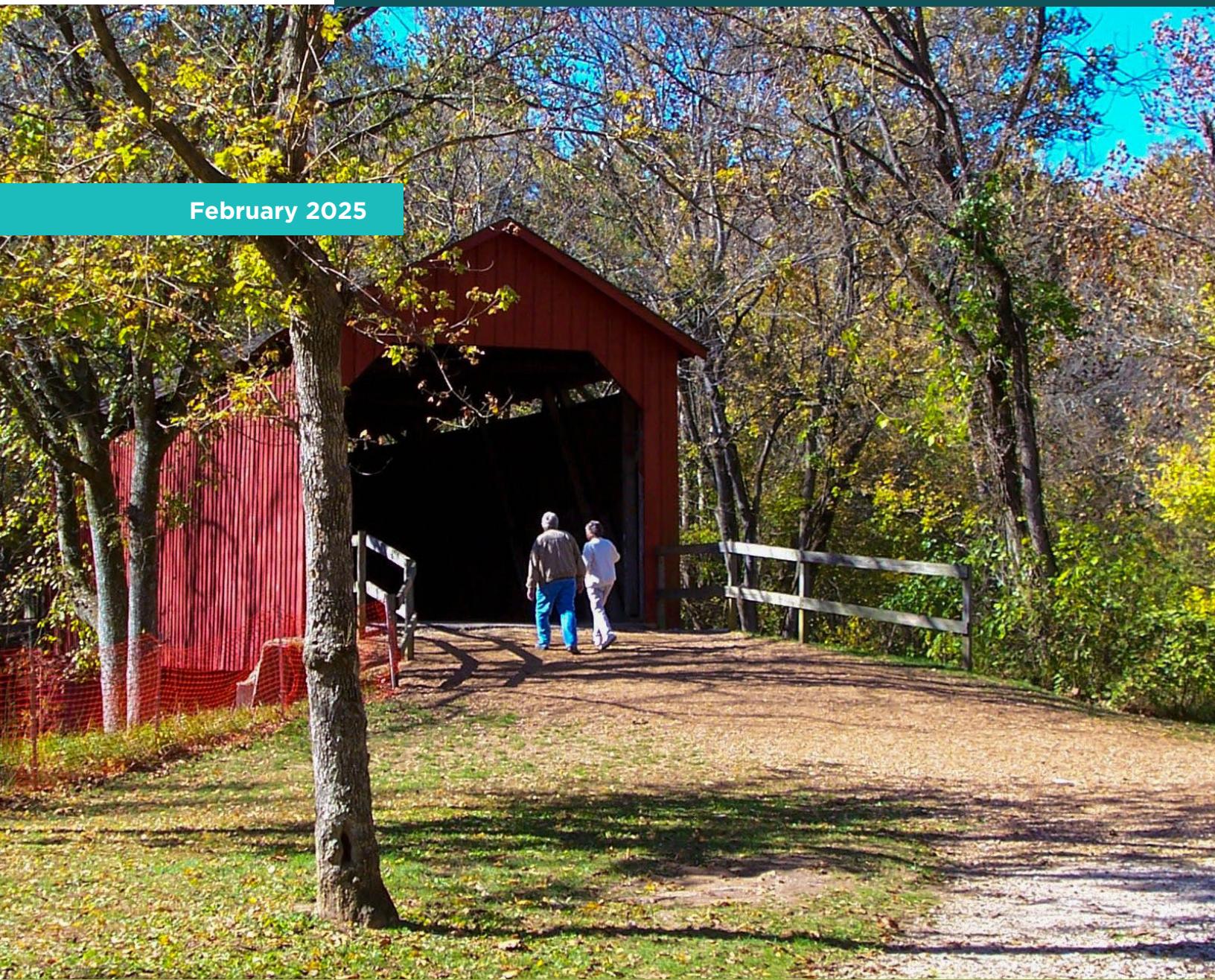




# Walk Bike Jefferson County Plan

February 2025



Adopted February 24th, 2025

**JEFFERSON**  
COUNTY, MISSOURI

 **CMT**  
Engineers and Consultants

 **SWT DESIGN**

# ACKNOWLEDGEMENTS

This plan represents the combined vision and goals of everyone that helped guide its development.

A special thank you to everyone involved to help bring this plan to reality.

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- Elected and Appointed Officials of the Jefferson County Council and Administration
- Input from the Residents of Jefferson County

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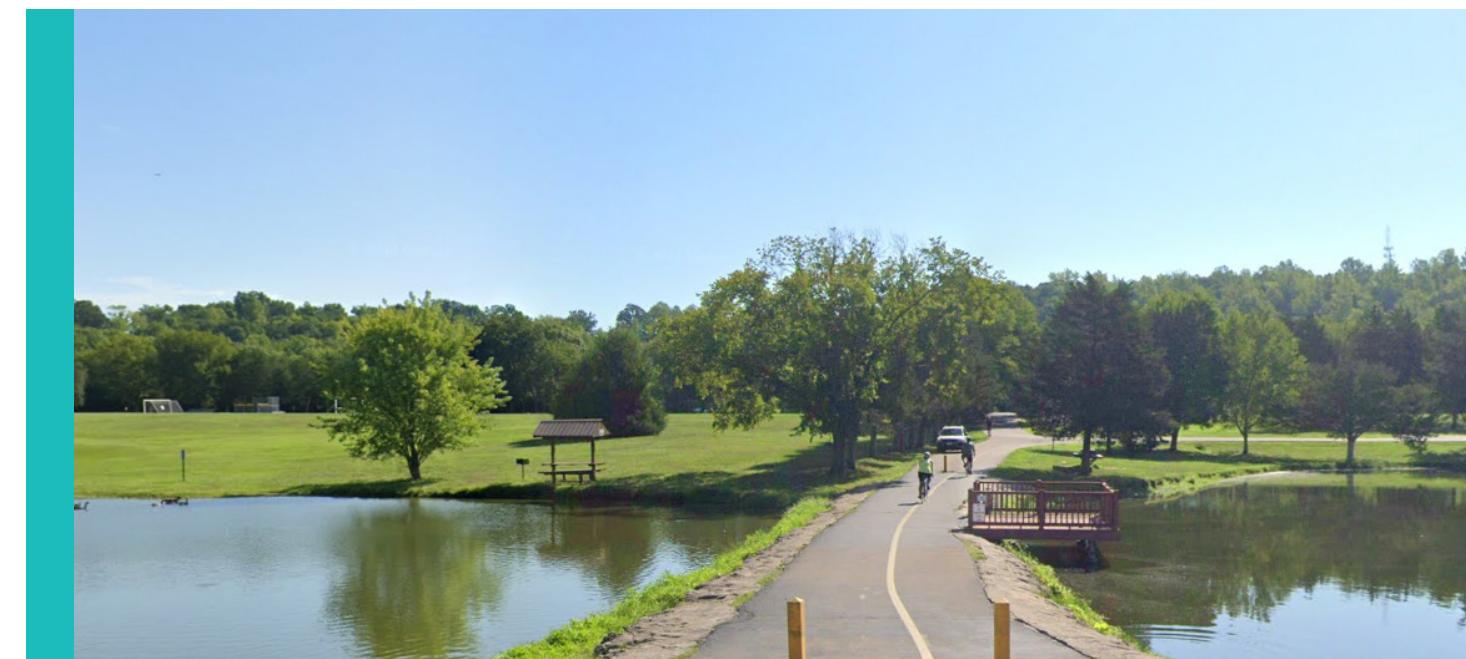
# 01

## Introduction

### PROJECT OVERVIEW

Jefferson County is completing its first countywide plan for walking and biking. The goal of this plan is to identify important routes for walking and biking, coordinate city level planning for walking and biking, and prioritize future projects for implementation to support all transportation modes. A more walkable and bikeable community supports a higher quality of life for all residents.

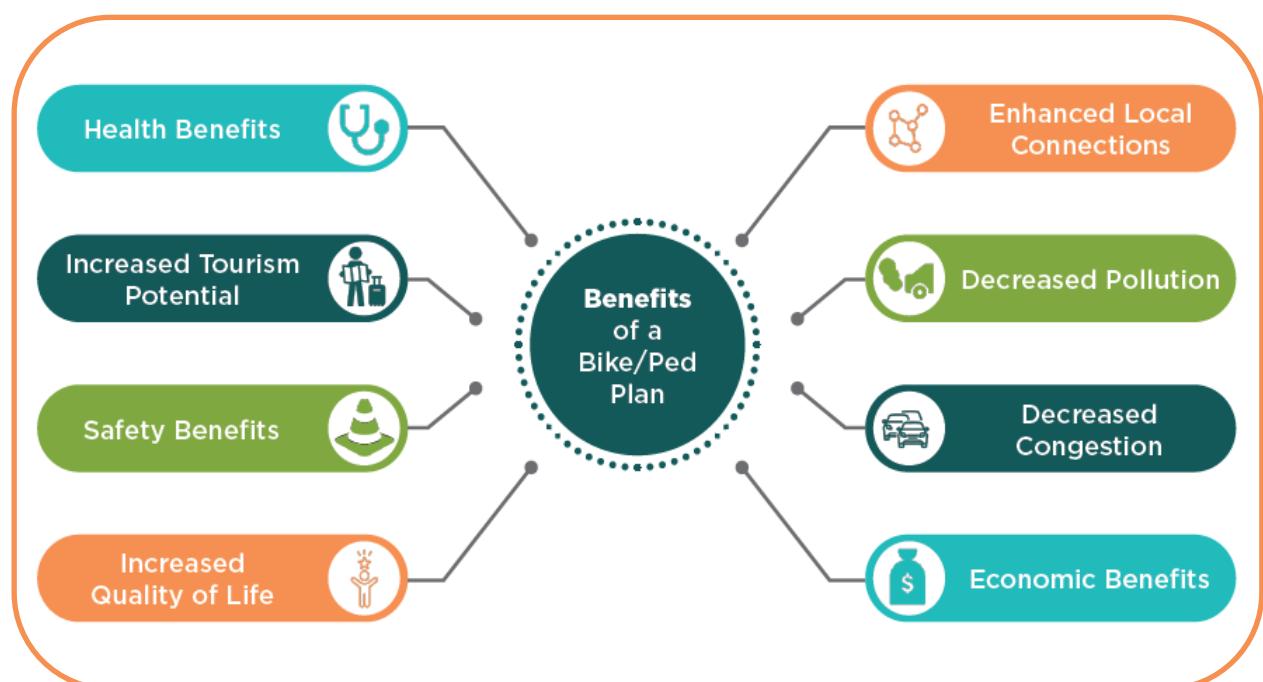
The ongoing comprehensive plan update has identified several priorities for increasing walking and biking opportunities in Jefferson County, both for recreation and for daily transportation trips, especially commuting to work or school. This more detailed plan will prioritize missing critical connections for more informed project decisions for years to come.



Crites Park in Festus, MO

## PLAN BENEFITS

A wide range of benefits can be outcomes of the Walk Bike Jefferson County Plan. By following a plan and promoting walking and biking in Jefferson County, residents can experience a range of health benefits, including physical health from increased exercise and better air quality, and mental health through an increased quality of life. Enhancing local connections to more destinations can spur economic development and make it easier for residents to get to where they need to go without a car, which also decreases traffic congestion. An expansive walking and biking network can lead to increased tourism in Jefferson County, especially considering the natural beauty and scenery in the county. Improved walking and biking infrastructure improves safety for everyone who uses roadways in Jefferson County.



## PLAN GOALS

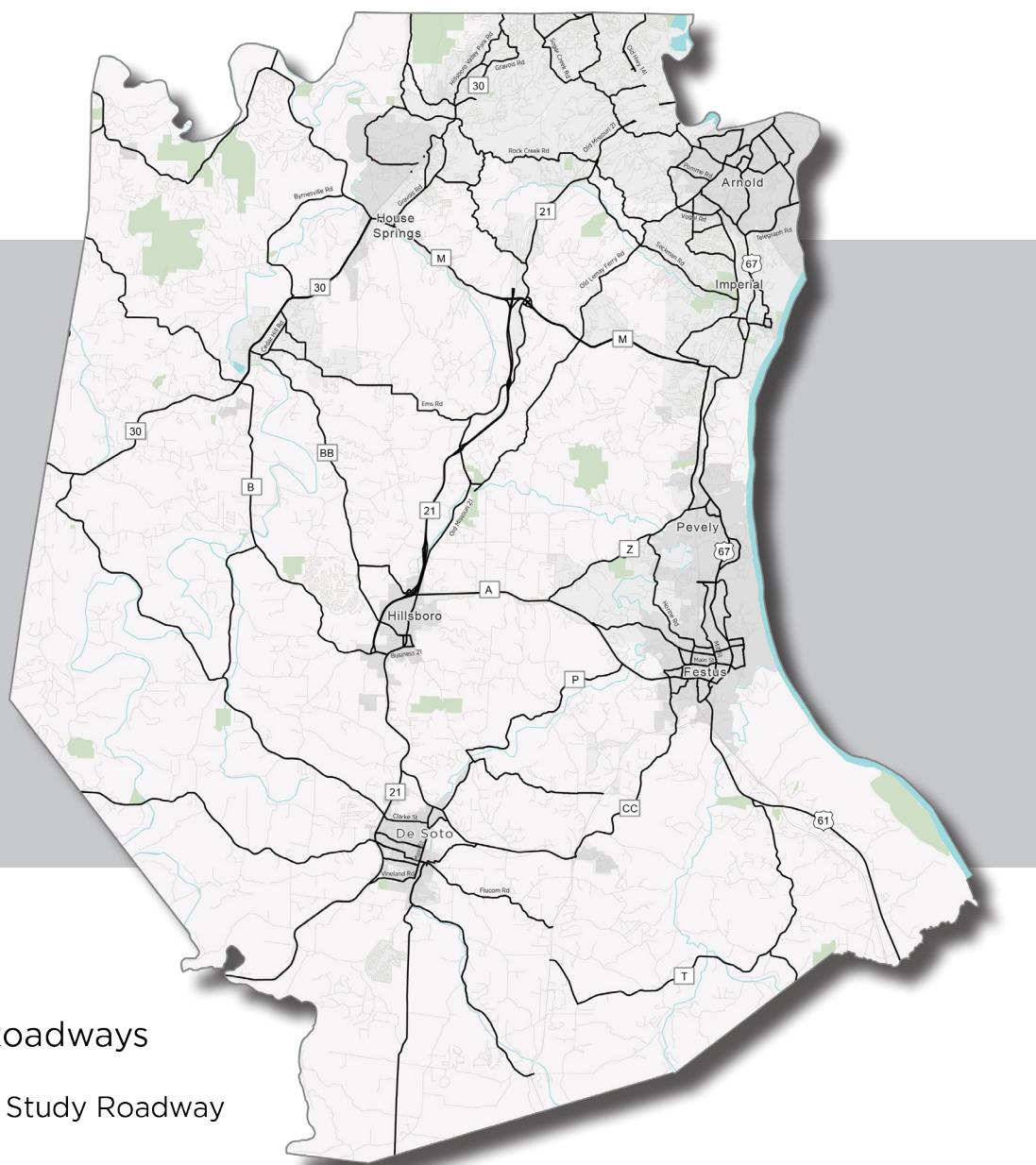
The Walk Bike Jefferson County Plan aims to provide the county, and communities within the county, formal guidance on the future of bike and pedestrian infrastructure and amenities in the county. Overall goals include:

- Create a **pedestrian network** and a **biking network**, as each have different needs, then combine into a **cohesive walking and biking network**.
- Identify **tiered priority projects** for both immediate and long-term implementation, and cost consideration.
- Link **together community assets** such as parks, schools, commercial business areas, residential areas, and the different communities within Jefferson County.
- **Improved safety** for pedestrians and bicyclists.
- **Improved levels of comfort** for pedestrians and bicyclists.
- A bike and pedestrian network that is **well-connected and accessible for everyone**.
- **Increased levels of walking and biking** as a result of making bike and pedestrian-related improvements, that ultimately **creates a healthy, sustainable, and less car-dependent community with a high quality of life**.

This project is funded by the Jefferson County Department of Public Works. As a county-funded plan, the primary focus is county-owned arterial and major collector roadways. However, connectivity does not stop at jurisdictional boundaries. State-owned (Missouri Department of Transportation or MoDOT) and local agency-owned arterials and collectors are also included in this analysis. While ownership will impact project prioritization, it is the goal of this planning effort to build significant collaboration with partner planning agencies for future implementation.

## STUDY ROADWAYS

Roadways in Jefferson County that have a functional classification of Major Arterial, Minor Arterial, and Major Collector were collectively included as the study roadway network for this plan. These roadway classifications were chosen for analysis due to their tendency to be higher-stress roadways for people walking and biking, as they typically carry larger volumes of vehicle traffic at higher speeds. These roadway types offer broad connections to various locations throughout Jefferson County, and typically need dedicated space and infrastructure for walking and biking to make them safe and comfortable for those who choose to walk or bike. Local streets were not included in the study roadway network due to their lower-stress, lower-traffic, and lower-connectivity characteristics. There are, however, several recommendations in the proposed future walking and biking network that include non-study roadways, and these connections were identified as key components of the future network.



## DOCUMENT STRUCTURE

This plan document will first provide a synopsis of the existing conditions analysis ([Chapter 2](#)): summaries of traffic stress for people walking and biking on study roadways, existing walking and biking activity, and review of relevant existing plans that inform Walk Bike Jefferson County.

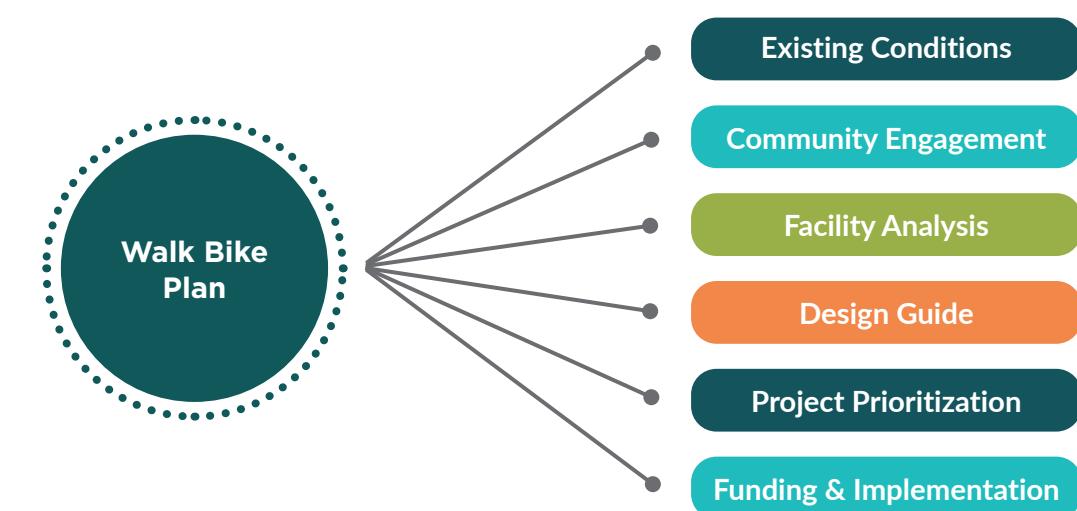
A community engagement summary follows in [Chapter 3](#), showcasing the various public open houses, community intercept events, stakeholder meetings, survey, and other engagement touchpoints completed as a part of this planning effort.

[Chapter 4](#) synthesizes the inputs in the previous two chapters to identify the future network for walking and biking. This proposed future network also includes an explanation of the route scoring and prioritization methods used to identify higher and lower priority routes and facilities.

A design guide follows in [Chapter 5](#) to assist Jefferson County and other agencies when incorporating future walking and biking infrastructure into roadway projects. The map of future facility types is presented, and each of these facility types is described in detail. The design guide provides information and best practices in different situations, including roadway type, surrounding land use, and walking/biking facility type, to help ensure that future walking and biking improvements are adequate and appropriately designed for different contexts.

[Chapter 6](#) combines facility types from the Design Guide and prioritization from Facility Scoring to identify future projects and their prioritization. Ten high priority projects are explored in greater detail to prepare Jefferson County and partners for implementation. All projects are scored for impact and return-on-investment (ROI).

Finally, [Chapter 7](#) describes funding and implementation strategies are included to help Jefferson County and other local agencies in securing funding to realize the proposed walking and biking network. Several state and federal funding sources are identified, which including progress report on a grant already secured to begin plan implementation.



# PROJECT TIMELINE

## COMMUNITY ENGAGEMENT

**Spring - Fall 2024**

Public launch of community engagement effort with an initial open house in summer 2024. Complete walk & bike audits, attend community events, and host stakeholder group meetings through fall 2024.

## DRAFT PLAN & OPEN HOUSE/POP-UP DEMONSTRATION

**Fall 2024**

Share draft plan recommendations with the public at a second open house and a pop-up demonstration.

A pop-up demonstration is a temporary build, using tactical materials, to showcase potential walking & biking facilities.

## IMPLEMENTATION

**Fall 2024 and Forward**

With a formally adopted plan for walking and biking, Jefferson County staff can make informed decisions about infrastructure priorities. The plan can aid in leveraging federal funding opportunities for project support.



## EXISTING CONDITIONS

**Spring 2024**

Compile existing conditions information. Review relevant plans, programmed projects, and existing facilities. Analyze existing level of traffic stress and level of service for people on bike and on foot. Map important community destinations and land uses.

## NETWORK MAPPING & PRIORITY ROUTE SCORING

**Summer - Fall 2024**

Identify networks for walking and biking. Using existing conditions information, and a matrix to score routes, assign route prioritization for walking and biking projects implementation. Present networks to Jefferson County & advisory team members.

## FINAL PLAN & ADOPTION

**Winter 2024 and 2025**

Refine plan recommendations (network & project prioritization) and deliver plan to Jefferson County Staff. Assist with necessary presentations and meetings to get plan through the county adoption process.

# 02

# Existing Conditions

## INTRODUCTION

This chapter provides an overview of the current state of Jefferson County, highlighting key physical, environmental, and socio-economic factors. This section aims to establish a baseline understanding of the county, including geography, infrastructure, land use, community characteristics, and existing plans. In addition, we analyze current walking and biking activity data, pent-up demand for walking and biking, and potential gaps in the walking and biking networks.

By examining these elements, we identify potential challenges and opportunities that will inform future planning and development efforts. This foundational knowledge is critical for making informed decisions that align with both the project's goals and the needs of the community setting the stage for community feedback and facility scoring.



