane conversions use existing travel lanes for on-street parking, bike lanes, sidewalk expansions, or other roadway features. Many roads undergo "four-to-three" conversions, for instance, to convert four lane roads into two travel lanes plus one center turning lane. These conversions make space for bicycle lanes and pedestrian accommodations. Road diets can also improve safety and operations for motor vehicles by reducing speeds and the instances of rear-end collisions. Communities across the country have completed road diets and accrued benefits such as lower vehicular crash rates, the addition of more protected non-motorized transportation facilities, and an improved environment for adjacent property owners.

Roadways in Evansville with four or more lanes were investigated for their potential to support a road diet. This analysis was based on average daily traffic volumes (ADT), which is one of the most important factors determining road diet viability. Some minor data gaps necessitated certain assumptions concerning ADT or other data points.

The results of this analysis are shown in Map 2.7 on the following page. Roadways with less than 15,000 ADT, shown as green lines on the map, are likely to experience no significant traffic impact as a result of a road diet. Roadways with ADT volumes between 15,000 and 20,000, shown in yellow, are likely to experience minor traffic impacts as a result of a road diet. Roadways with 20,000 to 25,000 would experience minor to substantial traffic impacts in the event of a road diet. These roadways are shown in orange. Heavier traveled roadways with more than 25,000 are shown in red and are not candidates for a potential road diet.

The findings of this analysis represent a preliminary investigation into the potential for roadway reconfiguration and the removal of travel lanes. The City should analyze other factors such as traffic dispersion, number of curb-cuts, number of potential turning movements, bus stops, and intersection operations before selecting road diets to implement. The analysis, therefore, is intended for general planning purposes only and is reliant on subsequent review.



Figure 2.19: The road diet on Lincoln Avenue has helped to improve bicyclist and pedestrian safety and calm motor vehicle traffic.

### Fewer Lanes, More Benefits

The benefits of road diets are not limited to additional space for bicyclists. There is a strong evidence base that points to the safety, operations, pedestrian and non-motorized, and general livability benefits of road diet projects from across the United States. The following advantages are often gained through roadway reconfiguration and lane reduction projects:

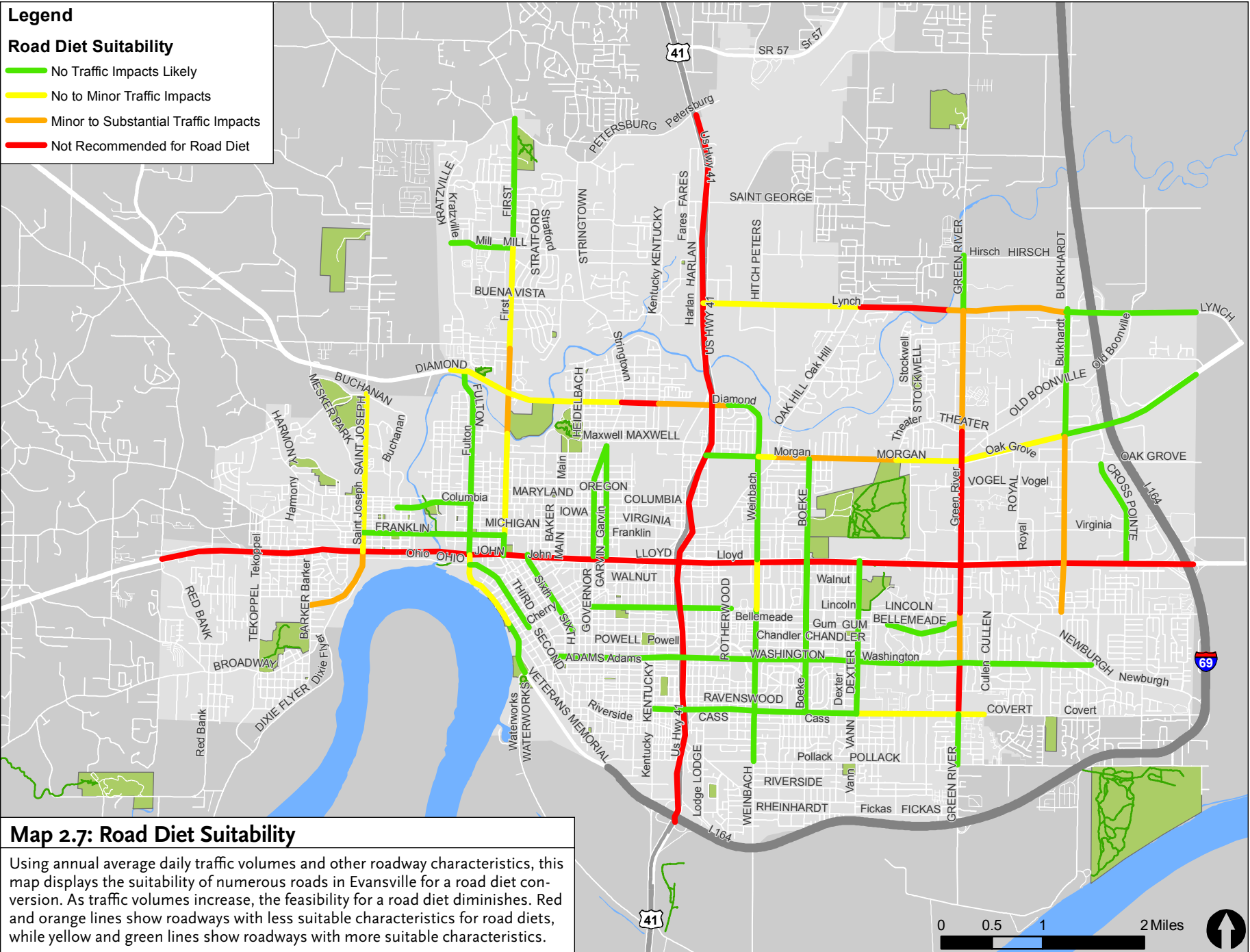
- Left-turn lanes provide a place for motorists and bicyclists to wait to make a left turn, reducing the incidence of left-turn and rear-end crashes.
- With one travel lane in each direction, top-end travel speeds are moderated by those who are following posted speed limits, which may reduce potential crash severities for all users.
- The additional space gained by removing one lane can be used to provide bike lanes on both sides of the road.
- Raised medians or small refuge islands at pedestrian crossing locations can be installed to make it easier for pedestrians to cross the street and to reduce the likelihood of pedestrian crashes.
- Less traffic noise (due to reduced speeds) and greater separation from traffic for pedestrians, residents, and businesses creates a more inviting public spaces for walking, shopping, and social activity.



**Legend**

**Road Diet Suitability**

- No Traffic Impacts Likely
- No to Minor Traffic Impacts
- Minor to Substantial Traffic Impacts
- Not Recommended for Road Diet



**Map 2.7: Road Diet Suitability**

Using annual average daily traffic volumes and other roadway characteristics, this map displays the suitability of numerous roads in Evansville for a road diet conversion. As traffic volumes increase, the feasibility for a road diet diminishes. Red and orange lines show roadways with less suitable characteristics for road diets, while yellow and green lines show roadways with more suitable characteristics.

# NON-MOTORIZED CRASH ANALYSIS

Crashes with motor vehicles represent a significant threat, both real and perceived, to the safety of bicyclists and pedestrians. National and local surveys show that safety concerns are the most common reason people do not bicycle more often. Many bicyclists feel that motorists do not see them or are openly hostile to them on roadways, particularly at intersections. An examination of the debilitating impacts of crashes on bicyclists and pedestrians emphasizes the vulnerability of these road users. In 2012, bicyclists and pedestrians constituted less than 1% of all individuals in traffic collisions in Indiana, but 10% of all traffic fatalities. Similarly, only 0.2% of motor vehicle occupants involved in traffic collisions were killed, compared to 3.7% of all bicyclists and pedestrians.<sup>1</sup>

Local traffic collision data can be a valuable source of information for identifying trends in bicycle and pedestrian crashes, understanding specific crash characteristics, and developing countermeasures to create a safer environment for non-motorized roadway users. This section of the Plan summarizes reported crashes in Vanderburgh County that involved bicyclists and pedestrians between 2009 and 2013. A complete analysis of this crash data is located in the appendix of the Plan.

## Bicycle Crashes

One hundred and forty-five bike-related collisions were reported in Vanderburgh County from 2009 to 2013. Of these 145 collisions, more than 90% occurred in the City of Evansville. One hundred and sixteen resulted in injury, and five resulted in a fatality. These crashes are further analyzed below to identify common themes that can influence the development of recommendations for capital improvements and programs to make bicycling a safer, more enjoyable option for transportation and recreation.

Map 2.8 on the following page shows the locations of reported crashes in Evansville. In the absence of bicycle count data, crash location data can provide some insight regarding roadways commonly used by bicyclists. The geographic distribution of bicycle collisions correlates to both population density and street network density. Heavier concentrations of bicycle collisions are located in the neighborhoods immediately north and east of downtown, where the traditional neighborhood street grid and a mixture of land uses encourage bicycle transportation. These crashes are distributed among local, collector and arterial roadway types. Further from the urban core, suburban development patterns limit local connectivity and impel cyclists to ride on or cross higher volume, higher speed roadways. Crash data reflects this shift

<sup>1</sup> Indiana University Public Policy Institute. "Indiana Crash Facts 2012" ([http://www.in.gov/cji/files/T\\_Fact\\_Book\\_2012.pdf](http://www.in.gov/cji/files/T_Fact_Book_2012.pdf)). 2013: 15. Web. August 17, 2014.

in bicyclists' route options, as the majority of bicycle crashes occur on arterials and collectors, including Green River Rd, Covert Ave, Washington Ave, and Morgan Ave.

## Pedestrian Crashes

Data for pedestrian crashes involving motor vehicles from 2009-2013 was provided by the Evansville MPO early in the planning process. It is important to note that not all pedestrian-related crashes are reported to the police, and only reported crashes are included in this evaluation. A total of 187 pedestrian-related crashes occurred in Vanderburgh County during this five-year period. Of these 187 crashes, 173 were located within the City of Evansville. One hundred and seventy-one crashes resulted in injury, 25 in incapacitating injury, and six resulted in a fatality. Five of the six fatal crashes occurred in Evansville.

Map 2.9 on page 26 shows all 173 pedestrian crashes reported from 2009 to 2013 in the City of Evansville. The crash locations are similar to those for bicycle crashes, with the majority occurring in the more dense neighborhoods north and east of Downtown. Farther from the urban core, most pedestrian crashes are located along collector and arterial roadways such as First Ave, Green River Rd, and even US Hwy 41. Only four roadways saw more than ten crashes: Washington Ave, First Ave, US Hwy 41, and Green River Rd.

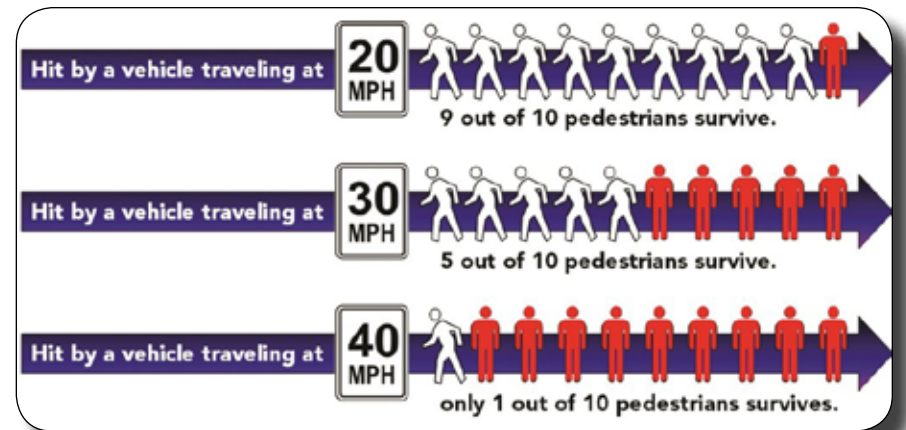
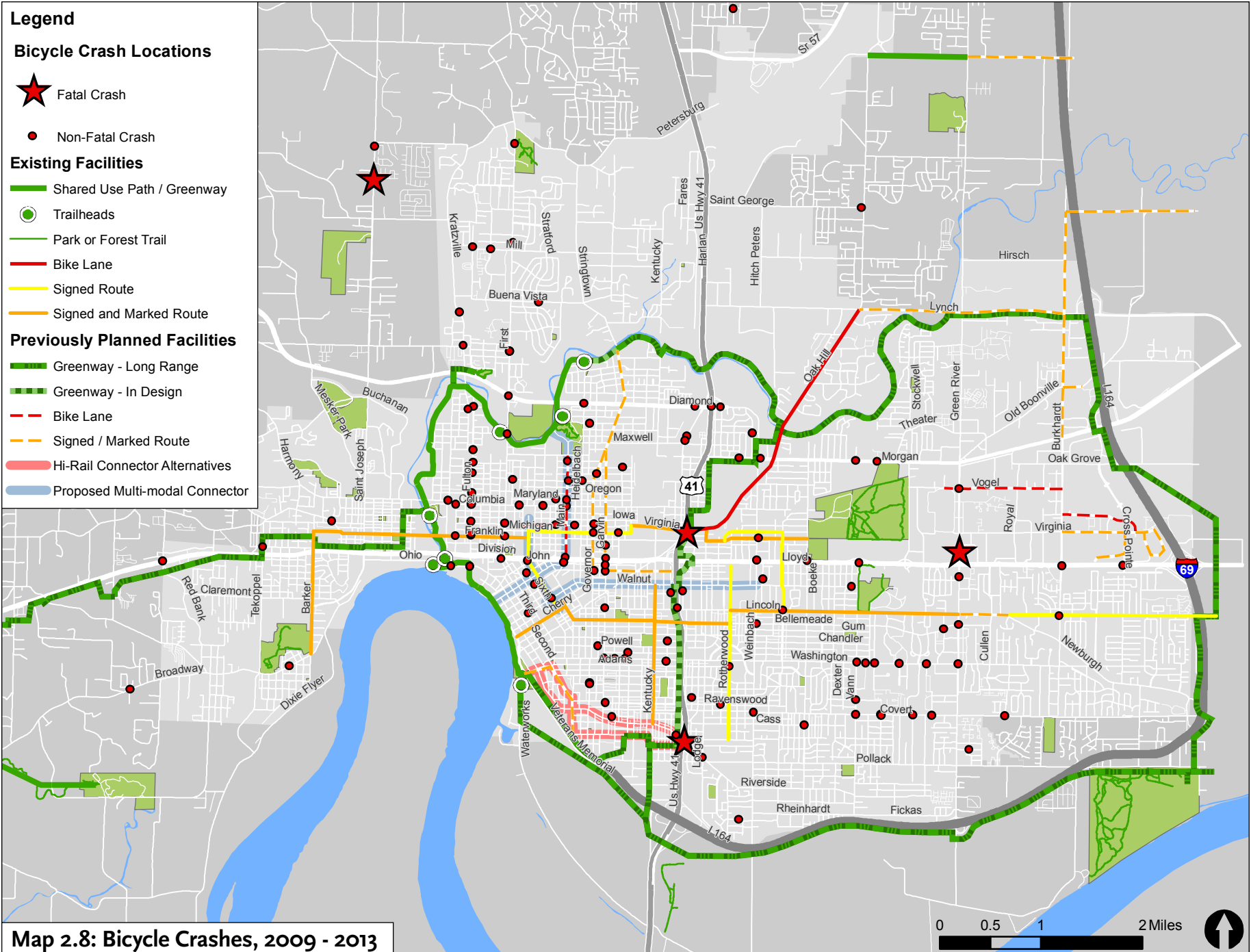


Figure 2.20: Motor vehicle speed is one of the most significant factors effecting pedestrian survival rates in crash events.



**Legend**

**Pedestrian Crash Locations**

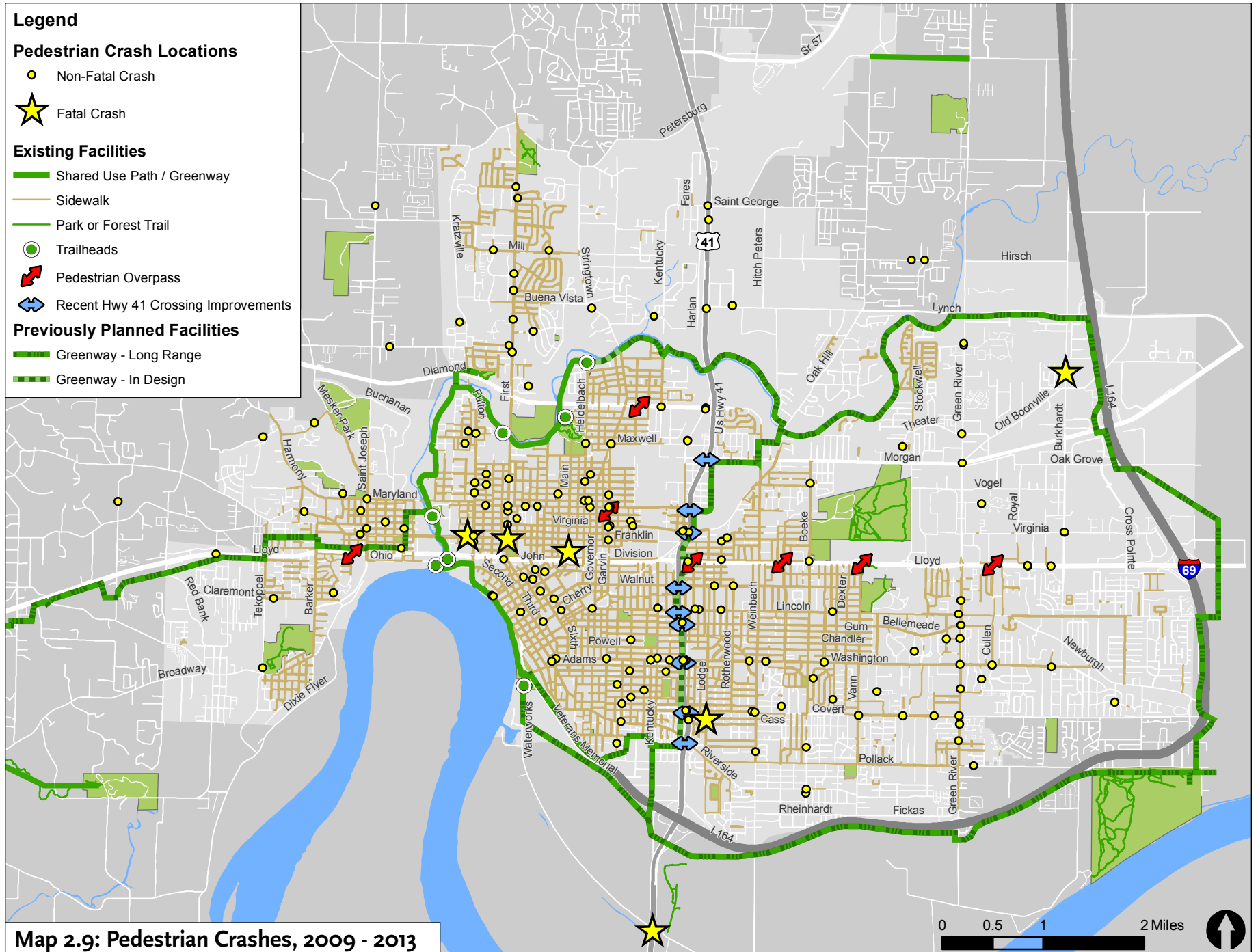
- Non-Fatal Crash
- ★ Fatal Crash

**Existing Facilities**

- ▬ Shared Use Path / Greenway
- ▬ Sidewalk
- ▬ Park or Forest Trail
- Trailheads
- ↗ Pedestrian Overpass
- ↔ Recent Hwy 41 Crossing Improvements

**Previously Planned Facilities**

- ▬ Greenway - Long Range
- ▬ Greenway - In Design



**Map 2.9: Pedestrian Crashes, 2009 - 2013**



## SUPPORTING PROGRAMS

A holistic approach to fostering bicycle and pedestrian activity relies on both infrastructure and non-infrastructure initiatives. The City of Evansville and its numerous partners throughout the region have already taken significant steps to utilize the Five E's approach and supplement physical improvements with education, encouragement, enforcement, and evaluation programs. Hosting Indiana's first open streets event in 2012, supporting local safe routes to school efforts, and developing initiatives to address the obesity epidemic through increased walking, bicycling and physical activity are noteworthy achievements to be celebrated and shared with others. This section of the Plan provides a brief summary of current initiatives to support walking and bicycling within the City of Evansville.

### Education

Education refers to teaching safe riding skills for people of all ages and abilities. Hand signals, lane placement, and the rules of the road are crucial for ensuring riders' comfort and safety when riding through the city's street network. Recreational, off-street riders benefit from understanding basic trail user guidelines, such as yielding to pedestrians and communicating with other bicyclists. Bicycle rodeos, League

Certified Instructor (LCI) training, integration of bicycle safety within public school curriculum, and adult new rider mentorship programs help introduce bicycling to residents. Since young children do not automatically understand the importance of crossing safety, these skills must be taught at an early age and continue as they mature.

Motorist education typically focuses on automobile operation. Courses that teach safe driving should discuss the necessity of respecting bicyclists and walkers including minimum passing clearance, yielding, and other safe behaviors. Teaching safe bicycling and walking during these courses fosters empathy and diminishes an "us versus them" mentality between road users.

### *Safe Routes to School (SRTS)*

Four Evansville schools participated in a 2014 SRTS pilot project in collaboration with the Healthy Communities Partnership of Southwestern Indiana. Each school was assigned a Safe Routes to School Coordinator to investigate current transportation habits, conduct walk audits, identify safe routes, and hold a Bike or Walk to School Day. Next steps include seeking further funding for infrastructure recommendations near the pilot schools.



Figure 2.21: Caze Elementary School's 2014 Walk and Bike to School Day event drew more than 80 students, parents and teachers.

## Bicycle Rodeos and On-Bike Education

The Evansville Bicycle Club (EBC) offers a number of educational programs. They have hosted bicycle rodeos in local parking lots to encourage children's bicycle skill development, safe riding, "ABC quick checks", and helmet fitting.

EBC has also sponsored a scholarship for local youth to attend iCan Bike, a traveling seminar that teaches youth with physical disabilities how to ride adaptive bicycles. The summer 2014 clinic was offered as a five day summer camp. Each child or young adult receives individualized attention from physical therapists and program volunteers.

## Agency Websites

Multiple local agencies have used their websites to provide educational information regarding safe walking, bicycling, and driving. The Police Department website includes safety tips for bicyclists, motorists, and children using school buses. The Evansville Metropolitan Planning Organization also provides educational material on its website, including bicycle and pedestrian education pamphlets for both children and adults.

**Parents and Guardians- What You Should Know**

When bike accidents occur, they are usually near the child's home, on two-lane streets with speed limits under 30 mph. As a parent, it is up to you to insure that your child is ready to ride a bike on the street! In deciding, ask yourself the following questions:

- Is my child mentally ready to ride a bike in neighborhood traffic? Does he/she accurately perceive traffic dangers?
- Does my child understand how traffic is supposed to operate on streets? This is something you can start teaching your children at a young age.
- Has my child mastered basic maneuvers such as starting, stopping, signaling, and negotiating hills and curves? Practice these maneuvers with your child in a safe location before allowing them to ride on public streets. Ride with your child until you are certain that she/he is capable of riding on lightly traveled roads.

**Younger children need close supervision and should not be riding alone in the street - not even in quiet neighborhoods.**

Continue to observe your child's riding habits and, if necessary, restrict cycling. Your continued supervision is always necessary, and your child's safety depends on it!

**Bicycle hand signals as seen from behind:**

right turn    stop    left turn

Right turns may be signed with a straight right arm.

**Proper Helmet Fitting: The bike helmet should be snug, and level above the eyes.**

**Safe Biking checklist:**

1. Wear a safety helmet when riding your bike.
2. Obey traffic signs and signals.
3. Ride in the same direction as traffic, on the right-hand side of the street.
4. Look in both directions before riding into the street from a driveway or stop sign.
5. Kids, tell an adult if something is wrong with your bike. Don't ride with brake or steering problems.
6. Use bike lights at night, and wear reflective or light-colored clothing to make yourself visible.
7. Walk your bike across busy intersections.
8. Use hand signals when turning or stopping.
9. Keep both hands on the handlebars
10. In a group, ride single-file while in traffic.

**Evansville Metropolitan Planning Organization**  
 Civic Center Complex, Room 316  
 1 N.W. Martin Luther King Jr. Blvd.  
 Evansville, IN 47708-1833  
 Phone: 812-436-7833 Fax: 812-436-7834  
 Email: euts@eutsmpo.com  
 Website: www.eutsmpo.com

Figure 2.22: The Evansville MPO's website includes downloadable brochures like this to promote safe bicycling.

## Safe Bicycling Billboards

Healthy Communities Partnership of Southwestern Indiana installed billboards throughout Evansville with messaging to encourage safe bicycling. The Evansville Bicycle Friendly Community Task Force led the initiative, which was funded by a grant from the Centers for Disease Control and Prevention.

## Encouragement

A large latent demand exists for safe and comfortable bicycle infrastructure; about 60% of the general public is characterized as "interested, but concerned", meaning they would bicycle more often if conditions and their own confidence levels allowed. Encouragement programs help residents recognize the benefits of bicycling and walking within their daily lives. Bike to work days, open-streets events, and other events and initiatives help introduce new bicyclists to riding for transportation. Wayfinding signage created for pedestrians and bicyclists can encourage walking and riding by pointing out the time required to reach nearby destinations on foot and by bicycle.



Figure 2.23: The Healthy Communities Partnership of Southwest Indiana's Bike Right billboards remind bicyclists to ride in the same direction as motor vehicle traffic.