Governor Dunklin's Historic Site

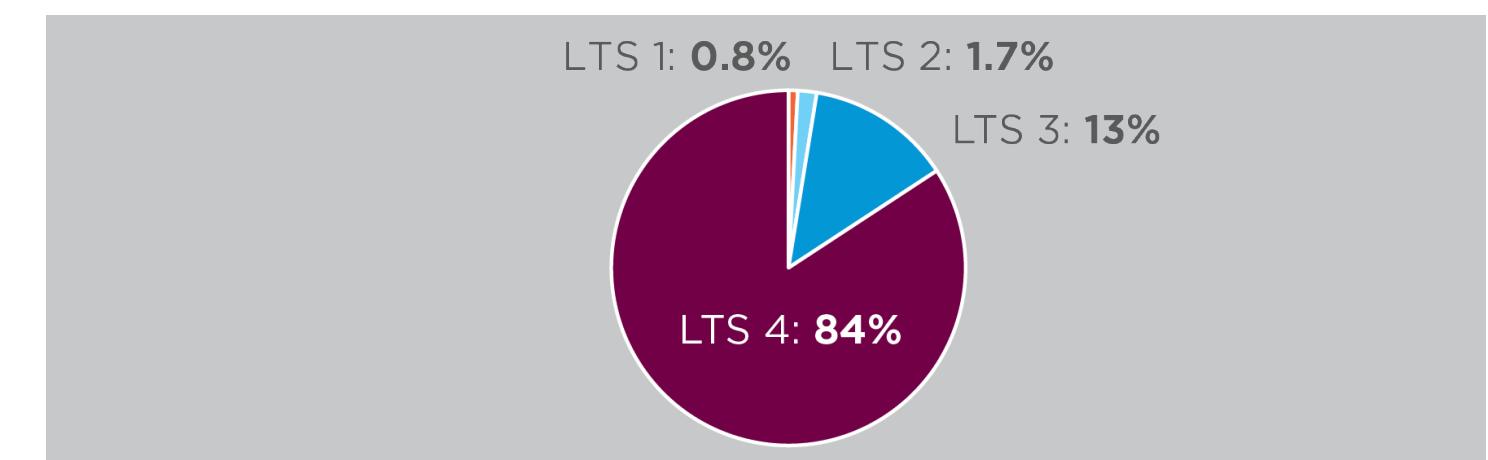
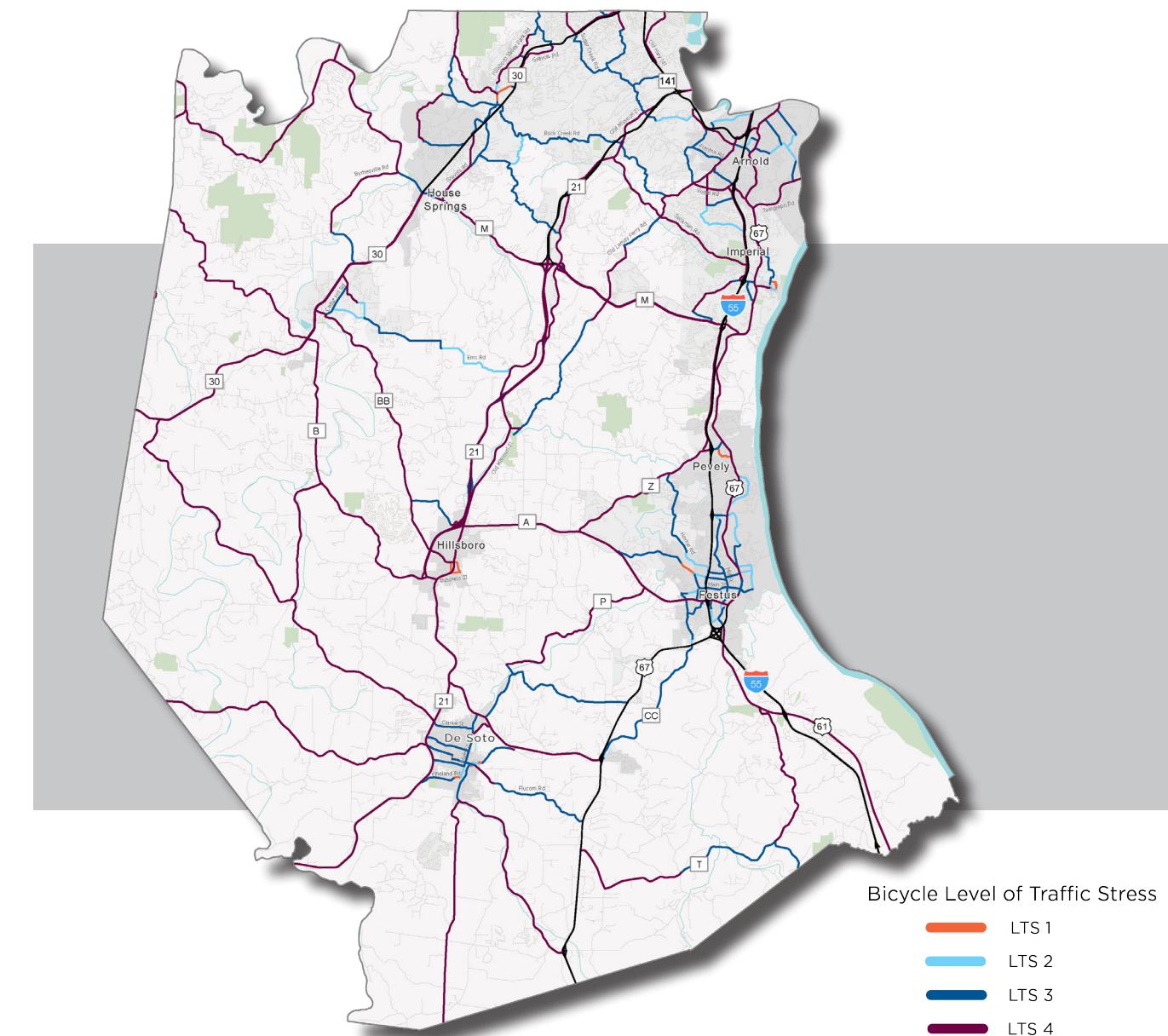
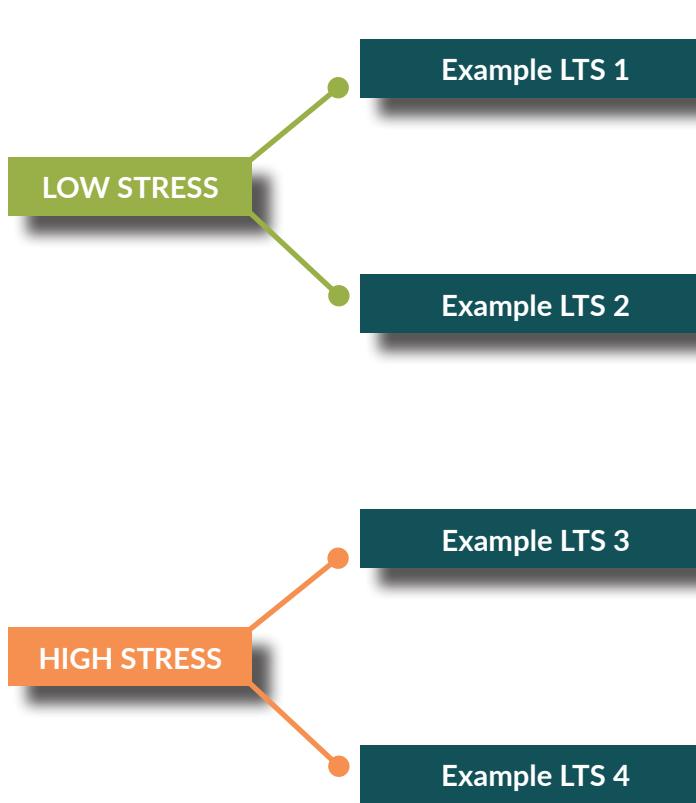
# ROADWAY CHARACTERISTICS

## Bicycle Level of Traffic Stress (BLTS)

Bicycle level of traffic stress (BLTS) is a screening tool used to evaluate how it feels to ride a bike on a particular roadway. BLTS is based on important factors like street width, posted speed limit, ADT, and presence and characteristics of bike lanes. LTS ranges from 1 to 4. LTS 1 is a very comfortable place to ride a bike, even for children or elderly adults. LTS 4 is a very stressful place to ride a bike; only commuters or seasoned road cyclists may feel comfortable here.

BLTS can also describe a user's stress tolerance and what facilities they would or would not use. See the graphic below for general proportions of the population and their LTS tolerance. In Jefferson County, major collectors and arterials are mostly (84%) evaluated as LTS 4 (high stress). These roadways are only tolerable for 1% of the population, the "strong and fearless". 97% of the study roadways are considered high stress (LTS 3 and 4), with an average of 93% of the population refusing to ride on these high-stress roadways.

This plan seeks to envision a network of low stress roadways (LTS 1 and 2), a network that the majority of the population would feel comfortable using.



## Pedestrian Level of Service (PLOS)

Pedestrian level of service (PLOS) quantifies the experience of walking along the road network by scoring roadways based on important factors like posted speed limit, number of travel lanes, and presence of sidewalks or side paths.

PLOS ranges from 1 to 5. LOS 1 is a very comfortable place to walk or wheel, where people may enjoy casual strolls because in a nice environment. LOS 5 is a very uncomfortable place to walk or wheel where walking trips are only made out of necessity, due to characteristics like high vehicle speeds, no walking infrastructure, and/or wide, unsignalized roadway crossings. Currently, the majority (82%) of major collectors and arterials are LOS 5, making most major collectors and arterials very uncomfortable for pedestrians to travel along them.

This plan seeks to envision a network of comfortable places to walk or wheel (LOS 1 and 2), which would be a network that the majority of the population would feel comfortable using.

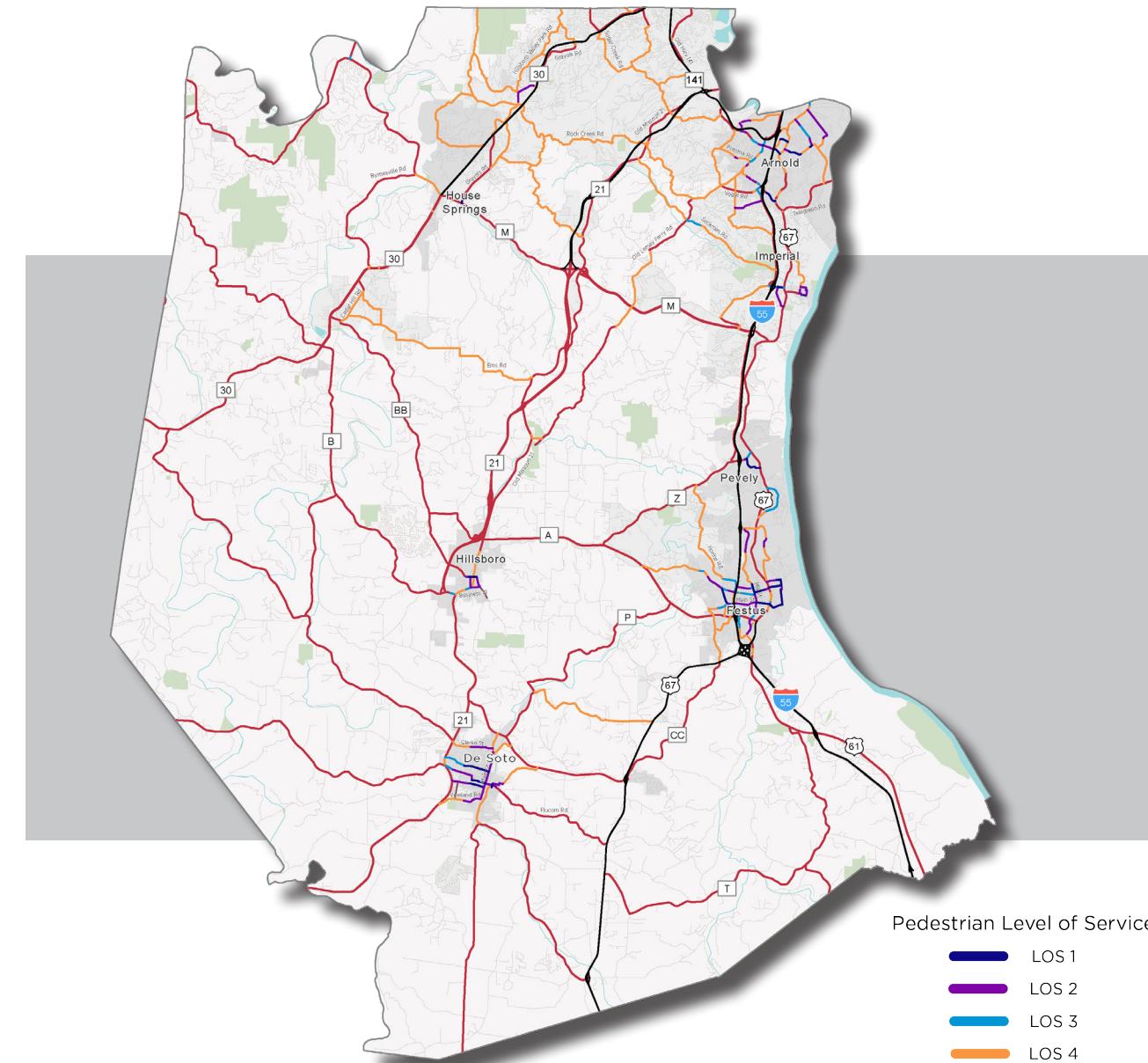
Example LOS 1



Example LOS 3

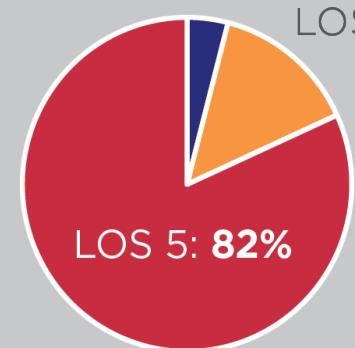


Example LOS 5



LOS 1 & 2: 4%

LOS 3 & 4: 14%



## EXISTING PLANS

There are numerous plans that were previously completed at the regional, countywide, and local levels that include walking and biking components. All these relevant plans were reviewed and had aspects incorporated into this plan. It is important to include these other plans to bring together different contexts and work towards a unified, countywide plan. Some examples of relevant plans are included in this section.

### Visualize Jefferson County Master Plan (Fall 2024)

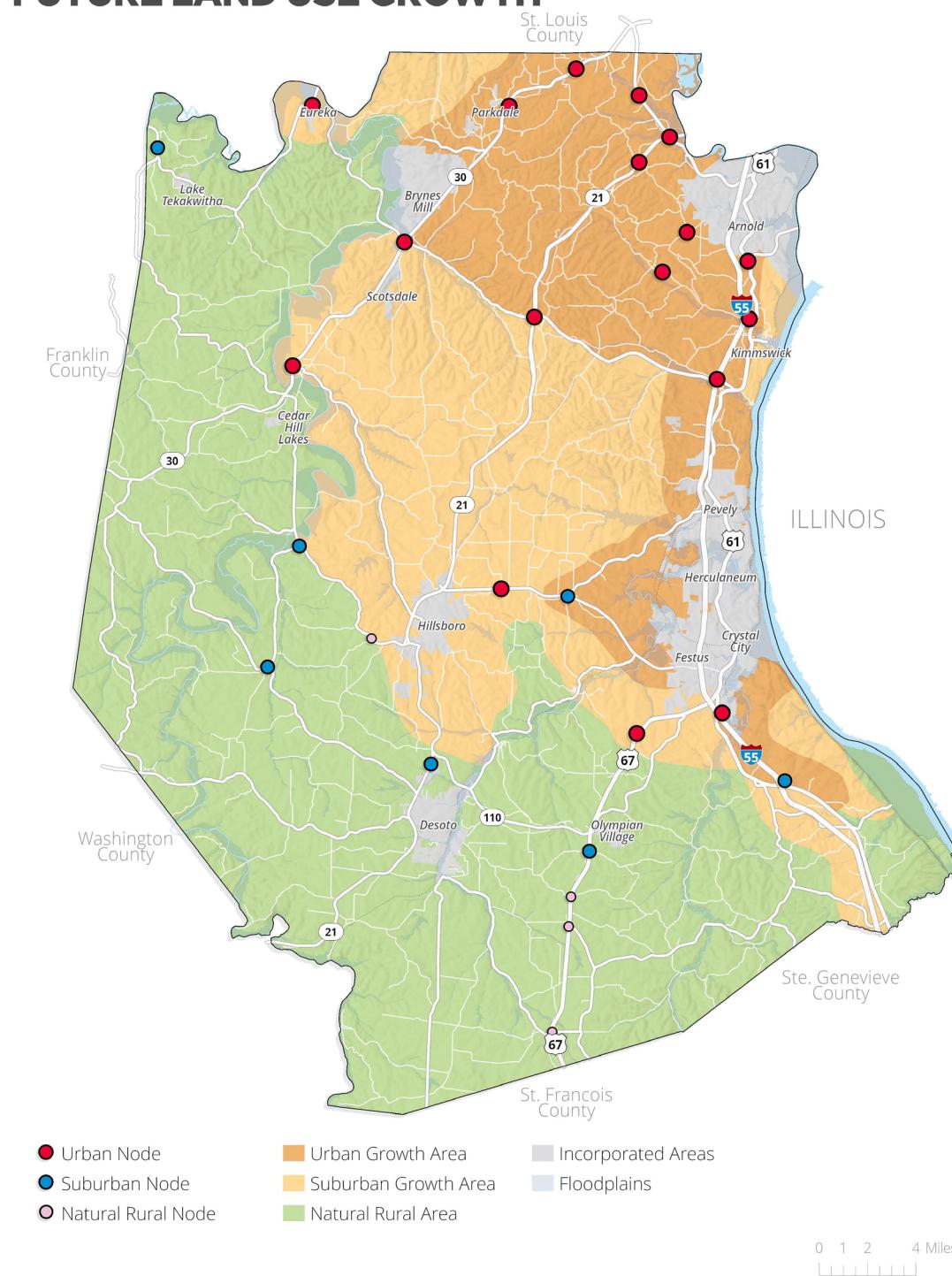
The Visualize Jefferson County Master Plan is a comprehensive plan with a full range of topics, including land use, housing, transportation, economic development, and natural resources. It emphasizes the need to coordinate with MoDOT for many transportation improvements. Recommendations include traffic calming, adding pedestrian infrastructure, providing safe routes to school, and a well-connected pedestrian and bicycle network. A Growth Framework is defined which aims to guide future development while accounting for each place's current context and preserving important natural resources. Under this framework, land in the county is categorized as Urban Growth Area, Suburban Growth Area, or Natural Rural Area.



Importantly, Urban Growth Areas emphasize connectivity and high-density development. This Walk Bike Jefferson County Plan considers these locations in special detail, as the emphasis in these locations dovetails with a need for improved bicycle and pedestrian transportation infrastructure. Each of these categories comes with an emphasis on the type of growth and development that is appropriate.

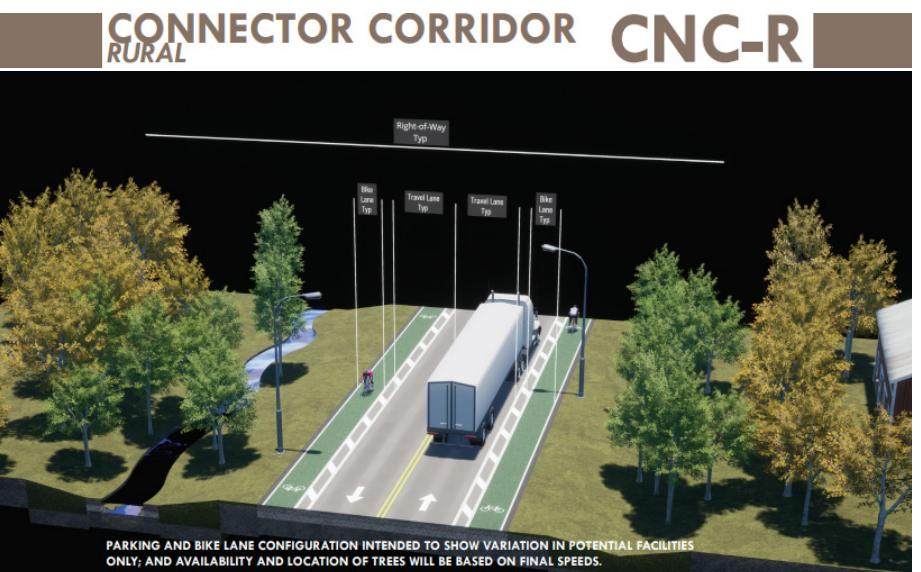
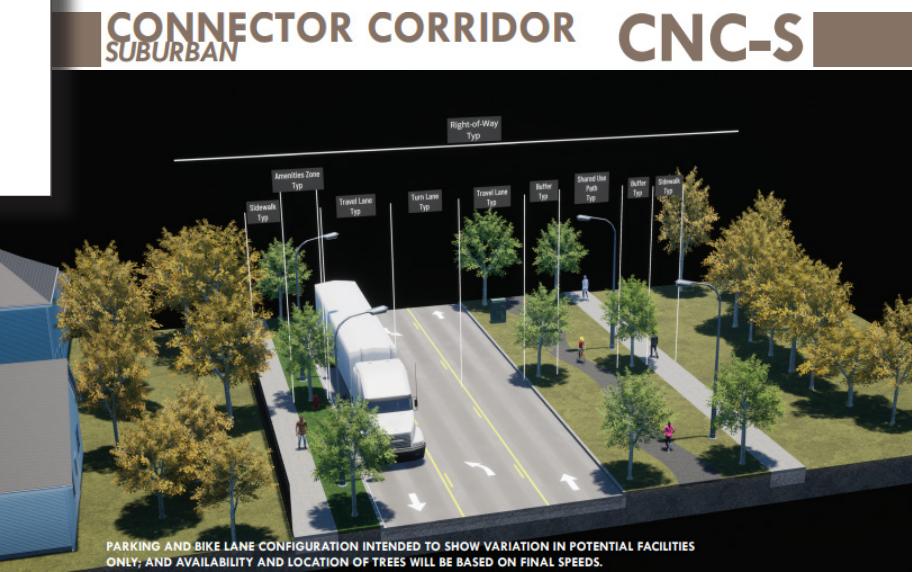
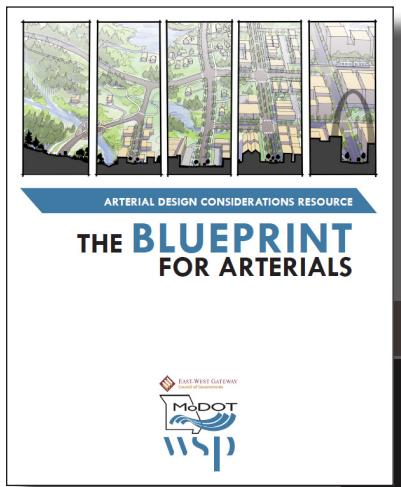
The Future Land Use Growth map to the right shows growth areas identified in Visualize Jefferson County, with urban growth areas, suburban growth areas, and natural rural areas called out. Urban, suburban, and natural rural nodes are also included, and show anticipated hubs or hotspots of activity within different growth and development types. This plan considered where these activity nodes are located, since coordinating land use development and growth with a walking and biking network is important to identify where the most connectivity may be needed, as well as to keep destinations close together to make walking and biking a viable, practical option.

### FUTURE LAND USE GROWTH



## MoDOT Arterial Study (2024)

The MoDOT Arterial Study is intended to provide a process and set of guidelines to aid in the design of arterial corridors. The guidelines emphasize a context-sensitive approach, with many considerations ranging from urban or rural contexts, surrounding land uses, and bike and pedestrian activity. MoDOT identified these five design categories as applicable to Jefferson County arterials, and this plan's Design Guide considers the design standards found here.



## Gateway to Safer Roadways (2024)

Gateway to Safer Roadways is the St. Louis Regional Safety Action Plan led by East-West Gateway Council of Governments (EWG). This plan seeks to identify transportation safety issues and enable jurisdictions in the St. Louis region to apply for federal Safe Streets and Roads for All implementation grants to fund initiatives that reduce fatalities and major crashes.

### HIGH INJURY NETWORKS

As a part of EWG's Gateway to Safer Roadways initiative, a regional analysis of fatal and serious injury (KSI) crashes was conducted, and a series of regional High Injury Networks (HIN) were developed for the eight-county region. High Injury Corridors were identified from series of roadways with particularly high KSI crash totals for crashes occurring from 2018 to 2022. These corridors represent one-to-three-mile stretches of roadway with particularly severe recent crash histories.

From these corridors, a series of High Injury Networks were identified. For example, all the region's non-interstate corridors were ranked on severity of overall crash history and bucketed into Top 10th, 25th and 50th percentile to create the regional high-injury network. Similar rankings were conducted to create High Injury Networks for each county, crashes involving pedestrians only, crashes involving bicyclists only, and more. This exercise was also completed for intersections throughout the region.

The Facility Scoring for the Walk Bike Jefferson County Plan takes these High Injury Networks as an input for evaluation of safety impacts. Proposed projects which take place on the high injury network receive a bonus to their safety score, and pedestrian and bicycle improvement projects which are proposed on the regional pedestrian and bicycle High Injury Networks, respectively, receive another bonus. This approach to safety scoring assumes that the project's design will carefully address and mitigate the crash patterns occurring at each location.

## Bicycle and Pedestrian Prioritization Plan (2022)

The Jefferson County Bike and Pedestrian Prioritization Plan was led by Trailnet and completed in 2022. The plan focuses on intersections, disconnected bike and pedestrian networks and future bike and pedestrian expansion projects. Further coordination and feasibility discussion would need to be had with MoDOT and other local stakeholders.



## Arnold Bicycle and Pedestrian Master Plan (2022)

This plan evaluates several regional, municipal, and local connections, and three priority corridors are identified: Missouri State/Church Road to Pomme Creek Park, Arnold City Park to Telegraph Road, and Tenbrook to Arnold Tenbrook. Out of these corridors, these priority projects emerged:

- Missouri State/Church Road Shared Use Path
- Old Lemay Ferry Road Sidewalk Addition
- Manufacturers Drive Shared Use Path
- Arnold Tenbrook Road Shared Use Path
- Tenbrook Road Shared Use Path
- Arnold Tenbrook Sidewalk Addition

**City of Arnold, Missouri**  
Bicycle and Pedestrian Master Plan

MARCH 2022



## M2M Great Streets Plan - Festus and Crystal City (2022)

This plan sought to connect the downtowns of Festus and Crystal City by making Main Street and Bailey Road into Great Streets: improving safety, spurring economic development in the study area, and creating a vibrant corridor with improved quality of life. Connections by foot and bike to this location within Jefferson County should be considered as a future regional tourism destination when the M2M plan is fully implemented.