Commuter encouragement programs (also called Transportation Demand Management or TDM) study current commuting trends and aim to decrease single-occupancy car trips. Walking and biking are two modes employers can incentivize through a TDM approach.

### **Evansville Streets Alive!**

The Evansville Streets Alive! program is a festive, lively occasion for Evansville citizens to enjoy “open streets” event in which certain roads are closed to motor vehicle traffic and transformed into linear public spaces for recreation, socializing, and fun activities and programs for the entire community. Evansville was the first city in Indiana to host an open streets event in 2012. The first two years opened 1.2 miles of Fulton Ave and connected to the Pigeon Creek Greenway. The 2014 and 2015 events were held at a new location: North Main St and Garvin Park. Children’s activities, information stations, free exercise sessions, and healthy foods added to the event. An estimated 1,500 to 2,000 people attended the inaugural event in 2012. Thanks to sponsorship from Healthier Evansville and the Evansville Area Trails Coalition, admission remains free of charge, meaning residents of all demographic backgrounds can experience the special event.



Figure 2.24 A Pop-Up Cycle Track at the Streets Alive! event let area residents bicycle through a temporary cycle track installation.

Evansville Streets Alive! gains momentum every year. New to 2014 were canoe rides in the Garvin Park lake, a 5K fundraiser for Delaware School, a children’s bicycle rodeo, bicycle repair clinics, the All Wheels in Evansville (AWEsome Parade) for non-motorized vehicles, and a station soliciting public comments and ideas on the bicycle and pedestrian trails master plan. In 2015, the event included a “pop-up” cycle track to demonstrate innovative bicycle facilities and help residents envision a transportation system that prioritizes bicycle transportation.

### **Welborn Baptist “Upgrade” Campaign**

Welborn Baptist Foundation created the “Upgrade” initiative to encourage small, albeit important, changes to make Evansville residents’ daily lives more health-conscious. “Bike EVV” and “Walk EVV” promote walking in Evansville. The Foundation offers bicycle rental through the Evansville YMCA. Rental bikes are available in women’s, men’s, and children’s frames. The rental bicycles are stored in outdoor lockers downtown at the corner of 6th St and Court St. Bicyclists using their own bike can also use one of the lockers. YMCA members receive discounted rental, which is available every day in 1.5 hours, half day, or full day increments. Walk EVV maps are



Figure 2.25: Welborn Baptist Foundation’s Upgrade initiative includes wayfinding signs to encourage walking and bicycling.



available in all Evansville public libraries and 33 other locations. Bike EVV maps are available in five bicycle shops. The maps are also available online.

The campaign involves the creation of bicycle and walking amenities. Upgrade signs throughout downtown Evansville and along the Greenway offer directional information for walking to destinations. Distances are provided in the number of steps required to reach a destination. The Walk EVV map complements the signs. Upgrade bicycle racks are located in nine locations including a number of parks and both universities. Each vertical rack holds four bicycles. They are branded as part of the EVV bike program.

### **University of Southern Indiana**

The University of Southern Indiana (USI) boasts the three-mile, paved USI-Burdette Park Trail. The trail is designated part of the American Discovery Trail and is accessed through various points throughout the campus. Students can borrow one of 25 bicycles from the Recreation, Fitness, and Wellness Center. Each of the bicycles comes with a corresponding lock and helmet. Free bicycle locker rentals are available through the Office of Public Safety. University housing also contains bicycle racks.

### **University of Evansville**

The University of Evansville (UE) Office of Residence Life holds an annual lottery for outdoor bicycle lockers. The rental fee is \$60 per year and the campus contains two locker “hubs”. UE’s Office of Safety and Security organizes a free bicycle registration service. The University provides bicycle parking throughout campus.

### **Ivy Tech Community College**

Ivy Tech Community College and various municipal agencies hold an annual bicycle giveaway for Evansville Vanderburgh School Corporation elementary and middle school students. Winners receive free bicycle, helmet, and lock. The giveaway has raffled over 1,000 bicycles since the program began in 2005.

The bicycle giveaway includes adaptive bicycle raffles for children with physical challenges. The 2014 raffle included 176 bicycles, two of which were adaptive bicycles. Local businesses and individuals also donate funds for the event. The Evansville Bicycle Club and a local law firm offer bicycle and helmet fitting as well as tips for safe riding.

### **Bicycle Friendly Community Task Force**

Mayor Lloyd Winnecke founded the Bicycle Friendly Community Task Force in 2013. The task force works to help the City earn a Bicycle Friendly Community designation from the League of American Bicyclists. The Task Force’s diverse membership includes representation from various City departments and community organizations to plan and implement recommended changes. The Task Force promoted the Bike to Work Day competition held during National Bike Month in May 2014.

### **Riverfront Events**

Evansville’s downtown riverfront esplanade offers views of what some call “one of the most scenic urban trails on the Ohio River.” The places of interest along the trail offer gathering places and excellent opportunities to enjoy the esplanade by walking and biking.



*Figure 2.26: Residents and visitors frequently come together along the riverfront esplanade for events and activities.*

## Enforcement

Enforcing the rules of the road for motorists and non-motorized users alike creates safer conditions for all road users. Targeted enforcement of laws that pertain specifically to bicyclists and pedestrians, including speeding, failure to yield to pedestrians and bicyclists, and failure to obey traffic signals, particularly in areas with high concentrations of non-motorized activity, can foster a culture of mutual respect among bicyclists, pedestrians, and motorists. Enforcement programs must begin with equitable laws that protect all road users. Enforcement measures include targeted law enforcement in school zones and other areas with high concentrations of bicyclists and pedestrians, bicycle theft prevention education, and internal education for Police Department employees on laws pertaining to non-motorized transportation.

## Police Programs

The Evansville Police Department maintains a bicycle registration database. Interested residents can access and submit the registration form online. The website also contains a printable registration form.

After completing a five-day training course offered through the Law Enforcement Bicycle Association (LEBA), officers can qualify for bicycle patrol duty. Thirty-six officers are currently certified. Bicycle-mounted officers interact with the public during high-attendance events. They also patrol the City's parks and the Pigeon Creek Greenway. Additionally, a Detective from the Police Department is a member of the Bicycle Friendly Community Task Force.



Figure 2.27: A police officer discusses the department's neighborhood bicycle patrols at the Jacobsville Crime Free Alliance Kickoff in May of 2015.



Figure 2.28: Detective Jack Spencer provides traffic safety tips for bicyclists in this public service announcement released by the Evansville Police Department and the Evansville Bicycle Friendly Task Force.

## PEER CITY COMPARISONS

As Evansville continues to weave bicycling and walking into the fabric of the community, a review of efforts and accomplishments of peer cities can provide inspiration, motivation, and best-practices that can be applied to local programs and projects. As part of the planning process, four cities similar in size, governance and geography to Evansville - Ann Arbor, Michigan; Bloomington, Indiana; Boulder, Colorado; and Eugene, Oregon - were studied to learn more about their practices, programs and policies to support walking and bicycling.

These cities have varying levels of bicycle-friendliness and pedestrian-friendliness, yet all are working towards specific and quantitative goals to increase current levels of bicycling and walking. Taking a multi-pronged, "Five E's" approach has resulted in a safer and more efficient multimodal transportation networks in each of these peer communities. By implementing systematic infrastructure, policies and programs that support bicycling and walking, these communities have experienced considerable increases in bicycling and walking rates. The information gathered from these peer cities will be used to develop recommendations that have a proven track record of success to support bicycling and walking and achieve the goals and objectives of the Plan. A complete review and comparison of peer cities' efforts and accomplishments can be found in the appendix of the Plan.





***“Make no little plans. They have no magic to stir men’s blood and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever-growing insistency.”***

***- Daniel Burnham (1846 - 1912)  
Architect and Urban Designer***





# 3. PUBLIC INVOLVEMENT

## INTRODUCTION

Public involvement in the planning process is critical to the long-term success of the Evansville Bicycle and Pedestrian Connectivity Master Plan. From focus groups and key stakeholder interviews to online mapping tools and public meetings, the Plan included a diverse array of opportunities for the entire community to shape the future of walking and bicycling in Evansville. The input and ideas shared through these engagement activities guide the Plan's vision, goals, and recommendations. This chapter of the Plan presents a summary of public engagement activities during the course of the planning process.



Figure 3.1: Evansville residents gather around a map at the first public meeting.

## STEERING COMMITTEE

At the onset of the planning process, a project steering committee was formed to represent the diverse needs and interests of the community and provide input and guidance at critical junctures of the process. The steering committee has membership from the following groups:

- Evansville Area Trails Coalition
- Evansville Department of Metropolitan Development
- Evansville Parks and Recreation
- Evansville Parks Board
- City Engineering
- Evansville Police Department
- Evansville Vanderburgh School Corporation
- Evansville Business Community
- Evansville City Council
- Indiana Department of Transportation
- Welborn Baptist Foundation
- Leadership Evansville/Voice

The steering committee met five times during the course of the planning process, providing valuable feedback on existing conditions, public engagement, vision and goal development, plan recommendations, and implementation strategies. Their participation was vital to the creation of a plan that addresses the diverse needs of Evansville residents and sets the stage for integrating bicycling and walking into the fabric of the community.

## FOCUS GROUPS AND STAKEHOLDER INTERVIEWS

Numerous focus groups and stakeholder interviews were conducted in August 2014 to gather input from various agency representatives, bring together community stakeholders with unique experiences and viewpoints, and identify potential partners for future implementation activities. These interviews and discussions have informed plan recommendations and have helped to establish bicycling and walking as key amenities that can enhance the quality of life for residents and enrich visitors' experiences in Evansville.

The following focus groups and interviews were conducted in August 2014:

- Bicycle/pedestrian focus group (10 attendees)
- Emergency responder focus group (7 attendees)
- Health focus group (7 attendees)
- Citizens focus group (8 attendees)
- Business and tourism focus group (8 attendees)
- Ed Hafer, Evansville Regional Business Council
- Gary Shetler, President, Evansville Board of Park Commissioners
- Gail Riecken, Indiana House of Representatives, 77th District
- Christie Gillenwater, CEO, Evansville Chamber of Commerce
- The Honorable Lloyd Winnecke, Mayor, City of Evansville

## PUBLIC MEETINGS

Public meetings were an integral component of the public engagement process. Through formal public input meetings and multiple “pop-up” meetings at various events, community residents shared their vision and ideas for bicycling and walking in Evansville.

### Initial Community Workshops

Two community workshops were held at the University of Evansville on July 10th, 2014, one in the early afternoon and one in the evening. These events consisted of a presentation about the Plan followed by an input session. For the input session,



*Figure 3.2: Members of the planning team discuss existing conditions for bicycling and walking with Evansville residents at the first public input meeting.*

the team set up different stations that represented bike concerns, trail concerns, and pedestrian concerns around town. Each station had a team-member and a map. Nearly 30 people attended the meetings and generally comments were constructive. Participants identified many existing good routes for walking, bicycling and trails, as well as future opportunities for bicycling and walking connections. The exercise was helpful in identifying barriers to bicycling and walking around the community as well.

The following were seen as priorities for connectivity and improvement around Evansville throughout both meetings:

- First Ave, with a connection to Ivy Technical College.
- A connection to Newburgh for bicyclists, either via Pollack Ave or Covert Ave.
- Completing the Pigeon Creek Greenway Loop.
- Better bike and pedestrian connectivity across Highway 41 and Lloyd Expressway.
- Connectivity to the west side, especially Burdette Park and University of Southern Indiana.

- Improve Lincoln Ave and Franklin St bicycle and pedestrian facilities.
- Improve Green River Rd and Burkhardt Rd for bicyclists and pedestrians.
- Improve bike parking downtown, potentially creating a bike “hub.”
- Add a bike safety skills park on the vacant parcel of land between the Shirley James Gateway Plaza and Fulton Ave.

## “Pop-Up” Meetings

While traditional public meetings can yield very meaningful input and foster an open dialogue between community members and the planning team, attendees at these meetings only represent a small portion of the larger community. In order to reach a wider audience, the City identified a number of community events at which to promote and publicize the Plan. The team held a number of “pop-up” meetings during the early stages of the planning process:

- May 18, 2014 - Evansville Streets Alive!
- June 6, 2014 - Downtown Evansville Farmers’ Market
- June 21, 2014 - Franklin Street Bazaar
- June 25, 2014 - Mayor’s Travelling City Hall
- July 11, 2014 - Downtown Evansville Farmers’ Market



Figure 3.3: Evansville residents visit the Bicycle and Pedestrian Connectivity Master Plan booth at the Farmer’s Market Pop-Up Meeting.

For these events, the planning team typically hosted a booth or table and distributed materials with information on the Plan and other in-person and online survey opportunities. Generally, the team received positive input from participants. The Mayor’s Travelling City Hall Event consisted of a presentation on the Plan process and progress made to date, followed by questions from attendees. Based on observations, around 100 people attended this event.

## Final Community Workshop

Following the development of draft recommendations, the planning team held an open house to share proposed bicycle and pedestrian projects and gather input from the community. This open house meeting was held at Eastland Mall in February 2015. Eastland Mall was chosen as an ideal location to invite interested residents to attend and participate while also encouraging shoppers and other passers-by to stop and learn about the Plan.

In addition to draft recommendations, the planning team also presented new visions for Walnut St and Martin Luther King Jr. Blvd through photo-simulations that illustrate bicycle facility design possibilities. The project team spoke with roughly 100 residents throughout the event and received both verbal and written comments regarding the draft network maps and other plan recommendations.



Figure 3.4: Attendees at the final open house listen to a brief presentation by members of the planning team.



A brief survey asked meeting participants to prioritize the preliminary top ten infrastructure projects. Ten people submitted written surveys, with many more stopping to give their verbal opinions. Every survey respondent rated the proposed Walnut Street cycle track project as “very important”. Other priority projects receiving strong support from open house attendees included the Franklin St cycle track project, the Main St cycle track project, and the sidepath project on Green River Rd.

Participants noted other corridors and areas of interest for walking and bicycling improvements:

- Pigeon Creek Greenway extension at least to Oak Hill Rd
- Oak Hill Rd bike lane extension north of Lynch Rd
- Diamond Ave / Stringtown Rd - poor pavement marking nighttime visibility. Electric wheelchair users often have to use the roadway.
- Claremont Ave
- Tekoppel Ave
- Broadway Ave
- Red Bank Rd
- The west side in general
- McCutchanville area and airport

Universal access was a major talking point during the open house. Meeting attendees suggested the following elements of accessible design:

- Audible signals at crosswalks so the blind can hear and know that it is safe to cross streets, especially high car traffic routes
- Curb ramps at every intersection on both sides of the street
- Sidewalk improvements and improved maintenance
- Improved pedestrian accessibility at bus stops
- More crosswalks, especially high visibility crossings



Figure 3.5: Attendees at the final community workshop discuss draft recommendations for walking and bicycling facilities.



## Evansville Bicycle and Pedestrian Connectivity Master Plan

About

Draft Documents

Bicycling and Walking  
Resources

Get Involved



### Welcome

Thank you for visiting the website for Evansville Bicycle and Pedestrian Connectivity Master Plan. The Evansville Metropolitan Planning Organization (MPO) and the City of Evansville have begun preparation of a Bicycle and Pedestrian Connectivity Master Plan. The planning process began with a Kickoff Meeting in March 2014 and will commence early 2015. The purpose of this Plan is to build upon previous bicycle and pedestrian planning and development efforts in setting a clear path for a thoroughly connected Evansville.

Figure 3.6: The home page of the Evansville Bicycle and Pedestrian Connectivity Master Plan website.

## ONLINE PRESENCE

In this digital age, more and more people are relying on the internet to access news and information, connect with family and friends, and exchange information and ideas. In order to reach the widest audience possible, the planning team established a strong online presence, including a project website, an online mapping tool, and an online survey.

### Project Website

A project website was created at the onset of the planning process to provide visitors with a basic overview of the Plan, its purpose, and the timeline for completion. The website was updated periodically with summaries of the public meetings, links to

news articles about the plan, and opportunities to comment on draft plan recommendations and provide general input to the planning team.

### Online Mapping Tool

The project team developed an online input map to provide Evansville residents with a creative and engaging way to share their ideas for improving bicycling and walking conditions throughout the city. Visitors to the project website identified dangerous roads and intersections for walking and bicycling, locations for new trails, sidewalks and bicycle facilities, and common destinations for bicyclists and pedestrians. The input map also allowed users to comment on other users' locations, creating a conversation and sharing of ideas that you often see at public meetings. The end result was over 50 unique locations were drawn on the map, with an additional

39 comments from other users providing opinions and ideas within this conversational format.

The most frequently suggested improvements from visitors to the online input map focused on extending the reach of the Pigeon Creek Greenway to connect to destinations in and around Evansville, a reflection of both the current success of the greenway and the transformative potential of a greenway system to increase walking and bicycling activity. Destinations listed included neighborhoods and parks to the north, Angel Mounds State Historic Site and Newburgh to the east, Eagle Slough Natural Area and Henderson to the south, and USI, Burdette Park, the USI Burdette Park Trail, and the Burdette Park Discovery Trail to the west and southwest. Website visitors also noted the need to improve trail user safety and security, as some parts of the greenway are isolated and out of view.

In addition to the numerous regional destinations noted above, visitors to the online input map also noted important local destinations whose connection to a city-wide bicycle and pedestrian network would benefit Evansville residents and visitors. Burdette Park, Ellis Park, Sunset Park, Wesselman Park, Price Park, Garvin Park, State Hospital Grounds, and other parks and open spaces were important priorities, as were commercial destinations like Eastland Mall, Washington Square Mall and the concentration of commercial activity at Lloyd Expressway and Red Bank Rd.

Many visitors to the online input map expressed their concern with challenging roadways and intersections throughout the City. Lloyd Expressway in particular presents a physical barrier for bicyclists and pedestrians, bisecting the City in half and making it difficult for residents to access destinations on the opposite side. Map users pointed out intersections that present safety concerns for bicyclists and pedestrians along Fielding Rd, Weinbach Ave, Vann Ave, and Highway 41. Visitors also suggested that the City consider bicycle and pedestrian facilities along Green River Rd, First Ave, Oak Hill Rd north of the recent bike lane and sidewalk improvements, Heckel Rd, Burkhardt Rd, Newburgh Rd, Walnut St, Washington Ave, Broadway Ave, and Bellemeade Ave. Coordination between the City and County will be required in order to provide seamless facilities for non-motorized transportation along Oak Hill Rd and Heckel Rd.

Numerous comments received through the online input map also dealt with rural roadways that many recreational bicyclists travel on for longer rides, including, Darmstadt Rd, St. Joseph Ave, W Boonville New Harmony Rd, Upper Mt. Vernon Rd, Old Henderson Rd, and Olmstead Rd. Visitors noted that some of these roads are in poor condition and in need of repaving.

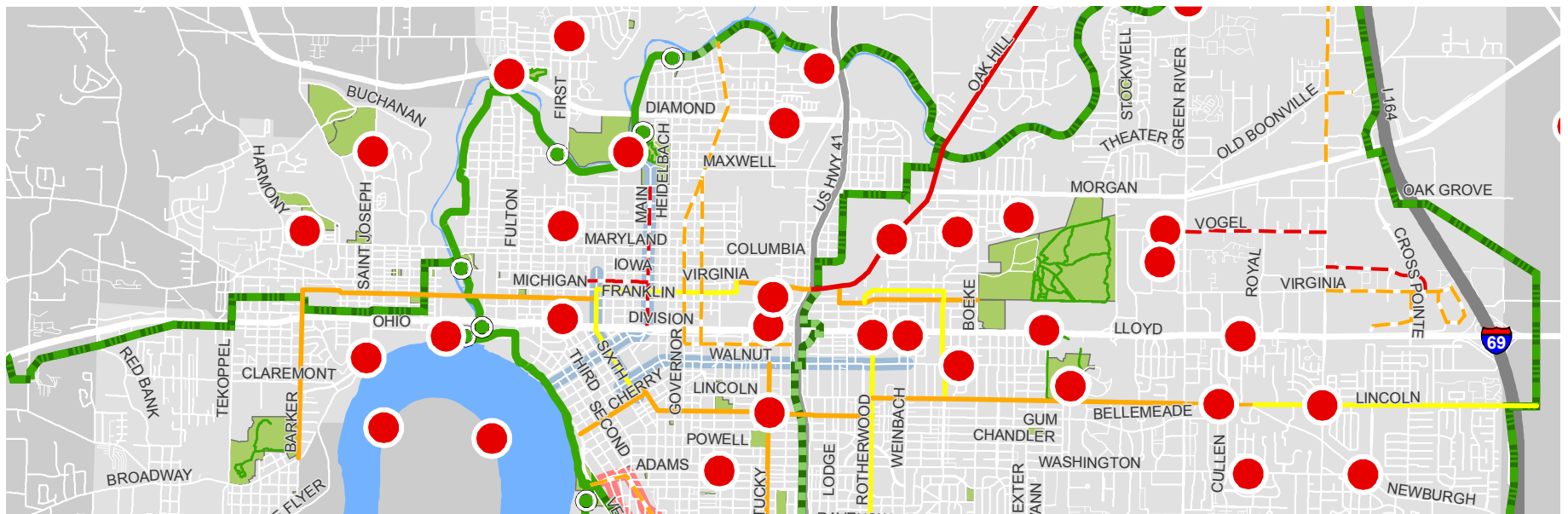


Figure 3.7: The red dots on the map above represent location-based public comments provided by the public through the online input map.









*“Walking and biking are not just lifestyle choices. They complete our transport system and are the first and last leg of almost every trip. Expanded access to these options can improve the economic and social well-being of a community and its residents. Safer and more convenient access to affordable transportation means that we are all better connected to our communities, to essential services, and to new job and education opportunities.”*

*- Anthony Foxx  
United States Secretary of Transportation*





# 4. VISION, GOALS AND OBJECTIVES

## VISION

Visioning and goal setting is an important part of any planning effort. A strong vision and supporting goals and objectives provide the foundation for all physical and programmatic recommendations in the Plan. Based on public input from community residents, steering committee members, and key stakeholders, the Plan's vision statement encapsulates the values and desires of the community, painting a picture for the future of bicycling and walking in Evansville:

*Evansville's trail and roadway system will comfortably, safely and efficiently facilitate bicycle and pedestrian transportation for users of all ages and abilities. The linking of local and regional attractions will make the City a Tri-State destination for bicycle and pedestrian activities. Walking and bicycling will become a common, enjoyable and viable transportation and recreation choice that will lead to healthier lives, smarter community investments, a better environment and a brighter future for Evansville and its residents.*



Figure 4.1: Bicyclists and walkers out enjoying a sunny afternoon on the Pigeon Creek Greenway along the Ohio River.



## GOALS AND OBJECTIVES

To help achieve this vision, the Bicycle and Pedestrian Connectivity Master Plan defines a number of goals and objectives to target specific community needs. Goals are broad, value-based expression of the community's desires, describing the ideal situation that would result if all plan purposes were fully realized. Goals give direction to the plan as a whole and are concerned with the long-term. Objectives are action-oriented statements that should be undertaken to reach a particular goal. These goals and objectives are based on the input from community members, guidance from the steering committee, and a detailed analysis of existing conditions.

### Goal 1 - The Evansville bicycle and pedestrian network will connect residents and visitors to one another and to the places they want to go.

#### Goal 1 Objectives:

- Make improvements to better connect residents and visitors to the Five Cultural Districts, the Pigeon Creek Greenway, Downtown, parks, shopping, schools, and other community destinations.
- Enhance connectivity between bicycling, walking, transit, and other modes of transportation.
- Integrate transportation and land use policies to encourage sustainable growth that encourages walking, bicycling and transit.
- Put Evansville on the map as a walk and bike-friendly destination in the region, and nationally.

### Goal 2 - Bicycling and walking will be safe and accessible forms of transportation and recreation for people of all ages and abilities.

#### Goal 2 Objectives:

- Work with partners to ensure that outreach efforts educate community members on safe and courteous walking, bicycling and driving.
- Double walking and bicycling levels by 2020 to create a greater awareness of these users by drivers.
- Reduce the number of bicyclist and pedestrian injuries and fatalities by 20% by 2018 and by 40% by 2020.



Figure 4.2: Children riding along the pop-up cycle track at the 2015 Evansville Streets Alive! event.

- Utilize national best practices in network planning, infrastructure design, project development and maintenance procedures to ensure that facilities provide a safe and functional transportation environment for all roadway users.
- Institute bicycle and pedestrian safety improvements in regular roadway construction and maintenance by adopting a strong City of Evansville Complete Streets Policy.

### **Goal 3 - Bicycling and walking will support healthy and active lifestyles, increase transportation equity, and enrich quality of life for all Evansville residents.**

#### Goal 3 Objectives:

- Track the health and quality of living improvements of the community in tandem with walking and bicycling levels to ensure continued grant and foundational support.
- Educate people on the benefits of walking and bicycling and encourage them to walk and bike, instilling these values at an early age through school and other educational programs. Hold at least one adult-focused and child-focused walk and/or bike safety skills class per year.
- Implement infrastructure and non-infrastructure improvements equitably, so that people of all walks of life benefit.
- Continue to organize programs and events that gain Evansville regional and national recognition as a walk and bike friendly community such as organized races and Streets Alive! events.

### **Goal 4 - Community leaders and local agencies will value bicycling and walking and integrate these forms of transportation into planning, policy, and capital improvement decision-making.**

#### Goal 4 Objectives:

- Develop an action plan that provides a roadmap towards implementation of infrastructure and non-infrastructure recommendations.
- Identify tangible, dedicated funding sources to support implementation.
- Utilize the “5 E’s” approach to successful walk and bike-friendly communities so that cultural acceptance of walking and bicycling occurs in tandem with infrastructure changes.
- Work across jurisdictions, departments, and organizations to achieve coordination on short-, medium-, and long-term transportation-related goals and plans.
- Implement at least six recommendations of the Plan within six months of adoption with a goal of implementing at least one recommendation in each of the “5 E’s” categories (Engineering, Education, Enforcement, Encouragement, Evaluation) within 1 year of adoption.