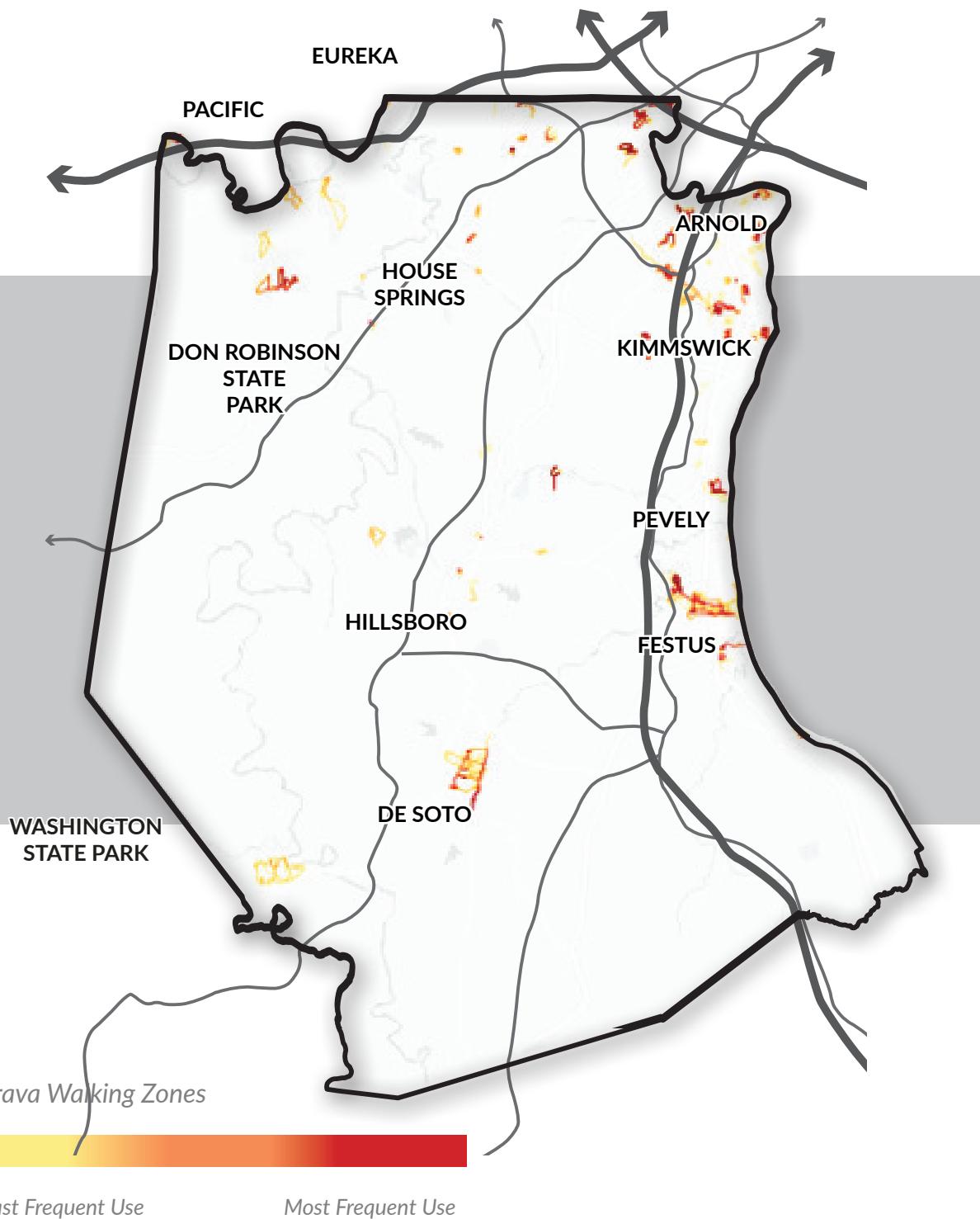
## Other Relevant Plans

The following plans were also reviewed:

- 2023 St. Louis Region Connected 2050 LRTP
- 2021 Jefferson County Roadway Master Plan
- 2021 Jefferson County Road Safety Plan
- 2018 Kimmswick Great Streets Plan
- 2013 Jefferson County Parks Master Plan
- 2007 Festus Accessibility Plan

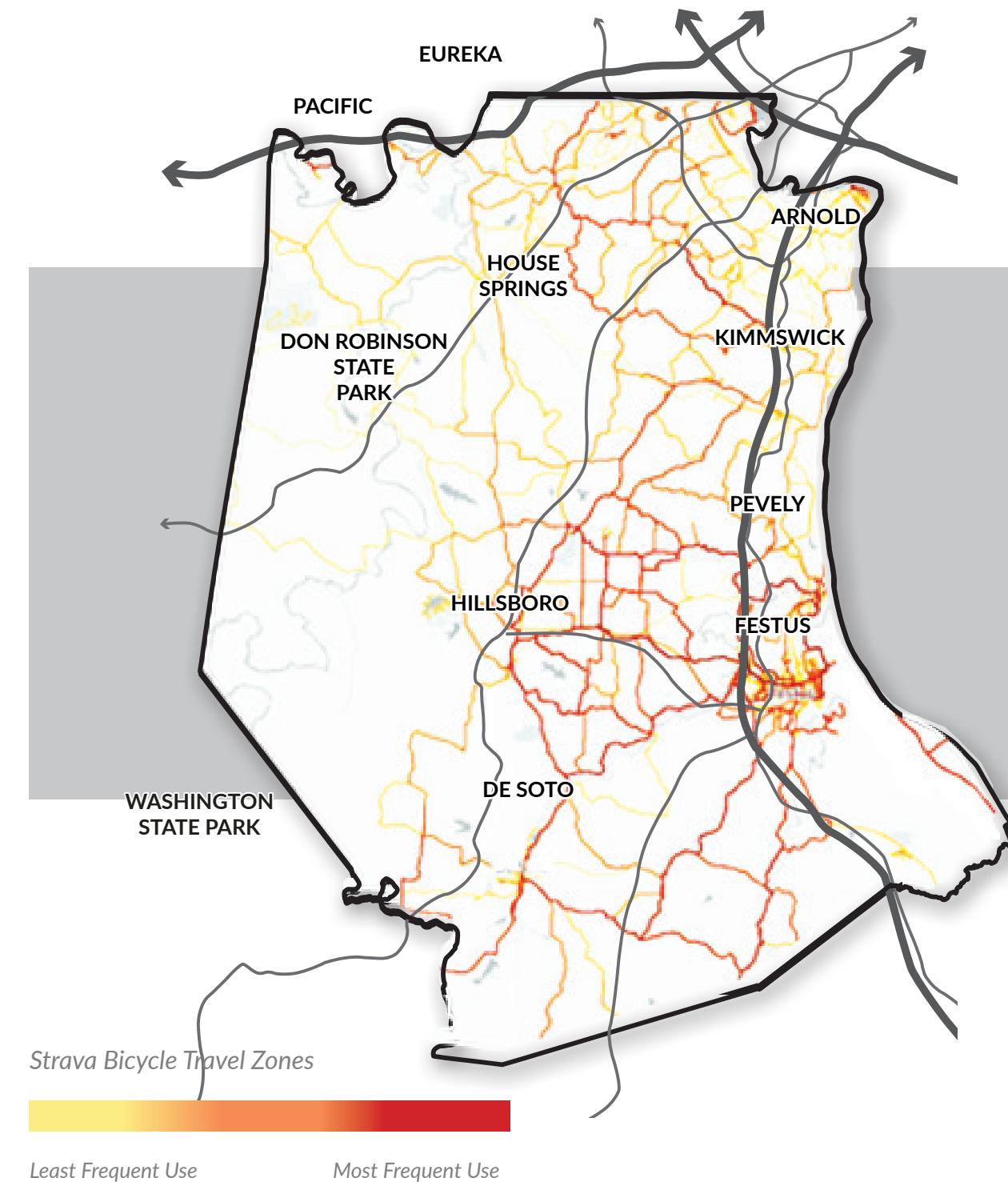
## CURRENT WALKING AND BIKING ACTIVITY

Walking data sourced from Replica is used in Facility Scoring and is presented in [Chapter 4](#). The data shown on the following maps comes from Strava, a fitness tracking app. Users track their paths while walking, running, hiking and biking. These data provide some indication of where walking and biking activity is happening today. The data shows that walking, running and hiking are happening in residential areas and in city parks and nature reserves. These walking hotspots are mostly isolated from each other.



People are biking in the eastern half of the county, especially around Festus, east of Hillsboro and De Soto. Strava biking activity demonstrates the robust road biking community present in Jefferson County.

Importantly, Strava provides only a partial view of walking and biking activity. Users generally track their recreation and exercise rather than daily trips for transportation. Additionally, Strava users may be wealthier and more tech savvy than the general population. These data should be used in conjunction with other indications of walking and biking activity.



# 03

# Community Engagement

## INTRODUCTION

Community engagement is a critical component of this plan. A variety of community engagement events were held throughout 2024, including public open houses, hosting booths at festivals and community events, advisory and stakeholder group meetings, and walking and biking audits. Summaries of these engagement activities are listed in this chapter in chronological order.



Public Open House #1 at Antonia Middle School on June 6, 2024

# ENGAGEMENT EVENTS

## Advisory Group Meeting #1

The purpose of this advisory group meeting was to bring together a group of Jefferson County residents to hear an overview of the Walk Bike planning process and to identify walking and biking trends and needs in the county prior to broad public engagement. The first Advisory Group meeting on April 23, 2024 helped to set general principles to follow during the planning and engagement process. Participants from Living Life of Two Wheels and the Tuesday Night Ride were active on the advisory team, providing significant insight to specific routes and biking needs.

During the presentation, Advisory Committee members were polled on their impressions of walking and biking in Jefferson County. The group's top three outcomes were **safety, quality of life, and local connectivity**. After the presentation, attendees were split into three small groups to discuss guiding questions and map key destinations, trouble areas, and other comments. Discussion highlights included the benefits of walking and biking including enjoying nature, increased tourism, and being a part of a supportive biking community, and challenges including high-speed traffic, lack of facilities, and funding issues. Advisory Team attendees envision a connected network of trails and paths within and in between communities and emphasized safe routes to schools.



Advisory Team Meeting #1 on April 23, 2024

## Kimmswick Strawberry Festival

The project team hosted a table at the Kimmswick Strawberry Festival on June 1, 2024, with a goal was to raise awareness for the project and publicize the project website. Additionally, the project team sought low-touch feedback as attendees walked the festival grounds. Popping up within the community is a key component of this plan's engagement strategy. This strategy focused on meeting people where they are in addition to hosting traditional open house meetings and focus groups. Festival attendees would like to see more connectivity, improved sidewalks, improved safety, and more dedicated trails when it comes to walking and biking in the county.



Kimmswick Strawberry Festival on June 1, 2024

## Public Open House #1

The first Walk Bike Jefferson County Open House was held on June 6, 2024, at Antonia Middle School. The public was invited to learn about the project scope and existing conditions on study roadways and to give feedback on where they want to walk and bike in the county. Attendees were encouraged to provide feedback by sketching ideas on maps and filling out a comment form. There were 40 attendees, representing a variety of ages and experiences, from primarily the north and east parts of Jefferson County. Most attendees expressed a positive interest in developing Jefferson County's walking and biking network.

Key feedback from Open House #1 included suggestions for improving bicycle and pedestrian infrastructure along U.S. 61, using old routes for cross-county bike paths, and upgrading pedestrian facilities near schools. Safety and funding were major concerns. Of the 40 attendees, 12 left anonymous feedback on the provided comment forms. These comments emphasized the importance of the project for health, business, and safety in Jefferson County. Concerns included the urgency of building facilities and the quality of existing infrastructure.



Public Open House #1 on June 6, 2024

## Bike-Walk Audits

The project team and members of the advisory group identified several different locations throughout Jefferson County to walk and bike along, in order to experience what it was like to walk and bike in Jefferson County. Audit participants were divided into two groups. On June 18, 2024, each group met for introductions and to review the schedule, audit guides, maps, and safety before embarking on the audits.

The following are summaries from those two groups:

- **Pedestrian Challenges:** Limited facilities for walking, inconsistent sidewalks, and poor driver compliance at crosswalks. Debris buildup and lack of buffers on sidewalks were also noted.
- **Biking Issues:** Hilly terrain, lack of clear bike paths, and safety concerns with angled parking and wide lanes. Topography and infrastructure gaps hinder biking.
- **Intersection Problems:** Unclear or missing pedestrian signals, long wait times, and inconsistent amenities. Some intersections had confusing layouts and poor maintenance.
- **Opportunities for Improvement:** Standardizing lane widths, adding pedestrian and bike wayfinding, and improving connections between key areas. Addressing access management and sediment accumulation in driveways.



Bike-Walk Audit on June 18, 2024

## Stakeholder Group Meetings

As an important component of the comprehensive engagement strategy supporting Walk Bike Jefferson County, the project team held a series of stakeholder group meetings. The project team sought targeted input from several groups with unique needs and perspectives regarding walking and biking.

Five stakeholder meetings were held, and included representatives from: the elderly and people with disabilities, young people, tourism and economic development representatives, local government officials, and members of the bicycling community in Jefferson County. These targeted discussions ensure that key groups' unique and important perspectives are present in the plan.

Each of these groups met virtually to hear a short project update and engage in a guided discussion on the unique needs, perspectives, and challenges for the groups they represent. These discussions took place on July 16th and 17th, 2024.

The following are summaries of each group's discussion:

- **Elderly and People with Disabilities:** This group focused on mobility challenges, especially last-mile connections to transit. Issues include inaccessible sidewalks, lack of crosswalks, and the need for audible pedestrian signals.
- **Youth (Jefferson College):** This group highlighted the need for better walking and biking connections to local destinations. Safety concerns, especially at night, and the lack of bike parking on campus were noted (Jefferson College Hillsboro campus).
- **Tourism and Economic Development:** Participants in this group emphasized the potential for walking and biking to boost tourism. Challenges include limited connections to and from lodging and unsafe walking/biking routes to popular destinations. Visitors have trouble without access to a car.
- **Local Governments:** Members of this group discussed prioritizing projects for federal grants and the need for complete streets policies. Coordination between city and county projects is essential.
- **Bicycling Community:** This group addressed safety concerns on roads, the need for better maintenance of bike routes, and the importance of bike racks at destinations.

## Advisory Group Meeting #2

The Advisory Group met on August 7, 2024 to discuss the Jefferson County Walk Bike Plan. There was a presentation on The Climate Action Plan by Anna Chott of East-West Gateway Council of Governments (EWG), then the project team gave an update on the status of the Walk Bike Plan. Highlights included the completion of the existing conditions memo and summer engagement efforts (the Kimmswick Strawberry Festival and the first Open House at Antonia Middle School). A timeline for the remainder of the project was provided.

Then, meeting participants had a series of discussions on the materials and concepts the project team was developing for the next phase of the planning process.

The following are summaries of each group's discussion:

- **Project Scoring Framework:** Discussions focused on values and metrics for evaluating walking and biking infrastructure projects, emphasizing safety improvements, inclusivity, and grant competitiveness.
- **Draft Network Discussion:** Key topics included pedestrian safety, residential connections to schools, and potential bike routes. The committee also recommended mapping superstores and considering pedestrian connections.
- **Design Guide:** This group reviewed typical roadway designs for bicyclists and pedestrians, discussed maintenance challenges, and considered temporary and interim treatments.



Advisory Group Meeting #2 on August 7, 2024

## Pevely Days

The intercept event at Pevely Days on August 15, 2024 was a significant opportunity for the project team to engage directly with the community regarding the Walk Bike Jefferson County Plan. This event allowed the team to meet people where they are and inform them about the ongoing developments in the bike and pedestrian plan. The team introduced the project and shared an early draft of the networks for walking and biking for community feedback.

The response from the event goers was overwhelmingly positive, with many expressing enthusiastic support for the proposed draft route locations. The team also gathered valuable feedback from the community, which will help refine the plan. Attendees emphasized the importance of connection to Mastodon State Park as a primary location for biking and walking and expressed a desire for more facilities throughout the area.

Additionally, community members voted on their top values for the plan, with safety concerns receiving the highest number of votes, and project feasibility (which includes affordability and ease of completion) receiving the fewest votes. This feedback underscores a value-first approach to making Jefferson County a safer and more accessible place for walking and biking.



Pevely Days on August 15, 2024

## Online Survey

From May to August 2024, an online survey was available for those interested in the Walk Bike Jefferson County Plan. The online survey received 211 responses in those three months. The survey collected information on current transportation activity, interest in walking and biking more, walking and biking investment priorities, and tolerance of trade-offs that come with building higher quality walking and biking paths. Respondents were also asked about general personal information (age, income, race/ethnicity and zip code).

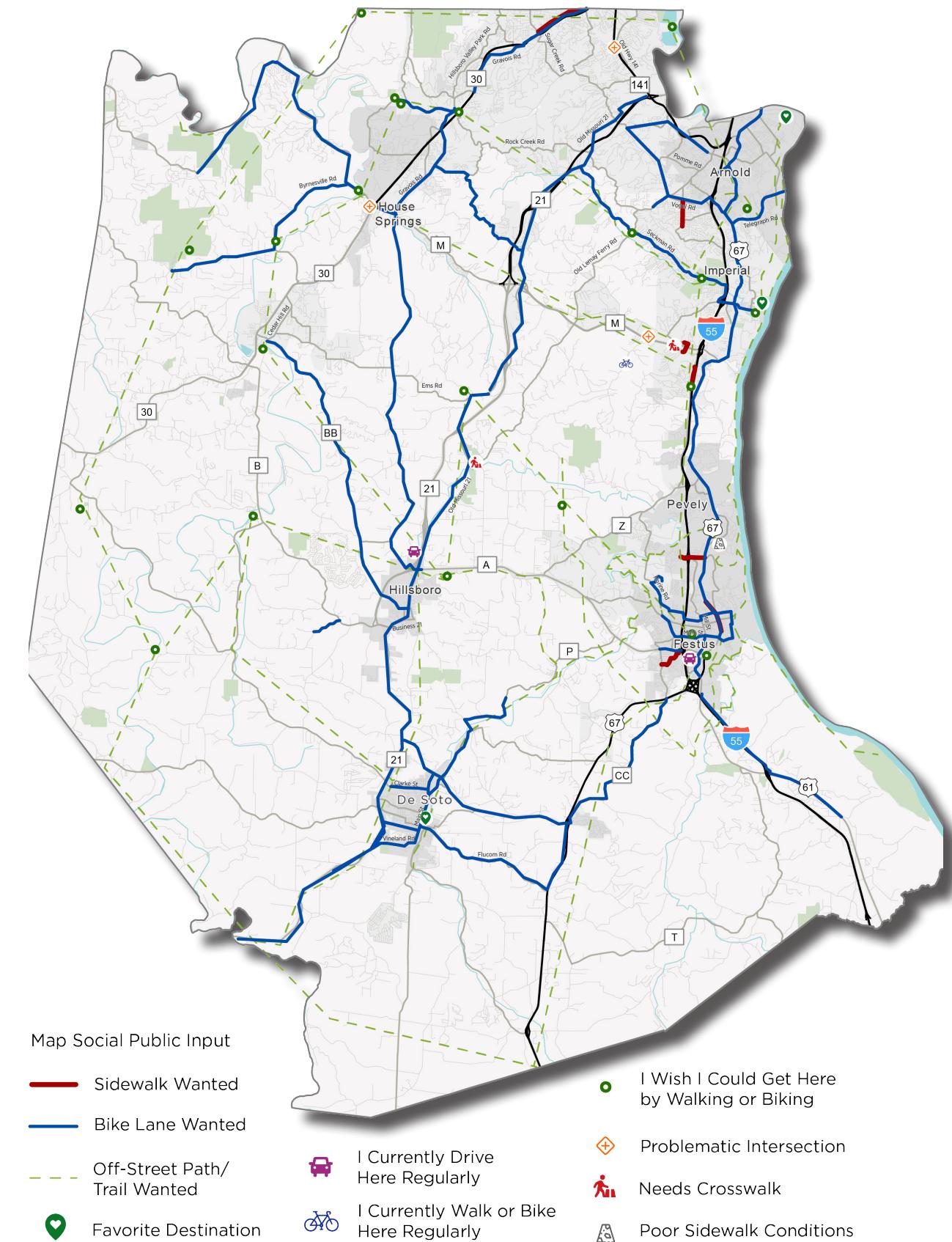
Overall, respondents expressed that they would like to improve their health and quality of life by walking and biking more, especially to connect to parks, and that they are mostly willing to accept the trade-offs that come with more street space for safer walking and biking infrastructure to do so. They are interested in investments in trails and greenways but above all want to connect to important destinations with safe travelways and crossings. More details are provided below.

- **Survey Participation:** The survey received 211 responses from May to August 2024, focusing on transportation habits, interest in walking and biking, and investment priorities.
- **Key Findings:** Most respondents drive (92%) but want to walk (80%) and bike (70%) more, mainly for recreation and health benefits. Major barriers include traffic safety, lack of sidewalks, and distant destinations.
- **Investment Priorities:** Top priorities are trails and greenways (71%), more sidewalks (54%), and safer intersections (49%). Respondents favor building sidewalks on busy streets and off-street bike paths.
- **Demographics:** Respondents are predominantly white, middle-aged, higher income, and able-bodied, which may skew the results towards leisure rather than necessity.

## Map.Social

A community mapping tool called map.social was live on the project website from May to August 2024. This tool allowed users to draw their desired paths from one place to another, favorite destinations, and areas of concern on an online map. Users can see others' drawings and upvote and downvote their ideas. The community map input from the first Open House (June 2024) was also added to map.social by the project team.

There were 101 mapped comments added to the map.social page, 63 of which were collected at the June 2024 Open House (see Map Social Public Input map of the following page). The project team incorporated these comments into walking and biking network recommendations.



## Advisory Group Meeting #3

The final Advisory Committee Meeting was held on October 1, 2024. The project team gave an update of the project status and schedule, discussed the methodology and interim results of scoring facilities in the draft walking and biking network, and reviewed the status of the design guide.

### PROJECT UPDATE

The project team provided an update of recent engagement activity, including the Pevely Days engagement event and the online survey and map.social results. A schedule for the remainder of the project was outlined. The team discussed progress on the design guide and reviewed typical pages and the form of entries into the design guide. Finally, the team gave an update on considerations for seeking grant funding for project implementation.

### DRAFT FACILITY SCORING

The team presented the draft network for walking and biking, and the first draft of value scores for each proposed segment. In the interim scoring presented here, a facility receives a higher score if it overlaps with the East-West Gateway High Injury Network, is located closer to greater population density and populations with barriers to driving, near schools with high enrollment, and located in areas with current high walking and biking activity. Facilities also received negative scores for challenging topography.

The advisory committee reviewed the interim results and offered feedback on the network coverage and scores to this point. Key pieces of feedback included emphasizing connections that scored low themselves but connect between very high value facilities, thoughtfully considering construction order when implementing projects, and other considerations in specific locations.

## Public Open House #2

### OPEN HOUSE

The second public open house held at the Jefferson County Administration Center in Hillsboro on October 24, 2024 introduced the project and its current state, highlighting previous community engagement efforts. Inside the Administration Center, attendees viewed maps of the draft network, which included scoring and prioritization methodologies. The draft design guide, aimed at helping the County implement best practices, was also showcased. Implementation and funding strategies were discussed, including the County's application for a demonstration grant under Safe Streets and Roads for All (SS4A) for three specific locations. Highlighting three high-priority projects helped illustrate the phased implementation of the network.

Attendees examined and commented on detailed roll plot maps showing proposed improvements, such as sidewalks, crosswalks, shared-use paths, and bike lanes, along with their priorities. Comments included debris issues, safety issues, a need for sidewalks, a desire for signed bike routes, and connections to places of interest and other trails.

### POP-UP DEMONSTRATION

A temporary pop-up demonstration was held outside of the Administration Center on Maple Street, converting four parallel parking spots into a two-way cycle track. This setup included a two-foot buffer with cones to simulate a physical barrier and a narrowed 12-foot travel lane to slow down traffic. Attendees experienced standing within the temporary cycle track, helping to consider reallocating public street space for pedestrians and cyclists.



Public Open House #2 on October 24, 2024

## Kimmswick Apple Butter Festival

The project team hosted a table at the Kimmswick Apple Butter Festival on October 26, 2024, displaying information and seeking feedback on a draft network and facility scores. Approximately 91 festival attendees engaged with the team, discussing the Walk Bike Jefferson County project.

Key discussions included:

- **Project Basics:** Many conversations were informational, clarifying that the project focuses on roadways rather than trails.
- **Support for Infrastructure:** Enthusiastic support for walking/biking infrastructure on US 61/67 and Seckman Rd.
- **Mastodon State Park:** Highlighted as a potential nexus for connecting neighborhoods, schools, and towns, enhancing recreation and transportation opportunities.
- **Shoulder Maintenance:** Concerns about debris on large shoulders, particularly on US 61 south from Festus.

Specific location feedback included:

- **Elm & Miller:** Dangerous intersection needing pedestrian infrastructure.
- **Montbello Drive to 67/Hwy K:** Desire for a sidewalk.
- **YMCA Dr./W. Gannon Dr. in Festus:** Need for walking connections to Schnucks and YMCA, where sidewalks are currently absent.



Kimmswick Apple Butter Festival on October 26, 2024

# 04

# Facility Analysis

## INTRODUCTION

Using existing conditions data, community engagement feedback, and guidance from prior plans, the team identified locations for future walking and biking facilities in Jefferson County. These identified corridors were broken out into dedicated facilities, those where sidewalks and paths are recommended, and signed bike routes, where light interventions serve cyclists sharing the road.

Dedicated facilities were divided into segments of at most one-half mile and scored for their value potential for walking and biking. Segments near large schools and high population density, for example, received higher scores. Scoring criteria were selected based on peer-reviewed research and takeaways from community engagement. This chapter describes the scoring methodology and results in detail.



Pleasant Valley Nature Preserve

# NETWORK FOR WALKING & BIKING

The proposed network was created through extensive analysis of numerous factors, which first consisted of examining the current sidewalk and bike infrastructure network throughout Jefferson County to identify gaps. Proposed facilities with dedicated space for pedestrians and bicyclists (Dedicated Facilities), and shared bicycle routes are shown in the map on the right. Specific facility types for the dedicated facilities are detailed in [Chapter 5](#).

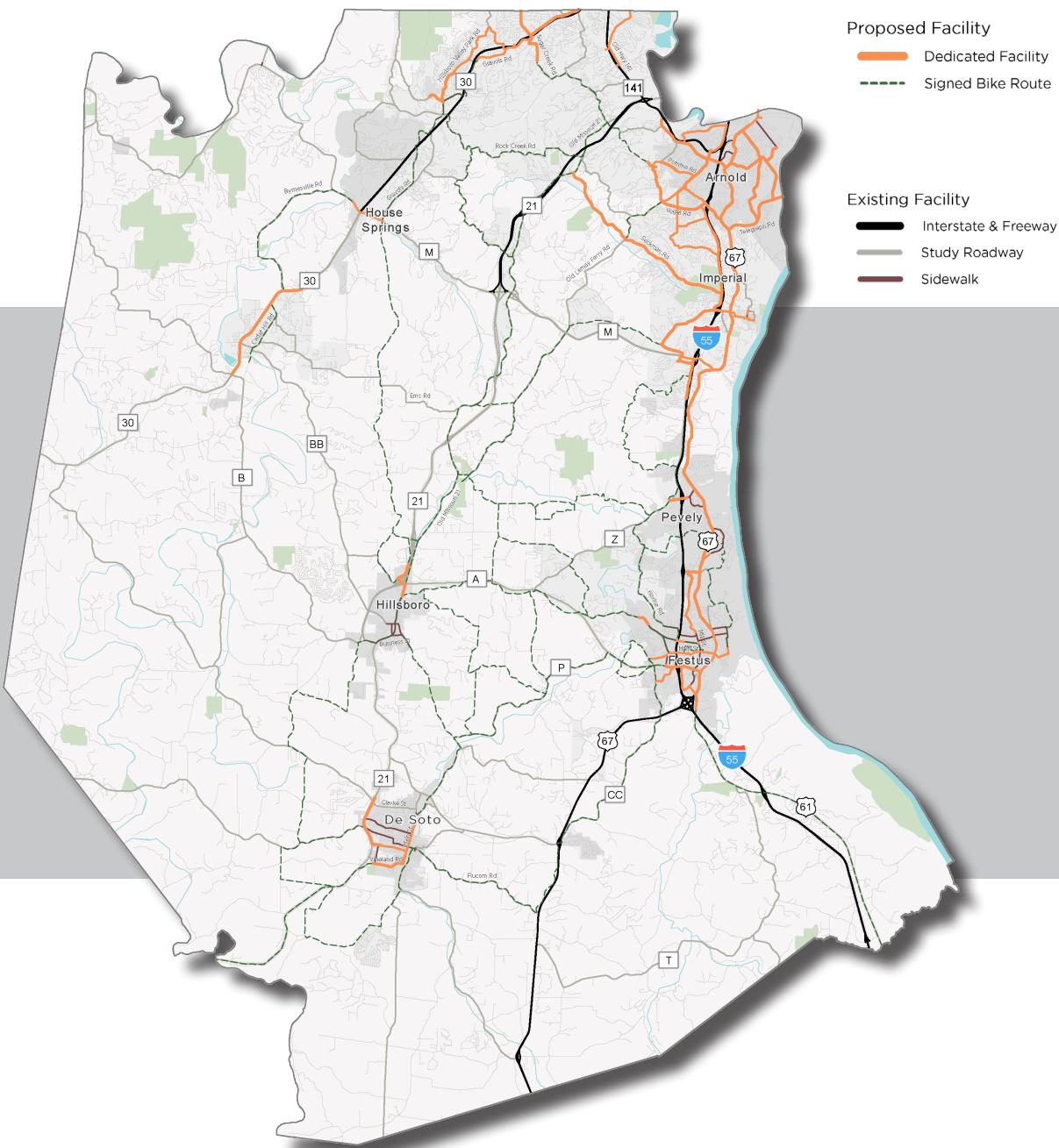
Safety concerns and areas with a history of crashes involving people walking and biking were identified as bike or pedestrian safety priorities, with first consideration for inclusion on the future network.

Connection to destinations and proximity to destinations were both examined, and areas with local proximity to destinations (such as a residential neighborhood near a grocery store or park) were considered for pedestrian connectivity improvements. If potential destinations were identified on a larger or more regional scale, bicycle connectivity improvements were considered. Other key destination types identified as desirable connections through the community engagement process, like schools, parks, shopping areas, and community areas like libraries were examined for potential connectivity improvements to surrounding areas.

Many desired routes and connections noted directly by the public during the numerous community engagement opportunities were included in the future network, along with other nearby connections incorporated in several cases.

Once routings and connections were initially identified, consideration of roadway characteristics and other surrounding land use and connectivity context was used to determine the type of proposed facility (multi-use path, shared-use path, sidewalks, or signed bike route). After creation of the draft network, it was presented to the public at the second public open house, with adjustments to the network made based on comments from the community.

Proposed Future Network



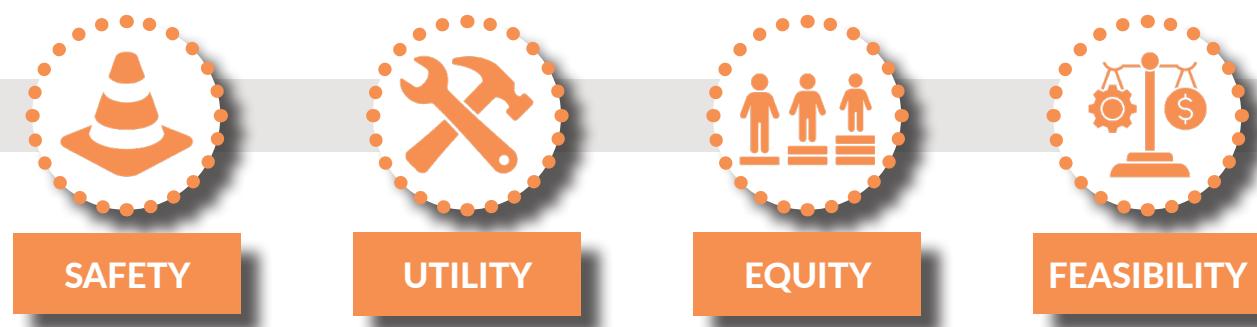
# SCORING FRAMEWORK

The facilities in the draft network for walking and biking were identified by existing conditions data and by the public and community stakeholders during the many engagement events in the first phase of the Walk Bike Plan.

The project team developed a scoring framework and methodology for estimating the value and costs of proposed bicycle and pedestrian infrastructure projects. Each project was scored based on this method. These scores are the primary basis for project prioritization.

To draft the scorecard, the project team reviewed peer active transportation plans and academic research. These findings were combined with takeaways from public engagement to create a draft scorecard. The scorecard and the criteria were presented to the Advisory Committee at their second meeting on August 7, 2024. The Advisory Committee provided feedback on the scoring framework, and the final scorecard was developed.

The scoring categories break out broadly into Safety, Utility, Equity, and Feasibility.



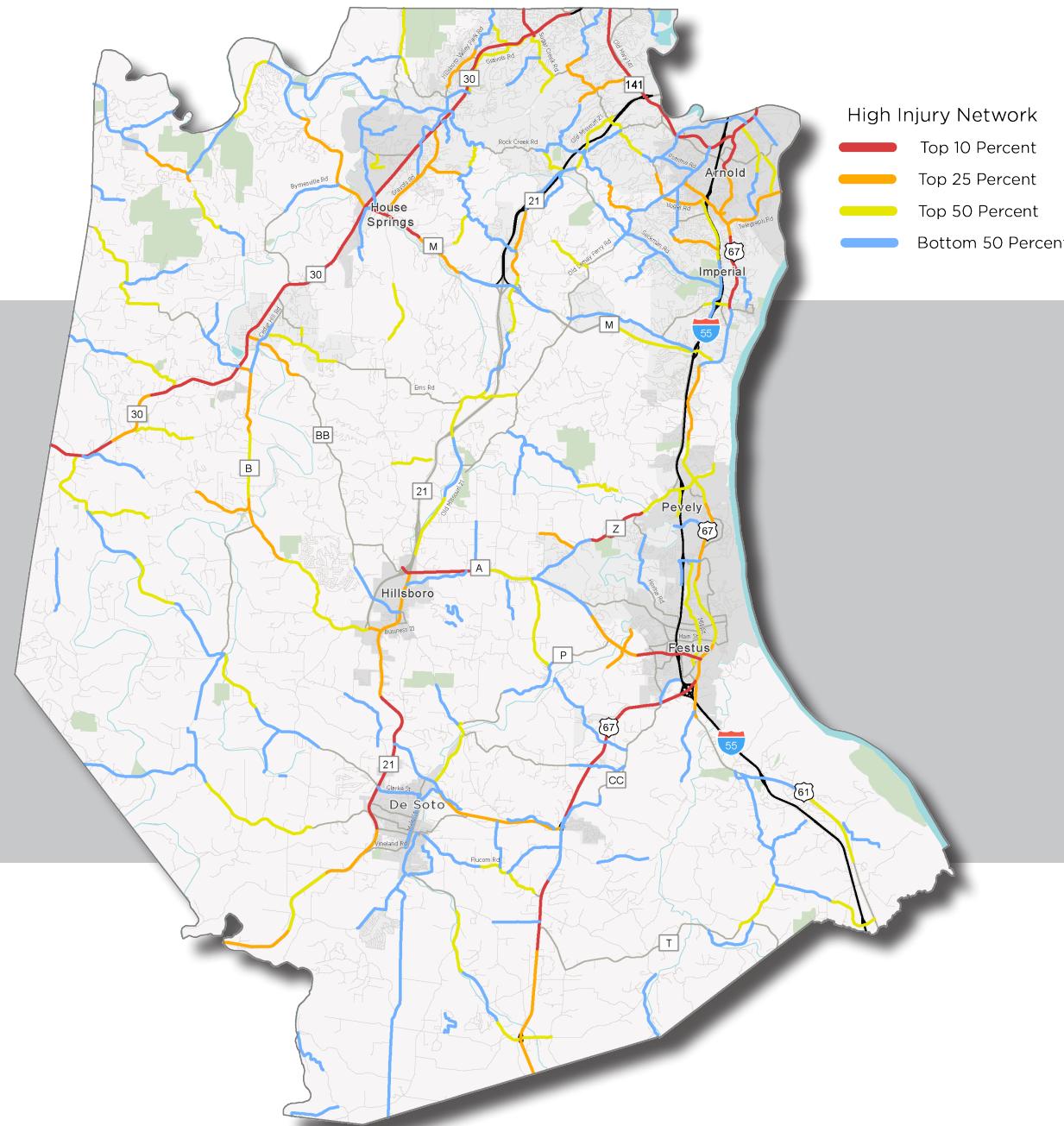
## Safety

Stakeholders consistently listed safety as a top value when discussing the guiding principles of the network for walking and biking. Safety is a necessary condition for users with alternatives to choose to walk or bike. Safety is given the highest weight during facility scoring.

Analyzing numerous aspects of current roadway and safety data in the current state of the transportation network is crucial to identifying key problem areas, limiting factors, and ideal areas to develop and expand a future walking and biking network. Without a comprehensive understanding of areas with a history of crashes and safety issues, a targeted approach in improving safety for people walking and biking cannot be successful.

EWG's Gateway to Safer Roadways High Injury Network (HIN) measures the severity of the crash history of roadways. Projects proposed in locations on the high injury network are given a bonus for addressing the region's most pressing transportation safety concerns.

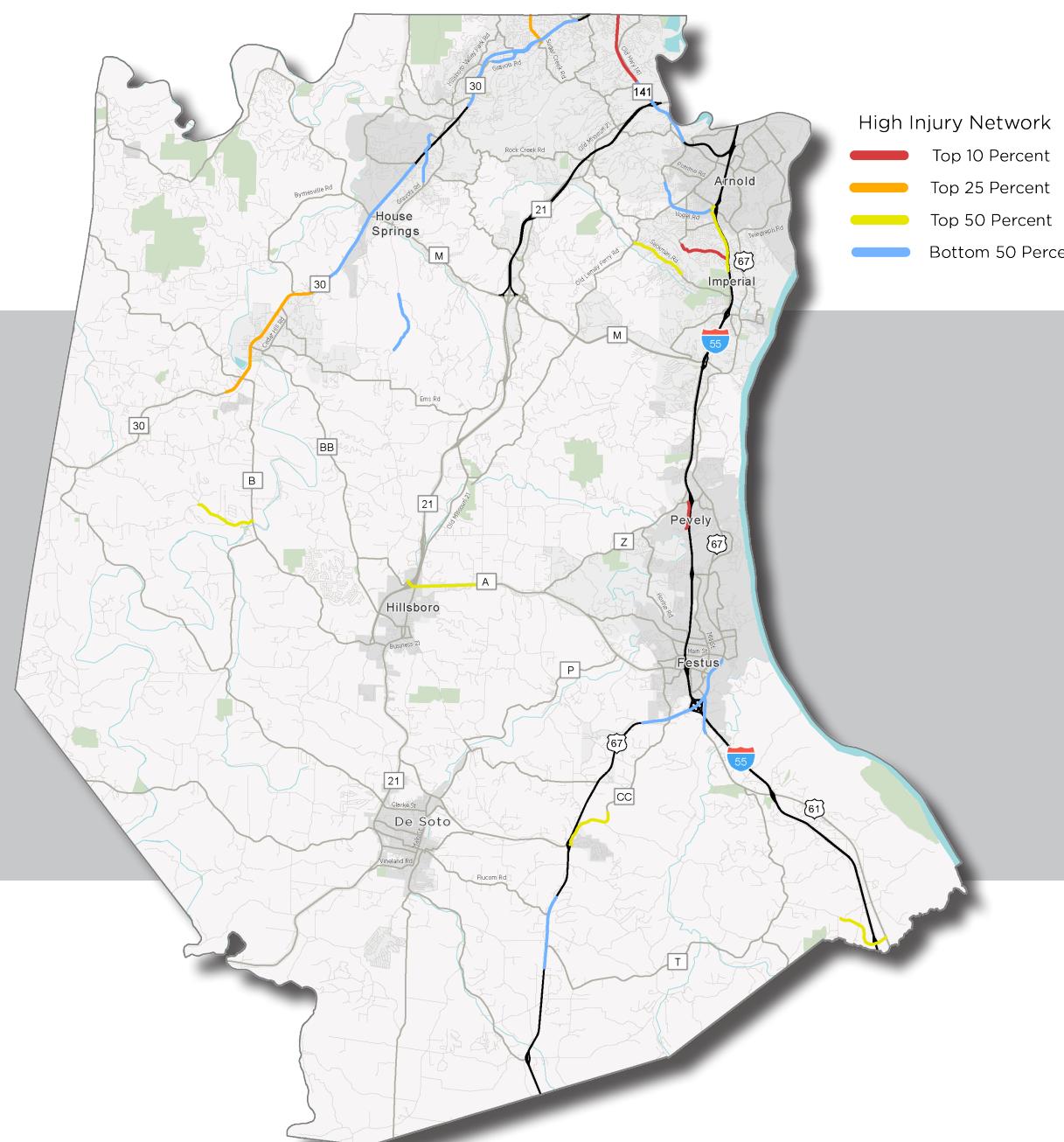
High Injury Network - All Crashes



## HIGH INJURY NETWORK - ALL CRASHES

Walking and biking projects can help to improve safety for all road users, including drivers. The potential re-allocation of space and other enhanced facilities can serve as a form of traffic calming and reduce conflict points for all road users. Additionally, people may choose to avoid walking or biking along unsafe roadways, even if the route is more direct than other routes that are (and feel) safer. Proposed projects located within corridors identified in the upper percentiles of the high injury network scored highly for prioritization.

## High Injury Network - Bicycle and Pedestrian Crashes

**HIGH INJURY NETWORK - BICYCLE AND PEDESTRIAN CRASHES**

Understanding specific locations with walking and biking safety concerns is a key aspect to safety scoring. Targeting areas experiencing a current high rate of injury and death for people walking and biking are critical focal points of this plan. These corridors were scored highly for prioritization, as they highlight locations where pedestrian and bicycle conflicts with vehicles occur, resulting in injury and death. Improving safety of these corridors can also help to encourage more people to walk or bike along them.

**Utility**

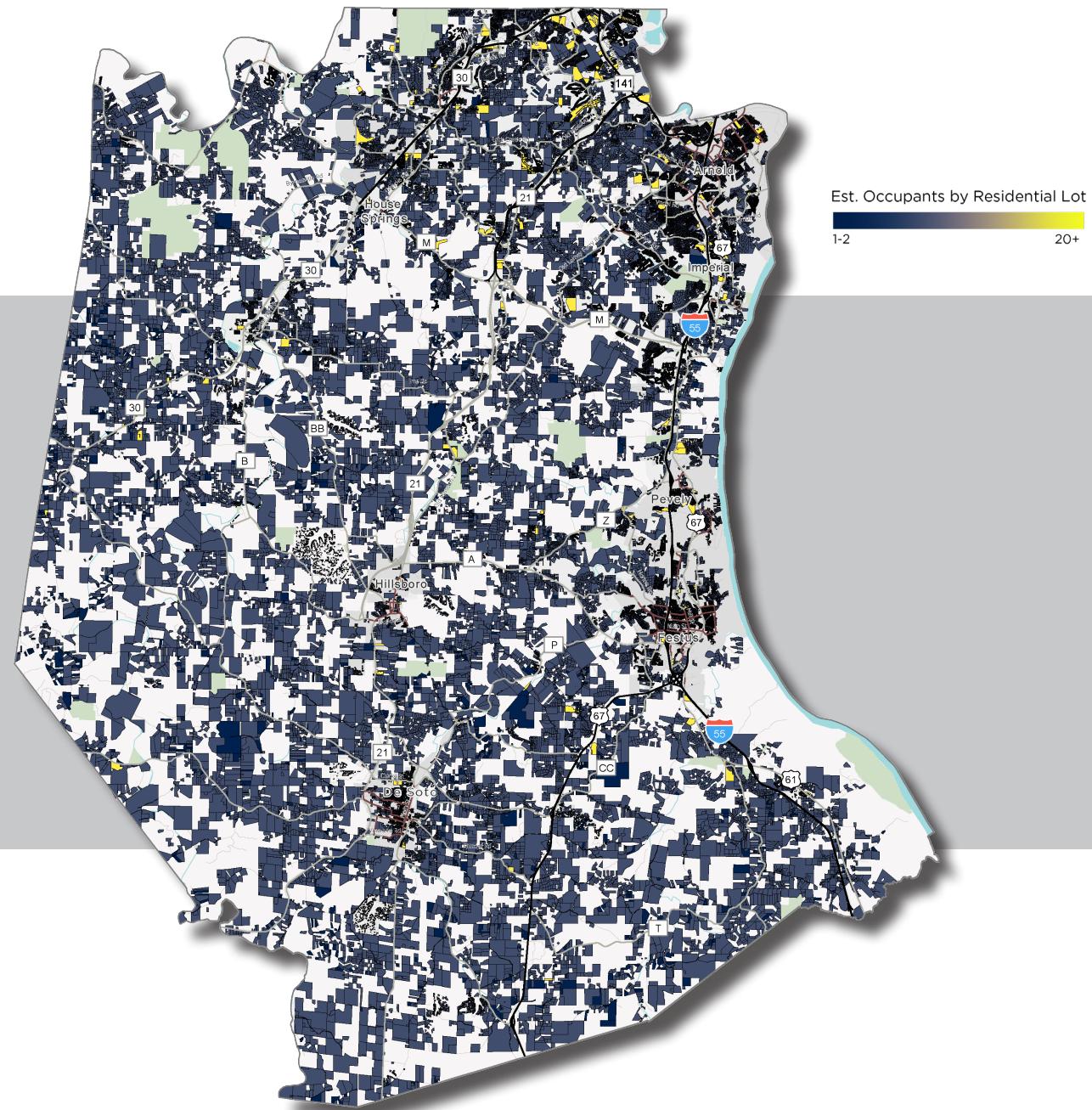
Utility measures the potential for a project to be a valuable and well-used piece of the walking and biking network. In directly measuring potential for walking and biking activity, this category serves as an indirect measure to several important benefits: health and physical activity, decreased congestion and pollution, support of the local economy, and increased quality of life.

Existing short driving trips are the easiest trip types to convert to walking or biking trips, and Jefferson County currently has about 29,000 driving trips on a typical weekday that are under one mile in length, according to data from Replica. Safe, useful walking and biking routes offer the greatest potential for shifting some short driving trips to walking and biking.

The Facility Scoring process includes the following criteria when measuring the utility of a potential piece of the walking and biking network:

- **Nearby destinations** and **residential density**
- **Current activity** of walking, biking and short driving nearby
- **Connectivity** to existing or planned walking and biking infrastructure
- **Inclusivity** of the proposed infrastructure - the facility should be appropriate for all ages and abilities, with consideration for who feels safe and comfortable using the proposed facility, and in a location where topography is not a significant barrier to use by people walking or biking.