- Establish an annual work plan of programmatic, policy, and infrastructure recommendations ready for implementation, for pedestrians, bicyclists, and transit users.
- Identify non-profit and private sector partners to lead community-based education and encouragement programs.
- Designate a staff member and/or establish a new staff position dedicating at least 50% of time to implementation of the Plan.

### **Goal 5 - Local agencies will support bicycling and walking through continual monitoring, evaluation and planning.**

#### Goal 5 Objectives:

- Develop and publish a biennial report summarizing progress in implementing the transit, walking, and bicycling recommendations of the Plan.
- Measure the citywide economic, health and/or environmental impact of bicycle and walk improvements in conjunction with the biennial progress report, and with at least one specific roadway project per year.
- Coordinate annual pedestrian and bicycle counts with planned infrastructure investments to measure impacts.
- Conduct biennial analysis of pedestrian and bicycle collision data to measure progress towards safety goals and objectives.
- Maintain up-to-date GIS inventories of pedestrian, bicycling, and transit facilities including ADA improvements.
- Achieve Bronze-level Bicycle-friendly Community Status (BFC) by 2017, Silver-level BFC by 2021 and Gold-level BFC by 2026.
- Achieve Walk-friendly Community status, Gold-level by 2021, and Platinum-level by 2026.

These goals and objectives provide the basis and framework for recommended bicycle and pedestrian improvements, supporting programs, and implementation strategies, all of which support the Plan’s vision to safely and efficiently facilitate bicycle and pedestrian transportation for users of all ages and abilities. The following chapters detail these recommendations and implementation strategies.



*“Evansville’s Bicycle and Pedestrian Connectivity Master Plan sets a course for the development of a regional active transportation network. The network will enhance community equity by increasing access to opportunities and providing residents with safe and efficient mode choices for their commute and daily activities.”*

*- Seyed Shokouhzadeh  
Executive Director  
Evansville Metropolitan Planning Organization*





# 5. RECOMMENDATIONS

## INTRODUCTION

This chapter presents a comprehensive set of infrastructure and programming recommendations specifically tailored to reach the Plan vision in which ***Evansville's trail and roadway system will comfortably, safely and efficiently facilitate bicycle and pedestrian transportation for users of all ages and abilities.*** These recommendations are built on a solid foundation of input from the public, City staff, and technical analysis. The chapter is divided into three sections: bicycle network recommendations, pedestrian network recommendations, and non-infrastructure recommendations. Bicycle network recommendations consist of bicycle facilities, wayfinding signage and markings, end-of-trip (bicycle parking) facilities, and other improvements that enhance the bicycling experience. Pedestrian recommendations include sidewalks, shared use paths, and crossing improvements at high-priority locations throughout Evansville. Non-infrastructure programs consist of education, encouragement, enforcement, and evaluation recommendations that foster a culture that values and supports bicycling and walking. Together, these elements constitute a comprehensive, Five E's approach to transforming Evansville into a Bike and Walk Friendly Community.

## THE BICYCLE NETWORK

People who bicycle vary in their physical abilities, experience levels, and the types of bicycles they ride. Creating a comprehensive bicycle network requires the provision of comfortable, convenient, and safe facilities that accommodate the different types of expected users. Many streets in Evansville, such as low-speed, low-volume local streets may not need any special facilities to accommodate bicyclists, while others with larger volumes and higher speeds may require significant bikeway infrastructure investments. These infrastructure investments come in the form of signed and bicycle boulevards, dedicated bicycle lanes, cycle tracks, shared use paths, wayfinding signage, intersection improvements, and other elements that support bicycle transportation and enhance bicycling's visibility as a valued, respected, and viable mode of travel in Evansville.



Figure 5.1: Bicycle lanes, like the one shown here in Oak Hill Rd, are an important part of a comprehensive, interconnected network of bicycle facilities.

## Bicycle Facility Recommendations

The Evansville Bicycle & Pedestrian Connectivity Master Plan recommends 148 miles of new on-street bikeways and shared use paths. These recommended bicycle facilities, which are shown in Map 5.1 and listed in Table 5.1, include both new recommendations and projects identified through previous planning efforts, including the Future Indiana University Medical School Proposal, the Pigeon Creek Greenway, the Hi-Rail Corridor, and the Multimodal Corridor Connector.

Once installed, this comprehensive bicycling network will offer residents and visitors of all ages and abilities safe, convenient, and comfortable facilities that connect people to parks, schools, employment centers, commercial districts, and other popular destinations. The bicycling recommendations provided in this chapter represent a master planning level of thought and detail and may change as individual projects are implemented. Individual segments may be enhanced or upgraded to a higher facility type as opportunities present themselves.



## Bicycle Facility Types

From shared lane markings to cycle tracks, bicycle facilities vary greatly in character, context, and intended user. The bicycle facility types pictured here are recommended in the Plan and are described in detail in the Bicycle and Pedestrian Facility Design Guide in the appendix of this document. A number of these bicycle facility types can already be seen throughout Evansville, including shared lane markings, bicycle lanes, and shared use paths.



**Legend**

**Recommended Bicycle Facilities**

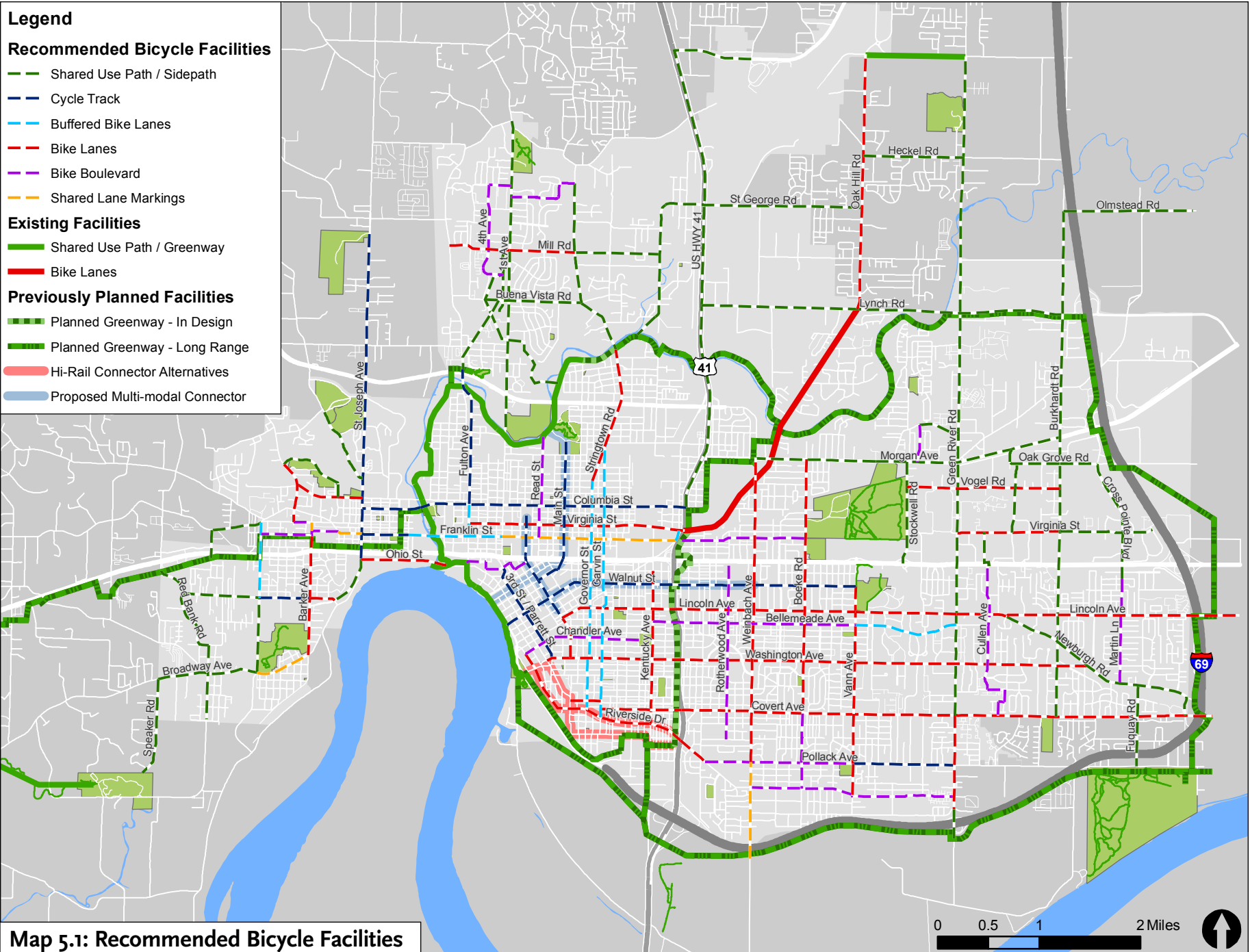
- Shared Use Path / Sidepath
- Cycle Track
- Buffered Bike Lanes
- Bike Lanes
- Bike Boulevard
- Shared Lane Markings

**Existing Facilities**

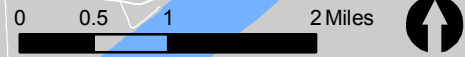
- Shared Use Path / Greenway
- Bike Lanes

**Previously Planned Facilities**

- Planned Greenway - In Design
- Planned Greenway - Long Range
- Hi-Rail Connector Alternatives
- Proposed Multi-modal Connector



**Map 5.1: Recommended Bicycle Facilities**





**Table 5.1: Recommended Bicycle Facilities**

Corridor / Street Name	Limit From	Limit To	Facility Type	Length (Miles)	Implementation Actions
Kratzville - Buena Vista Connector	Buena Vista Rd	Kratzville Rd	Shared Use Path	0.79	Construct path
Pigeon Creek - 1st Ave Connector	Greenway / Baker Ave	Shopping Center Access Dr	Shared Use Path	1.68	Construct path
Pigeon Creek - Kentucky Ave Connector	Greenway	Kentucky Ave	Shared Use Path	0.25	Construct path
1st Ave	Kratzville Rd	Kleymeyer Park	Sidepath	3.06	Widen existing sidewalk to adequate width for sidepath
Broadway Ave	Tekoppel Ave	Speaker Rd	Sidepath	1.00	Construct path
Buena Vista Rd	Stringtown Rd	Vista Dr	Sidepath	0.96	Construct path
Burkhardt Rd	Virginia St	Olmstead Rd	Sidepath	3.17	Construct path
Burkhardt Rd	Covert Ave	Virginia St	Sidepath	1.84	Construct path
Claremont Ave	Tekoppel Ave	Red Bank Rd	Sidepath	0.76	Construct path
Cross Pointe Blvd	Oak Grove Rd	Eagle Crest Blvd / Martin Ln	Sidepath	1.20	Construct path
Cullen Ave	Virginia St	Lloyd Expy	Sidepath	0.39	Construct path
Fuquay Rd	Pollack Ave	Newburgh Rd	Sidepath	0.80	Construct path
Golfmoor Rd	Harmony Way	Wessel Ln	Sidepath	0.65	Construct path
Green River Rd	Covert Ave	Millersburg Rd	Sidepath	6.53	Construct path
Green River Rd	Fickas Rd	Planned Greenway	Sidepath	0.29	Construct path
Heckel Rd	Green River Rd	Oak Hill Rd	Sidepath	0.99	Construct path
Hogue Rd	Rosenberger Ave	Tekoppel Ave	Sidepath	0.50	Construct path
Kentucky Ave	St George Rd	Pfeiffer Rd	Sidepath	1.13	Construct path
Lynch Rd	Burkhardt Rd	US HWY 41	Sidepath	3.58	Construct path
Mesker Park Dr	Summit Dr	Saint Joseph Ave	Sidepath	0.78	Widen existing sidewalk to adequate width for sidepath
Mill Rd	Kentucky Ave	Stringtown Rd	Sidepath	0.84	Construct path
Morgan Ave	Burkhardt Rd	Weinbach Ave	Sidepath	3.04	Construct path
Newburgh Rd	Lincoln Ave	Covert Ave	Sidepath	2.19	Construct path
Oak Grove Rd	Royal Ave	Cross Pointe Blvd	Sidepath	0.87	Construct path
Olmstead Rd	Burkhardt Rd	Lost Bend Ln	Sidepath	1.28	Construct path
Ray Becker Pkwy	Claremont Ave	Ohio St	Sidepath	0.52	Construct path
Red Bank Rd	Pearl Dr	Ogden Ave	Sidepath	1.73	Construct path
Rosenberger Ave	Lloyd Expy	Hogue Rd	Sidepath	0.27	Construct path
Royal Ave	Virginia St	Morgan Ave	Sidepath	0.82	Construct path
Shopping Center Access Drive	Mill Rd	Woodbridge Dr	Sidepath	0.63	Construct path
Speaker Rd	Burdette Park	Broadway Ave	Sidepath	0.97	Construct path
St George Rd	Oak Hill Rd	Kentucky Ave	Sidepath	1.95	Construct path

**Table 5.1: Recommended Bicycle Facilities (Continued)**

Corridor / Street Name	Limit From	Limit To	Facility Type	Length (Miles)	Implementation Actions
Stockwell Rd	Lloyd Expy	Morgan Ave	Sidepath	1.02	Construct path
Stringtown Rd	Springhaven Dr	Cardinal Dr	Sidepath	1.78	Construct path
Tekoppel Ave	Broadway Ave	Claremont Ave	Sidepath	0.74	Construct path
Theater Dr	Shepherd Dr	Green River Rd	Sidepath	0.40	Construct path
US HWY 41	Airport	Columbia	Sidepath	5.39	Construct path
Virginia St	Circle Front Dr	Burkhardt Rd	Sidepath	0.92	Construct path
Wessel Ln	Golfmoor Rd	Maryland St	Sidepath	0.14	Widen existing sidewalk to adequate width for sidepath
3rd St / Parrett St	Bond St	Washington Ave	Cycle Track	1.05	Remove parking and add striping and bollards
Claremont Ave	Barker Ave	Tekoppel Ave	Cycle Track	0.50	Remove parking and add striping and bollards
Columbia St	US HWY 41	Pigeon Creek	Cycle Track	2.63	Remove parking and add striping and bollards
Delaware St	Pigeon Creek	St. Joseph Ave	Cycle Track	0.58	Remove parking and add striping and bollards
Franklin St	St Joseph Ave	9th Ave	Cycle Track	0.46	4-lane to 2-lane road diet, add striping and bollards
Fulton Ave	Franklin St	Diamond Ave	Cycle Track	1.37	4-lane to 3-lane road diet, add striping and bollards
Main St	Garvin Park	Lloyd Expy	Cycle Track	1.16	Reconstruct bumpouts and add striping and bollards
Main St	Sycamore St	Lloyd Expy	Cycle Track	0.12	Two-way cycle track, add striping and bollards
Martin Luther King Jr Blvd	8th St	Division St	Cycle Track	0.72	4-lane to 2-lane road diet, add signage, markings, and bollards
Mary St	Division St	Virginia St (Deaconess Hospital)	Cycle Track	0.40	Add signage, markings, and bollards
Pollack Ave	Green River Rd	Vann Ave	Cycle Track	1.00	Remove parking and add striping
St Joseph Ave	Moutoux Park	Ohio St	Cycle Track	3.22	Standard bike lanes / cycle track as space allows. Add striping
Sycamore St	Martin Luther King Jr Blvd	Main St	Cycle Track	0.23	Two-way cycle track, add striping and bollards
Walnut St	Vann Ave	Riverside Dr	Cycle Track	3.58	4-lane to 2-lane road diet, add striping and bollards
Bellemeade Ave	Green River Rd	Vann Ave	Buffered Bike Lanes	1.03	Remove parking and restripe
Fares Ave	Franklin St	Virginia St	Buffered Bike Lanes	0.11	Add striping
Franklin St	9th Ave	1st Ave	Buffered Bike Lanes	0.93	Lane diet and restripe
Fulton Ave	Franklin St	Columbia St	Buffered Bike Lanes	0.32	5-lane to 3-lane road diet, add striping
Garvin St	Riverside Dr	Stringtown Rd	Buffered Bike Lanes	2.70	Remove parking on one side and add striping for buffered bike lane or standard bike lane
Governor St	Riverside Dr	Maxwell Ave	Buffered Bike Lanes	2.69	Remove parking (as necessary) and add striping and buffered bike lane or standard bike lane
Tekoppel Ave	Claremont Ave	Hogue Rd	Buffered Bike Lanes	0.74	Remove parking and add striping

**Table 5.1: Recommended Bicycle Facilities (Continued)**

Corridor / Street Name	Limit From	Limit To	Facility Type	Length (Miles)	Implementation Actions
8th St	Martin Luther King Jr Blvd	Washington Ave	Standard Bike Lanes	0.42	Remove parking and restripe
Barker Ave	Broadway Ave	Franklin St	Standard Bike Lanes	1.19	Remove parking in places and add striping
Boeke Rd	Washington Ave	Morgan Ave	Standard Bike Lanes	2.00	4-lane to 3-lane road diet and restripe
Boeke Rd	Covert Ave	Washington Ave	Standard Bike Lanes	0.52	Remove parking and add striping
Claremont Ave	Ray Becker Pkwy	Barker Ave	Standard Bike Lanes	0.25	Remove parking and restripe
Covert Ave	I-69	US HWY 41	Standard Bike Lanes	5.25	4-lane to 3-lane road diet and restripe
Covert Ave	US HWY 41	Garvin St	Standard Bike Lanes	0.80	Remove parking and add striping
Green River Rd	Covert Ave	Fickas Rd	Standard Bike Lanes	0.93	Road / lane diet and restripe
Harmony Way	Virginia St	Golfmoor Rd	Standard Bike Lanes	0.62	Remove parking on both sides and add striping
Kentucky Ave	Sycamore St	Riverside Dr	Standard Bike Lanes	1.51	Add striping
Lincoln Ave	Green River Rd	Rotherwood Ave	Standard Bike Lanes	2.26	Lane diet and restripe
Lincoln Ave	I-69	Burkhardt Rd	Standard Bike Lanes	1.80	Remove parking and add striping
Lincoln Ave	Martin Luther King Jr Blvd	Rotherwood Ave	Standard Bike Lanes	1.67	4-lane to 3-lane road diet and restripe
Lincoln Ave	Burkhardt Rd	Newburgh Rd	Standard Bike Lanes	0.51	Add striping
Lincoln Ave	Newburgh Rd	Green River Rd	Standard Bike Lanes	0.50	Widen road to include bike lanes
Maryland St	Saint Joseph Ave	Harmony Way	Standard Bike Lanes	0.68	Remove parking and add striping
Mill Rd	Stringtown Rd	1st Ave	Standard Bike Lanes	0.64	Remove parking and add striping
Mill Rd	1st Ave	Kratzville Rd	Standard Bike Lanes	0.61	4-lane to 3-lane road diet and restripe
Oak Hill Rd	Millersburg Rd	Lynch Rd	Standard Bike Lanes	2.53	Add shoulders and striping for bike lane
Ohio St	Pigeon Creek Greenway	Ray Becker Pkwy	Standard Bike Lanes	0.85	Widen road to include bike lanes
Riverside Dr	US HWY 41	Chandler Ave	Standard Bike Lanes	1.92	Remove parking one side and restripe
Riverside Dr	Pollack Ave	US HWY 41	Standard Bike Lanes	0.33	Widen roadway to add bike lanes (add shared lane markings as interim measure)
Stringtown Rd	Louisiana St	Cardinal Dr	Standard Bike Lanes	1.36	Remove parking and add striping
Taylor Ave	Garvin St	Culver Dr	Standard Bike Lanes	0.30	Remove parking and add striping
Vann Ave	Washington Ave	Walnut St	Standard Bike Lanes	0.75	4-lane to 3-lane road diet and restripe
Vann Ave	Pollack Ave	Washington Ave	Standard Bike Lanes	1.00	Remove parking and add striping
Vann Ave	Pollack Ave	Riverside Dr	Standard Bike Lanes	0.32	Add shoulders and striping for bike lane
Virginia St	Burkhardt Rd	Green River Rd	Standard Bike Lanes	1.02	Widen road to include bike lanes
Virginia St	US HWY 41	Fulton Ave	Standard Bike Lanes	2.14	Remove parking and add striping
Vogel Rd	N Burkhardt Rd	N Stockwell Rd	Standard Bike Lanes	1.52	Remove parking and add striping
Washington Ave	Newburgh Rd	2nd St	Standard Bike Lanes	5.36	4-lane to 3-lane road diet and restripe
Weinbach Ave	Morgan Ave	Pollack Ave	Standard Bike Lanes	3.02	4-lane to 3-lane road diet and restripe



**Table 5.1: Recommended Bicycle Facilities (Continued)**

Corridor / Street Name	Limit From	Limit To	Facility Type	Length (Miles)	Implementation Actions
3rd Ave	7th Ave	Bond St	Bike Boulevard	0.07	Add markings, signage, and traffic calming
4th Ave	Old Post Rd	Park Dr	Bike Boulevard	0.84	Add markings, signage, and traffic calming
5th St	Bond St	Ingle St	Bike Boulevard	0.08	Add markings, signage, and traffic calming
7th Ave	Fulton Ave	3rd Ave	Bike Boulevard	0.20	Add markings, signage, and traffic calming
Bellemeade Ave	Vann Ave	Kentucky Ave	Bike Boulevard	2.01	Add markings, signage, and traffic calming
Boeke Rd	Riverside Dr	Covert Ave	Bike Boulevard	0.75	Add markings, signage, and traffic calming
Bond St	3rd Ave	5th St	Bike Boulevard	0.26	Add markings, signage, and traffic calming
Chandler Ave	Riverside Dr	Bedford Ave	Bike Boulevard	1.19	Add markings, signage, and traffic calming
Cullen Ave	Lloyd Expy	Monroe Ave	Bike Boulevard	1.25	Add markings, signage, and traffic calming
Franklin St	US HWY 41 / Greenway	Boeke Rd	Bike Boulevard	1.23	Add markings, signage, and traffic calming
Franklin St	Tekoppel Ave	Mt Vernon Ave	Bike Boulevard	0.81	Add markings, signage, and traffic calming
Hanover Rd	1st Ave	Winston Rd	Bike Boulevard	0.47	Add markings, signage, and traffic calming
Ingle St	5th St	Martin Luther King Jr Blvd	Bike Boulevard	0.14	Add markings, signage, and traffic calming
Martin Ln	Newburgh Rd	Sycamore St	Bike Boulevard	1.04	Add markings, signage, and traffic calming; construct bike/ped cut through at Eagle Crest Blvd
Monroe Ave	Royal Ave	Cullen Ave	Bike Boulevard	0.17	Add markings, signage, and traffic calming; bike/ped cut through required
Old Post Rd	1st Ave	4th Ave	Bike Boulevard	0.22	Add markings, signage, and traffic calming
Park Dr	4th Ave	Access Drive	Bike Boulevard	0.24	Add markings, signage, and traffic calming
Pollack Ave	Vann Ave	Riverside Dr	Bike Boulevard	1.46	Add markings, signage, and traffic calming
Read St	Franklin St	Greenway	Bike Boulevard	1.02	Add markings, signage, and traffic calming
Riverside Dr	Green River Rd	Weinbach Ave	Bike Boulevard	2.04	Add markings, signage, and traffic calming
Rotherwood Ave	Sweetser Ave	John St	Bike Boulevard	1.72	Add markings, signage, and traffic calming
Royal Ave	Somerset Ave	Monroe Ave	Bike Boulevard	0.12	Add markings, signage, and traffic calming; bike/ped cut through required
Shepherd Dr	Morgan Ave	Theater Dr	Bike Boulevard	0.37	Add markings, signage, and traffic calming
Somerset Ave	Victoria Green Blvd	Royal Ave	Bike Boulevard	0.06	Add markings, signage, and traffic calming; bike/ped cut through required
Springhaven Dr	Winston Rd	Stringtown Rd	Bike Boulevard	0.15	Add markings, signage, and traffic calming
Victoria Green Blvd	Somerset Ave	Covert Ave	Bike Boulevard	0.14	Add markings, signage, and traffic calming; bike/ped cut through required
Virginia St	Harmony Way	Barker Ave	Bike Boulevard	0.18	Add markings, signage, and traffic calming
Winston Rd	Hanover Rd	Springhaven Rd	Bike Boulevard	0.13	Add markings, signage, and traffic calming
Barker Ave	Virginia St	Franklin St	Shared Lane Markings	0.08	Install shared lane markings and signage
Broadway Ave	Barker Ave	Tekoppel Ave	Shared Lane Markings	0.55	Install shared lane markings and signage
Franklin St	Fares Ave	1st Ave	Shared Lane Markings	1.71	Install shared lane markings and signage
Franklin St	St Joseph Ave	Mt Vernon Ave	Shared Lane Markings	0.24	Shared lane markings and signage
Weinbach Ave	Pollack Ave	I-69 / Planned Greenway	Shared Lane Markings	0.96	Install shared lane markings and signage

## Bicycle Wayfinding

Landmarks, destinations, neighborhood business districts, natural features and other visual cues help residents and visitors navigate through Evansville. However, many of the recommended bicycle routes utilize less familiar, lower-volume roadways that people may not typically use while traveling by bus or car. The placement of wayfinding signs throughout the City will indicate to bicyclists their direction of travel, location of destinations, and the distance (and travel time by bike) to those destinations, in turn increasing comfort, convenience and utility of the bicycle network. Wayfinding signs also provide a branding element to raise the visibility of the City's growing active transportation network.