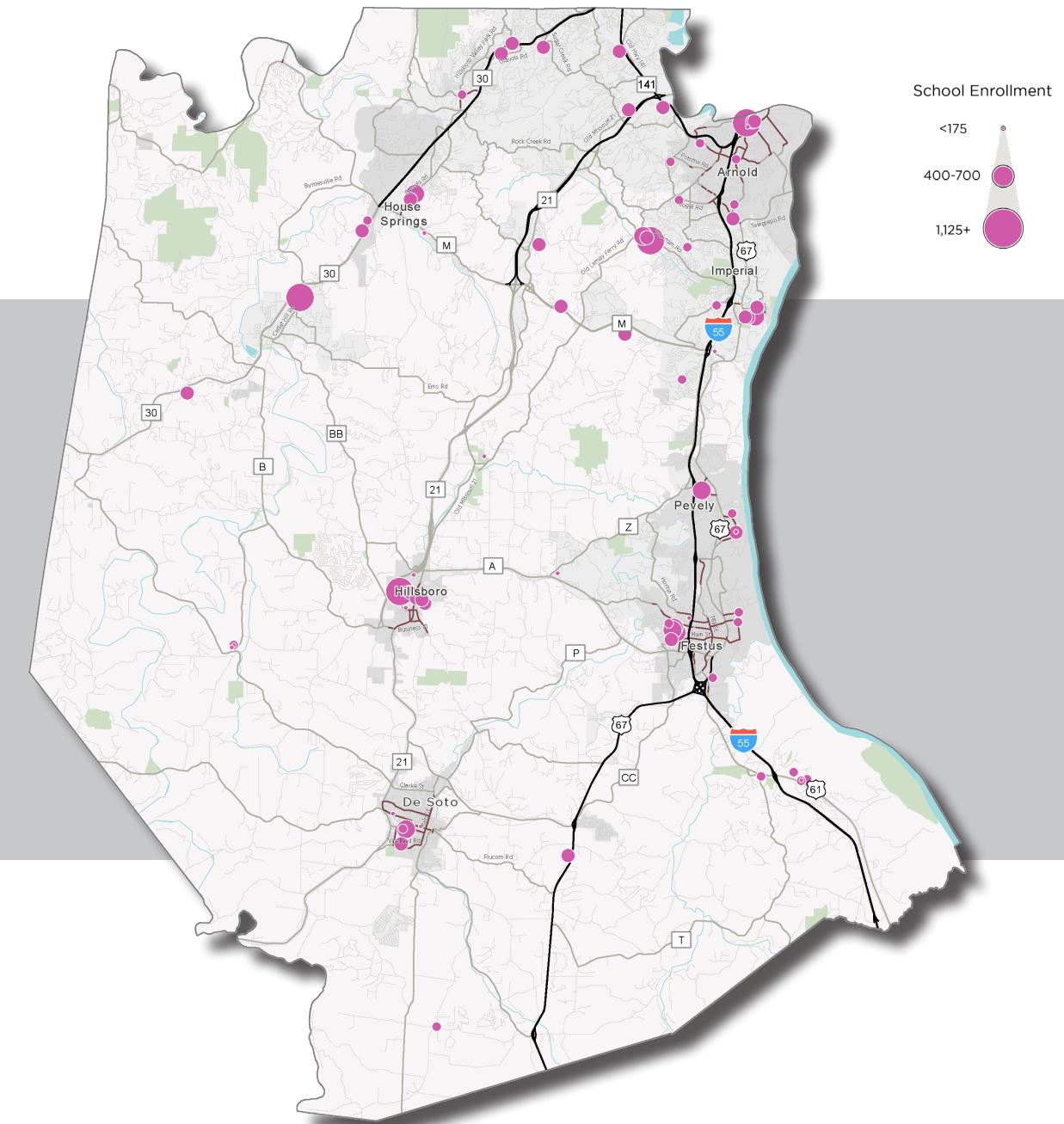
Residential Density



## RESIDENTIAL DENSITY

Areas with higher residential density are generally more conducive to supporting walking and biking. As the practicality of walking and biking as a means of transportation is higher when trip distances are shorter and destinations are closer together, more people living in a certain area helps support more walking and biking activity. Additionally, it can be more cost-effective to install walking and biking infrastructure in higher-density areas, as more people have access to it and can use it.

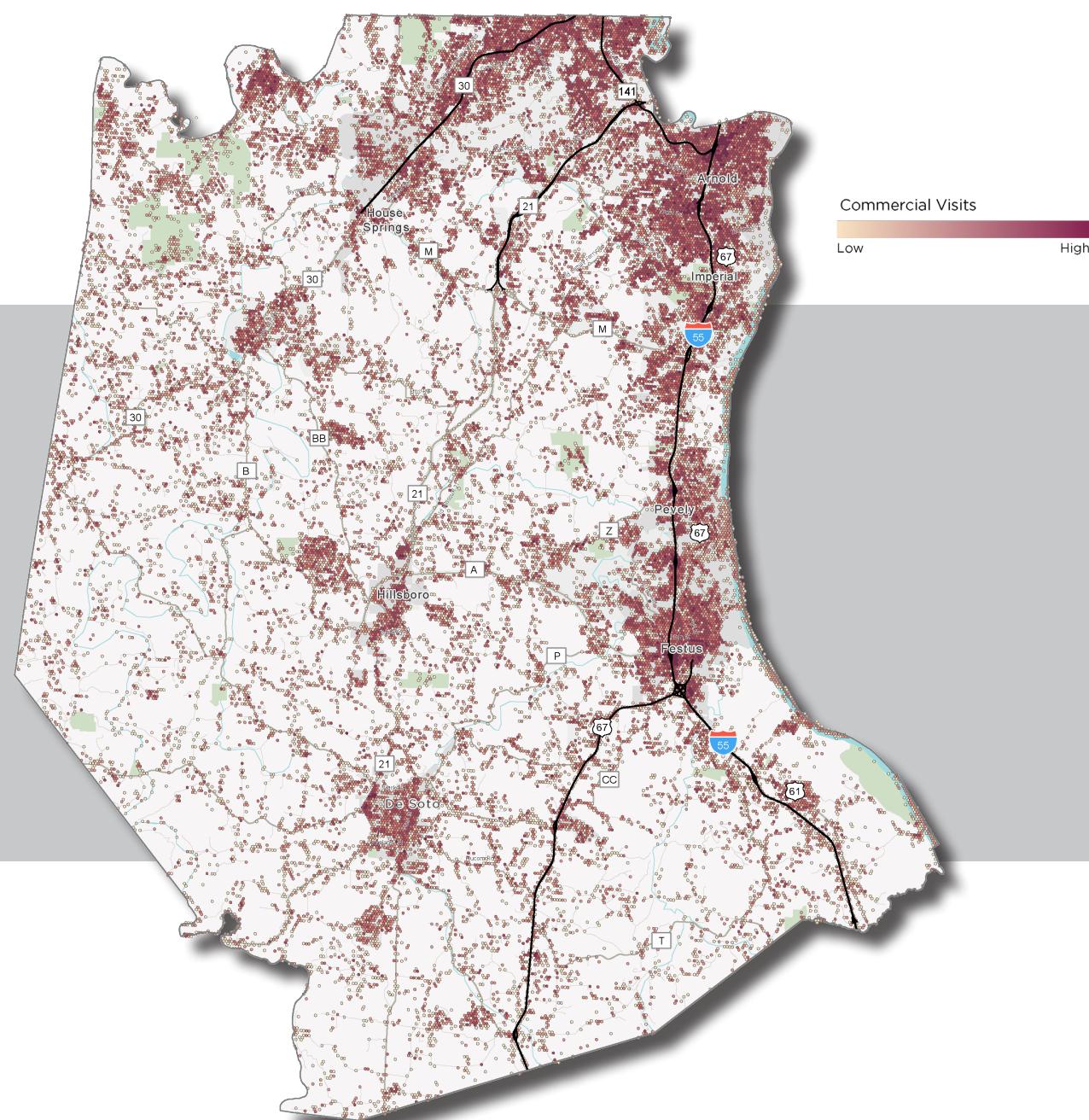
School Enrollment



## SCHOOL ENROLLMENT

Improving walking and biking near schools can have substantial improvements for safe routes to school, and was noted during community engagement events as an important aspect of the plan that should be prioritized. Not only does safe and comfortable walking and biking infrastructure near schools better protect children walking or biking to school, they can also help encourage more children to walk or bike to school. More people walking or biking to school improves physical and mental health, and decreases the burden on parents/guardians and school buses transporting children to and from school, all while decreasing traffic congestion and emissions.

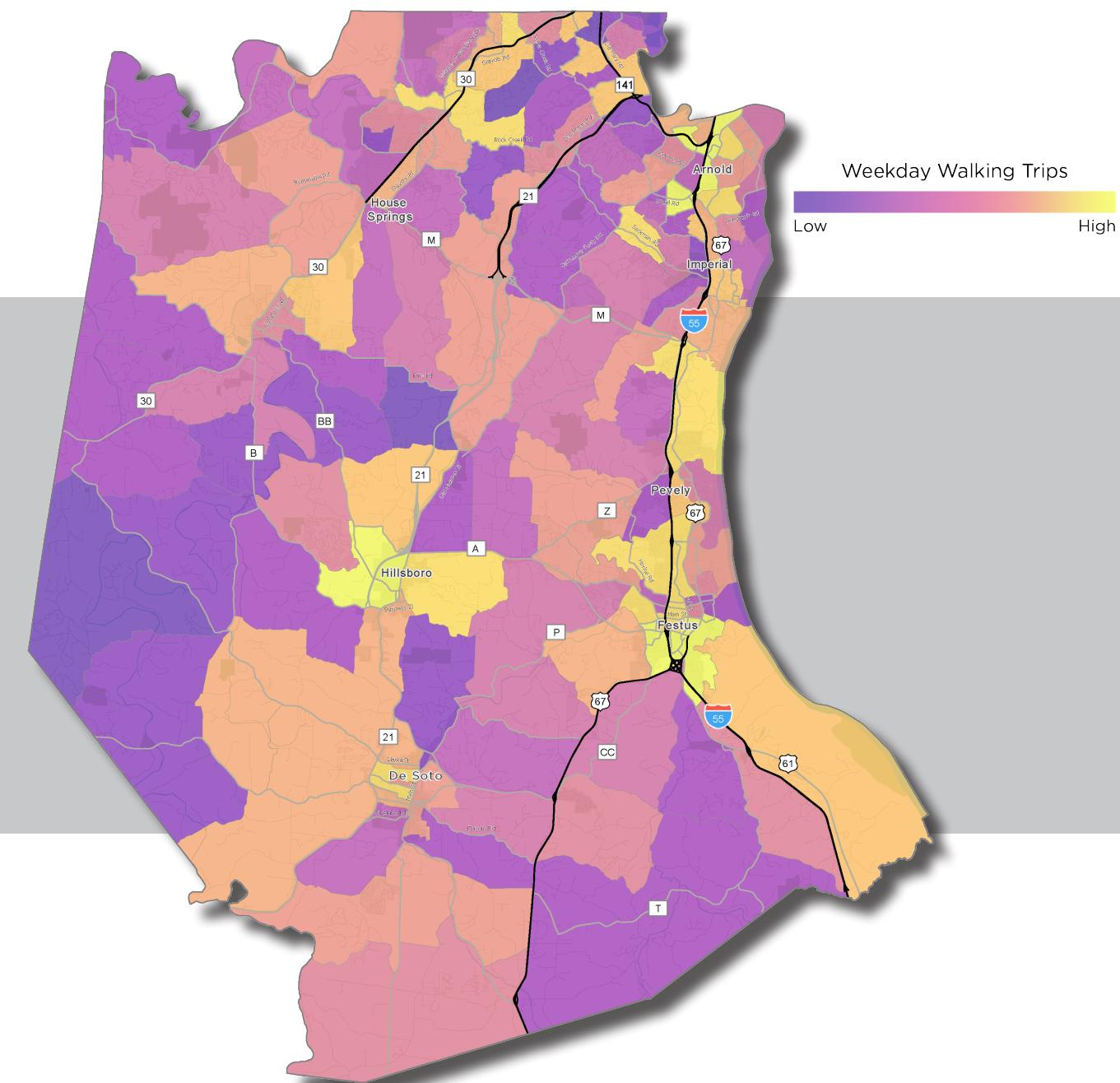
Commercial Visits



## COMMERCIAL VISITS

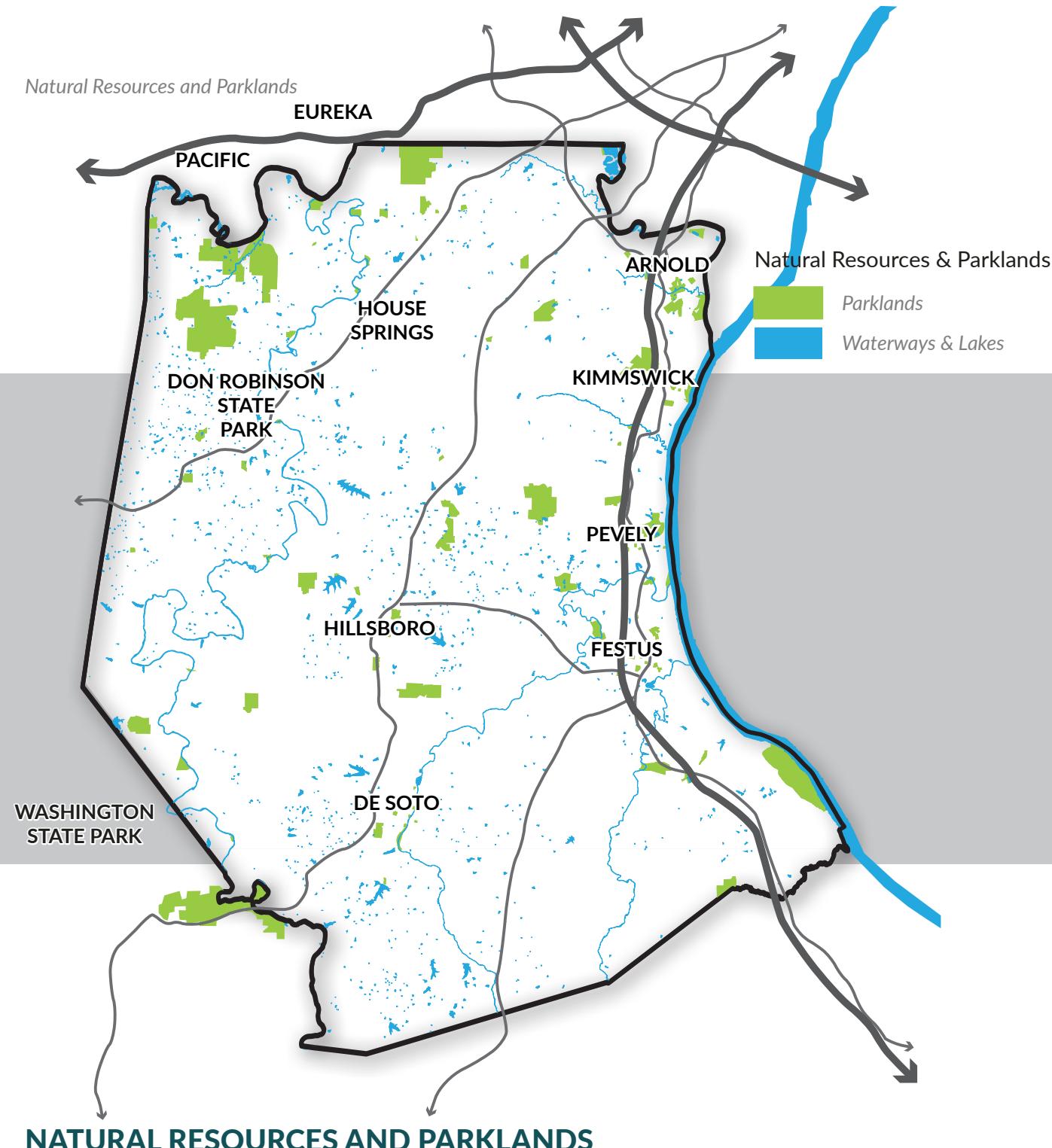
High commercial visits indicate destination hubs that people travel to. Understanding where visits to commercial areas occur and thus where people need and want to travel to helps to determine where walking and biking infrastructure may be most useful and beneficial. Walking and biking infrastructure connecting these areas can help to convert car trips to walking or biking trips, reduce the need for parking at destinations, and ensure that people who can't drive are able to safely reach commercial destinations for meaningful participation in society.

Walking Trips - Weekdays



## WALKING TRIPS - WEEKDAYS

Places where walking trips are already happening are indicators that better sidewalks and crossings will be well-used. The map shown here estimates the number of walking trips completed on a typical weekday in Fall 2023 (data from Replica). These trips are made to reach a destination for a purpose; they exclude trips like walking the dog or jogging for exercise. Replica estimates about **58,000 weekday walking trips** in Jefferson County.



Jefferson County is known for its natural beauty and numerous parks, with smaller community parks in urban areas and larger conservation areas and state parks in rural areas. These assets provide a high potential to provide more and better walking and biking connections to serve both residents and tourists, and improving walking and biking connections to parks is a key priority of this plan. Capitalizing on Jefferson County's natural beauty can improve quality of life and support tourism, with residents and visitors having a desire to enjoy the scenery on foot and bike.

Topography



## TOPOGRAPHY

While beautiful, Jefferson County's hilly terrain can be a barrier by increasing exertion required for walking or biking trips. Understanding topography and hill grades can help to determine whether walking and biking infrastructure may be practical in certain areas. If, for example, there are two different routes to connect two destinations and the routes otherwise score similarly, the route with flatter topography may be prioritized.

## Equity

Equity measures the presence of communities that have large proportions of vulnerable populations and those with barriers to driving. These locations have historically received disproportionately low transportation investment, and the community may benefit most from infrastructure that enables trips without a car.

### POPULATION WITH BARRIERS TO DRIVING

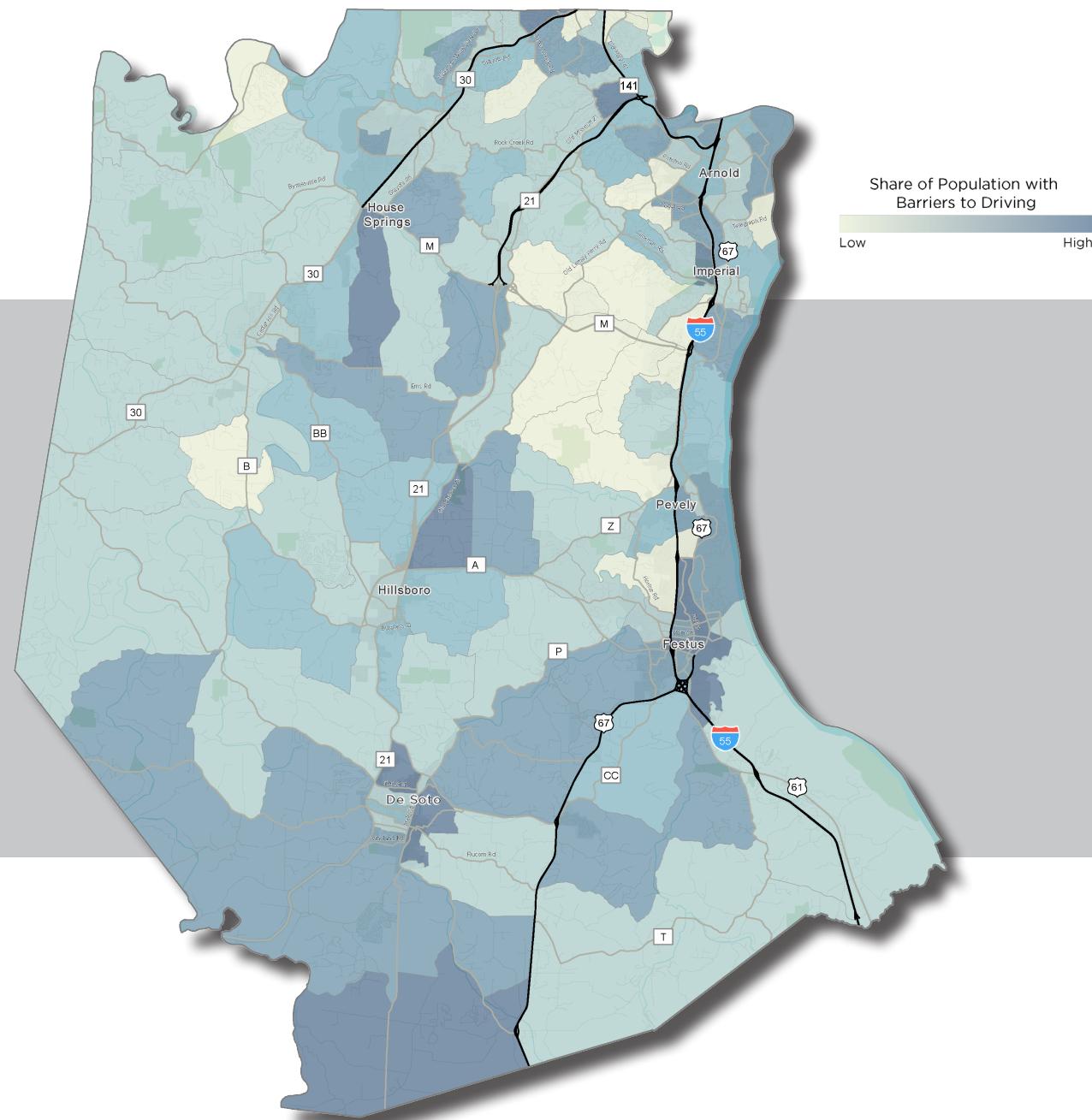
This index uses data from the American Community Survey to estimate the share of population that has substantial barriers to transportation by car. About 30% of the U.S. population does not have a driver's license. These people must rely on others for auto transportation, find alternatives to driving, or defer trips altogether.

The index was created based on the assumption that 29% of the population has a barrier to driving. The lowest index scores indicate that 5-10% of the population has some barrier to driving, while the highest index scores indicate as much as 65% or more.

The following population demographics were used to generate the index shown here, with the weight applied to that group included:

- Estimated population in zero car households (Very High)
- Population with a disability (High)
- Low English Proficiency (High)
- Young population, age 24 or younger (Low)
- Senior population, age 65 or older (Low)

Population with Barriers to Driving



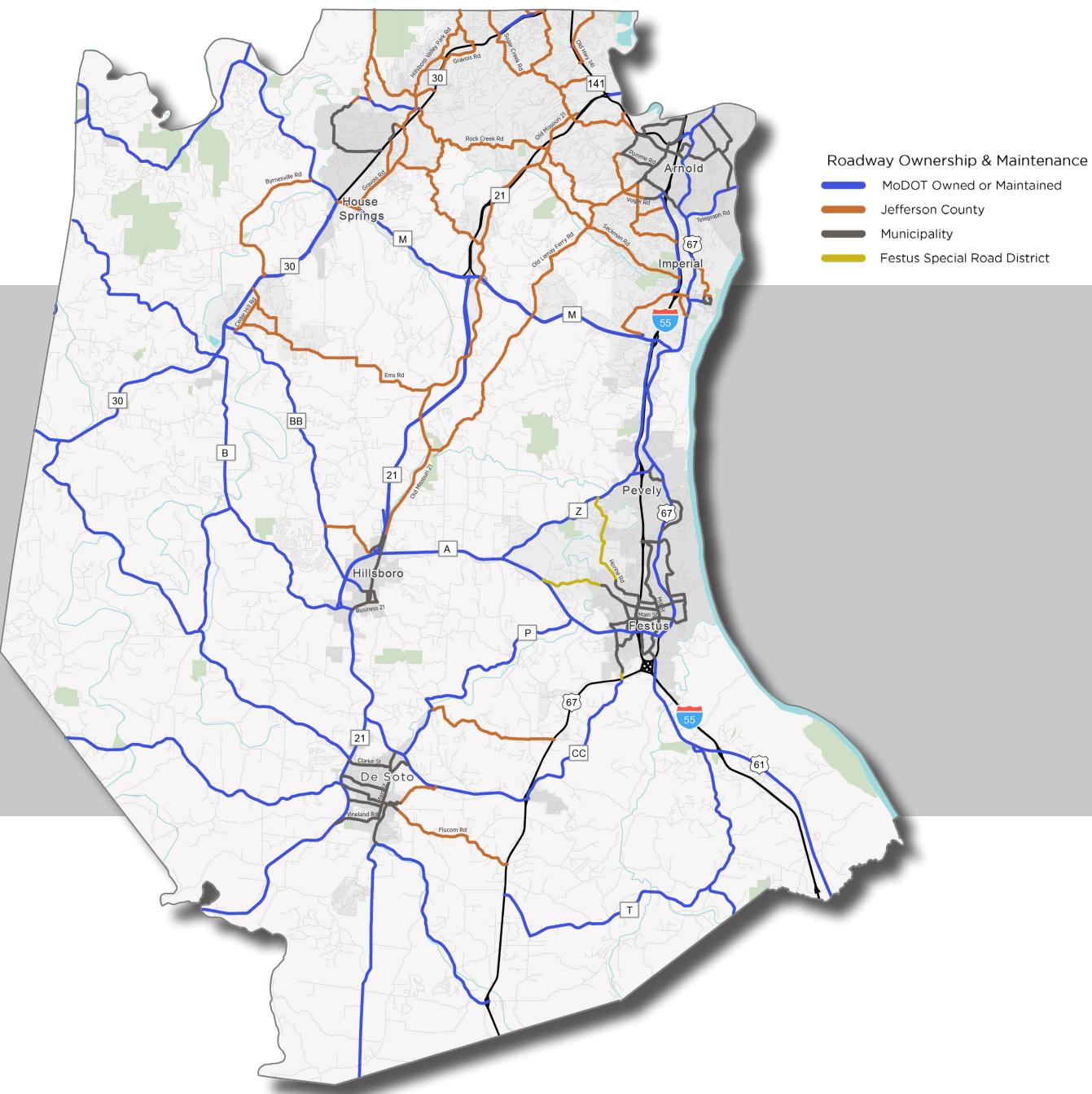
## Feasibility

Feasibility estimates the likelihood that the project can be coordinated and completed. Cost, project complexity, coordination across government agencies, and potential impacts to nearby residents are all important elements of feasibility which are accounted for here. Projects on roadways maintained by Jefferson County get higher priority because this plan is implemented by Jefferson County Public Works.

## ROADWAY OWNERSHIP

While the proposed network was created without regard to roadway ownership to ensure a network that cohesively connects throughout the County, including through its cities, roadway ownership is considered when prioritizing projects. The network utilizes roadways that are under Jefferson County, MoDOT, and local municipalities' jurisdiction. As this plan is being implemented through the County, the County has direct control over how County roadways are designed. Projects along roads under MoDOT or local jurisdiction will need coordination with the respective agency.

Roadway Ownership



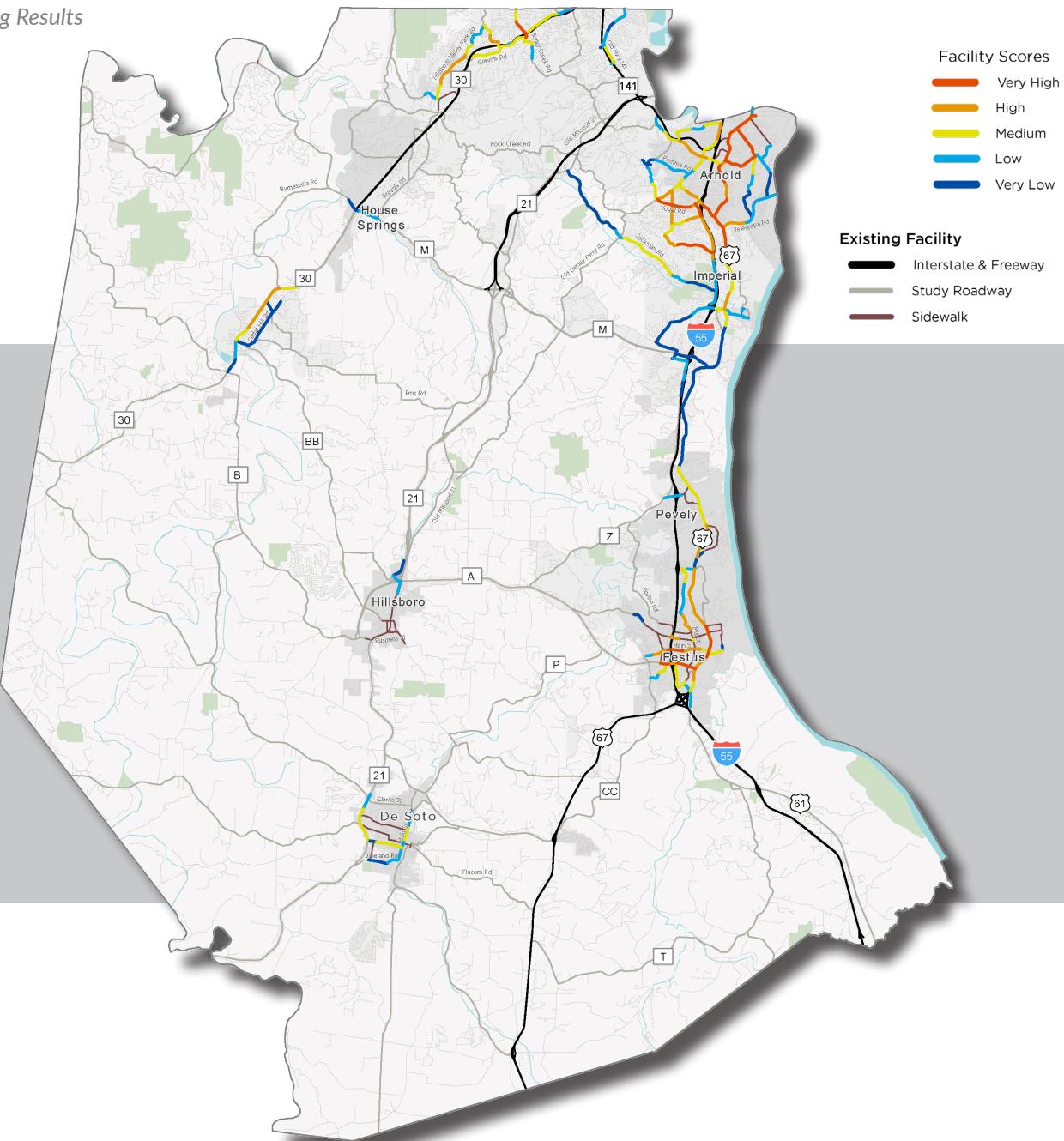
# SCORING RESULTS

Each segment was scored in each of the categories presented above, and a single composite score was created. The results of the facility scoring overlay is shown in the map on the right. The top 10% of facilities by composite score are labeled Very High. The rest of the facilities are sorted by composite score and evenly split among the High, Medium, Low, and Very Low buckets.

The highest scoring facilities are concentrated in the most urbanized areas of Jefferson County, especially Arnold, Festus, and the High Ridge area. This result is not surprising, considering that safety and utility are both related to population density and intensity of commercial development. Places like JeffCo Boulevard in Arnold have relatively high commercial activity and population density, which are connected to high school enrollment and the traffic safety outcomes that come with all related traffic. Even equity considerations like concentration of people with barriers to driving follow this pattern. Feasibility is the greatest challenge in locations like these and is most explicitly considered during the project prioritization step.

Scoring Results	Composite Score Range	Total Length (mi)
Very High	4.1 - 5.1	12.1
High	3.4 - 4.1	18.5
Medium	2.6 - 3.4	24.5
Low	1.8 - 2.6	22.2
Very Low	-0.1 - 1.8	22.6

Scoring Results

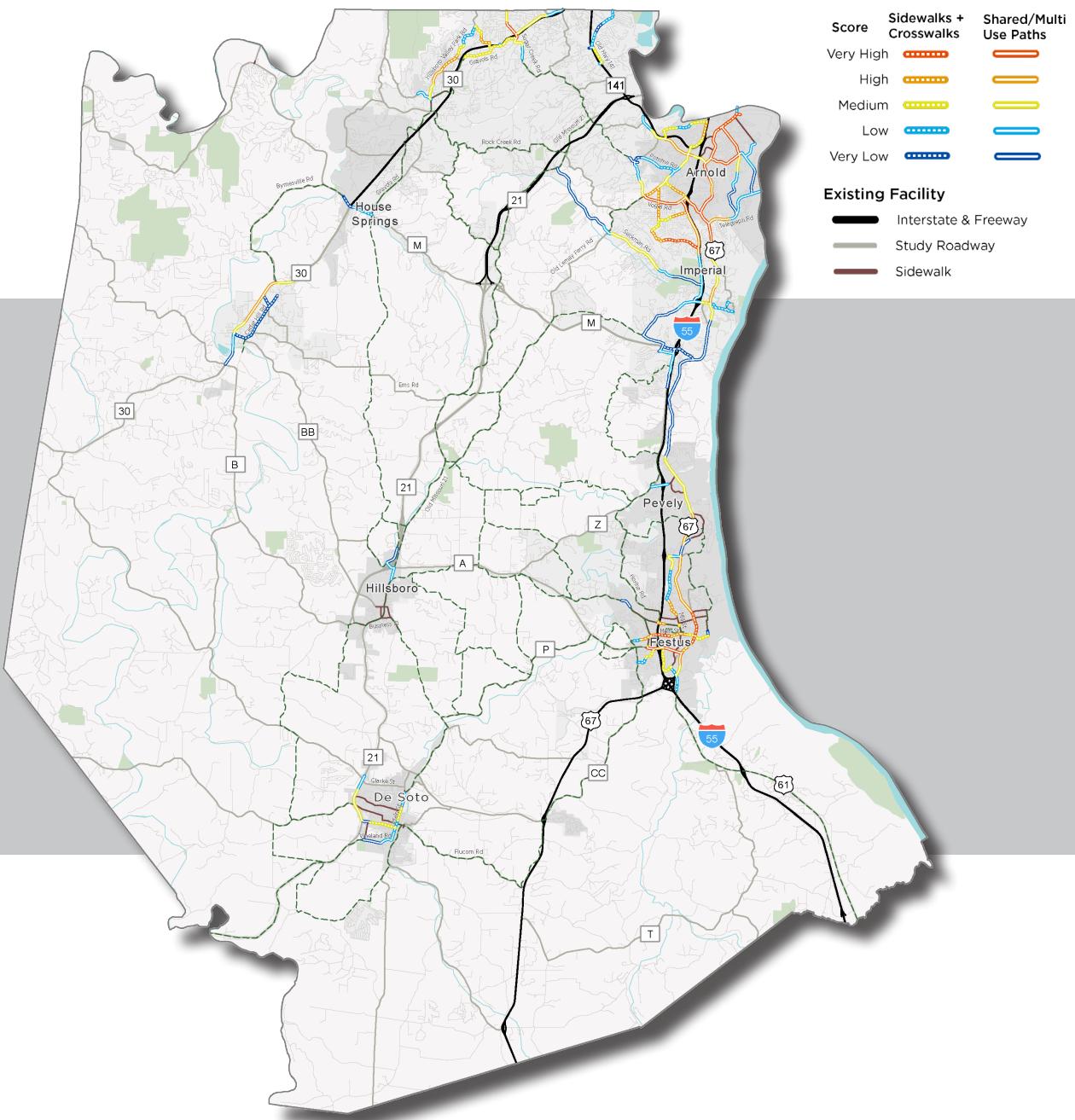


## SCORING AND FACILITY TYPES

Projects and scoring were broken down by different facility types, including shared-use paths, multi-use paths, and sidewalks. While different facility types are explained in depth in [Chapter 5](#), a breakdown is included below, specifying how many miles of each facility type are prioritized, from very high to very low. The project segments identified with the highest scoring and thus highest priority are included in the table on the following pages, with a more in-depth analysis of project prioritization ([Chapter 6](#)), all projects and ROIs ([Appendix A](#)), and segment scores ([Appendix B](#)).

Facility Miles	Shared Use Path	Multi Use Path	Sidewalks
Very High	4.2	4.4	3.4
High	8.9	2.4	7.3
Medium	9.5	4.7	10.3
Low	8.2	6.3	7.7
Very Low	10.4	6.6	5.6

Scoring Results



# HIGHEST PRIORITY SEGMENTS

Roadway	Start and End Points	City or Closest City	Roadway Jurisdiction	Facility Type	Overall Scoring
US 61/67	Francis Drive to Riverbluff Drive	Arnold	MoDOT	SUP	100%
US 61/67	Ann Drive to Francis Drive	Arnold	MoDOT	SUP	99%
Vogel Road	Miller Road to Elmer Drive	Arnold	City of Arnold/Jefferson County	SUP	99%
Tenbrook Road	US 61/67 to Arnold Tenbrook Road	Arnold	City of Arnold	MUP	98%
US 61/67	Arnold Tenbrook Road to Ann Drive	Arnold	MoDOT	SUP	98%
Miller Road	Quartz Lane to Quail Run	Arnold	Jefferson County	Sidewalks	97%
Miller Road	Quail Run to Outer Road	Arnold	Jefferson County	Sidewalks	97%
US 61/67	Riverbluff Drive to Bradley Beach Road	Arnold	MoDOT	Sidewalks	96%
Veterans Blvd	Collins Drive to Long Street	Festus	MoDOT	MUP	96%
Vogel Road	Old Lemay Ferry Road to Miller Road	Arnold	Jefferson County	SUP	96%
Veterans Blvd	Gannon Drive to US 61/67	Festus	MoDOT	MUP	95%
W Outer Road	Vogel Road to Elm Drive	Arnold	City of Arnold	Sidewalks	95%
Jeffco Blvd	Grandview Park Drive to Telegraph Road	Arnold	MoDOT	SUP	94%
Jeffco Blvd	Grandview Park Drive to Mary Drive	Arnold	MoDOT	MUP	94%
US 61/67	Telegraph Road to Miller Road	Arnold	MoDOT	SUP	93%
US 61 N Truman Blvd	11th Street to Church Place	Festus/Crystal City	MoDOT	Sidewalks	93%
Main Street	Sunshine Drive to Park Avenue	Festus	City of Festus	Sidewalks	92%
Jeffco Blvd	Church Road to Fox Pointe Drive	Arnold	MoDOT	MUP	92%
US 61 N Truman Blvd	Beffa Street to Church Place	Festus/Crystal City	MoDOT	Sidewalks	92%
Richardson Road	Robinson Road to US 61/67	Arnold	City of Arnold	SUP	91%
Arnold Tenbrook Road	US 61/67 to Tenbrook Road	Arnold	City of Arnold	MUP	91%
Old/New Sugar Creek Road	Sugar Creek Square to Gravois Road	Murphy	Jefferson County	SUP	90%
New Sugar Creek Road	Lark Drive to Sugar Creek Square	Murphy	Jefferson County	Sidewalks	90%

**Roadway Jurisdiction:** Who owns the road

**Start and End Points:** Project limits

**Facility Type:** Shared-use path, multi-use path, or sidewalks

**Scoring:** Based on previous methodology description

# 05

## Bike and Pedestrian Best Practices Guide

### DESIGN GUIDE OVERVIEW

The Bike and Pedestrian Best Practices Guide is intended to be a resource for Jefferson County to assist with development and implementation of improvements to bike and pedestrian connectivity throughout the county, including towns, rural communities and unincorporated areas. The design guide provides high-level best practices and design guidance to help develop and maintain multi-modal, safe, accessible, comfortable, and active travel for people of all ages and abilities. Engineering design is still required for all projects, but the design guide is intended to assist with project scoping during the conceptual design phase.



# BICYCLE PEDESTRIAN INFRASTRUCTURE DESIGN GUIDE

## Introduction

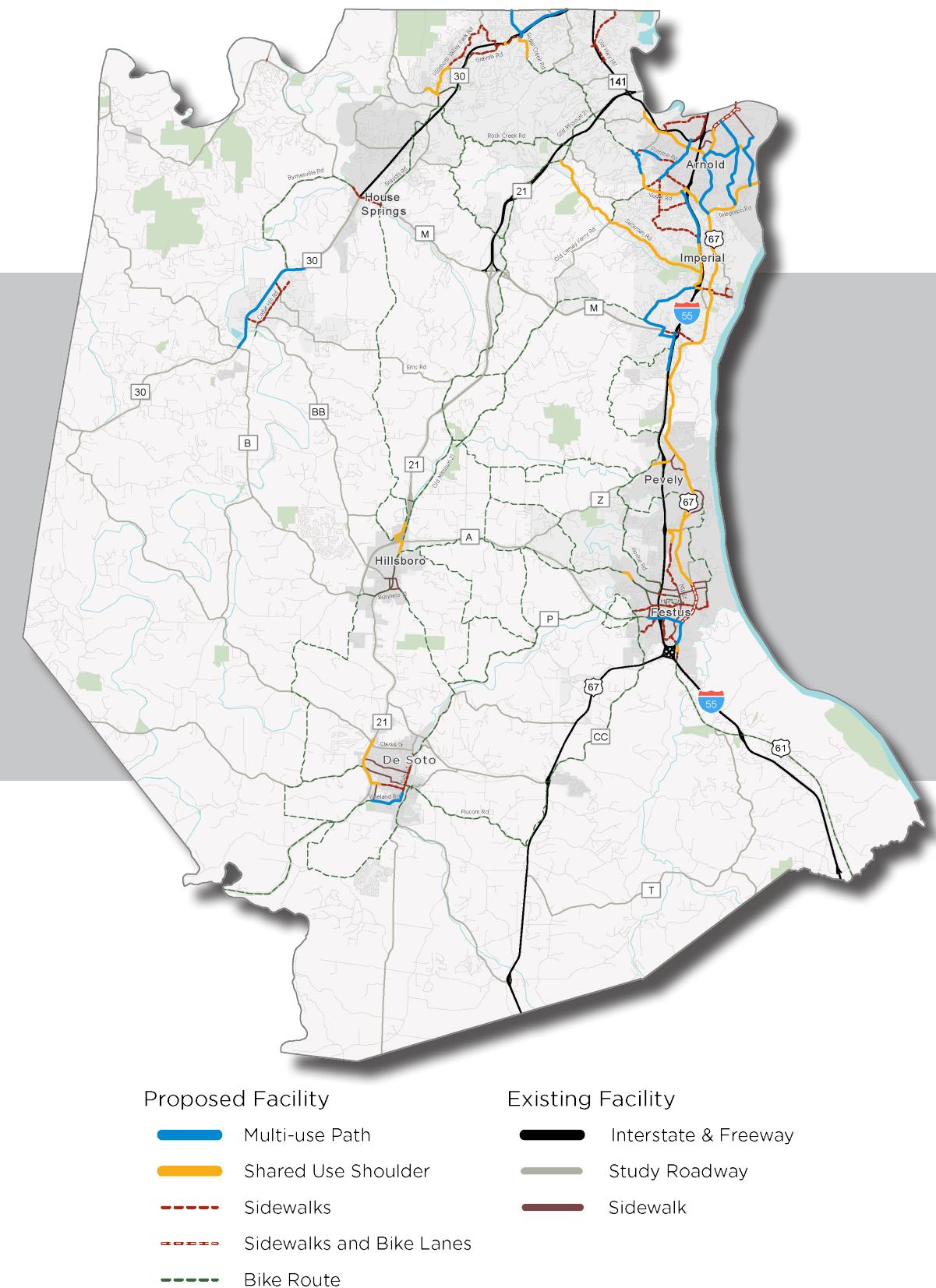
A variety of bicycle and pedestrian improvements have been defined as different facility types. These facility types are further described and illustrated in the following pages, providing more detailed guidance regarding the appropriate design considerations, space allocations, and intended use. Based on the facility analysis, the most highly recommended segments, per type, have been used to set the standard and example for implementation. It is anticipated that further design and engineering will be required to further define each project and the County will need to adapt to changing existing conditions. These examples and the design guide shall be used as a starting point for planning and budgeting future investment and improvements to the pedestrian and bicycle infrastructure.

## Recommended Network Types

The following bicycle and pedestrian typical treatments are recommended for various roadway segments within the Jefferson County system. These typical treatments are designed to accommodate a range of conditions and should be considered as “general” guidelines. Prioritized roadway segments corresponding to each treatment are detailed in the following pages, along with additional descriptions and guidelines. Further design development, concept refinement, and engineering will be required to move towards implementation.

- Shared Use Shoulders
- Signed Bike Routes
- On-Road Bike Facilities
- Sidewalks
- Separated Multi-Use Paths
- Signalized Road Crossings

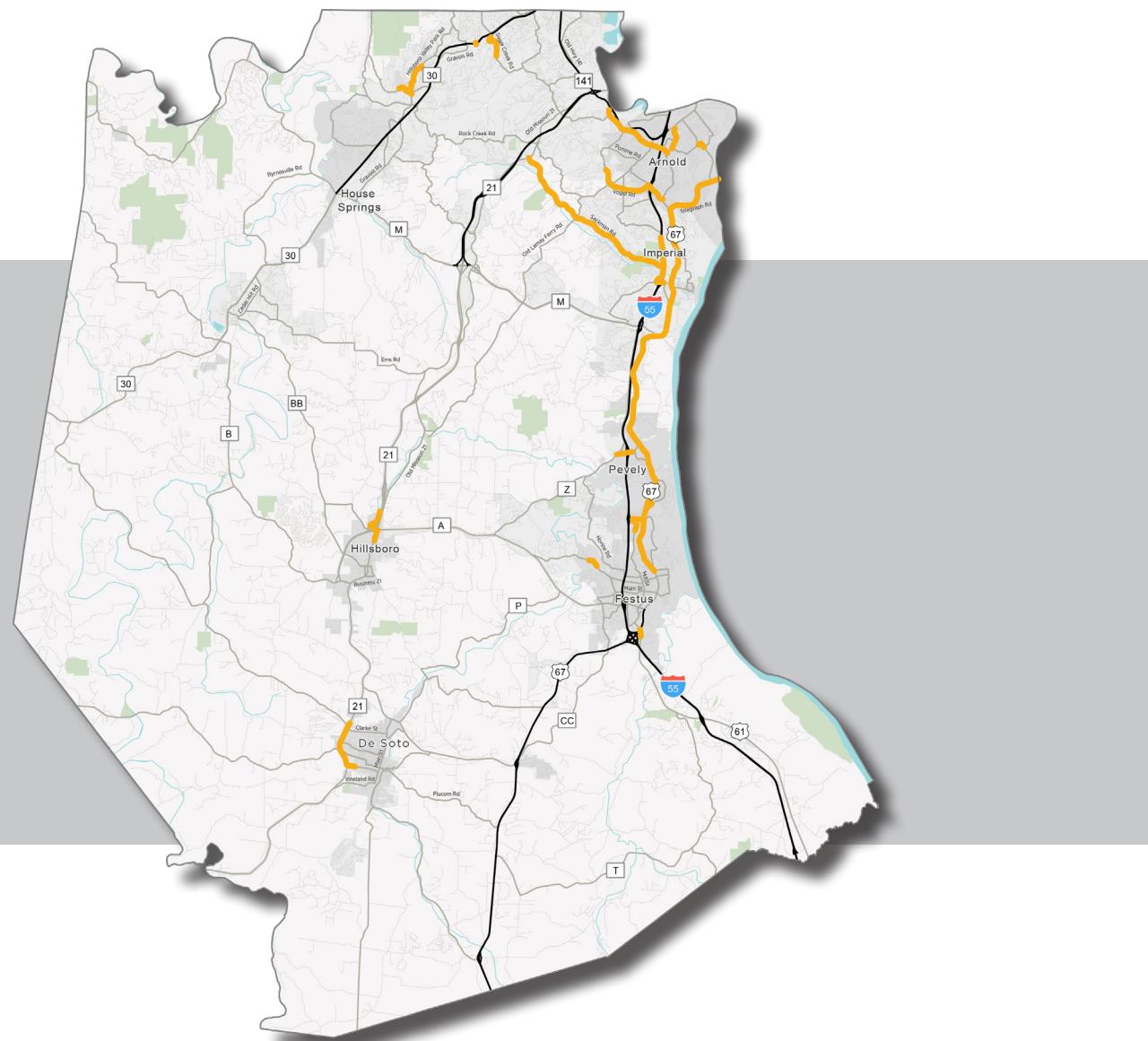
Proposed Bicycle/Pedestrian Network



## SHARED USE SHOULDERS

These facilities are bi-directional shared use paths located within the road shoulder and parallel to roadways as a dedicated space for bicycles and pedestrians. Shared Use Shoulders can offer a medium quality, medium stress facility in high traffic areas, while maintaining a rural character. Shared Use Shoulder facilities provide an inclusive experience for most ages and abilities and encourage bicycling and walking in high volume vehicle traffic. The shared use shoulder should be separated by striping and vertical markers when possible. Additional markings within the path clearly identify areas for bicycle use and pedestrian use and elevate the visibility and awareness to adjacent vehicular traffic. Shared Use Shoulders are a more cost effective way to utilize existing right-of-way for improved bicycle and pedestrian connectivity.