Evansville will benefit from an on-street wayfinding signage system for use along bicycle facilities. Signage can serve both wayfinding and safety purposes, including:

- Helping to familiarize users with the bikeway system;
- Helping users identify the best routes to destinations;
- Helping to address commonly-held perceptions about travel time and distance;
- Helping overcome a “barrier to entry” for people who do not bicycle often and who fear becoming lost; and
- Alerting motorists that they are driving along a bicycle route and should use caution.



Figure 5.2: Wayfinding signs like these can include popular destinations and associated distances and travel times, making it easier for people to travel by bicycle.

Signs are typically placed at key locations leading to and along bicycle routes, including the intersection of multiple routes.

Evansville should create a community-wide Bicycle Wayfinding Signage Plan that identifies:

- Sign locations along existing and planned bicycle routes;
- Sign type – what information should be included and what is the sign design;
- Destinations to be highlighted on each sign – key destinations for bicyclists; and
- Approximate distance and riding time to each destination.

General cost estimates for wayfinding signage have been incorporated into each recommended bikeway project to establish a comprehensive wayfinding system that connects destinations in and around the City of Evansville. The wayfinding system can utilize MUTCD guidance with branded elements that identify regional and local network facilities and distinguish signature trails and network elements.

## End-of-Trip Facilities

End-of-trip facilities are an integral component of a successful, functional bicycle network. Without safe, secure and convenient bicycle parking, many residents and visitors will choose other means of transportation, viewing the lack of bicycle parking as a significant deterrent. Evansville, with support from organizations like the Welborn Baptist Foundation, has installed hundreds of bicycle racks in City parks, commercial districts, and other locations throughout the community. The City of Evansville, Vanderburgh County Department of Health, and the Welborn Baptist Foundation have even collaborated to provide portable bicycle racks at large festivals and city events. The City of Evansville and its community partners should continue to increase bicycle parking supply with secure, attractive, and highly visible bicycle parking facilities, including short-term bicycle parking solutions like racks and corrals, and long-term solutions like lockers and secure parking areas.

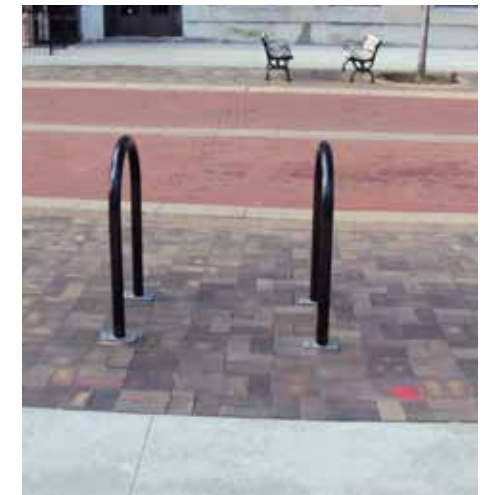


Figure 5.3: The “Inverted U” racks on Main Street provide a simple, cost effective bicycle parking solution.

## Design Guidance

While end-of-trip facilities vary greatly in terms of size, capacity, intended parking duration, and other key characteristics, there are minimum standards and best practices to guide the selection and installation of appropriate bicycle racks. The Association of Pedestrian and Bicycle Professionals (APBP) Bicycle Parking Guidelines, 2nd Edition is the industry standard for facility design, selection, installation and maintenance. The City of Evansville should consult this guiding document and recent best practices to develop local standards and guidance for selection and installation of bicycle parking facilities by the City of Evansville and its partners throughout the region.

## High Priority Locations

As new bicycle infrastructure projects are implemented and bicycle ridership increases, the City can add more facilities to support this growing ridership. The following locations represent current and future high-demand locations for bicycle parking.

- Downtown, especially:
  - Along the Ohio River
  - Martin Luther King Jr Blvd



Figure 5.4: Converting parking spaces for bicycle parking is a low-cost, high-visibility approach to increasing bicycle parking supply.

- Ford Center
- Lincoln Ave corridor
- Walnut St corridor
- Sycamore St corridor
- Eastland Mall
- Wesselman Woods
- W Franklin St
- Burkhardt Rd
- Green River Rd
- N Main St
- Parks and recreation areas
- University of Evansville
- University of Southern Indiana
- Hospitals and medical campuses

## Bicycle Share

Bicycle share systems are emerging across the United States as an innovative program to increase active transportation for short trips. Bicycle share systems consist of a fleet of bicycles located throughout a service area that can be checked out and returned to any other station within the service area. These systems can be implemented citywide, or at a smaller scale, such as downtown or other areas with higher employment and residential densities. Bike share systems are having a significant impact on transportation choices and habits in cities of all sizes. New York City, Louisville, Kansas City, Boulder, Chattanooga, Ann Arbor, Minneapolis, and Washington, D.C. are just a few of the 50+ cities that have implemented bicycle share systems in the United States. The City of Evansville should undertake efforts to study the feasibility of a bicycle share system to increase bicycle transportation, diversify transportation choices for Evansville residents and visitors, and build Evansville's brand as a healthy and active community.



# THE PEDESTRIAN NETWORK

Most trips begin and end as walking trips, even when a car, bicycle, bus, or train is also involved. The City of Evansville has a comprehensive network of pedestrian facilities, but there are some gaps in the network, either in the form of missing sidewalks or dangerous intersection and street crossings. There are also some sidewalks in poor condition, which can present significant hazards to pedestrians, particularly pedestrians with limited mobility, physical impairments, or mobility-assistance devices such as walkers, wheelchairs, and mobility scooters. The City addresses these deficiencies by improving existing sidewalks, adding ADA-compliant crossings, and adding new sidewalks as part of redevelopment, street reconstruction, new or upgraded traffic signals, and targeted spot improvements. This section of the Plan identifies specific pedestrian infrastructure recommendations to enhance connectivity, accessibility, and safety for pedestrians of all ages and abilities.

## Pedestrian Facility Recommendations

In addition to the 2.7 miles of shared use paths and 53.1 miles of sidepath projects intended for non-motorized use and described in the previous section of the Plan, the Evansville Bicycle & Pedestrian Connectivity Master Plan recommends 21.6 miles of new sidewalks and intersection improvements at 40 locations throughout the City. These recommended pedestrian facilities, which are shown in Map 5.2 and listed in Tables 5.2 and 5.3, address critical gaps in the pedestrian network, increase accessibility and safety, and support a positive and comfortable pedestrian experience for people of all ages and abilities.

It is important to note that the recommended pedestrian facilities do not constitute an exclusive schedule of pedestrian projects. The City of Evansville should pursue and implement additional pedestrian projects as part of a Complete Streets approach to transportation investments and maintenance, in conjunction with programmed capital improvements and private development, as expressed in the City of Evansville ADA Transition Plan, and as other opportunities arise.

## Other Improvements

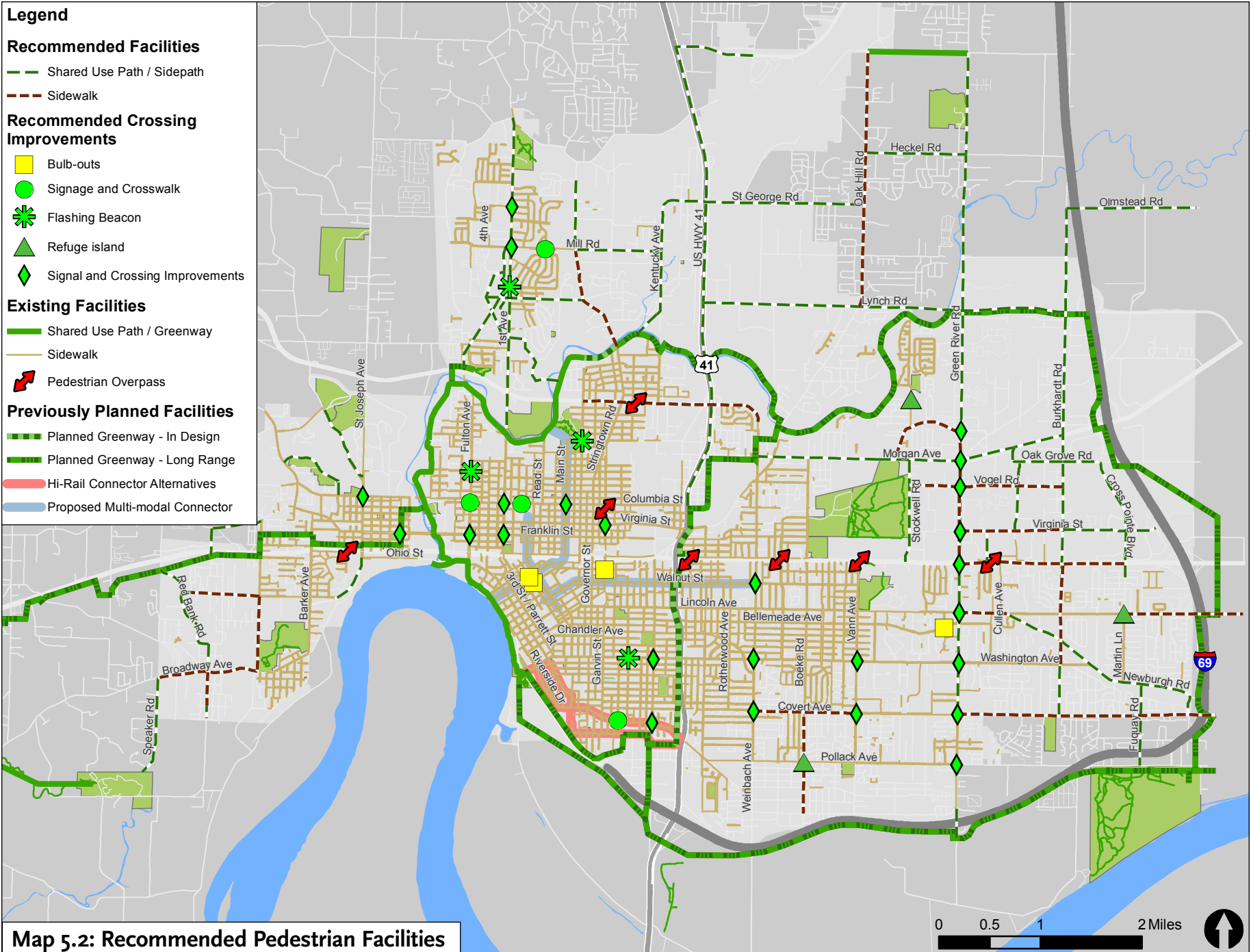
While a continuous pedestrian network supports opportunities for walking, additional streetscape enhancements and traffic calming elements transform the public realm by prioritizing walking as the primary mode of transportation, slowing and even reducing motor vehicle traffic, creating an attractive and comfortable environment that invites pedestrian activity, and adding character and quality to the streetscape and adjacent land uses. Both of these roadway design elements - streetscape enhancements and traffic calming - are discussed in greater detail in the Bicycle and Pedestrian Facilities Guidelines in the appendix of the Plan.



## Pedestrian Facility Types

While different bicycle facility types are often intended for different types of bicyclists, every pedestrian facility is designed to accommodate all pedestrian types, regardless of age or ability. The facilities shown in these images - sidewalks, shared use paths, and crosswalks - form the foundation of a pedestrian network. Additional pedestrian facilities and supporting infrastructure, such as rectangular rapid flashing beacons, lighting, furnishings, median refuge islands, and curb extensions, are described in greater detail in the Bicycle and Pedestrian Facility Guidelines in the appendix of the Plan.





**Table 5.2: Recommended Sidewalk Projects**

Street Name	Limit From	Limit To	Length (Miles)
Boeke Rd	South of Covert Ave	Rheinhardt Ave	0.95
Broadway Ave	Speaker Rd	Tekoppel Ave	1.00
Burkhardt Rd	Lloyd Expy	Washington Ave	0.99
Claremont Ave	Rechtin Ave	Tekoppel Ave	0.68
Covert Ave	Green River Rd	East of I-69	2.54
Covert Ave	Weinbach Ave	Vann Ave	1.01
Diamond Ave	Heidelbach Ave	North of Keck Ave	1.82
Green River Rd	Theater Dr	North of Lloyd Expy	1.22
Lincoln Ave	Martin Ln	East of I-69	1.17
Lincoln Ave	Green River Rd	Newburgh Rd	0.50
Lloyd Expy (parallel)	Green River Rd	Cross Pointe Blvd	1.62
Oak Hill Rd	Lynch Rd	Millersburg Rd	2.53
Red Bank Rd	Broadway Ave	Nolan Ave	0.33
Stringtown Rd	Mill Rd	Cardinal Dr	1.08
Tekoppel Ave	Claremont Ave	Broadway Ave	0.74
Theater Dr	Morgan Ave	Green River Rd	0.89
Virginia	Green River Rd	Burkhardt Rd	1.02
Vogel Rd	Stockwell Rd	Burkhardt Rd	1.52
<b>Total</b>			<b>21.61</b>

**Table 5.3: Recommended Intersection Improvements**

Intersection	Improvement Type
6th St / Sycamore St	Bulb-outs
Bellemeade Ave / Hebron Ave	Bulb-outs
Sycamore St / Garvin St	Bulb-outs
Vine St / 6th St	Bulb-outs
Fulton Ave / Florida St	Flashing Beacon
Heidelbach Ave / Maxwell Ave	Flashing Beacon
Lexington Rd / First Ave	Flashing Beacon
Washington Ave / Evans Ave	Flashing Beacon
Lincoln Ave / Martin Ln	Pedestrian Refuge Island
Pollack Ave / Boeke Rd	Pedestrian Refuge Island
Stockwell Rd / Negley Ave	Pedestrian Refuge Island

**Table 5.3: Recommended Intersection Improvements (Continued)**

Intersection	Improvement Type
Columbia St / Edgar St	Signage and Crossing Improvements
Fulton Ave / Columbia St	Signage and Crossing Improvements
Riverside Dr / Linwood Ave	Signage and Crossing Improvements
Stratford Rd / Mill Rd	Signage and Crossing Improvements
1st Ave / Bryan Rd	Signal and Crossing Improvements
Columbia St / 1st Ave	Signal and Crossing Improvements
Franklin St / 1st Ave	Signal and Crossing Improvements
Franklin St / Fulton Ave	Signal and Crossing Improvements
Franklin St / Wabash Ave	Signal and Crossing Improvements
Green River Rd / Covert Ave	Signal and Crossing Improvements
Green River Rd / Lincoln Ave	Signal and Crossing Improvements
Green River Rd / Lloyd Expy	Signal and Crossing Improvements
Green River Rd / Morgan Ave	Signal and Crossing Improvements
Green River Rd / Pollack Ave	Signal and Crossing Improvements
Green River Rd / Theater Dr	Signal and Crossing Improvements
Green River Rd / Virginia St	Signal and Crossing Improvements
Green River Rd / Vogel Rd	Signal and Crossing Improvements
Main St / Columbia St	Signal and Crossing Improvements
Maryland St / Saint Joseph Ave	Signal and Crossing Improvements
Mill Rd / 1st Ave	Signal and Crossing Improvements
Riverside Dr / Kentucky Ave	Signal and Crossing Improvements
Vann Ave / Covert Ave	Signal and Crossing Improvements
Vann Ave / Washington Ave	Signal and Crossing Improvements
Virginia St / Garvin St	Signal and Crossing Improvements
Washington Ave / Green River Rd	Signal and Crossing Improvements
Washington Ave / Kentucky Ave	Signal and Crossing Improvements
Washington Ave / Weinbach Ave	Signal and Crossing Improvements
Weinbach Ave / Covert Ave	Signal and Crossing Improvements
Weinbach Ave / Walnut St	Signal and Crossing Improvements



## Streetscape Enhancements

Landscaping, street trees, pedestrian-scale lighting, benches, street furniture, and even public art can have a profound effect on improving the pedestrian experience along a corridor. Improvements along Main Street in Downtown Evansville demonstrate the impact of pedestrian-focused streetscape enhancements on the character of a street. Design elements like the curvilinear travel lanes, multi-textured and multi-colored sidewalk and pavement surfaces, outdoor dining, pedestrian-scale lighting, street trees, benches, and even water features transform Main Street into a destination in and of itself. For the City of Evansville, capital investments in public spaces like these can be a significant catalyst for private investment.

## Traffic Calming

Traffic calming is a design principle that seeks to lower vehicular traffic speeds using physical and visual cues. These tools are typically self-enforcing: the roadway's physical conditions influence drivers' speed and behavior rather than regulatory devices and enforcement measures. Traffic calming works best on local streets with residential areas and highly trafficked commercial corridors. Extensive research shows that slower motorist speeds reduce overall crash severity and frequency, and improve cyclist and pedestrian comfort within and adjacent to traffic. Slower traffic also tends to reduce roadway noise, which contributes to overall neighborhood livability and walking comfort.

Traffic calming countermeasures are divided into two general types: vertical and horizontal. Vertical speed control measures are composed of slight rises in the pavement, on which motorists and bicyclists must reduce speed to cross. Speed humps, speed tables, and raised crosswalks are examples of vertical traffic calming. Horizontal traffic calming devices, on the other hand, cause drivers to slow down by constricting the roadway space or by requiring careful maneuvering. Curb extensions, chicanes, chokers (neckdowns), and traffic circles are the most common applications of horizontal traffic calming.

## Pedestrian Wayfinding

The City of Evansville already benefits from a network of pedestrian wayfinding signage as a result of its partnership with the Welborn Baptist Foundation and its Upgrade campaign. The system of 18 signs direct residents, employees and visitors to 27 landmarks and destinations in and around Downtown Evansville. As the system gains use and popularity, the City of Evansville and the Welborn Baptist Foundation should evaluate usage and identify opportunities for expansion.



Figure 5.5: The design of Main Street includes streetscape enhancements and traffic calming elements to create a unique, welcoming environment for pedestrian activity.



Figure 5.6: The Walk EVV Map identifying destinations in and around Downtown.

## PROGRAM RECOMMENDATIONS

Education, encouragement, and enforcement programs support walking and bicycling activity and can be cost effective complements to infrastructure investments. When combined with physical improvements like sidewalks, greenways, and on-street bikeways, these types of programs foster a social environment that values and supports active transportation.

Building on the Five E's approach outlined in the Introduction in the Plan, the following education, encouragement and enforcement programs and accompanying actions offer a layered approach to increasing walking and bicycling activity, supporting safe, responsible, and respectful use of Evansville roads and trails, and creating a community where people of all ages and abilities feel comfortable walking or riding a bicycle for any trip.<sup>1</sup>

Creative partnerships with local agencies, organizations, institutions and community groups are critical to the success of these programs. The City should consider opportunities for local partners to take lead or supporting roles in as many of these programs as possible, as dictated by their strengths, capacities, resources and alignment with their missions and goals.

### Education

#### *Safe Routes to School (SRTS)*

Safe Routes to School is a multi-disciplined program designed to increase walking and bicycling to and from school and educate children about the basics of roadway safety. Successful Safe Routes to School Programs require support and leadership from the school district, individual schools, and Parent-Teacher Associations. Once a program has been established in the schools, the City may provide assistance by constructing infrastructure improvements and providing police-led bicycle and pedestrian safety programs.

##### **Key Actions:**

- Encourage the Evansville Vanderburgh School Corporation and its community partners to develop a citywide Safe Routes to School Program.
- Implement Tekoppel School's SRTS infrastructure projects in 2015. Publicize their efforts to other schools.
- Promote National Walk & Bike to School Day throughout public schools.
- Encourage all public schools to apply for SRTS funding.

<sup>1</sup> The fifth E, evaluation, is discussed in further detail in the following chapter, as it deals more with internal processes and procedures rather than outward, public-facing programs and activities.

### *Adult Bicycle Education Classes*

Increasing citizens' access to bicycle skills classes can increase the number of people who feel safe while bicycling throughout Evansville. The courses can also help teach about new infrastructure development by accurately describing how to use specific infrastructure types (i.e.- bike boxes) as bicyclists, pedestrians, and motorists.

##### **Key Actions:**

- Deliver at least two adult bicycling skills class per year. Consider integrating event into Evansville Streets Alive! or other community events to increase exposure and participation.
- Investigate opportunities to sponsor the creation of additional bicycle safety courses offered to citizens throughout the City.



*Figure 5.7: Daniel Wertz Elementary School's 2012 Walk to School Day event garnered significant publicity and drew attention to health and safety issues surrounding children walking to school.*



## Youth Bicycle Education Classes

Bicycle rodeos and other education courses designed to build bicycling skills for children are an effective way to instill safe and responsible bicycling practices and support bicycling as a means of transportation for Evansville's next generation.

### Key Actions:

- Sponsor the Evansville Bicycle Club's bicycle rodeos as formalized program offerings by the Department of Parks and Recreation.
- Support and/or deliver a minimum of four bicycle rodeos or other youth bicycle education courses per year.



Figure 5.8: An Evansville Police Department officer teaches bicycle safety and handling skills at the Choose Not to Lose Camp in 2014.

## Bicycle and Pedestrian Information Clearinghouse

The City of Evansville's website provides an ideal platform for the distribution of educational materials, project updates, upcoming events, public meetings, and other information pertinent to walking and bicycling. Giving walking and bicycling a strong presence on the City's website will demonstrate Evansville's commitment to equipping residents and visitors with the resources they need to get out and explore Evansville on bike and foot.

### Key actions:

- Consolidate and organize bicycle and pedestrian information on the City's website to provide a single clearinghouse of resources. The site should offer visitors internally-developed materials and information as well as information about and links to partnering agencies' websites. Materials to be provided through the Bicycle and Pedestrian Information Clearinghouse may include educational materials, information about non-motorized facility types, bicycling and walking maps, upcoming events, links to community partners' websites, and updates on plans, studies, capital projects and programs.



Figure 5.9: Chicago Complete Streets Website.



## Comprehensive Safety Education Campaign

The City of Evansville and its community partners have developed educational materials and promotional campaigns. The MPO's Safe Biking brochure and the Evansville Bicycle Friendly Community Task Force's Bike Right billboard campaign are a few prominent examples. While each may have value on its own, they lack a singular, cohesive identity and consistent brand.

### Key Actions:

- Develop an overarching safety education campaign in partnership with regional stakeholders like the Evansville Bicycle Club and the Healthy Communities Partnership of Southwestern Indiana.
- Build a strong presence throughout the community by utilizing a consistent brand and aesthetic for all messaging and materials, including billboards, brochures, advertisements, and safety videos.

## Project-Related Community Outreach

Community outreach and engagement is an ongoing process. While many Evansville residents and stakeholders participated in the planning process, the majority of the community may not feel the impact of the plan until individual projects are implemented near their homes, places of employment, or on their daily travel routes. As individual projects are implemented, particularly those that involve substantial modifications like road diets, cycle tracks, and shared use paths, the City must engage and inform community residents and adjacent property owners about the coming improvements, how they relate to the City's overall vision and approach to creating a walk- and bike-friendly community, and the benefits that these projects will provide for people of all ages and abilities.

### Key Actions:

- Hold community meetings for significant capital improvement projects to inform residents and adjacent property owners, address concerns, and build community support.



Figure 5.10: Seattle DOT uses door hangers to educate residents about bicycle-related projects.

- Use door hangers, mailers or other forms of outreach to inform residents about capital improvement projects, explain how to interact with bicyclists and new bicycle facility types, and extoll the benefits of bicycling and walking infrastructure for community health, economic development, social equity, and quality of life.

## Encouragement

### Evansville Streets Alive! Events

The Evansville Streets Alive! events have proven to be a popular and successful encouragement strategy. While the focus of the event is on healthy, safe and fun recreation opportunities, Streets Alive! also presents an ideal platform for the showcase and delivery of other bicycle and pedestrian related programs, planning initiatives, and capital projects.

### Key Actions:

- Continue to support Evansville Area Trails Coalition and other community partners in planning and executing the Streets Alive! event.
- Explore the feasibility of increasing event frequency to twice a year.
- Capitalize on the Streets Alive! event as an opportunity to provide education and encouragement programs, promotional materials, and information about planning initiatives and capital projects.



Figure 5.11: Crowds continue to grow year after year at the annual Evansville Streets Alive! event.

## Small Grants Program

A grant program to fund neighborhood or community-wide initiatives that support walking and bicycling acknowledges the importance of community collaboration in achieving the Plan's vision and goals, and capitalizes on the unique capacities, resources and skillsets of community groups and advocacy organizations.

### Key Actions:

- Create small-scale, locally-focused grant funding pools to support the work of local advocacy groups. Open the application process to groups with or without 501(c)(3) status.
- Explore opportunities to supporting an Upgrade program expansion including additional bike racks, wayfinding signs, rental bikes, or some other measures to encourage bicycling and walking.

Examples of grant programs in other communities highlight the benefit of utilizing bicycle and pedestrian encouragement and education to address other social needs. In Bloomington, IN, recipients from the inaugural funding round launched a bike share program at a women's and children's shelter, started a winter cycling fellowship program, and held a one-day festival to celebrate bicycling.

## National Bike to Work Day/Week/Month

In partnership with the League of American Bicyclists, cities across the country host events and activities to promote National Bike Month, Week, and Day. These events can increase visibility for bicycling, encourage community members to bicycle for trips of all purposes, and build riders' comfort and confidence to bicycle on streets and in traffic.

### Key Actions:

- Obtain Mayoral endorsement for Bike to Work Day.
- Expand upon current Bike to Work Day throughout the month of May and increase educational and encouragement resources and events.
- Develop a Bike to Work Challenge in coordination with local partners to encourage bicycling and engage the business community.

The League of American Bicyclists has a number of valuable online resources to help plan, organize and execute successful events and activities, including an event organizing handbook, a calendar linking to local events and activities, and tips for people interested in commuting to work.

## Individualized Marketing Campaign

Individualized marketing campaigns are a unique approach to Transportation Demand Management (TDM) that focus on increasing bicycling, walking and transit trips through concentrated outreach, promotional materials, and personalized support. Programs like Go Bronzeville in Chicago, IL and SmartTrips in Portland, OR are shining examples of community transformation through these individualized marketing campaigns.