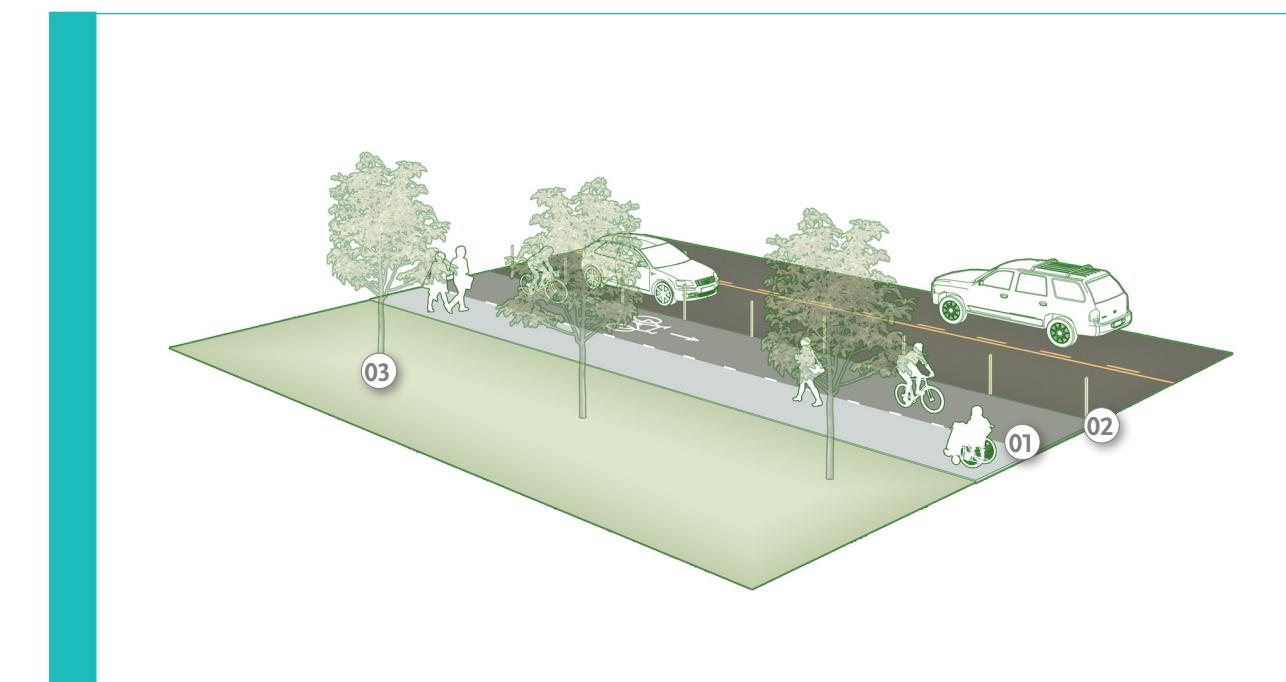
Shared Use Shoulder Network



## Identified and Prioritized Routes

Below is a list of identified highest priority Shared Use Shoulder Routes within the County's jurisdiction:

- Old/New Sugar Creek Road (Sugar Creek Square to Gravois Road)
- Vogel Road (Old Lemay Ferry Road to Miller Road)
- Vogel Road (Miller Road to Extra Storage Space)



### KEY COMPONENTS

- ① Space for pedestrians
- ② Space for bicyclists
- ③ Vegetation - plantings provide shade and interest for people using the roadway
- ④ Vertical markers and striping

## Shared Use Shoulder Design Guidance

### DIMENSIONS

The one-way, or bi-directional, shared use shoulder width should be 6' minimum for one-way and 8' minimum for bi-directional. The shared use shoulder applies best to roads that have a minimum width of 30 feet and a shoulder of 8 feet width minimum. It is recommended that one-way shared use shoulder facilities be reserved for roadways that can provide improved shoulders on both sides of the roadway, making it more feasible to travel with the flow of traffic. Bi-directional shared use shoulders are recommended as the design standard to enable a more comfortable route for all users.

### MATERIALS

Contrasting materials and/or pavement colors should be considered for additional safety and user awareness. Vertical delineation should be strongly considered for shared use shoulders to provide greater comfort to users because roadways with shoulders typically have higher of design speeds. These facilities can be comfortable and safe for users, however available space and adequate topography might be limited to implement shared use shoulders. Traffic signs raising awareness of bicyclists utilizing the shoulder should be placed preferable every half mile minimum.

### SIGNAGE AND PAVEMENT MARKINGS

Most critical areas of the shared use shoulder are the transition zones connecting to another facility type, like a separated multi-use path or sidewalk. In the network facility type transition zones, it is highly important that the change is marked with signage, vertical markers along the road edge and pavement markings to alert vehicular traffic of users either leaving or entering the road. Signage should also be added to guide pedestrian and bicyclist behavior within the shared use shoulder.

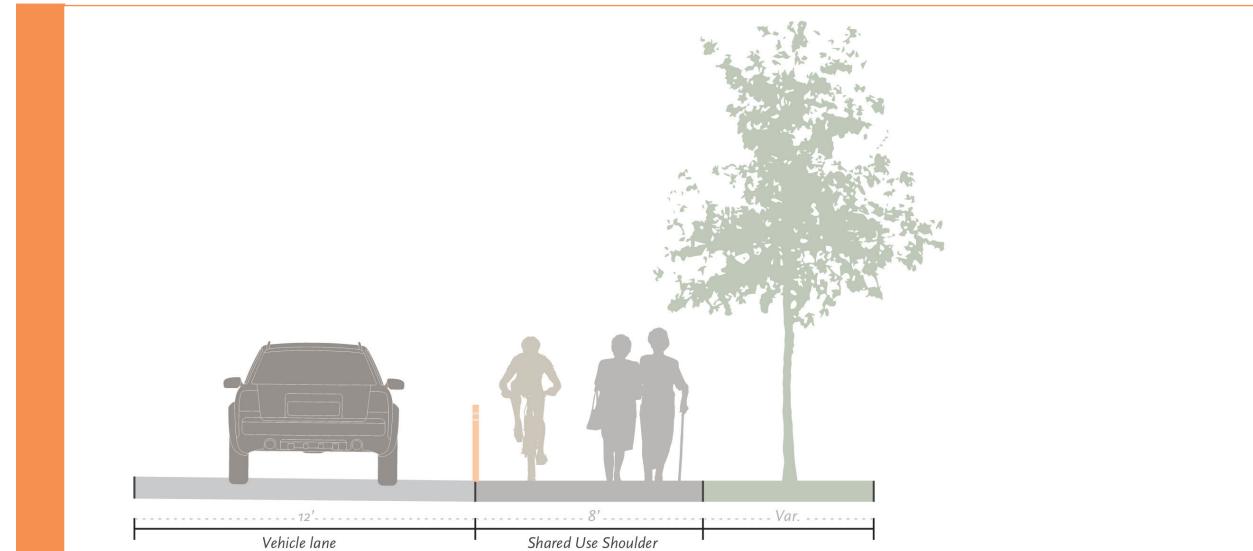
### AMENITIES

Tree plantings adjacent to the shared use shoulder add comfort for users, mitigate high temperatures during summer month and provide traffic calming effects. Tree planting spacing should preferably be at a minimum 50 feet and within a planted buffer a minimum of 8 feet from the edge of pavement. In areas where nice vistas of the county can be enjoyed and where topography and ROW conditions allow, benches and other facilities for resting could be added to the side of the road. Safety and protection of these amenities should be considered.

### OPERATIONS AND MAINTENANCE

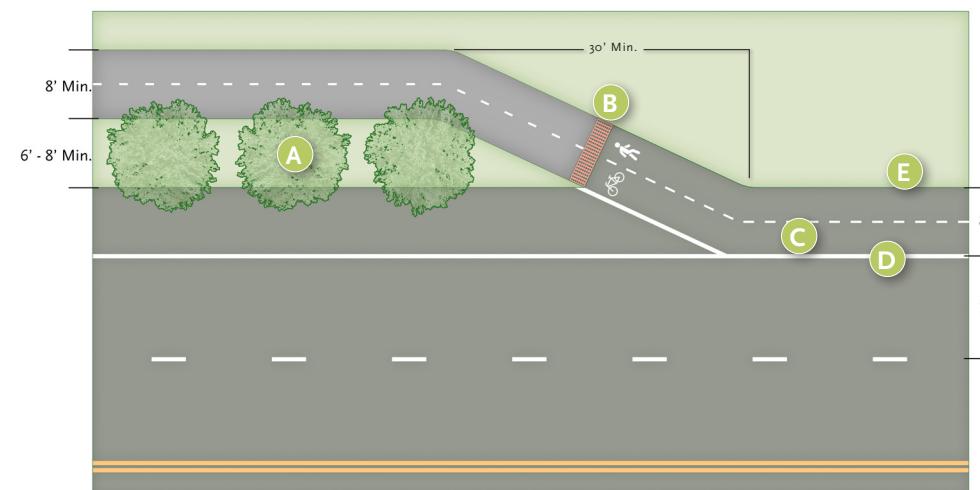
These shared use shoulder facilities are best used if they are kept clean from any debris and gravel throughout the year and specifically snow and ice during winter months. Debris and poor maintenance can cause users to encroach in the vehicle lane or simply be deterred from utilizing the route at all.

## Shared Use Shoulder Typical Section



## Shared Use Shoulder Unique Transitions

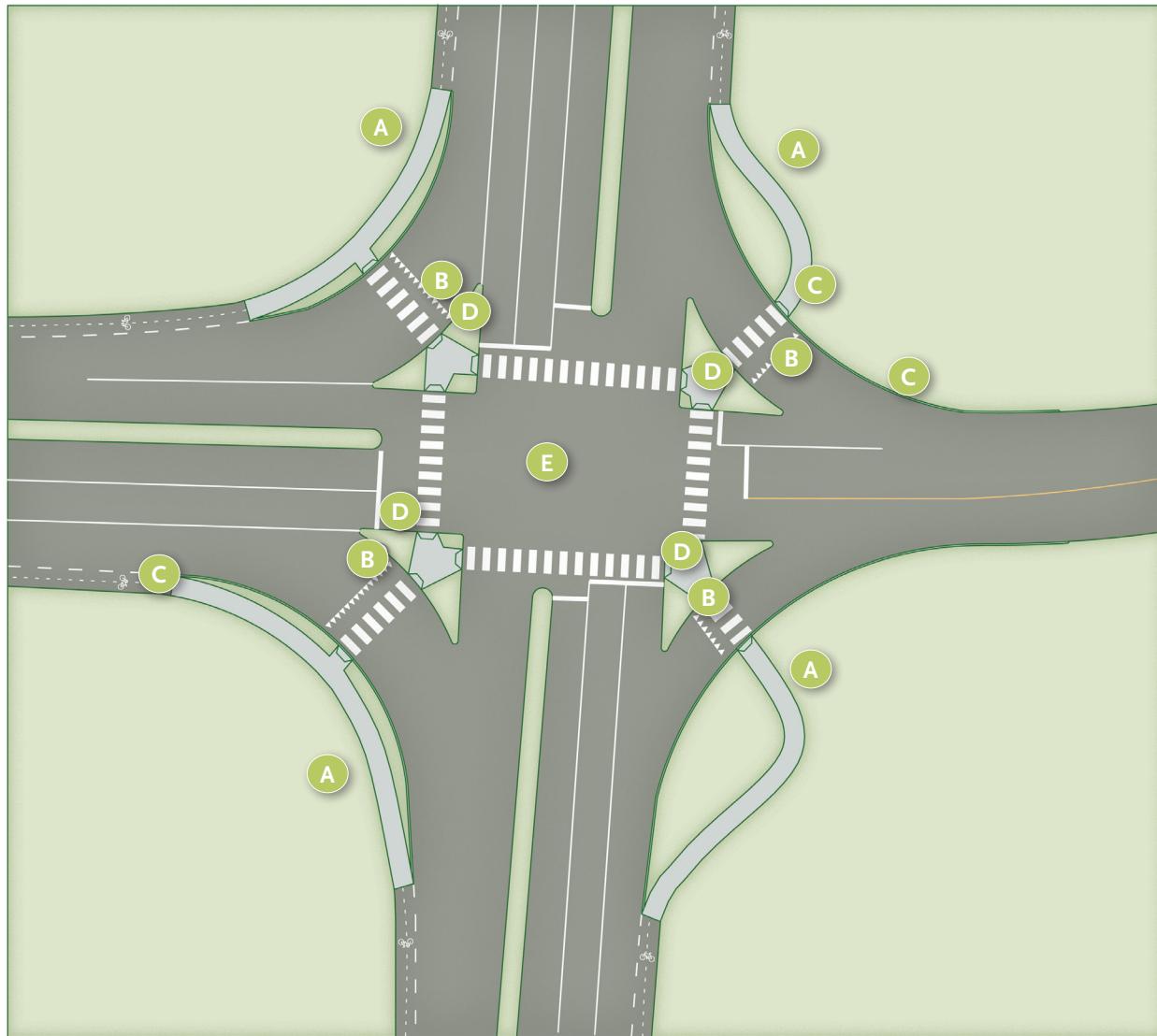
### TRANSITION FROM SEPARATED MULTI-USE PATH TO SHARED USE SHOULDER



#### KEY

- (A) 6'-8' min. landscape buffer with tree plantings in center
- (B) Concrete pavement transition zone to asphalt pavement at SUP on shoulder, length 30' minimum
- (C) SUP on shoulder markings
- (D) Vertical Marker
- (E) Signage

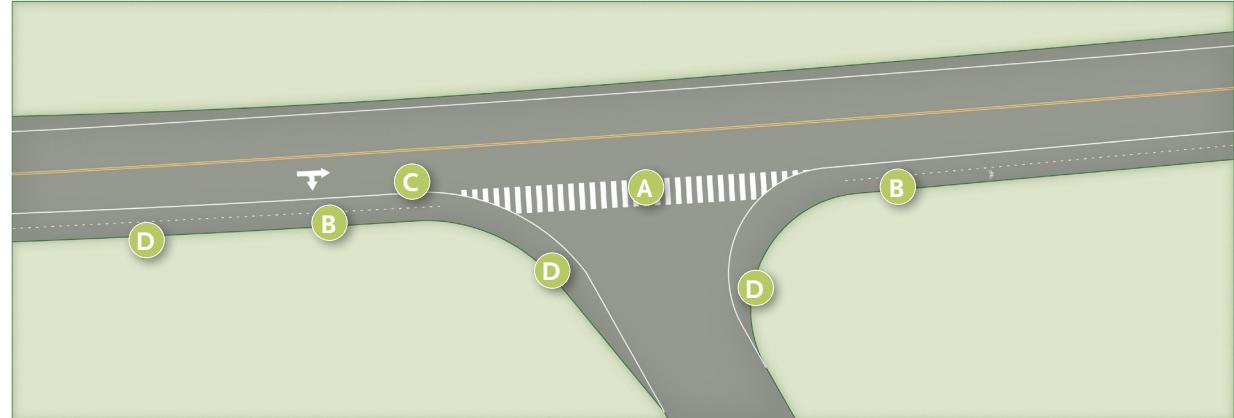
## SHARED USE SHOULDER CROSSINGS AT MAJOR INTERSECTIONS



## KEY

- (A) Separated Shared Use Shoulder - 8' wide minimum to enable perpendicular approach to turn lane
  - Ensure better visibility of bikers and pedestrians for vehicle drivers
  - Ensure better visibility of vehicles for bikers/pedestrians crossing turn lanes
- (B) Crossing markings; stop bars, pedestrian crossing marking
- (C) Warning Signage:
  - Signage of pedestrian crossings at turn lanes, signage at pedestrian crossings
- (D) Light beacon at pedestrian crossings
- (E) Signalized intersection

## SHARED USE SHOULDER CROSSINGS AT MINOR INTERSECTIONS



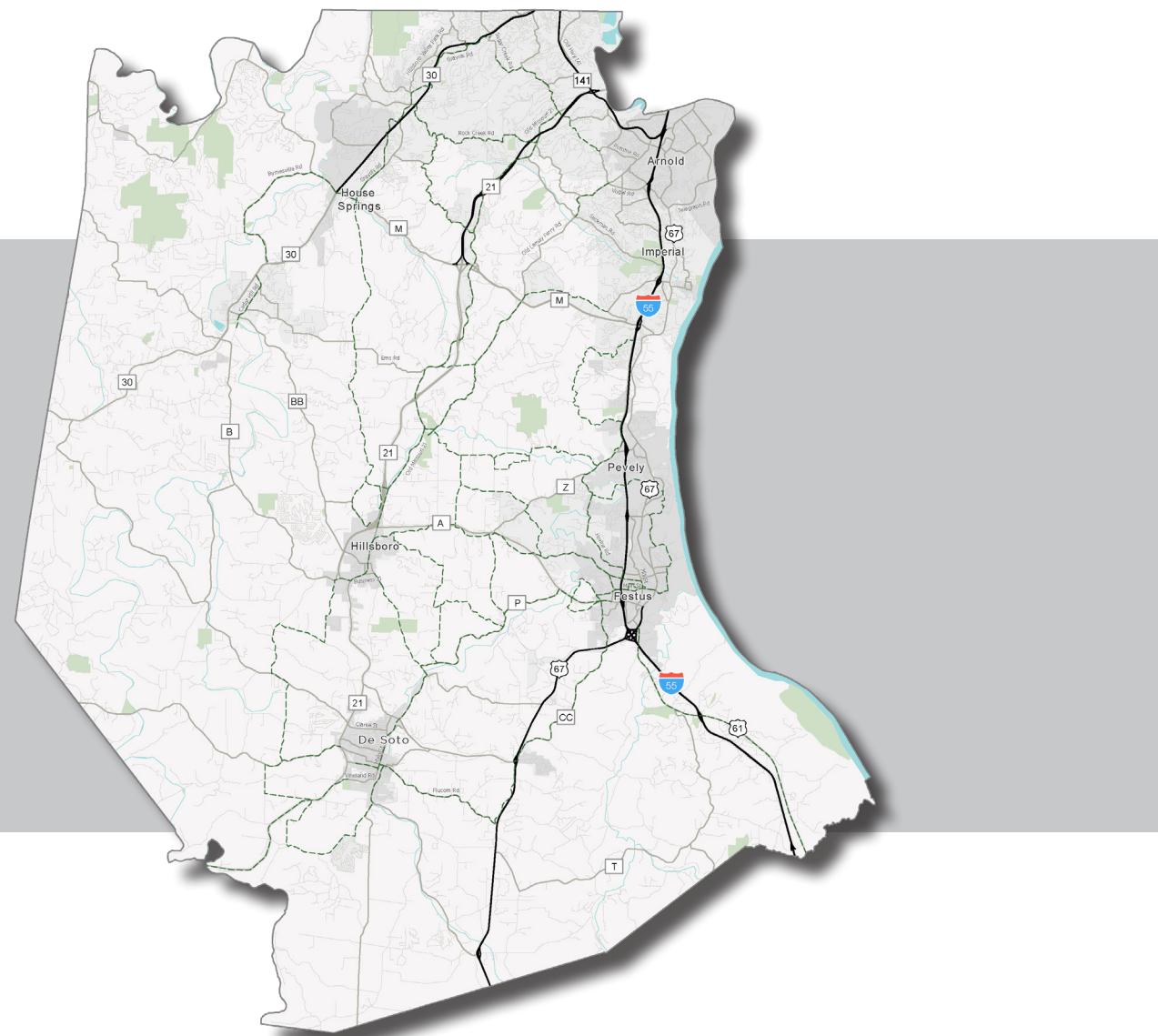
## KEY

- (A) Pedestrian/Bike crossing markings
- (B) Clear shared use shoulder markings. Continued marking stripe and vertical markers
- (C) Maintain shared use shoulder along edge of vehicular lane to ensure visibility of users
- (D) Warning signage of bike crossing at intersection; signage at crossing

## SIGNED BIKE ROUTES

These facilities are bi-directional shared use travel lanes, located within the roadway, and are most applicable to low volume roads with low speeds. Signed bike routes can offer a medium quality, medium stress route in low traffic areas, maintaining rural character. They provide an experience for users of higher abilities and encourage bicycling in low volume vehicle traffic. The on-road bike facility should be highly visible indicated by periodic pavement markings and frequent signage. Additional markings within the shared lane identify more clearly the space to be shared by bicyclists.

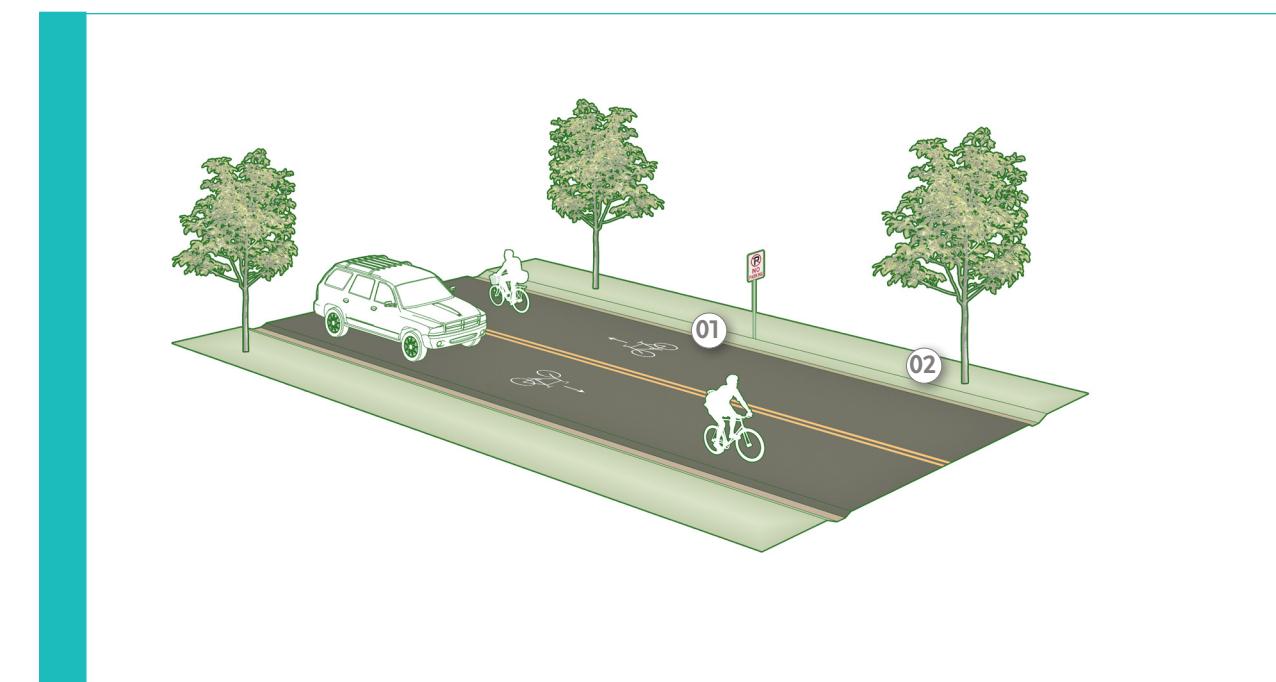
*Signed Bike Routes*



## Identified and Prioritized Routes

Below is a list of identified highest priority of Signed Bike Routes within the County's jurisdiction:

- Hillsboro-House Springs Rd (Gravois Rd to Jefferson College Dr)
- Hillsboro-Victoria Rd (Vreeland Rd to Mo P)
- Pioneer Rd / N Outer Rd A / Plass Rd /Frontier Rd / Old Hwy A (Business 21 to Crites Park)



### KEY COMPONENTS

- ① Signage - pavement markings and vertical roadway signage alert drivers to share the roadway with cyclists
- ② Vegetation - plantings provide shade and interest for cyclists using the roadway

## Signed Bike Route Design Guidance

### DIMENSIONS

The one-way shared use travel lane width should be 12' minimum; 3' for the bicycle lane and 9' for passing vehicles. The shared use travel lane applies best to roads that have a minimum width of 34 feet, allowing vehicular traffic adequate space during safe passing operations.

### MATERIALS

Contrasting materials and/or pavement colors should be considered for additional safety and user awareness. These facilities are comfortable and safe for users, however available space and adequate topography might be limited to implement signed bike routes.

### SIGNAGE AND PAVEMENT MARKINGS

Traffic signs raising awareness of bicyclists sharing the road with vehicular traffic should be placed preferable every half mile, minimum. Signage at roadway intersections should be installed to warn vehicular traffic of bicycles either crossing while turning onto another roadway or vehicular traffic entering the roadway. Pavement striping and bicycle markings should be installed on the shared lane, identifying the bicycle path.

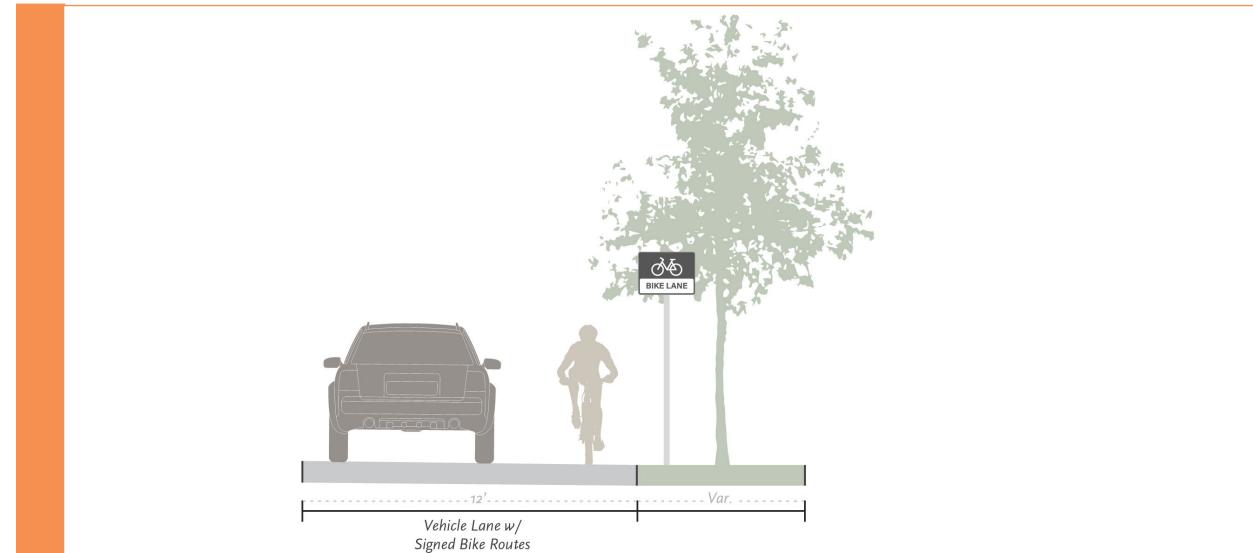
### AMENITIES

Tree plantings adjacent to the on-road facilities add comfort for users, mitigate high temperatures during summer month and provide traffic calming effects. Tree planting spacing should preferable be at minimum 50 feet and 6 to 8 feet from the edge of pavement. In areas where nice vistas of the county can be enjoyed and where topography and ROW conditions allow, benches and other facilities for resting could be added to the side of the road. Safety and protection of these amenities should be considered.