### Key Action:

- Explore partnerships, funding sources, potential neighborhoods, and other feasibility factors for the creation of an individualized marketing campaign.



Figure 5.12: Way To Go! San Rafael, the California city's individualized marketing campaign, provides residents with informational resources, tote bags, pedometers, and other materials to encourage walking, bicycling, and transit.

## Equity-Based Programs

In communities where bicycling and walking are safe, comfortable, and convenient, all people within the community, especially disadvantaged and underserved populations, benefit from an equitable form of transportation. Programs and activities can support an equitable transportation system in Evansville and should be explored.

### Key Action:

- Explore opportunities for collaborative efforts with community groups to support walking and bicycling activity in underserved and disadvantaged neighborhoods. Potential programs include:
  - **Create-A-Commuter Program:** equip low-income and non-driving residents with a fully furnished commuter bicycle and provide maintenance and safety skills education to increase access to job sites and employment opportunities.



Figure 5.13: The Dream Center, in partnership with numerous community partners, hosts an Earn A Bike workshop for kids in Jacobsville and surrounding neighborhoods, many of whom come from low-income households and do not have the means to afford a bicycle.

- **Earn-A-Bike Program:** Teach area youth basic bicycle maintenance and safety skills and provide free bicycles upon program completion/graduation. (This program is currently being offered in Summer 2015 for kids in fifth through eighth grade by the Dream Center, in partnership with the Bicycle Friendly Community Task Force, the Evansville Police Department, the Ivy Tech Foundation, Dan's Comp bicycle shop, and St. Mary's.)
- **Bike Library Program:** Acquire and maintain a small fleet of bicycles that can be "checked out" and used for short trips throughout the community.

## Enforcement

### Law Enforcement Training

Law enforcement officers play a daily role in helping to foster a culture of respect and responsibility among all road users. Regular trainings create a uniform understanding of their responsibilities with regard to traffic law enforcement for bicyclists, pedestrians, and motorists. Trainings can also create a dialogue between officers and other City staff, giving officers a chance to discuss ideas for new or revised legislation to further improve traffic safety.

### Key Actions:

- Provide regular training sessions for law enforcement officers relating to bicyclist, pedestrian, and motorist traffic law and interactions among various modes of transportation.
- Regularly apprise members of the police department of state and local legislative actions pertaining to non-motorized road users' rights and responsibilities.

### Targeted Enforcement

Schools, commercial districts and other areas with high volumes of bicycle and pedestrian activity, as well as locations with significant incidences of bicycle and pedestrian crashes, can benefit from an increased police presence. Targeted enforcement of traffic safety laws and "sting" operations can reduce dangerous and illegal behaviors such as texting while driving or failing to yield for pedestrians in a crosswalk. Regardless of whether or not officers issue citations or warnings for violations, targeted enforcement activities encourage responsible behavior and create a safer environment for all road users.

### Key Actions:

- Identify areas for pedestrian stings and other targeted enforcement efforts.



- Conduct sting operations and targeted enforcement efforts to bolster respect for traffic laws and roadway safety.
- Publicize targeted enforcement efforts to raise awareness within the community of the value the City of Evansville and the Evansville Police Department have for bicycle and pedestrian safety.
- Consider creating an account for revenue from targeted enforcement efforts dedicated specifically to bicycle and/or pedestrian infrastructure improvements, such as pedestrian refuge islands, high visibility crosswalks, rectangular rapid flashing beacons, and push-button activated pedestrian signal heads.

### ***Bicycle Patrol Unit***

The Evansville Bicycle Patrol Unit has grown in size from two officers to 36 since its founding date in 2003. Officers patrol the Pigeon Creek Greenway, City parks, and large public events. The Patrol Unit supports positive community-officer relations by increasing social interaction between officers and citizens.

#### **Key Actions:**

- Utilize the Bicycle Patrol Unit to strengthen community based policing efforts, strengthen ties with Evansville citizens, and demonstrate the Evansville Police Department’s commitment to and investment in bicycling as an important transportation mode, both for the department and for the community at large.

### ***Driver Safety Program***

The Driver Safety Program allows Indiana residents in participating jurisdictions the opportunity to have their traffic violation dismissed if they successfully complete the Indiana Online Driver Safety Program. This educational program can increase motorists understanding of and respect for bicyclists and pedestrians while also delivering information regarding the appropriate use of new infrastructure types.

#### **Key Actions:**

- Coordinate with relevant state and local agencies to guarantee the inclusion of comprehensive information about non-motorized transportation behavior, rights, responsibilities and facilities in the Driver Safety Program.



*Figure 5.14: Evansville’s Bicycle Patrol Unit can provide enhance community based policing efforts and be a source of information regarding bicycle and pedestrian regulations and responsibilities.*



*“The Bicycle and Pedestrian Connectivity Master Plan is a thoughtful guide for how to best pull together our existing assets and future resources into a more comprehensive active transportation system. The net benefit from its full implementation will be increased access to the active living that helps foster a healthier community.”*

**- Kevin Bain  
Executive Director and CEO  
Welborn Baptist Foundation, Inc.**

# 6. IMPLEMENTATION

## INTRODUCTION

The Evansville Bicycle and Pedestrian Connectivity Master Plan provides a comprehensive set of recommendations and physical improvements that, once implemented, will increase safety, connectivity, accessibility, and comfort for bicycling and walking throughout the City. Implementing the Plan will require commitment, persistence, creativity, partnerships, funding, and continued community support. As the City of Evansville and its partners throughout the region continue to foster a bicycle- and pedestrian-friendly community for residents and visitors alike, a clear, action-oriented implementation strategy will be necessary to move the Plan forward.

This Plan is a vision and a guide to the future. It provides the blueprint for Evansville to develop a complete, connected, and safe non-motorized transportation network, increase opportunities for active transportation, and add to the quality of life that makes the City of Evansville a great place to live, work and play. With this charge firmly in mind, the following implementation actions and priorities provide a comprehensive strategy to realize the goals and objectives set forth in this Plan and establish Evansville as a premier Bike and Walk Friendly Community.

## EARLY ACTION STEPS

The following early action steps are designed to initiate Plan implementation, sustain momentum from the planning process, and set the foundation for future progress. The following early action items, which represent a mix of policy, procedures, capital projects, and programs, provide early opportunities to engage community partners and establish strong and lasting relationships on which successful implementation efforts will depend.

### Step 1: Adopt the Plan

Adopting the Plan is an important step, not just for its symbolic value representing the City's commitment to bicycling and walking, but also for its policy value as a guiding document for future capital investments and transportation decisions. The adoption process varies from community to community, depending on existing

policies and procedures. The City of Evansville should undertake a formal adoption process and incorporate this Plan as a supplemental document supporting the Comprehensive Plan. Adoption or formal recognition by the Evansville MPO will also help to align local and regional goals, priorities and projects.

### Step 2: Designate Bicycle and Pedestrian Coordinator

A bicycle and pedestrian coordinator functions as the primary point of contact for bicycle, pedestrian, and trail issues - a liaison between City departments, elected officials, outside agencies and organizations, and the public. While creating and filling a new staff position would be ideal, it is not a requirement. A current staff person could assume the responsibilities of bicycle and pedestrian coordinator. This staff person will not be solely responsible for all Plan implementation activities; instead, the coordinator will ensure that City departments and community partners have the resources and information necessary to undertake actions and responsibilities recommended in the Plan.

### Step 3: Establish Evansville Active Transportation Committee

In 2012, Mayor Winnecke created the Bicycle Friendly Task Force to identify opportunities to improve physical conditions for bicycling and foster a culture that welcomes and supports bicycling activity. The City of Evansville should consider renaming the Task Force the **Evansville Active Transportation Committee** and expanding group's role to include both bicycling and walking. Given the broad representation of community institutions and agencies, the task force is well-suited to shape community-wide policies and programs to support walking and bicycling, and build a collaborative approach to implementing the Plan for years to come.

The Evansville Active Transportation Committee should be a forum for leaders to convene periodically and discuss implementation progress, keep members up-to-date on non-motorized projects and programs throughout the City, share resources



and tools, and maintain momentum for active transportation in the community. Key duties of the task force should include the following:

- Champion plan implementation;
- Advise the City on implementation matters;
- Facilitate cooperation among local agencies and organizations;
- Identify and recommend sources of funding;
- Monitor implementation through various performance measures; and
- Seek Bike and Walk Friendly Community status for the City of Evansville.

The Evansville Active Transportation Committee can also function as a conduit for information between the City and the community at-large, sharing information about implementation progress and achievements and directing residents and visitors to the appropriate resources and information.

#### Step 4: Adopt a Complete Streets Policy

Complete Streets are planned, designed, constructed and maintained to accommodate all street users - pedestrians, bicyclists, transit users, and motor vehicle drivers. In 2012, the Evansville MPO passed a Complete Streets policy to provide regional leadership and to tie Complete Streets policies and elements to the selection and awarding of federal funds for the planning, design, right-of-way acquisition, engineering, and construction of roadways and other transportation facilities.

The City of Evansville should work with the Evansville MPO and other community partners to draft and adopt a Complete Streets ordinance or resolution to integrate all modes of transportation into roadway funding, design, construction, operations and maintenance. Establishing a municipal policy will delegate roles and responsibilities and create a system through which all transportation projects can be evaluated.

#### Step 5: Complete Funded Projects

The City of Evansville has a number of projects in various stages of development that will enhance bicycle and pedestrian safety, connectivity and accessibility. Projects on Covert Ave, Weinbach Ave, North Main St, and the Hi-Rail Corridor will have a significant impact on non-motorized

### Complete Streets for a Healthy and Active Evansville

Communities across the country are implementing Complete Streets policies as a catalyst for community transformation. In Indiana alone, more than a dozen cities and MPOs have adopted a Complete Streets policy, ordinance or resolution as a means to improve community health, support economic development, and develop a more equitable transportation system that supports people of all ages, abilities, incomes and backgrounds. More than 36% of all Hoosiers now live in a community covered by a Complete Streets policy, including Evansville residents.

Our roads, sidewalks and trails are investments in our future. An investment in public spaces that support walking and bicycling activity is an investment in the health and quality of life of our future generations. Adopting a municipal Complete Streets policy in Evansville will strengthen the City's commitment to providing citizens with a diverse, equitable, and healthy transportation network for people of all ages and abilities.

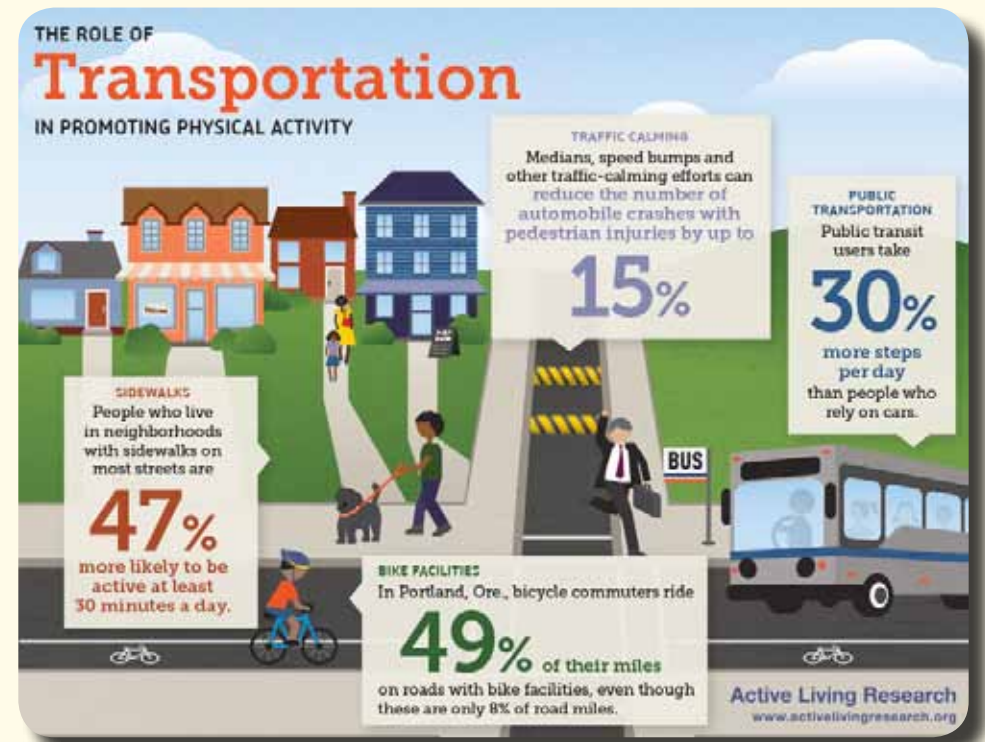


Figure 6.1: Complete Streets are a basic building block for healthy and active communities (source: Active Living Research)

transportation, adding new sidewalks, cycle tracks, bike lanes, trails, and traffic calming elements. The completion of these projects will be a significant accomplishment for the City of Evansville, expanding opportunities for non-motorized transportation and recreation and demonstrating the City's commitment to walking and bicycling.

## **Step 6: Establish Baseline Counts and Measurements**

Continual monitoring of implementation progress is essential to the success of the Plan. Baseline measurements of key data like bicycling and walking activity, crash rates, miles of facilities, program participation numbers, and travel mode share provide a point of comparison to determine the impact of infrastructure projects and supporting education, encouragement, and enforcement programs. Bicycle and pedestrian counts and other performance measurements are discussed in further detail later in this chapter.

## **Step 7: Draft and Adopt a Bicycle Parking Ordinance**

While the expansion of the greenway and on-street bikeway network will draw additional bicyclists, the lack of convenient, accessible, and secure bicycle parking may deter residents and visitors from taking bicycle trips to local businesses, parks, schools, and other destinations in the community. The City of Evansville should develop and adopt a bicycle parking ordinance establishing minimum requirements for bicycle parking spaces in new developments and major renovations based on land use classification. A model bicycle parking ordinance has been included in the appendix for reference. The Association of Pedestrian and Bicycle Professionals' Bicycle Parking Guide, 2nd Ed. (2010) should be consulted for additional guidance related to rack selection, installation, and maintenance.

## **Step 8: Create an Online Presence for Bicycling and Walking**

By creating and adopting this Bicycle and Pedestrian Connectivity Master Plan, the City has communicated to the community its commitment to walking and bicycling as safe, comfortable and convenient transportation choices for people of all ages and abilities in Evansville. The City should continue to communicate with residents and stakeholders by establishing an online presence to share information, provide updates on projects and events, and receive feedback and information from residents. By providing resources like this Plan, bicycling and walking maps, local ordinances, the MPO's Long Range Transportation Plan, and links to community partners' initiatives, the City can equip residents and visitors with the information they need to incorporate walking and bicycling into their daily trips.

## **Step 9: Seek for Funding for High Priority Projects**

High priority projects have been identified based on their ability to meet plan goals and improve safety, accessibility, connectivity. These projects will have the most significant impact in creating a community in which bicycling and walking are safe, comfortable and convenient forms of transportation for people of all ages and abilities. Funding for bikeway projects can be very competitive, and the project development process can significantly increase the amount of time it takes to construct bicycle and pedestrian projects. With these considerations in mind, it is imperative that the City of Evansville and the MPO begin to identify and pursue traditional and innovative funding sources to implement high priority projects.

## **Step 10: Host a Bicycle and Pedestrian Summit One Year After Plan Adoption**

Maintaining momentum for the Bicycle and Pedestrian Connectivity Master Plan after its adoption will require continual coordination and engagement with partnering organizations, key community stakeholders, and the Evansville residents. The City of Evansville should host a bicycle and pedestrian summit to sustain interest and focus on Plan implementation, highlight successful programs and projects, and provide educational opportunities for professionals and citizens. A full day event, hosted in partnership with a local organization(s) and/or foundation support, could include the following sessions:

- Plan implementation progress, year one achievements, and overview of projects in development;
- Bicycle facility design workshop for planners, designers and engineers;
- Success stories from peer communities;
- Program spotlights on partnering organizations' activities, events, and programs;
- Walking tour of South Main St, the Riverfront Esplanade, or other pedestrian-friendly areas;
- Neighborhood walk or bike audits; and
- Bicycle tour of completed greenways and on-street bicycle facilities.

# NETWORK PRIORITIZATION

The City of Evansville is a public agency, responsible for the efficient, effective, and values-driven expenditure of taxpayer dollars. Non-motorized infrastructure projects and programs must compete with other capital improvements and municipal services, as well as with one another, for limited internal and external resources. In order to maximize investment and provide the greatest benefit, the City of Evansville should pursue a prioritized approach to non-motorized transportation infrastructure investment and plan implementation. Each bicycle facility project has been assigned a score according to its ability to address certain prioritization criteria. These criteria are based on the Plan Goals and Objectives, input from the community, and feedback from the Steering Committee. These criteria are listed below in Table 6-1.

**Table 6.1: Network Prioritization Criteria**

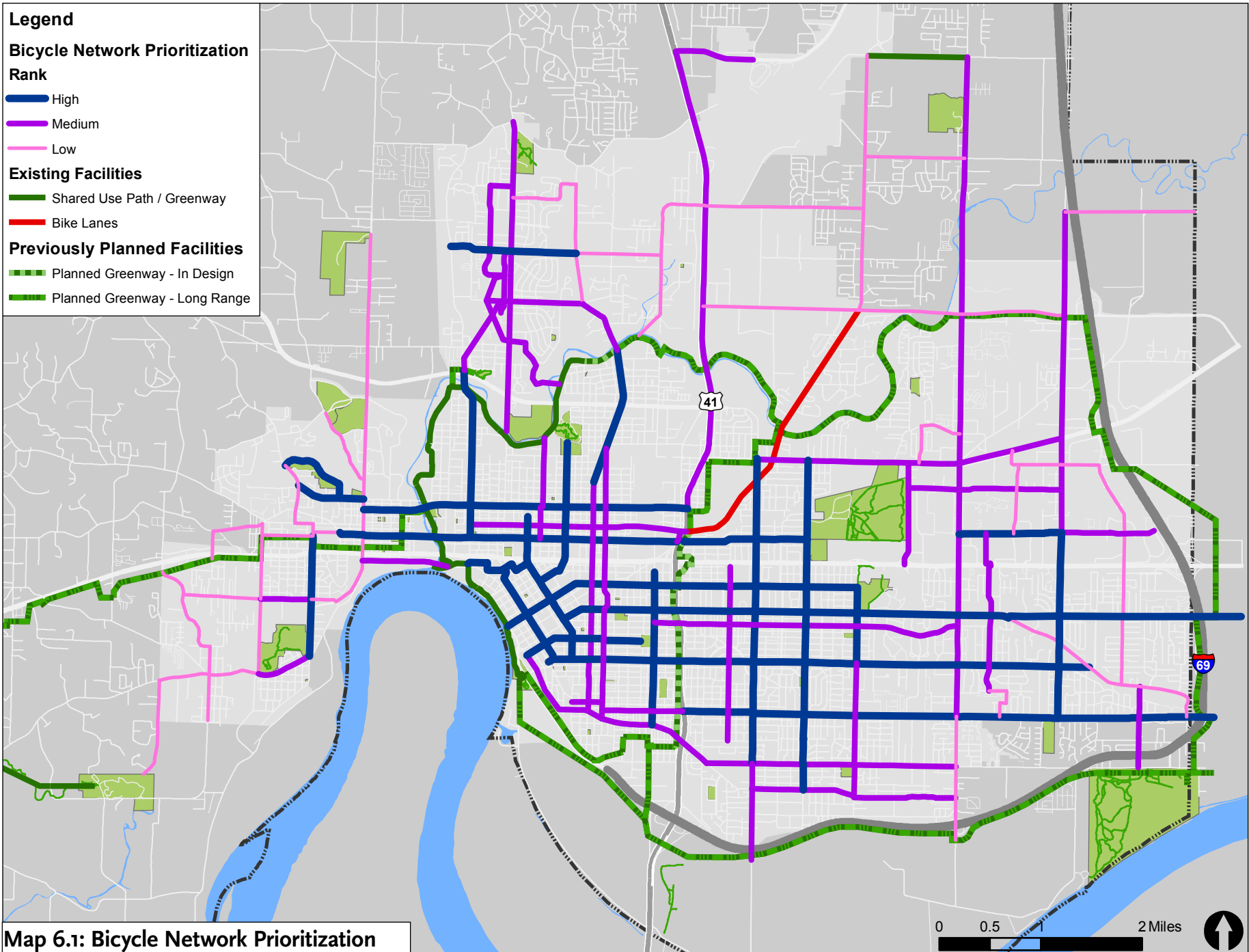
Prioritization Criteria	Criteria Description
<b>Safety</b>	The project addresses a safety concern as identified through the analysis of crash data and input from the community.
<b>Connectivity to existing facilities</b>	The project helps to build the overall network in an orderly and efficient manner. The public identified connectivity as a top priority for bikeway projects.
<b>Proximity to schools</b>	The project supports travel to and from local schools, increasing opportunities for children to walk or bike to school.
<b>Proximity to parks</b>	The project connects directly or indirectly to a park.
<b>Connectivity to proposed facilities</b>	The project will ultimately impact and strengthen the overall network, connecting to one or more planned bicycle facilities.
<b>Ease of Implementation</b>	The project's potential cost, right-of-way impacts, and roadway impacts.

Each segment of the bicycle network has been evaluated and scored using these six criteria listed above. The resulting scores were then used to group the recommended segments into three priority levels: high-priority projects, medium-priority projects, and low-priority projects. These priority levels are not intended to rigidly divide the projects into exclusive groups for the purpose of project phasing. Instead, these priority levels provide insight into which projects will have the most significant impact on the community and help accomplish the Plan goals and objectives. The high, medium and low priority projects are listed in Tables 6.2, 6.3 and 6.4, respectively, and displayed in Map 6.1.

**Table 6.2: High Priority Projects**

Street Name	Limit From	Limit To	Facility Type	Length (Miles)
Burkhardt Rd	Covert Ave	Virginia St	Sidepath	1.84
Golfmoor Rd	Harmony Way	Wessel Ln	Sidepath	0.65
Wessel Ln	Golfmoor Rd	Maryland St	Sidepath	0.14
3rd St / Parrett St	Bond St	Washington Ave	Cycle Track	1.05
Columbia St	US HWY 41	Pigeon Creek	Cycle Track	2.63
Delaware St	Pigeon Creek	St. Joseph Ave	Cycle Track	0.58
Franklin St	St Joseph Ave	9th Ave	Cycle Track	0.46
Fulton Ave	Franklin St	Diamond Ave	Cycle Track	1.37
Main St	Garvin Park	Lloyd Expy	Cycle Track	1.16
Main St	Sycamore St	Lloyd Expy	Cycle Track	0.12
Martin Luther King Jr Blvd	8th St	Division St	Cycle Track	0.72
Mary St	Division St	Virginia St (Deaconess Hospital)	Cycle Track	0.40
Sycamore St	Martin Luther King Jr Blvd	Main St	Cycle Track	0.23
Walnut St	Vann Ave	Riverside Dr	Cycle Track	3.58
Franklin St	9th Ave	1st Ave	Buffered Bike Lanes	0.93
Fulton Ave	Franklin St	Columbia St	Buffered Bike Lanes	0.32
8th St	Martin Luther King Jr Blvd	Washington Ave	Standard Bike Lanes	0.42
Barker Ave	Broadway Ave	Franklin St	Standard Bike Lanes	1.19
Boeke Rd	Covert Ave	Morgan Ave	Standard Bike Lanes	2.51
Covert Ave	I-69	US HWY 41	Standard Bike Lanes	5.25
Kentucky Ave	Sycamore St	Riverside Dr	Standard Bike Lanes	1.51
Lincoln Ave	I-69 / City Limit	Martin Luther King Jr Blvd	Standard Bike Lanes	6.74
Maryland St	Saint Joseph Ave	Harmony Way	Standard Bike Lanes	0.68
Mill Rd	Stringtown Rd	Kratzville Rd	Standard Bike Lanes	1.25
Stringtown Rd	Louisiana St	Cardinal Dr	Standard Bike Lanes	1.36
Vann Ave	Washington Ave	Walnut St	Standard Bike Lanes	0.75
Virginia St	Burkhardt Rd	Green River Rd	Standard Bike Lanes	1.02
Washington Ave	Newburgh Rd	2nd St	Standard Bike Lanes	5.36
Weinbach Ave	Morgan Ave	Pollack Ave	Standard Bike Lanes	3.02





**Table 6.2: High Priority Projects (Continued)**

Street Name	Limit From	Limit To	Facility Type	Length (Miles)
3rd Ave	7th Ave	Bond St	Bike Boulevard	0.07
5th St	Bond St	Ingle St	Bike Boulevard	0.08
7th Ave	Fulton Ave	3rd Ave	Bike Boulevard	0.20
Boeke Rd	Riverside Dr	Covert Ave	Bike Boulevard	0.75
Bond St	3rd Ave	5th St	Bike Boulevard	0.26
Chandler Ave	Riverside Dr	Bedford Ave	Bike Boulevard	1.19
Franklin St	US HWY 41 / Greenway	Boeke Rd	Bike Boulevard	1.23
Ingle St	5th St	Martin Luther King Jr Blvd	Bike Boulevard	0.14
Franklin St	Fares Ave	1st Ave	Shared Lane Markings	1.71
Franklin St	St Joseph Ave	Mt Vernon Ave	Shared Lane Markings	0.24
<b>Total</b>				<b>53.09</b>

**Table 6.3: Medium Priority Projects**

Street Name	Limit From	Limit To	Facility Type	Length (Miles)
Pigeon Creek - 1st Ave Connector	Greenway / Baker Ave	Shopping Center Access Dr	Shared Use Path	1.68
Kratzville - Buena Vista Connector	Buena Vista Rd	Kratzville Rd	Shared Use Path	0.79
1st Ave	Kratzville Rd	Kleymeyer Park	Sidepath	3.06
Buena Vista Rd	Stringtown Rd	Vista Dr	Sidepath	0.96
Burkhardt Rd	Covert Ave	Olmstead Rd	Sidepath	3.17
Cullen Ave	Virginia St	Lloyd Expy	Sidepath	0.39
Fuquay Rd	Pollack Ave	Newburgh Rd	Sidepath	0.80
Green River Rd	Covert Ave	Millersburg Rd	Sidepath	6.53
Morgan Ave	Burkhardt Rd	Weinbach Ave	Sidepath	3.04
Shopping Center Access Drive	Mill Rd	Woodbridge Dr	Sidepath	0.63
Stockwell Rd	Lloyd Expy	Morgan Ave	Sidepath	1.02
Stringtown Rd	Cardinal Dr	Buena Vista Rd	Sidepath	0.59
US HWY 41	Airport	Columbia	Sidepath	5.39
Virginia St	Circle Front Dr	Burkhardt Rd	Sidepath	0.92
Claremont Ave	Barker Ave	Tekoppel Ave	Cycle Track	0.50
Pollack Ave	Green River Rd	Vann Ave	Cycle Track	1.00
Bellemeade Ave	Green River Rd	Vann Ave	Buffered Bike Lanes	1.03
Fares Ave	Franklin St	Virginia St	Buffered Bike Lanes	0.11
Garvin St	Riverside Dr	Stringtown Rd	Buffered Bike Lanes	2.70
Governor St	Riverside Dr	Maxwell Ave	Buffered Bike Lanes	2.69
Covert Ave	US HWY 41	Garvin St	Standard Bike Lanes	0.80
Ohio St	Pigeon Creek Greenway	Ray Becker Pkwy	Standard Bike Lanes	0.85
Riverside Dr	Pollack Ave	Chandler Ave	Standard Bike Lanes	2.24
Taylor Ave	Garvin St	Culver Dr	Standard Bike Lanes	0.30
Vann Ave	Riverside Dr	Washington Ave	Standard Bike Lanes	1.32
Virginia St	US HWY 41	Fulton Ave	Standard Bike Lanes	2.14
Vogel Rd	N Burkhardt Rd	N Stockwell Rd	Standard Bike Lanes	1.52

**Table 6.3: Medium Priority Projects (Continued)**

Street Name	Limit From	Limit To	Facility Type	Length (Miles)
4th Ave	Old Post Rd	Park Dr	Bike Boulevard	0.84
Bellemeade Ave	Vann Ave	Kentucky Ave	Bike Boulevard	2.01
Cullen Ave	Lloyd Expy	Monroe Ave	Bike Boulevard	1.25
Old Post Rd	1st Ave	4th Ave	Bike Boulevard	0.22
Park Dr	4th Ave	Access Drive	Bike Boulevard	0.24
Pollack Ave	Vann Ave	Riverside Dr	Bike Boulevard	1.46
Read St	Franklin St	Greenway	Bike Boulevard	1.02
Riverside Dr	Green River Rd	Weinbach Ave	Bike Boulevard	2.04
Rotherwood Ave	Sweetser Ave	John St	Bike Boulevard	1.72
Broadway Ave	Barker Ave	Tekoppel Ave	Shared Lane Markings	0.55
Weinbach Ave	Pollack Ave	I-69 / Planned Greenway	Shared Lane Markings	0.96
<b>Total</b>				<b>58.45</b>

**Table 6.4: Low Priority Projects**

Street Name	Limit From	Limit To	Facility Type	Length (Miles)
Pigeon Creek - Kentucky Ave Connector	Greenway	Kentucky Ave	Shared Use Path	0.25
Broadway Ave	Tekoppel Ave	Speaker Rd	Sidepath	1.00
Claremont Ave	Tekoppel Ave	Red Bank Rd	Sidepath	0.76
Cross Pointe Blvd	Oak Grove Rd	Eagle Crest Blvd / Martin Ln	Sidepath	1.20
Green River Rd	Fickas Rd	Planned Greenway	Sidepath	0.29
Heckel Rd	Green River Rd	Oak Hill Rd	Sidepath	0.99
Hogue Rd	Rosenberger Ave	Tekoppel Ave	Sidepath	0.50
Kentucky Ave	St George Rd	Pfeiffer Rd	Sidepath	1.13
Lynch Rd	Burkhardt Rd	US HWY 41	Sidepath	3.58
Mesker Park Dr	Summit Dr	Saint Joseph Ave	Sidepath	0.78
Mill Rd	Kentucky Ave	Stringtown Rd	Sidepath	0.84
Newburgh Rd	Lincoln Ave	Covert Ave	Sidepath	2.19

**Table 6.4: Low Priority Projects (Continued)**

Street Name	Limit From	Limit To	Facility Type	Length (Miles)
Oak Grove Rd	Royal Ave	Cross Pointe Blvd	Sidepath	0.87
Olmstead Rd	Burkhardt Rd	Lost Bend Ln	Sidepath	1.28
Ray Becker Pkwy	Claremont Ave	Ohio St	Sidepath	0.52
Red Bank Rd	Pearl Dr	Ogden Ave	Sidepath	1.73
Rosenberger Ave	Lloyd Expy	Hogue Rd	Sidepath	0.27
Royal Ave	Virginia St	Morgan Ave	Sidepath	0.82
Speaker Rd	Burdette Park	Broadway Ave	Sidepath	0.97
St George Rd	Oak Hill Rd	Kentucky Ave	Sidepath	1.95
Stringtown Rd	Springhaven Dr	Buena Vista Rd	Sidepath	1.19
Tekoppel Ave	Broadway Ave	Claremont Ave	Sidepath	0.74
Theater Dr	Shepherd Dr	Green River Rd	Sidepath	0.40
St Joseph Ave	Moutoux Park	Ohio St	Cycle Track	3.22
Tekoppel Ave	Claremont Ave	Hogue Rd	Buffered Bike Lanes	0.74
Claremont Ave	Ray Becker Pkwy	Barker Ave	Standard Bike Lanes	0.25
Green River Rd	Covert Ave	Fickas Rd	Standard Bike Lanes	0.93
Harmony Way	Virginia St	Golfmoor Rd	Standard Bike Lanes	0.62
Oak Hill Rd	Millersburg Rd	Lynch Rd	Standard Bike Lanes	2.53
Franklin St	Tekoppel Ave	Mt Vernon Ave	Bike Boulevard	0.81
Hanover Rd	1st Ave	Winston Rd	Bike Boulevard	0.47
Martin Ln	Newburgh Rd	Sycamore St	Bike Boulevard	1.04
Monroe Ave	Royal Ave	Cullen Ave	Bike Boulevard	0.17
Royal Ave	Somerset Ave	Monroe Ave	Bike Boulevard	0.12
Shepherd Dr	Morgan Ave	Theater Dr	Bike Boulevard	0.37
Somerset Ave	Victoria Green Blvd	Royal Ave	Bike Boulevard	0.06
Springhaven Dr	Winston Rd	Stringtown Rd	Bike Boulevard	0.15
Victoria Green Blvd	Somerset Ave	Covert Ave	Bike Boulevard	0.14
Virginia St	Harmony Way	Barker Ave	Bike Boulevard	0.18
Winston Rd	Hanover Rd	Springhaven Rd	Bike Boulevard	0.13
Barker Ave	Virginia St	Franklin St	Shared Lane Markings	0.08
<b>Total</b>				<b>36.29</b>



## PRIORITY PROJECTS

A compelling project description can play a critical role in building project support and securing limited funding from highly competitive grant programs. In order to expedite the implementation process, project cut sheets have been developed for ten high priority projects. These priority project cut sheets include a narrative description of the project corridor, issues and/or opportunities the project will address, and a graphic, map or visual to further illustrate the recommended improvement or general project location. Each cut sheet can be used to initiate an application for funding and provide talking points for discussions with local residents and stakeholders.

Project cut sheets have been developed for the following ten high priority projects. The projects are listed in alphabetical order, not order of importance.

- Barker Ave Bike Lanes
- Boeke Rd Bikeway
- Franklin St Bikeway
- Franklin St Bike Boulevard
- Fulton Ave Bikeway and Pedestrian Crossing Improvements
- Green River Rd Sidepath, Sidewalk and Pedestrian Crossing Improvements
- Mary St / Martin Luther King Jr Blvd / 8th St Cycle Track
- Walnut St Cycle Track
- Washington Avenue Bike Lanes
- Weinbach Ave Bike Lanes

### A Picture Is Worth a Thousand Words

Photo simulations and artistic renderings of proposed bicycle and pedestrian improvements help residents, business owners, and other stakeholders visualize the impact that bicycle and pedestrian improvements can have on the built environment. Graphics developed as part of the North Main Complete Streets project envision a multi-modal corridor that supports all modes of transportation and creates public spaces that welcome and encourage walking, bicycling, and social interaction. With images like these, the City of Evansville can inform and inspire the community to stand behind transportation projects that create healthier, more active places to live, work and play.



*Figure 6.2: The North Main Complete Streets used compelling visual aids to educate community residents about proposed Complete Streets improvements like cycle tracks, crosswalk improvements, and pedestrian-scale lighting (source: Rundell Ernstberger Associates and Hafer Associates).*

## Barker Ave Bike Lanes

### Corridor Description

While west Evansville residents have access to recreational opportunities for walking and bicycling in Howell Park and the nearby USI-Burdette Trail, there are few trails and on-street bikeways that serve transportation-oriented trips and provide access to local destinations. Barker Ave is one such on-street bikeway and includes shared lane markings and wayfinding signage. While these elements help to guide bicyclists to nearby destinations and raise awareness for bicyclists using the roadway, the lack of a dedicated facility, separate from motor vehicle traffic, limits bicycle usage along the corridor.

### Project Recommendations

The Plan recommends the addition of standard bike lanes from Franklin St south to Broadway Ave. With excess roadway width available through the majority of the corridor, minimal changes to the roadway configuration will be necessary. Further study will be necessary to determine if parking removal is both necessary and feasible. Once complete, area residents will benefit from a safer, more comfortable bicycle facility connecting nearby residential neighborhoods to Howell Park, Reitz High School, and commercial destinations along Barker Ave and nearby Franklin St.

### Project Details

**Facility Type:** Standard Bicycle Lanes

**Implementation Actions:** Remove parking (where applicable) and add Striping

**Limits:** Franklin St to Broadway Ave

**Length:** 1.19 miles

**Estimated Cost Range:** \$41,000 - \$83,000



Figure 6.3: A bicyclist rides against traffic in the shared travel lane on Barker Ave.

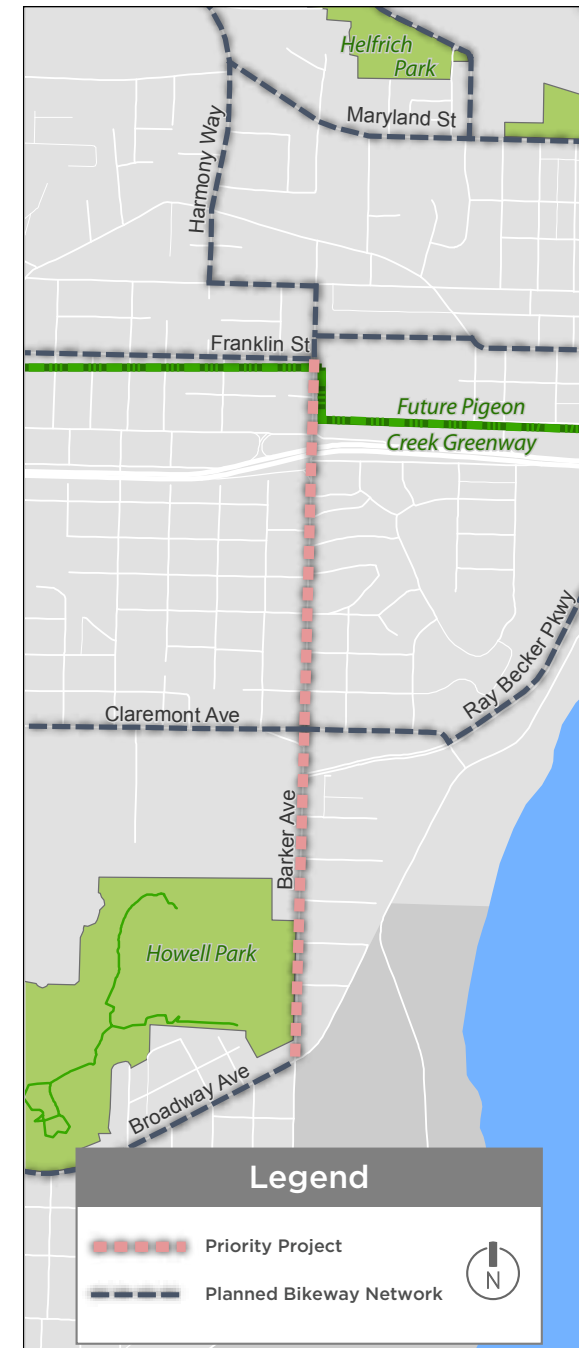


Figure 6.4: Project extent and context.

## Boeke Rd Bikeway

### Corridor Description

Boeke Rd is a north-south corridor stretching from Morgan Avenue to Riverside Drive. The corridor is almost entirely residential in nature and serves more than a half dozen neighborhoods, including Vogel-Spring Park, GBC, South Dexter, Ross Center, Lorraine Park, and Eastview. Other popular destinations along the corridor include Wesselman Park, Swonder Ice Area, and Lorraine Park. Nine planned bikeways intersect Boeke Road, including high priority projects like the Franklin St bike boulevard, Washington Avenue bike lanes, and the Walnut St cycle track.

### Project Recommendations

While roadway characteristics like curb-to-curb width, speed limit, and number of travel lanes vary considerably along Boeke Rd, the conditions are still optimal for the development of a dedicated bicycle facility north of . The Plan recommends the addition of standard bike lanes for the length of the corridor, with a 4-lane to 3-lane road diet from Walnut St to Morgan Ave. A supplemental traffic study should be conducted to determine the impacts of a road diet, taking into account bicycle, pedestrian and motor vehicle levels of service, traffic calming effects, and safety considerations.

### Project Details

**Facility Type:** Standard Bicycle Lanes / Bike Boulevard

**Implementation Actions:** Add markings, signage, and traffic calming from Riverside Dr to Covert Ave; add Striping from Covert Ave to Walnut St; 4-lane to 3-lane road diet and restripe from Walnut St to Morgan Ave

**Limits:** Riverside Dr to Morgan Ave

**Length:** 3.26 miles

**Estimated Cost Range:** \$181,000 - \$377,000



Figure 6.5: The current 4-lane section of Boeke Road north of Walnut St experiences little bicycle traffic.

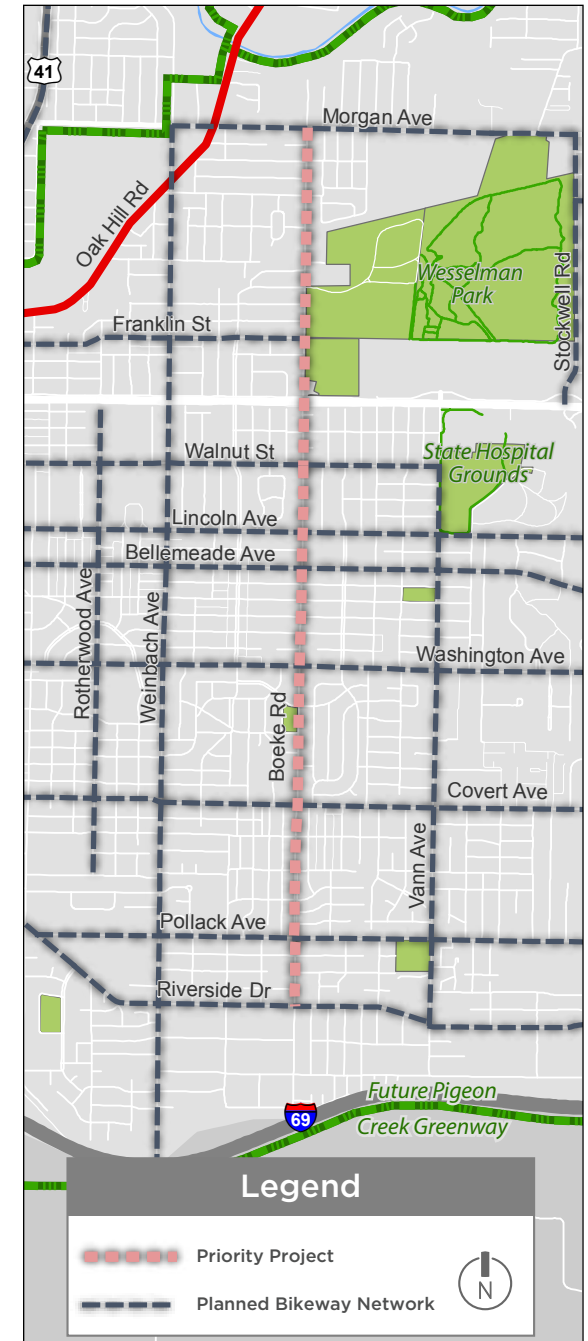


Figure 6.6: Project extent and context.



# Franklin Street Bikeway

## Corridor Description

Franklin St parallels Lloyd Expressway and provides a continuous east-west corridor from Mt. Vernon Ave east to US Highway 41. The character of the street varies considerably as it travels through residential neighborhoods, historic commercial districts, and light industrial areas. The development of a bikeway on Franklin St would provide nearby residents and businesses with direct access to the Pigeon Creek Greenway and other recreation, retail and employment opportunities. Neighborhoods served by Franklin St include Lamasco, CHAIN, STAR, Helfrich, Jacobsville, and Business 41. Connections to future bikeways, particularly the North Main Street cycle track and the Mary St cycle track, will increase connectivity to the north and south.

## Project Recommendations

Because the number of travel lanes, curb-to-curb width, presence of parking, and other roadway characteristics vary throughout the corridor, the Plan recommends a combination of shared lane markings, cycle tracks and buffered bike lanes to provide the appropriate bikeway type for Franklin Street's varied roadway characteristics and cross sections. Each facility type is listed in the implementation actions to the right. When complete, the Franklin Street Bikeway will provide a safe, comfortable, and convenient facility through some of Evansville's most unique and diverse neighborhoods and commercial districts.



Figure 6.7: Current conditions on Franklin St at the intersection of 10th Ave.

## Project Details

**Facility Type:** Cycle Track / Buffered Bike Lanes / Shared Lane Markings

**Implementation Actions:** St. Joseph to 9th Ave - 4-lane to 2-lane road diet, add striping and bollards; 9th Ave to 1st Ave - Lane diet and restripe; Mt Vernon Ave to St. Joseph Ave - Install shared lane markings and signage; 1st Ave to Fares Ave - Install shared lane markings and signage.

**Limits:** Fares Ave to Mt. Vernon Ave

**Length:** 3.34 miles

**Estimated Cost Range:** \$149,000 - \$299,000

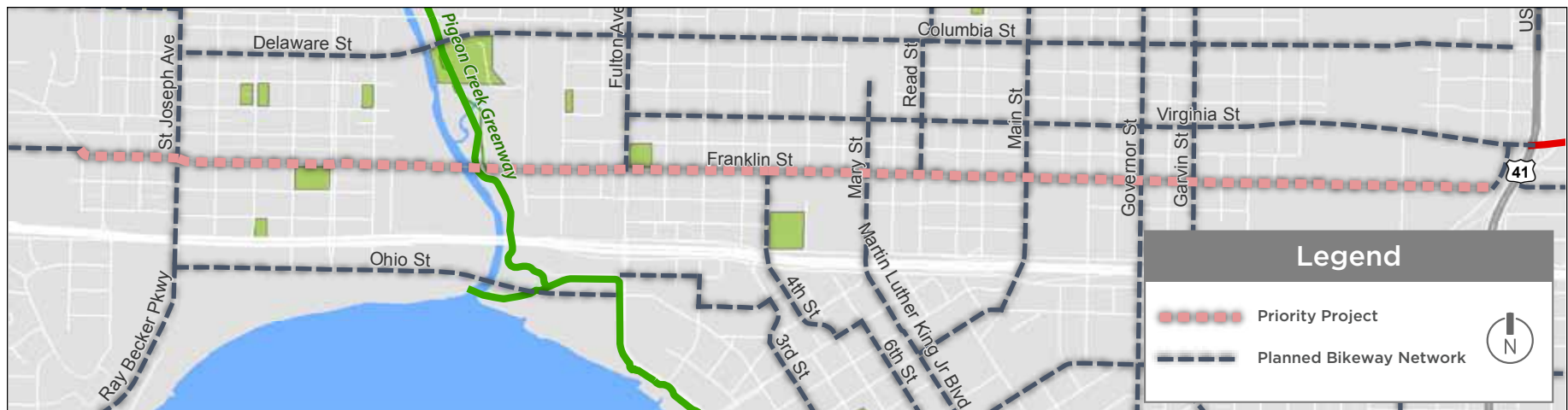


Figure 6.8: Project extent and context.

## Franklin Street Bike Boulevard

### Corridor Description

At 1.23 miles in length, the segment of Franklin St between US Highway 41 and Boeke Rd is a short yet vital corridor that connects Wesselman Park Nature Center and nearby recreational destinations to the future Hi-Rail Corridor. This future connection will provide safe, comfortable, and low-stress bikeway connection to the City's growing Pigeon Creek Greenway, increasing access to recreation and active transportation opportunities for residents in Vogel-Spring Park and nearby neighborhoods.

### Project Recommendations

Given the low volumes of motor vehicle traffic and residential character of the corridor, the Plan recommends a bicycle boulevard treatment for East Franklin St between US Highway 41 and Boeke Rd. While the corridor is already marked with shared lane markings and standard wayfinding signage, the addition of traffic calming elements, including lowering the speed limit from 30 mph to 25 or 20 mph, will support a safer, more comfortable bicycling experience, not just for recreational riders, but for families, children, and less experienced bicyclists as well.



Figure 6.9: The intersection of Franklin St and Weinbach Ave may require additional improvements to support east-west movements along Franklin St.

### Project Details

**Facility Type:** Bike Boulevard

**Implementation Actions:** Add markings, signage, and traffic calming

**Limits:** US Hwy 41 / Planned Trail to Boeke Rd

**Length:** 1.23 miles

**Estimated Cost Range:** \$80,000 - \$183,000

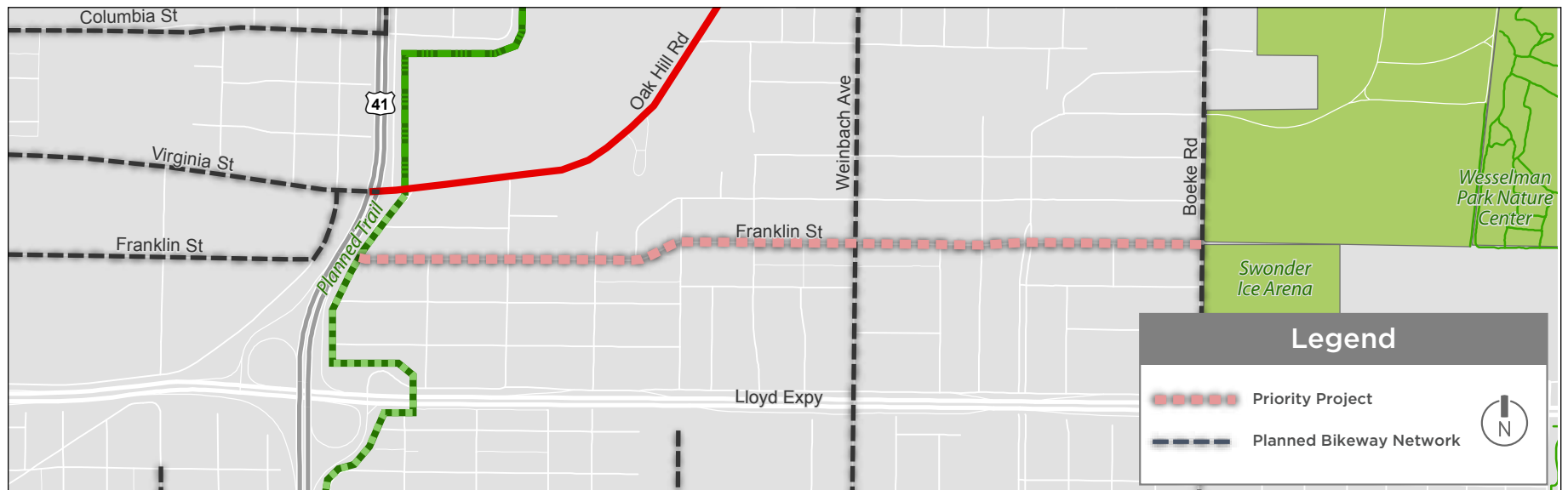


Figure 6.10: Project extent and context.

# Fulton Ave Bikeway and Pedestrian Crossing Improvements

## Corridor Description

Fulton Ave is the primary north-south corridor in the CHAIN and STAR neighborhoods. Fulton Ave is lined with neighborhood-oriented retail and services, light industrial and warehouses, and civic destinations, including Cedar Hall Community School and Pigeon Creek Greenway in the north, and Fulton Park in the south. Fulton Ave also serves as a through corridor connecting residents in north Evansville to civic, cultural, and employment destinations Downtown. Although Fulton is four lanes wide, it carries less than 10,000 motor vehicles per day, making it a prime candidate for a road diet.

## Project Recommendations

The Plan recommends buffered bike lanes from Franklin St to Columbia St with a 5-lane to 3-lane road diet, and a cycle track from Columbia St north to Diamond Ave with a 4-lane to 3-lane road diet. This roadway reconfiguration provides not only a physically separated bikeway to encourage and support bicycle transportation, but is also intended to reduce rear end crashes, minimize potential conflict points, and improve pedestrian safety. The Plan also recommends three enhanced pedestrian crossings: a rectangular rapid flashing beacon and pedestrian crossing at Florida Street, crosswalk improvements at Columbia Street, and crosswalk and signal improvements at Franklin Street. Additional analysis will be needed to determine the potential and feasibility of a road diet along Fulton Ave.

## Project Details

**Facility Type:** Cycle track, buffered bike lanes, and pedestrian crossing improvements

**Implementation Actions:** 5-lane to 3-lane road diet, add striping between Franklin St and Columbia St; 4-lane to 3-lane road diet, add striping and bollards between Columbia St and Diamond Ave; add signal improvements and crosswalk markings

**Limits:** Franklin St to Diamond Ave

**Length:** 1.69 miles

**Estimated Cost Range:** \$560,000 - \$795,000 (includes \$325,000 for pedestrian crossing improvements)



Figure 6.11: Excess capacity, minimal non-peak traffic, and wide rights-of-way on Fulton Ave are positive traits that allow for creative reuse of existing roadway space.

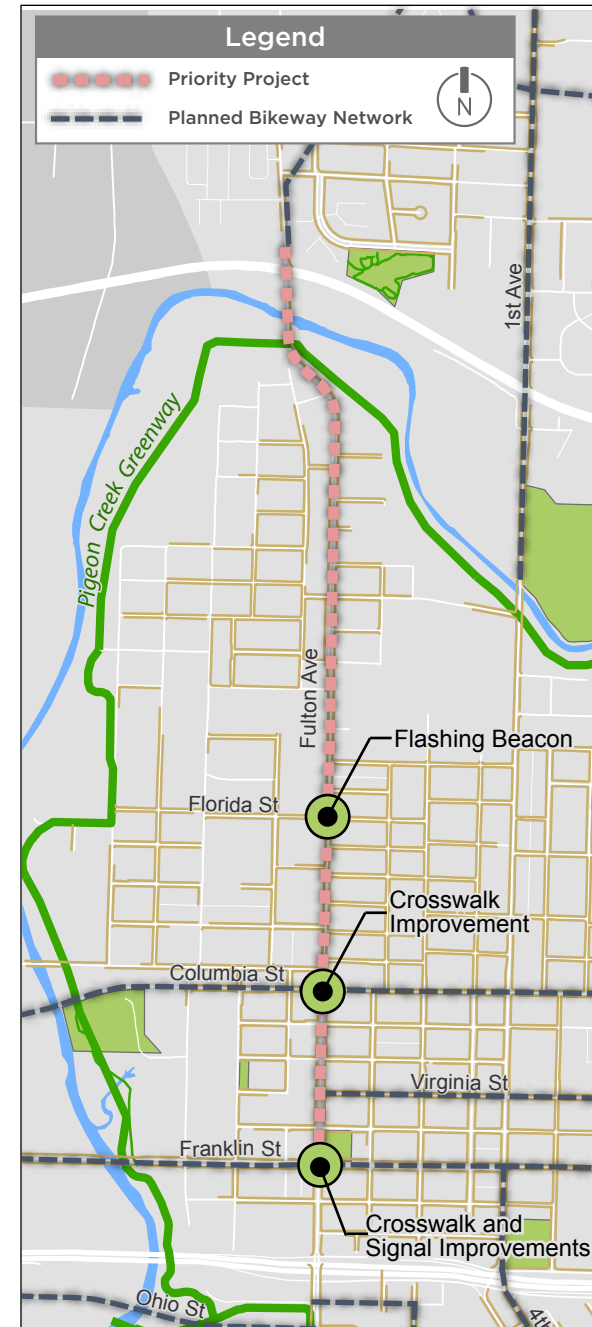


Figure 6.12: Project extent and context.



# Green River Road Sidepath and Sidewalk

## Corridor Description

Green River Rd functions as a major north-south arterial in eastern Evansville. With limited neighborhood connectivity via residential streets, people traveling by bicycle or on foot must use roads like Green River Rd and Morgan Ave that are characterized by high traffic speeds, heavy traffic volumes, and few, if any, bicycle and pedestrian facilities. Green River Rd provides access for residents of Timber Park and surrounding neighborhoods to the Eastland Mall, Eastland Shoppes, Wesselman Park Nature Center, and other destinations in east Evansville.

## Project Recommendations

The Plan recommends a sidepath and a sidewalk along Green River Road from Lloyd Expy to Theater Dr to serve both bicycle and pedestrian traffic. Crosswalk and signal improvements are recommended at five key intersections along the corridor. These important bicycle and pedestrian improvements will allow for safer, easier, and more convenient non-motorized travel to some of the City’s most significant retail destinations. Transit users will also benefit from increased access to transit stops along the corridor, many of which are located in grassy areas and can be difficult for pedestrians to access, especially individuals with limited mobility.

## Project Details

**Facility Type:** Sidepath, sidewalk and pedestrian crossing improvements

**Implementation Actions:** Construct path and sidewalk, add signal improvements and crosswalk markings.

**Limits:** Theater Dr to Lloyd Expy

**Length:** 1.28 miles

**Estimated Cost Range:** \$1,818,000 - \$3,076,000 (includes \$500,000 for pedestrian crossing improvements)



Figure 6.13: A lack of dedicated space for bicyclists and pedestrians creates unpredictable and unsafe behaviors.

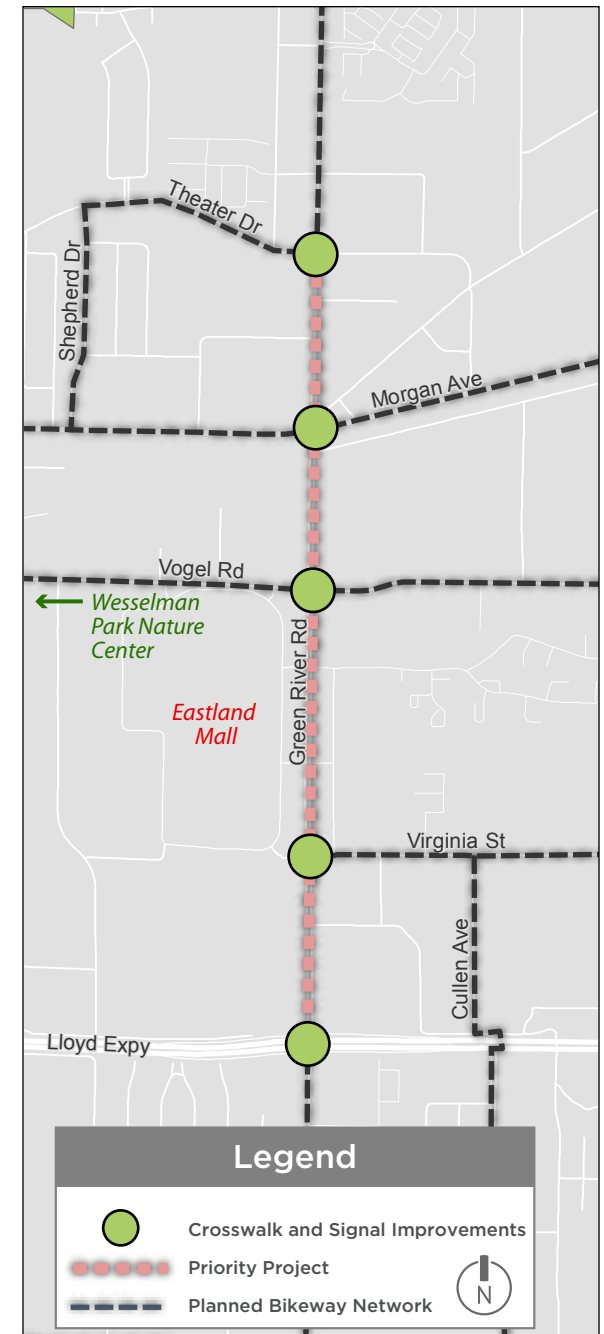


Figure 6.14: Project extent and context.

# Mary St / Martin Luther King Jr Blvd / 8th St Cycle Track

## Corridor Description

Martin Luther King Jr Blvd runs north and south through Downtown Evansville and provides access to a number of key destinations, including the Evansville Civic Center Complex, the Ford Center, Old National Events Plaza, and the Central Library. When coupled with Mary St to the north and 8th St to the south, Martin Luther King Jr Blvd extends nearly the entire length of Downtown and reaches into the Goosetown, Riverside, and Blackford's Grove neighborhoods to the south and Jacobsville to the north. Also at the north end of the proposed bicycle route is Deaconess Hospital, which employs more than 4,200 hundred individuals and is one of the largest hospitals in the region. These employees, along with the thousands of employees in Downtown Evansville, would benefit greatly from a dedicated bikeway on Mary St and Martin Luther King Jr Blvd as part of a larger citywide network of bicycle facilities.

## Project Recommendations

While shared lane markings and bike route signage are already present on the majority of Martin Luther King Jr. Blvd, the excess capacity, ample right of way, and low traffic volumes throughout the corridor provide ideal conditions for the development of a protected bikeway. The Plan recommends a 4-lane to 2-lane road diet on Martin Luther King Jr Blvd, and the installation of a cycle track on Mary St and Martin Luther King Jr Blvd, and standard bike lanes along 8th Avenue. This will create a dedicated facility connecting residents, visitors, and employees to civic, cultural, and employment destinations in the heart of Evansville.

## Project Details

**Facility Type:** Cycle Track / Standard Bike Lane

**Implementation Actions:** 4-lane to 2-lane road diet, add signage, markings and bollards

**Limits:** Virginia St (Deaconess Hospital) to Washington Ave

**Length:** 1.54 miles

**Estimated Cost Range:** \$192,000 - \$385,000

Figure 6.15: Cycle track concept for Martin Luther King Jr Blvd.

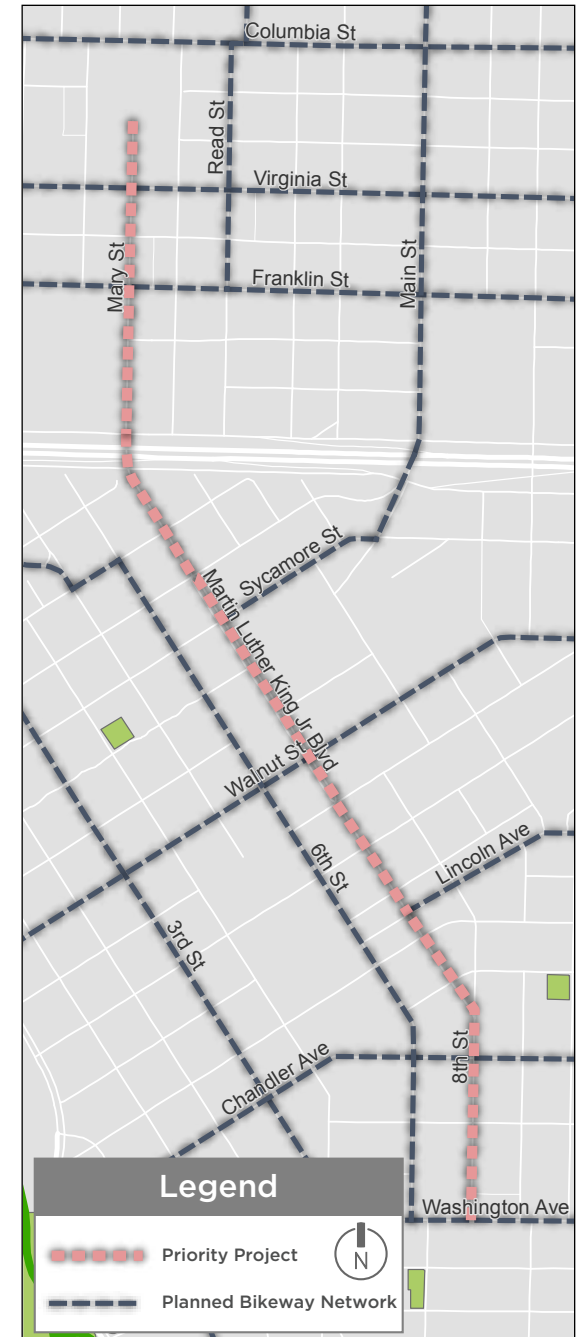
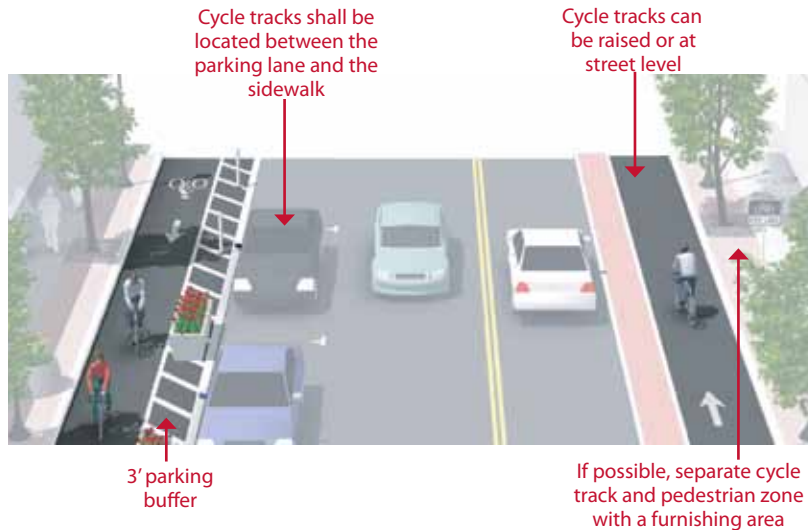


Figure 6.16: Project extent and context.

# Walnut Street Cycle Track

## Corridor Description

Walnut Street provides an ideal bicycle corridor between the Riverfront Esplanade and State Hospital Grounds Park, connecting numerous residential neighborhoods and popular destinations in between. With excess roadway capacity and relatively low traffic volumes, the corridor is a strong candidate for the creation of a protected on-street bicycle facility supporting recreation and transportation-oriented trips. Neighborhoods served by this corridor include Downtown, Ballard, and the South Lincoln Park Drive Area. Popular destinations along the corridor include the Pigeon Creek Greenway, Central Library, Ford Center, Old National Events Plaza, the future IU School of Medicine - Evansville campus, Reitz Memorial High School, University of Evansville, and State Hospital Grounds Park. The Walnut Street Cycle Track connects to ten recommended bicycle facilities between Riverside Drive and Vann Avenue, as shown in the corridor map below.

## Project Recommendations

The roadway itself features four travel lanes through downtown, and two travel lanes and two parking lanes east of US Highway 41. With estimated traffic volumes of less than 8,000 vehicles per day, Walnut Street has excess capacity and could support a road diet, converting travel lanes to protected bicycle facilities. The Plan recommends a 4-lane to 2-lane road diet and a cycle track. This facility type will provide



Figure 6.17: Cycle track concept for Walnut Street.

bicyclists of all ages and abilities with a physically separated bikeway that offers users a safe and comfortable bicycling experience.

## Project Details

**Facility Type:** Cycle track

**Implementation Actions:** 4-lane to 2-lane road diet, add striping and bollards

**Limits:** Riverside Drive to Vann Avenue

**Length:** 3.58 miles

**Estimated Cost Range:** \$566,000 - \$1,133,000

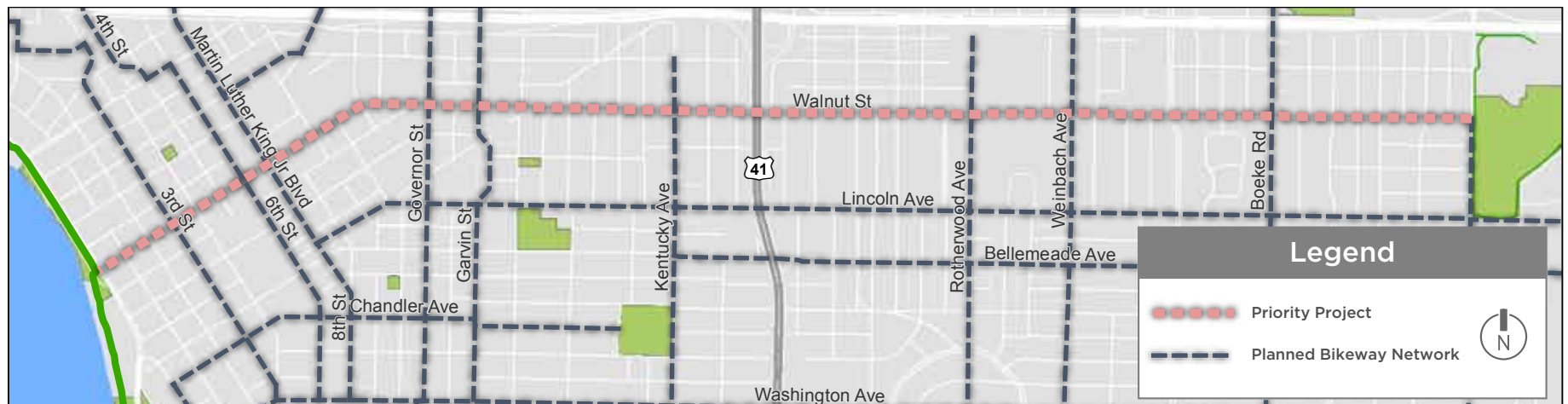


Figure 6.18: Project extent and context.



# Washington Avenue Bike Lanes

## Corridor Description

At over 5 miles in length, Washington Avenue is a significant east-west corridor with great potential to serve bicycle transportation between Downtown Evansville and neighborhoods to the east. With additional connections to the east and west, Washington Avenue can also serve as a primary route between the Pigeon Creek Greenway and Angel Mounds Historic Site, a popular destination for hiking and jogging. Neighborhoods served by the Washington Avenue bike lanes include Riverside, Goosetown and Haynie's Corner, Tepe Park, Bellemeade/ Bayard Park, Akin Park, Greater Lincolnshire, Lorraine Park, University South, Ross Center, South Dexter, and Cullen / Hoosier.

## Project Recommendations

Washington Avenue functions as a major east-west thoroughfare for motor vehicles and pedestrians, yet currently carries minimal bicycle traffic. Given the residential population along the corridor and the connection to Downtown and the Pigeon Creek Greenway, Washington Avenue has tremendous potential to be a key bikeway in Evansville. The Plan recommends a 4-lane to 3-lane road diet conversion that includes standard bike lanes for the entire length of the corridor from 2nd St to Newburgh Rd. Further study will be necessary to determine if removal time-restricted parking west of US Highway 41 is both necessary and feasible.



Figure 6.19: Intersections at major arterials, like US Highway 41, will require additional improvements to support safe bicycle travel.

## Project Details

**Facility Type:** Standard bike lanes

**Implementation Actions:** 4-lane to 3-lane road diet and restripe

**Limits:** 2nd St to Newburgh Rd

**Length:** 5.36 miles

**Estimated Cost Range:** \$307,000 - \$614,000

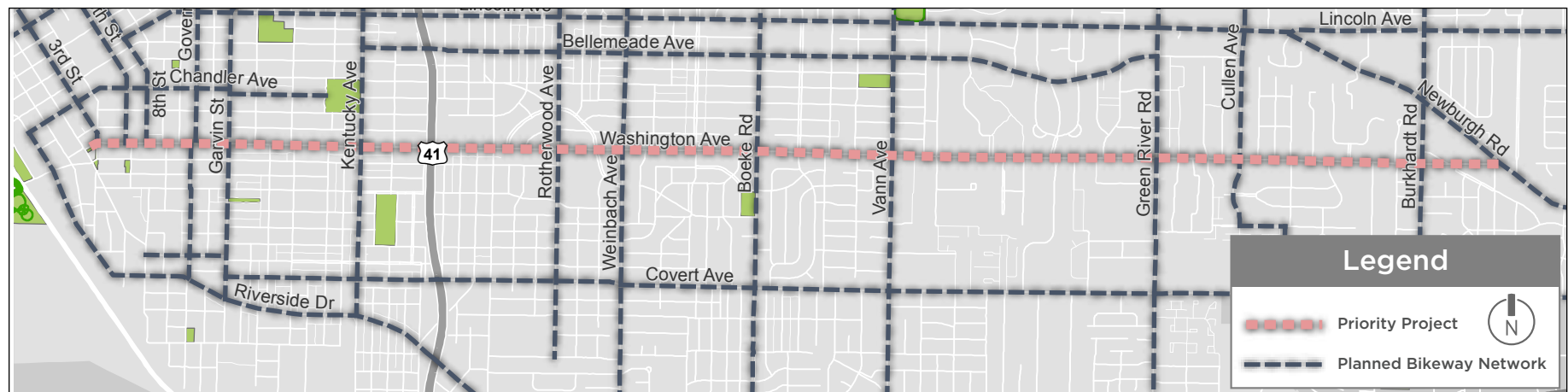


Figure 6.20: Project extent and context.

## Weinbach Ave Bike Lanes

### Corridor Description

Weinbach Ave is a key north-south arterial roadway east of US Highway 41. Despite its general residential character and lack of significant trip generators, Weinbach Ave still carries approximately 10,000 motor vehicles per day. However, with two travel lanes in each direction, Weinbach Ave has excess capacity, which is especially evident during non-peak hours. A 4-lane to 3-lane road diet conversion, bike lanes, and sidewalk improvements from Walnut St to Pollack Ave are programmed in the 2016-2019 Evansville MPO Transportation Improvement Program and scheduled for construction in 2018.

### Project Recommendations

The Plan recommends an extension of the 4-lane to 3-lane road diet conversion and accompanying bike lanes from the northern terminus of the project at Walnut St north to Morgan Ave. This project would provide a direct connection from neighborhoods south of Lloyd Expressway north to the existing bike lanes on Oak Hill Rd, and to the planned Hi-Rail Corridor and Pigeon Creek Greenway.

### Project Details

**Facility Type:** Standard bike lanes

**Implementation Actions:** 4-lane to 3-lane road diet and restripe

**Limits:** Morgan Ave to Walnut St

**Length:** 1.26 miles

**Estimated Cost Range:** \$72,000 - \$145,000 (does not include pedestrian improvements)



Figure 6.21: Weinbach travels alongside the University of Evansville campus. Students, faculty and employees will benefit significantly from an increase in bicycle infrastructure around campus.



Figure 6.22: Project extent and context.

# BIKEWAY IMPLEMENTATION ACTIONS

While each recommended bikeway project will require additional consideration of specific roadway characteristics, adjacent land uses, and other site-specific attributes, the common implementation actions described below provide a basic understanding of the physical changes necessary to create complete streets that accommodate bicycle transportation.

## Lane Diets

Many bikeway projects will require the removal and/or addition of lane striping to incorporate bike lanes and cycle tracks. Lane diets maintain the existing lane configuration, but reduce travel and/or parking lane widths in order to provide additional space for dedicated on-street bicycle facilities like bike lanes and cycle tracks. Restriping projects like lane diets are most effective when combined with roadway resurfacing, as striping removal through grinding, waterblasting, or blacking out can leave traces of old lane lines and cause confusion for motorists.



Figure 6.23: Lane restriping is an essential component of any bike lane or cycle track project.

## Parking Removal

Some bike lane and cycle track projects along roadways with excess parking capacity can utilize an entire parking lane (or the equivalent width of a parking lane) to provide a dedicated bicycle facility. In some residential neighborhoods and high-density areas, community engagement and an impact analysis of parking lane removal may be required to build support for the project and understand potential adverse effects.

## Road Diets

Road diets are common treatments used for bikeway development and have significant benefits beyond bicycle transportation alone, including motor vehicle crash reduction, speed reduction, and increased pedestrian safety. These projects reduce the number or width of travel lanes to provide additional spaces for bicycle facilities and/or traffic calming elements such as raised medians, curb extensions, and even wider sidewalks and pedestrian zones. There are more than 26 miles of road diet projects recommended in the Plan. These projects are listed below in Table 6.5 and shown in the Map 6.2 on the following page. Each road diet project will require additional study to analyze traffic impacts versus the desired outcomes and potential benefits. Engaging neighborhood residents and adjacent business owners will also increase project support and understanding of specific issues and desired outcomes.

Table 6.5: Recommended Road Diet Projects

Street Name	Limit From	Limit To	Length (Miles)
Boeke Rd	Washington Ave	Morgan Ave	2.00
Covert Ave	I-69	US HWY 41	5.25
Franklin St	St Joseph Ave	9th Ave	0.46
Fulton Ave	Diamond Ave	Columbia St	1.69
Green River Rd	Covert Ave	Fickas Rd	0.93
Lincoln Ave	Martin Luther King Jr Blvd	Rotherwood Ave	1.67
Martin Luther King Jr Blvd	8th St	Division St	0.72
Mill Rd	1st Ave	Kratzville Rd	0.61
Vann Ave	Washington Ave	Walnut St	0.75
Walnut St	Vann Ave	Riverside Dr	3.58
Washington Ave	Newburgh Rd	2nd St	5.36
Weinbach Ave	Morgan Ave	Pollack Ave	3.02
<b>Total</b>			<b>26.03</b>



**Legend**

**Plan Recommendations**

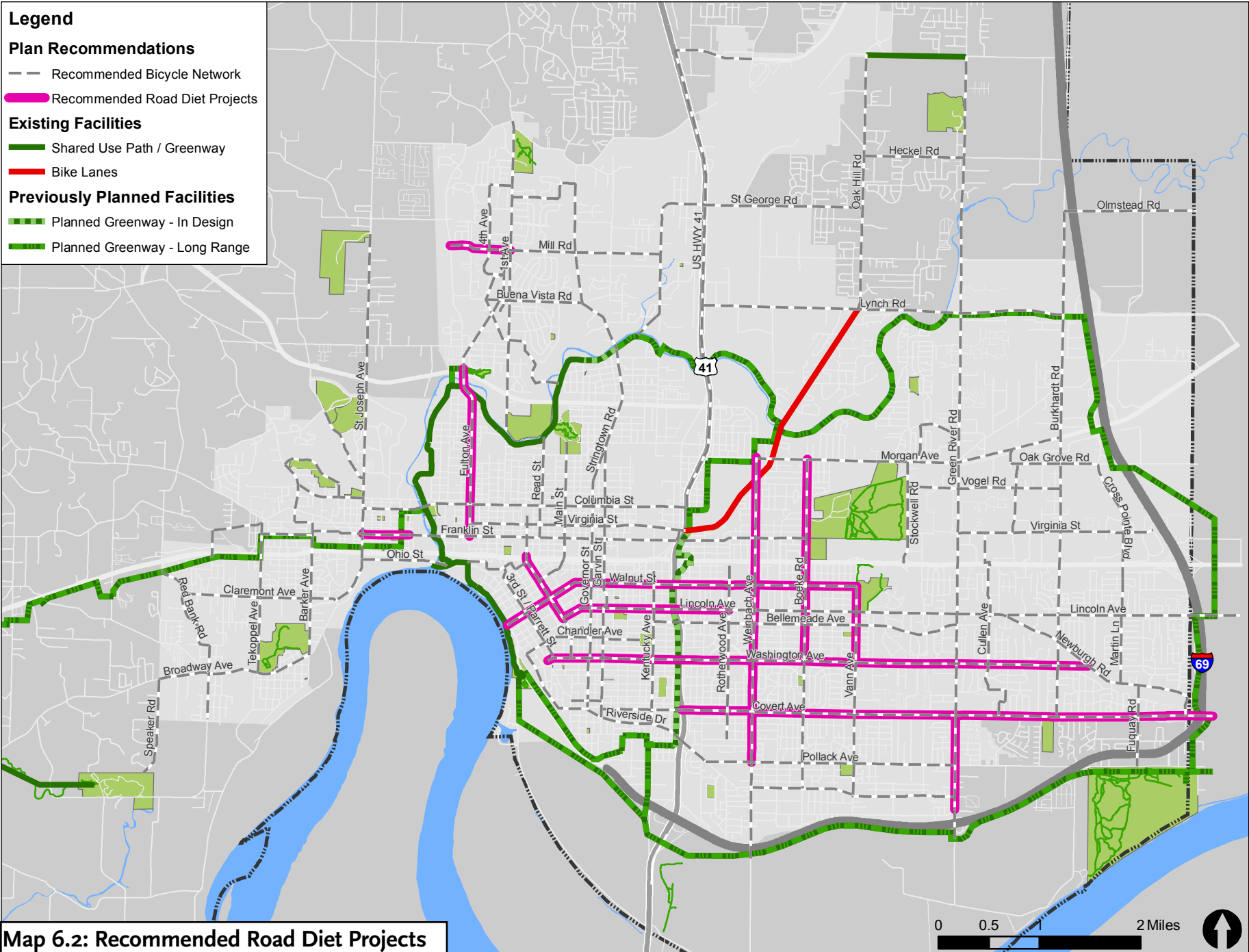
- Recommended Bicycle Network
- █ Recommended Road Diet Projects

**Existing Facilities**

- █ Shared Use Path / Greenway
- █ Bike Lanes

**Previously Planned Facilities**

- █ Planned Greenway - In Design
- █ Planned Greenway - Long Range



**Map 6.2: Recommended Road Diet Projects**

# COST ESTIMATES

Cost estimates are an essential planning tool used for programming capital improvements and drafting applications for external funding sources. Cost estimates were developed for each project based on initial planning-level examples of similar constructed projects and industry averages. These costs were then refined with the assistance of local staff based on local experience. All facility designs and associated cost estimates proposed in this plan are conceptual in nature and should undergo final engineering design and review through coordination between all concerned

departments in order to arrive at detailed project costs. These costs are provided in 2015 dollars and do not include costs for right-of-way acquisition or project design, which can include planning, public process, facility design, and other background work required to implement the project. These additional costs can generally be estimated at 25% of the facility construction cost.

A project cost range (rounded to the nearest thousand dollars) for each type of linear bicycle and pedestrian facility is listed in Table 6.6 below. A complete list of cost estimates for each individual project can be found in the appendix of the Plan.

**Table 6.6: Total Estimated Cost by Facility Type**

Facility Type	Unit Price (Per Mile)	Recommended Miles	Total Cost - Low	Total Cost - High	Cost Description
Paved Shared Use Path	\$934,000 - \$1,869,000	2.7	\$2,540,000	\$5,081,000	The cost for paved multi-use trails can vary significantly based on path width, surface type (asphalt, concrete, pervious asphalt, pervious concrete, etc.), buffer, bridge structures, soil conditions, earthwork, grading, base, retaining walls, utilities, signs, and supporting amenities like benches, lighting, and landscaping.
Sidepath	\$934,000 - \$1,869,000	53.1	\$46,538,000	\$93,076,000	The most influential factors affecting the cost of sidepath construction are the presence of existing sidewalks, width and number of curb cut, intersection crossings. When programmed and constructed as part of a larger capital improvement, like a new roadway or roadway reconstruction, the costs will be lower than if the sidepath were to be constructed independently.
Cycle Track	\$158,000 - \$317,000	17.0	\$2,696,000	\$5,392,000	Cycle track costs include pavement markings and striping, flex post bollards, signs, minimal traffic calming treatments, and colored pavement. Price ranges reflect the price differences in material type and quality.
Buffered Bicycle Lanes	\$56,000 - \$113,000	8.5	\$481,000	\$961,000	Buffered bicycle lane cost estimates include pavement markings, striping and signage. Price ranges reflect the differences in material type and quality, particularly for pavement markings and striping.
Standard Bicycle Lanes	\$35,000 - \$70,000	44.6	\$3,478,000	\$6,956,000	Standard bicycle lane cost estimates include pavement markings, striping and signage. Price ranges reflect the differences in material type and quality, particularly for pavement markings and striping.
Bicycle Boulevard	\$65,000 - \$149,000	18.4	\$1,191,000	\$2,741,000	Cost estimates for bicycle boulevard projects include signage, pavement markings (shared lane markings), and intersection treatments to improve bicycle and pedestrian safety and connectivity. Specific traffic calming features will vary, but may include mini traffic circles, median refuge island, traffic diverter, or curb extensions.
Shared Lane Markings	\$12,000 - \$24,000	3.5	\$43,000	\$86,000	Cost estimates for shared lane marking projects include signage and pavement markings.
Sidewalk	\$100,000 - \$150,000	21.6	\$2,161,000	\$3,242,000	Cost estimates for sidewalk facilities consist of the construction of a 5'-wide concrete sidewalk
<b>Total Project Costs</b>		<b>169.4</b>	<b>\$59,271,000</b>	<b>\$117,534,000</b>	

# FUNDING SOURCES AND MECHANISMS

Funding bicycle and pedestrian capital projects and supporting programs will require a diverse and creative approach. While the funding landscape at the federal level remains uncertain, the City of Evansville must still pursue federal transportation dollars through the current extension of the transportation bill, yet be flexible and spontaneous enough to capitalize on partnerships, in-kind matches, and other non-traditional opportunities to implement the Plan. The following section of this chapter provides an overview of funding sources that should be utilized.

## Federal Funding Sources

The federal government has numerous programs and funding mechanisms to support bicycle and pedestrian projects, most of which are administered by the US Department of Transportation in cooperation with state and regional entities. In order to clearly convey the roles and responsibilities of all agencies in the administration and spending of federal transportation funds, the Indiana Department of Transportation drafted and made available to local agencies the *Planning Roles, Responsibilities, and Cooperative Operation Manual* (2014). This manual is an invaluable resource for project development and procedural compliance.

### MAP-21

The Federal Highway Administration directs the current surface transportation funding and authorization bill, Moving Ahead for Progress in the 21st Century, commonly referred to as MAP-21. Many of the funding programs from the previous transportation bill, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), have been consolidated and reorganized in a manner that allows for greater discretion for state and local entities. The bill has been reauthorized several times. The Evansville MPO is responsible for establishing application procedures, reviewing applications, and awarding and administering MAP-21 funding in Vanderburgh and Warrick Counties in Indiana, and Henderson County in Kentucky. The following MAP-21 programs consider bicycle and pedestrian projects an eligible activity for which funding may be allocated.

#### Transportation Alternatives Program (TAP)

MAP-21 divides TAP funding between statewide and local agencies for allocation to transportation projects. The total amount of funding allocated to TAP in 2013 within Indiana was 20% less than 2012 funding for Transportation Enhancements, Recreational Trails, and SRTS funding. Indiana's 2013 level of funding was \$22.1 million.

#### Congestion Mitigation and Air Quality Improvement (CMAQ)

CMAQ funds transportation projects to reduce ozone and carbon monoxide pollution and meet national ambient area air quality standards (NAAQS) in Clean Air Act non-attainment areas. The construction of pedestrian and bicycle facilities using CMAQ funding must explicitly provide a transportation function. CMAQ can provide funds for projects that bring sidewalks into compliance with the Americans with Disabilities Act (ADA). Non-construction projects such as printed materials related to safe walking are eligible for CMAQ funds as well. These projects must be geared towards walking primarily for transportation rather than recreation and must be included in a plan developed by the State and each Metropolitan Planning Organization.

#### Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program (HSIP) is intended to achieve significant reduction in traffic fatalities and serious injuries on all public roads by funding projects, strategies and activities consistent with a state's Strategic Highway Safety Plan (SHSP).

#### Surface Transportation Program (STP)

The Surface Transportation Program (STP) provides funding that may be used by States and localities for projects to preserve and improve the conditions on any Federal-aid highway, bridge and tunnel projects, public road projects, pedestrian and bicycle infrastructure, and transit capital projects. Bicycle and pedestrian infrastructure projects include ADA sidewalk modification, recreational trails, bicycle transportation, on- and off-road trail facilities for non-motorized transportation, and infrastructure projects and systems that will provide safe routes for non-drivers, including children, older adults and individuals with disabilities to access daily needs.

#### Section 402 State and Community Highway Safety Grant Program

Section 402 funds can be used to develop education, enforcement and research programs designed to reduce traffic crashes, deaths, severity of crashes, and property damage. Eligible program areas include reducing impaired driving, reducing speeding, encouraging the use of occupant protection, improving motorcycle safety, and improving bicycle and pedestrian safety. Examples of bicycle and pedestrian safety programs funded by Section 402 are comprehensive school-based pedestrian and bike safety education programs, helmet distribution programs, pedestrian safety programs for older adults, and general community information and awareness programs.



## ***TIGER Discretionary Grants Program***

The Department of Transportation's Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grants Program was created as part of the American Recovery and Reinvestment Act of 2009 with the purpose of funding road, rail, transit and port projects that achieve critical national objectives, including livability, economic competitiveness, environmental sustainability, and safety. Of the 52 projects awarded funding in 2013, fifteen of the projects explicitly incorporate bicycle and/or pedestrian facilities as either a key component of the project or the sole component of and singular purpose for the project. These diverse projects include a shared-use path in Missoula County, Montana, the Southwest Atlanta Beltline Corridor Trail in Atlanta, Georgia, the Regional Pedestrian System in Foley, Alabama, and the Lee County Complete Streets Initiative in Lee County, Florida. 2013 awards ranged from \$1.4 million to \$20 million.

## ***Land and Water Conservation Fund (LWCF)***

The goal of the Land and Water Conservation Fund is the creation and maintenance of high quality recreation resources through the acquisition and development of public outdoor recreation areas and facilities. The program operates on a reimbursing basis. The local sponsor matches 50% of the project cost prior to applying for the grant. After the project is approved, the sponsoring park and recreation board receives a reimbursement of 50% of the actual project costs. Applicants must submit a bill to the grant coordinator to request the federal share of the cost throughout the grant term. Only park and recreation boards established under Indiana law are eligible for the program. These entities must currently have a five-year parks and recreation master plan on file, approved by the Division of Outdoor Recreation. Funding ranges from \$10,000 - \$200,000. Local agencies in Indiana have received over \$36 million to-date.

## ***Community Development Block Grant Program (CDBG)***

While not traditionally viewed as a source of funding for bicycle and pedestrian projects, the Community Development Block Grant (CDBG) program provides money for streetscape revitalization and other improvements that can enhance walking and bicycling. Federal Community Development Block Grant grantees may "use Community Development Block Grants funds for activities that include, but are not limited to: acquiring real property; reconstructing or rehabilitating housing and other property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities; paying for planning and administrative expenses, such as costs related to developing a consolidated plan and managing Community Development Block Grants funds; provide public

services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs." The City of Evansville Department of Metropolitan Development receives an allotted amount of funds through the US Department of Housing and Urban Development Community Development Block Grant Program (CDBG).

## **State Funding Sources**

### ***Indiana Heritage Trust Program***

The Indiana Heritage Trust Program was instituted to protect natural resources using funds generated through the sale of personalized environmental license plates. Greenways are eligible under the Division of Outdoor Recreation section of the program. The Division's mission is to increase these opportunities for underserved regions and populations, regardless of their location in rural or urban settings. All projects must maintain state interest through conservation easements or similar agreements. The facilities must also be assumed by local interests, other divisions, or agencies. Greenways that make use of abandoned rail lines or other rights-of-way previously used for private/public transportation are eligible projects. From 1993 to 2012, the program has generated more than \$32 million in license plate revenue to fund conservation and recreation projects across Indiana.

### ***Place Based Investment Fund***

Administered by the Indiana Office of Tourism Development and the Office of Community and Rural Affairs, the Place Based Investment Fund is a competitive matching grant program that supports collaborative community and economic development programs. Awarded funds, which range from \$25,000 to \$50,000, support projects that build upon unique community assets to strengthen the sense and quality of place and promote increased tourism activity and community investment. Local governments, visitor bureaus, public and private schools, and community foundations are eligible to apply.

## **Local Funding Sources**

While external funding sources for bicycle and pedestrian projects and programs continue to be in short supply and high demand, local funds can often be the most reliable funding source to get a project done or develop an encouragement or education program. In addition, local funding is often required as match for external funding sources. With this in mind, it is imperative that the City of Evansville explore, identify, and pursue one or more of these local funding strategies as a means of implementing the plan.

## ***Capital Improvement Plan Set-Aside***

As with most cities, Evansville has limited funds with which to implement bicycle and pedestrian projects and programs. By creating a dedicated set-aside in the Capital Improvement Plan, the City can focus, prioritize, and plan for capital expenditures for trails, on-street bikeways, and other projects that improve conditions for walking and bicycling. This set-aside may also be used as a local match for external funding sources, or as contributory towards bicycle and pedestrian elements of larger projects.

## ***Development Impact Fees***

Local governments in the State of Indiana may adopt local ordinances imposing an impact fee on new development within their jurisdiction in order to fund infrastructure improvements that support that development and the community at-large, including parks, recreational facilities, roads, bridges, water treatment and distribution facilities, and drainage control. Enabling legislation for impact fees was adopted by the Indiana state legislature and signed into law in 1991.

## **Private and Foundation Funding Sources**

### ***People for Bikes Community Grants Program***

People for Bikes, formerly known as Bikes Belong, is a national organization working to make bicycling better throughout the United States through programs and advocacy work. People for Bikes has funded numerous infrastructure projects and education and encouragement programs since it first launched in 1999, including seven in the State of Indiana for a total of \$52,500. The seven projects funded in Indiana reflect the diversity of bike and trail related initiatives in place across the state. In 2012, People for Bikes provided \$10,000 in funding to INDYCOG to develop bicycle infrastructure plans in five underserved urban neighborhoods. In 2013, \$5,000 was awarded to the Covered Bridge Gateway Trails Association in Rockville to help fund an initial section of a 10-mile trail.

### ***Community Foundations***

Community and corporate foundations can play an important role in funding bicycle and pedestrian infrastructure and programs. With a growing evidence base highlighting the connection between the built environment and community health outcomes, health foundations throughout the country have joined environmental foundations to support infrastructure projects that increase opportunities for walking, bicycling and physical activity. National foundations like the Surdna Foundation and

the Robert Wood Johnson Foundation have funded initiatives to reduce obesity, increase physical activity, and achieve other positive health-related outcomes. Locally, the Welborn Baptist Foundation has made significant investments in Southwestern Indiana to increase physical activity and wellness.

## ***Local Business Community***

Businesses large and small recognize the benefit of bicycling, walking, and related infrastructure as economic drivers and indicators of quality of life. From Fortune 500 companies to local healthcare providers to small bike shops, businesses have expressed interest in investing in bicycle and pedestrian infrastructure that fosters healthy and active communities, creates recreation and transportation choices, and improves quality of life. Support from the business community is often the result of strong relationship-building efforts and may come in a variety of forms, from the funding of capital projects or associated amenities to the provision of volunteers to assist in trail maintenance activities.

# MEASURING PLAN PERFORMANCE

Evaluation is the fifth “E” of the Five E’s framework that guides the recommendations of the Plan. Evaluation consists of monitoring plan progress, documenting outcomes, trends and attitudes, and periodically revisiting the Plan to realign recommendations with the changing values, needs and will of the community. The following evaluation actions and programs support an accountable and transparent implementation process and create feedback loops through which future needs, issues and opportunities can be identified.

## Bicycle and Pedestrian Count Program

Establishing a citywide pedestrian and bicycle counts program helps collect quantitative data to track bicycling and walking trends and measure the success of walking and bicycling projects. The City of Evansville should develop a bicycle and pedestrian count program comprised of both manual counts, automatic counts, and intercept surveys. A complete count program, including near-term, medium-term, and long-term recommendations for count methods and locations, is included in the appendix of the Plan.



Figure 6.24: Bicycle and pedestrian counts and intercept surveys provide valuable data to inform resource allocation.

## It’s All in the Numbers

Data gathering and analysis is essential to communicating the success of implementation efforts to stakeholders, media, and the public at large. Data can be used to track community transformation through changes in infrastructure, activity and attitudes over time. As the City of Evansville continues on its path to becoming a bicycle and pedestrian friendly community, the data in Table 6.7 data should be gathered over time to monitor the city’s efforts to support walking and bicycling and measure the impact on the activities and attitudes of Evansville residents.

Table 6.7: Performance Measurement Data and Sources

Data	Source
Journey to work (mode share)	American Community Survey (ACS), US Census Bureau
Bicycle and pedestrian crash data	Indiana Department of Transportation (INDOT)
Miles of bicycle and pedestrian facilities	City / EMPO GIS databases
Bicycle and pedestrian levels of service	City / EMPO GIS databases
Bicycle and pedestrian activity	Manual and automatic counts
Residents’ perceptions, attitudes and behaviors	Intercept surveys, online surveys
Economic impact	Property values, sales tax revenue
Number of education and encouragement programs and participants	Statistics from Parks Department and partnering organizations
Network coverage (percent of population within 1/4 and 1/2 of ped/bike facilities)	City / EMPO GIS databases, US Census Bureau
Equity (percent of low income or minority populations within 1/4 and 1/2 of ped/bike facilities)	City / EMPO GIS databases, US Census Bureau
Motor vehicle volumes on bikeway corridors	City of Evansville, INDOT
# of Bike Friendly Businesses	League of American Bicyclists
# of Bike Friendly Universities	League of American Bicyclists
# of bicycle parking racks/spaces	City / EMPO GIS databases



# Biennial Bicycling and Walking Report Card

The City of Evansville should publish a report every two years summarizing implementation progress. The report card can highlight completed greenways and bicycle facilities, share stories of successful programs and partnerships, and use data collected over time to quantify the impact of the plan on health, transportation, equity, and economic activity. The document can be posted on the City's website, distributed via social media, and printed for dissemination at public facilities and community events.

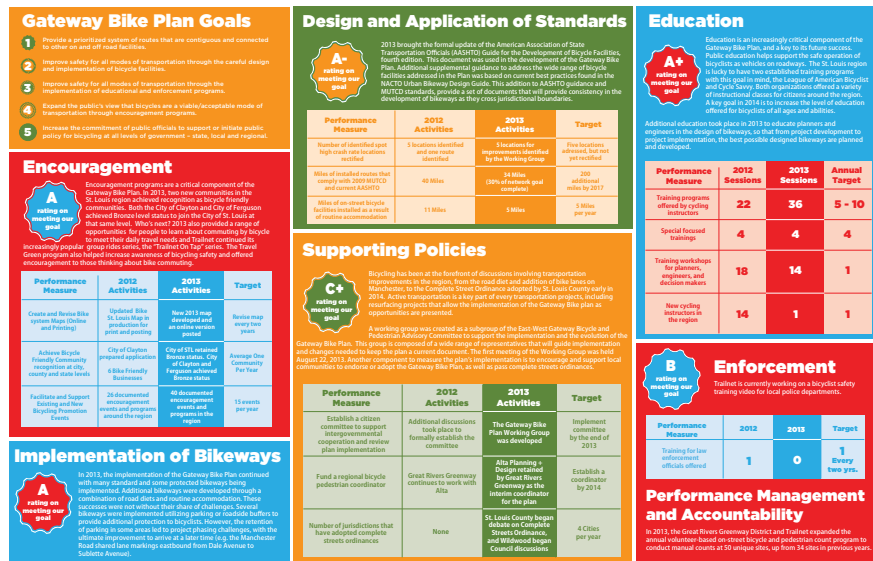


Figure 6.25: Great Rivers Greenway District in the St. Louis, Missouri region uses an annual report card as a way to document and communicate plan progress to its constituents.

## Bicycle and Pedestrian Crash Analysis

Crash reports from collisions involving bicyclists and pedestrians can be an invaluable resource for learning about the behavior of motorists, bicyclists, and walkers, as well as roadway conditions and characteristics that may lead to collisions. The City of Evansville should conduct a thorough analysis of reported bicycle and pedestrian crashes to identify high-crash locations, monitor the impact of capital improvements on crash rates, and develop specific recommendations for countermeasures that reduce the likelihood of crashes and improve bicycle and pedestrian safety. Such an analysis should be conducted every two years.

# ONGOING SYSTEM MAINTENANCE

The quality and condition of each sidewalk, greenway and bike lane are essential to the success of the active transportation network. The City of Evansville should develop a maintenance schedule and program to delegate maintenance roles and responsibilities, develop resource and funding projections, and preserve the quality of the network. Maintenance can be separated into two categories: routine maintenance and remedial maintenance.

## Routine Maintenance

Routine maintenance refers to the regularly-scheduled and day-to-day activities to keep the greenways, trails, sidewalks, and on-street bikeways in a functional and orderly condition. These activities, which can be incorporated in normal routine maintenance by operations staff, include trash and debris removal, landscaping, weed and dust control, trail and street sweeping, snow removal, shoulder mowing, and tree and shrub trimming. Spot maintenance such as sealing cracks, spot replacement of small sections of sidewalk, filling potholes, and replacing damaged or worn signs also fall under this category.



Figure 6.26: Street sweepers in Chicago routinely clean debris from buffered bike lanes.

## Remedial Maintenance

Remedial maintenance refers to the correcting of significant facility defects and the repairing, replacing and restoring of major facility components. Remedial maintenance activities include periodic repairs like seal coating asphalt pavement; restriping of bike lanes; replacement of wayfinding and other signs; repainting, replacement of trail amenities and furnishings (benches, bike racks, lighting, etc.); and more substantial projects like hillside stabilization, bridge replacement, trail or street surface repaving; and trail repairs due to washout and flooding. Pavement markings and striping maintenance will depend on anticipated and actual product lifecycle, which can range from one to ten years, depending on material type. Minor remedial maintenance for trails and greenways can be completed on a five to ten-year cycle, while larger projects should be budgeted on an as-needed or anticipated basis.

## Maintenance Cost Estimates

Maintenance costs vary depending on the quality and durability of materials, expected lifecycle, use and wear, climate, weather, and other external factors. Planning level maintenance cost estimates are provided below in Table 6.8 to assist in the development of maintenance budgets and resource allocation.

**Table 6.8: Annual Maintenance Cost Estimates**

Facility Type	Annualized Maintenance Cost Per Mile
Shared Use Path	\$10,000
Sidepath	\$2,500
Cycle Track	\$4,000
Buffered Bike Lanes	\$3,000
Standard Bike Lanes	\$2,000
Bike Boulevard	\$1,250
Shared Lane Markings	\$1,000

## Network Stewardship and Enhancement

An important element of on-going maintenance activities is stewardship, which refers to the long-term care and oversight of Evansville's active transportation network as a resource that adds value to the community and enhances the quality of life for citizens of the region. The active transportation network will require active stewardship by those who operate the facilities (and those who benefit from it) to ensure this valuable recreation and transportation infrastructure can provide a high level of service and a quality user experience for generations to come. This will require

coordination among all agencies involved in the care and maintenance of the trails, bikeways, sidewalks, and their surroundings; protection of these resources from external factors that may reduce their value and utility; and encouragement of community participation in the upkeep and enhancement of the network as a valuable community asset.

The City of Evansville should identify an individual or committee of representatives of various agencies, such as the Bicycle Friendly Community Task Force (recommended in this plan to be expanded to include pedestrian considerations), to inventory current stewardship activities, determine needs and opportunities, and create an action plan to establish a comprehensive approach to stewardship. Such activities may include identifying and managing trail volunteers to remove trash or monitor activities on the trails and sidewalks, annual trail cleanup events, coordinating the use of the trails and bikeways for educational activities, and increasing public awareness of the network as a resource to diverse members of the community. Organizations like the Evansville Parks Foundation (which supports the Pigeon Creek Greenway and manages private donations and contributions to support the greenway), the Evansville Area Trails Coalition, and other local non-profits and neighborhood associations already participate in some of these activities, but additional support from the City of Evansville in terms of coordination, resource provision, and outreach.