### OPERATIONS AND MAINTENANCE

Signed bike routes require little to no additional maintenance beyond typical roadway maintenance. However, these routes will be better utilized if kept clean from any debris and gravel throughout the year and specifically snow and ice during winter months. Roadway markings and signage are critical to maintain when multiple modes are sharing the roadway.

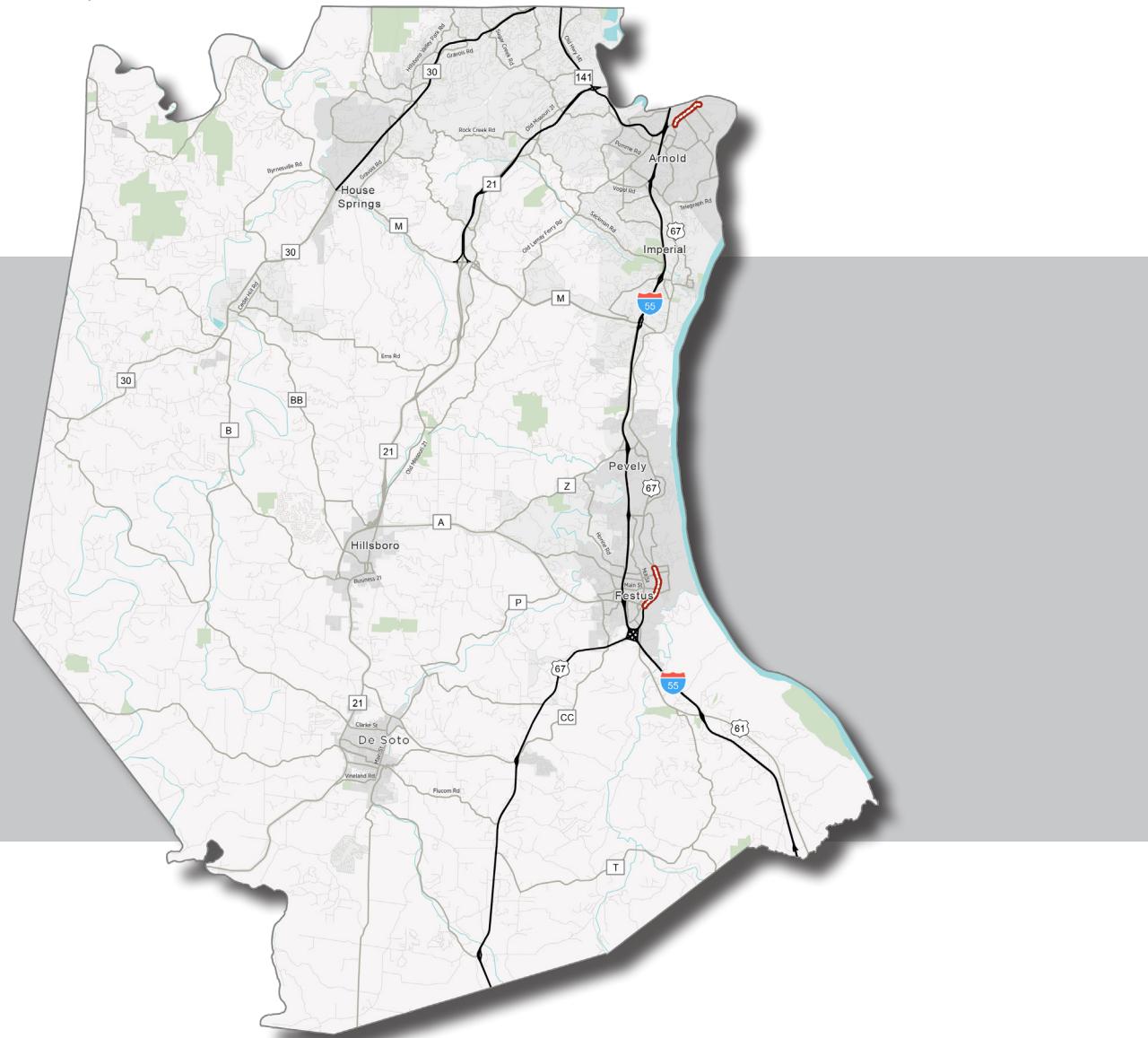
## Signed Bike Route Typical Section



# ON-ROAD BIKE FACILITIES

On-road bike facilities are dedicated spaces on the roadway designed to accommodate cyclists, improving safety and encouraging cycling as a mode of transportation. These facilities can include bike lanes, buffered bike lanes, and protected bike lanes, each providing a varying level of separation from vehicle traffic. Protected bike lanes, in particular, offer physical barriers—such as curbs, bollards, or parked cars—that shield cyclists from moving vehicles, creating a safer and more comfortable experience for riders of all ages and skill levels. These facilities enhance connectivity, reduce conflicts with vehicles, and promote active transportation. However, accommodating on-road bike facilities often requires reallocating existing road space. By reducing or reconfiguring vehicle travel lanes, road diets create the necessary space for bike infrastructure without expanding the roadway footprint.

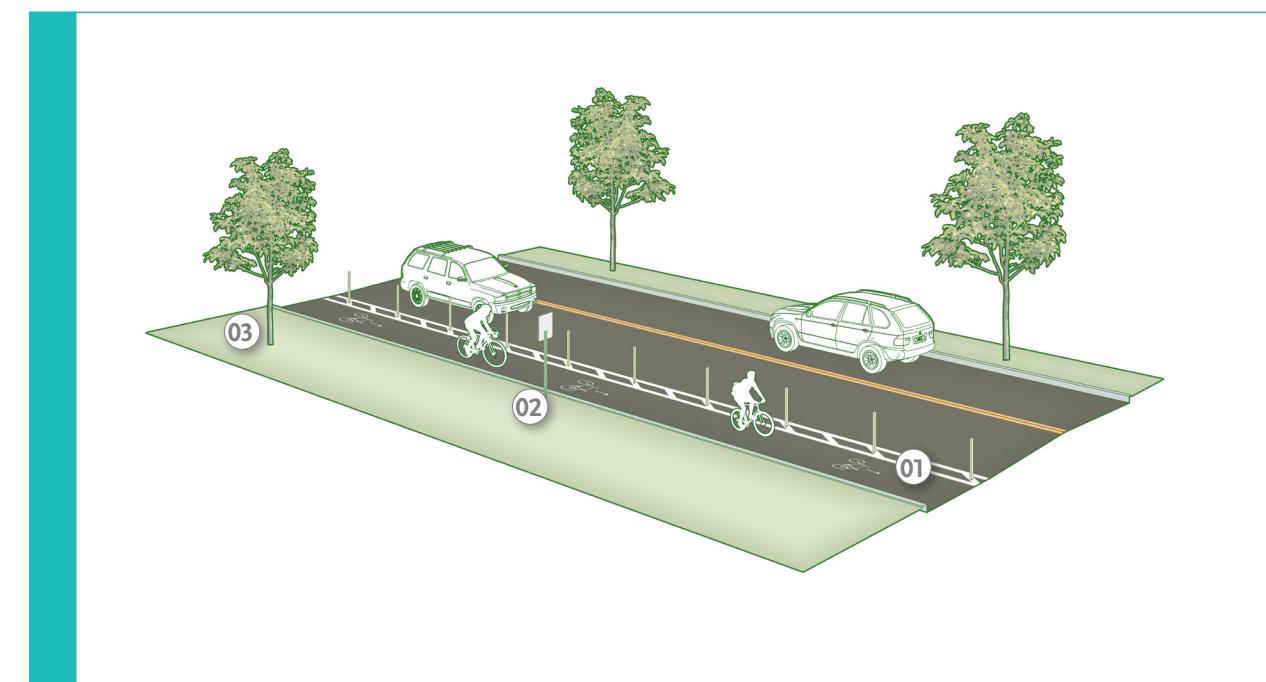
## On-Road Bike Facility Network



## Identified and Prioritized Routes

Below is a list of identified high priority of On-Road Bike Facility Routes within state jurisdiction:

- Jeffco Boulevard (Bradley Beach Road to Highway 141)
- Truman Parkway (Veterans Boulevard to 11th Street)



## KEY COMPONENTS

- 01 Bike Lane - pavement markings and vertical delineators designate specific lane for cyclists
- 02 Signage - alerts drivers to the bike lane and its function
- 03 Vegetation - plantings provide shade and interest for cyclists using the bike lane

## On-Road Bike Facility Design Guidance

### DIMENSIONS

One-way, on-road, bicycle lanes shall be 6' in width and parallel the outer-most vehicular travel lane. Where wider rights-of-way allow, vertical delineation, pavement striping, or other buffers should be considered between the vehicle and bicycle lanes.

### MATERIALS

Contrasting materials and/or pavement colors should be considered for additional safety and user awareness. These facilities are comfortable and safe for users, however available space and adequate topography might be limited to implement on-road bike lanes.

### SIGNAGE AND PAVEMENT MARKINGS

Traffic signs raising awareness of bicyclists sharing the road with vehicular traffic should be placed preferable every half mile, minimum. Signage at roadway intersections should be installed to warn vehicular traffic of bicycles either crossing while turning onto another roadway or vehicular traffic entering the roadway. Bike boxes, designated areas at the front of a traffic lane at an intersection, reserved exclusively for bicycles can improve the visibility and safety of cyclists at intersections where they are most vulnerable. Bike boxes are typically painted green or another highly visible color and are located between the stop line for motor vehicles and the pedestrian crosswalk. Pavement striping and bicycle markings should be installed on the shared lane, identifying the bicycle path.

### AMENITIES

Tree plantings adjacent to the on-road facilities add comfort for users, mitigate high temperatures during summer month and provide traffic calming effects. Tree planting spacing should preferable be at minimum 50 feet and 6 to 8 feet from the edge of pavement. In areas where nice vistas of the county can be enjoyed and where topography and ROW conditions allow, benches and other facilities for resting could be added to the side of the road. Safety and protection of these amenities should be considered.

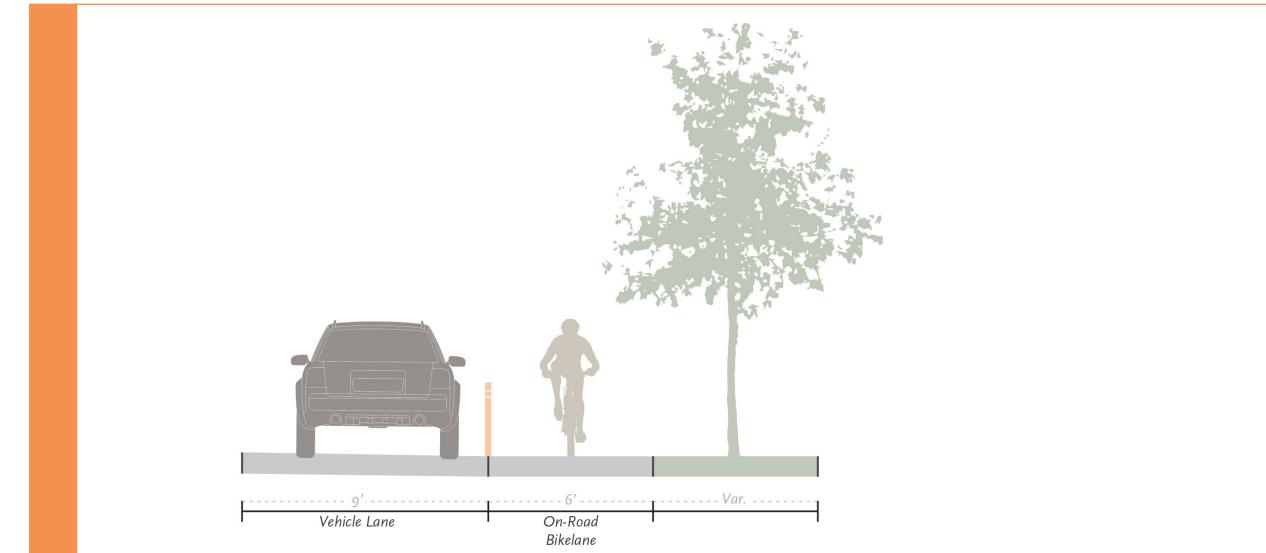
### OPERATIONS AND MAINTENANCE

On-road bike facilities will be better utilized if kept clean from any debris and gravel throughout the year and specifically snow and ice during winter months. Roadway markings and signage are critical to maintain when multiple modes are sharing the roadway.

### ROAD DIETS

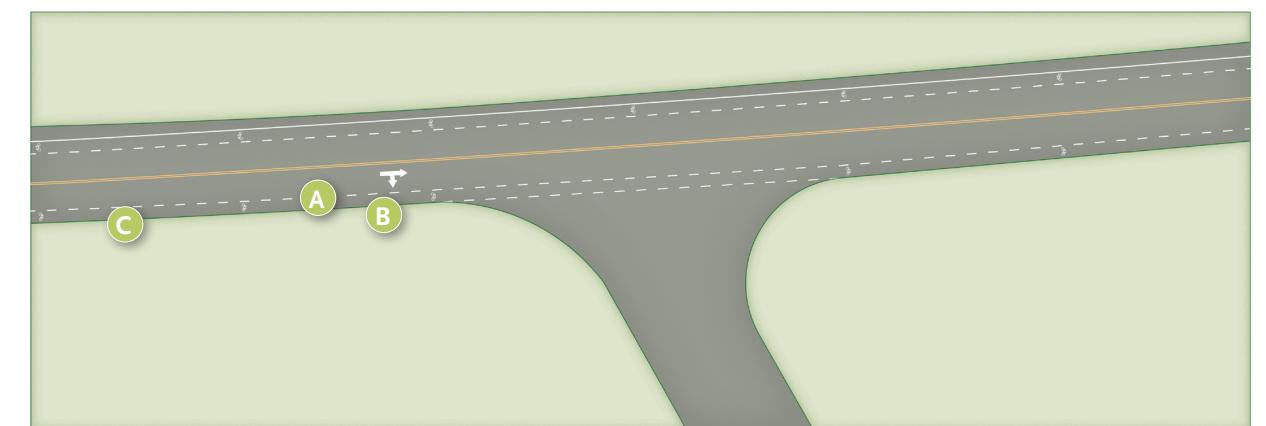
A road diet is a transportation planning strategy that involves reducing the number of lanes or reconfiguring road space on a street to improve safety and accommodate other modes of transportation, such as bicycling and walking. Road diets are often necessary to provide on-road protected bike lanes because most existing roadways were designed primarily for vehicle traffic. By reallocating roadway width, road diets make it possible to add protected bike lanes without expanding the road, improving safety for cyclists, calming traffic, and creating a more balanced and multimodal transportation system.

## On-Road Bike Facility Typical Section



### On-Road Bike Facility Unique Transitions

#### ON-ROAD BIKE FACILITY CROSSINGS AT MINOR INTERSECTIONS



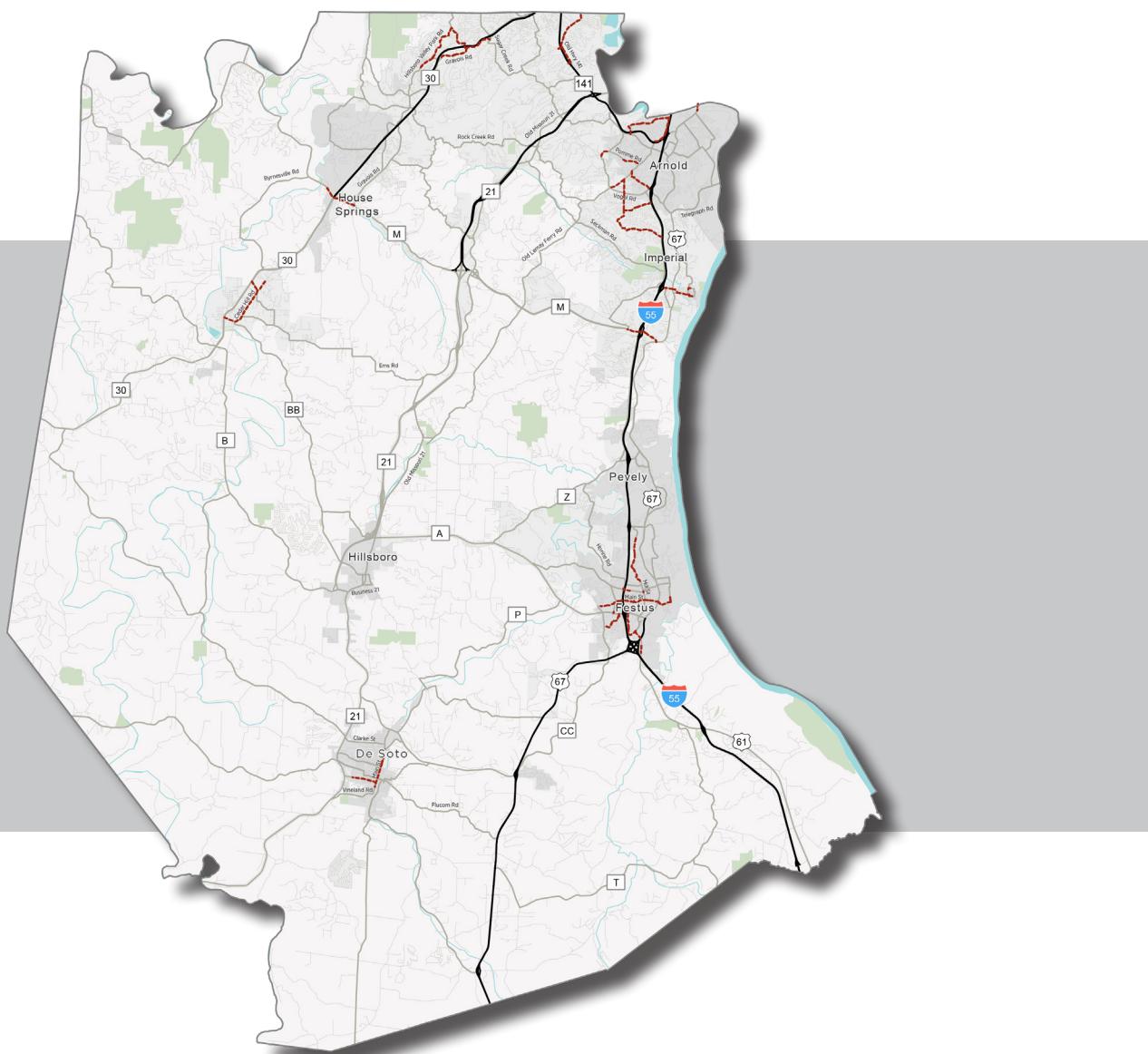
#### KEY

- A** Clear bike lane markings. Continued marking stripe and vertical markers.
- B** Maintain bike lane along edge of vehicular lane to ensure visibility of cyclists
- C** Warning signage of bike crossing at intersection; signage at crossing

# SIDEWALKS

Sidewalks are dedicated spaces adjacent to roads for use of pedestrians only, providing safe, comfortable and accessible routes and connections. They are typically separated from the roadway by curbs or vegetated buffer space.

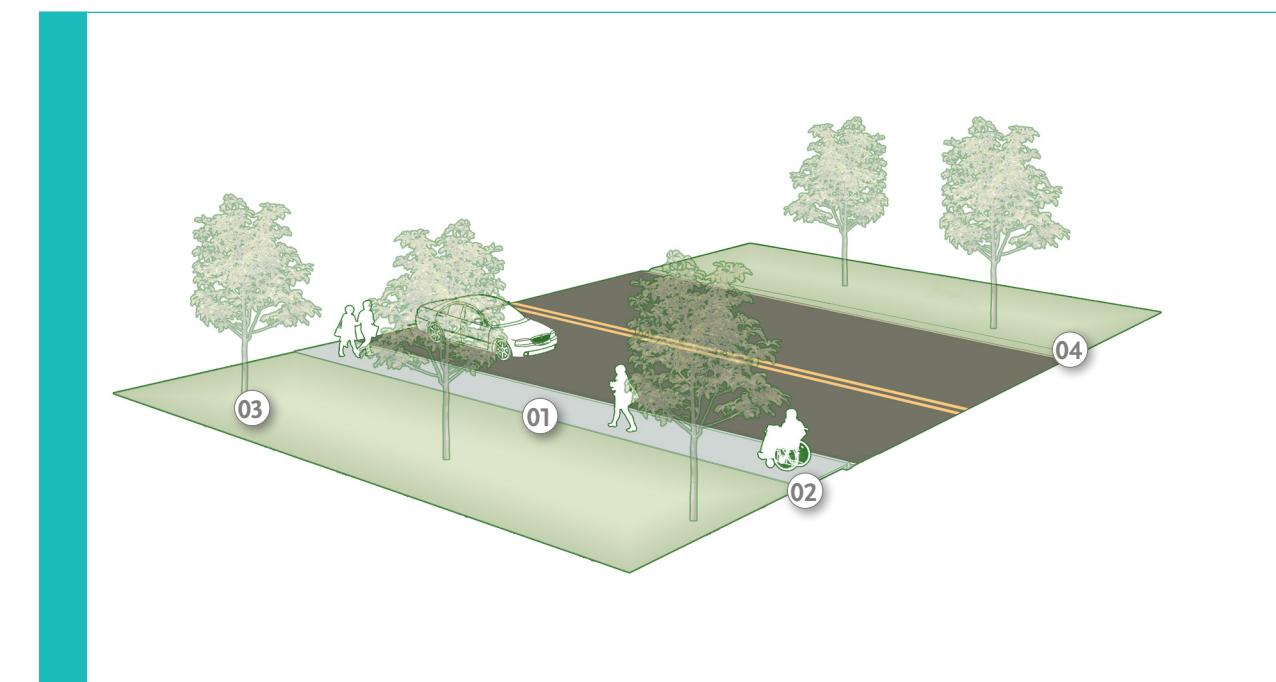
Sidewalk Network



## Identified and Prioritized Routes

Below is a list of identified highest priority Sidewalk Routes within the County's jurisdiction:

- Elm Drive (W. Outer Road to Crystal Wood Drive)
- Miller Road (Quartz Lane to Quail Run)
- Miller Road (Quail Run to W. Outer Road)



### KEY COMPONENTS

- ① Sidewalk- designated space for pedestrians only
- ② Curb - to protect pedestrians from vehicles
- ③ Vegetation - plantings provide shade and interest for pedestrians using the trail
- ④ Buffer - when space within the right-of-way allows, provide a vegetated buffer between the sidewalk and the roadway. This provides a greater sense of comfort and safety for users.

## Sidewalk Design Guidance

### DIMENSIONS

The sidewalk width depends heavily on adjacent land use and anticipated number of users; however, sidewalks should be a minimum of 5' to 6'. Higher usage might require greater sidewalk widths to accommodate a greater number of pedestrians and/or facilitate other public realm amenities such as outdoor dining, seating, planters, lighting, etc. In areas of higher traffic speeds, the pedestrian sidewalk should be separated from the roadway to provide a buffer and greater sense of safety. Providing this buffer also enables space for other amenities.

### MATERIALS

Driveway and property access curb cuts, including those for businesses and gas stations, should be kept to a minimum length to ensure safe, comfortable connections and reduce user stress. Sidewalks should follow direct routes to prevent the formation of "cow paths," which may compromise safety and accessibility. Ideally, sidewalks should maintain a consistent material through curb cuts to alert drivers to pedestrian crossings. Using uniform materials also enhances way-finding, accessibility, and visibility for all users.

### SIGNAGE AND PAVEMENT MARKINGS

The most critical areas for sidewalk connections are transition zones between different facility types, such as a shared-use shoulder. In these zones, it is essential to use clear signage, vertical markers along the road edge, and pavement markings to alert drivers to pedestrians entering or exiting the roadway. A minimum transition zone of 30 feet should be provided to ensure safety.

Sidewalks should remain continuous through features like railroad crossings, road crossings, mid-block crossings, and curb cuts. To enhance safety, appropriate markings, traffic lights, and signage should be installed at these crossings. Additionally, light poles, utility poles, and signage should be positioned outside the walkway, maintaining a minimum clearance of 3 feet between the poles and the edge of the pavement.

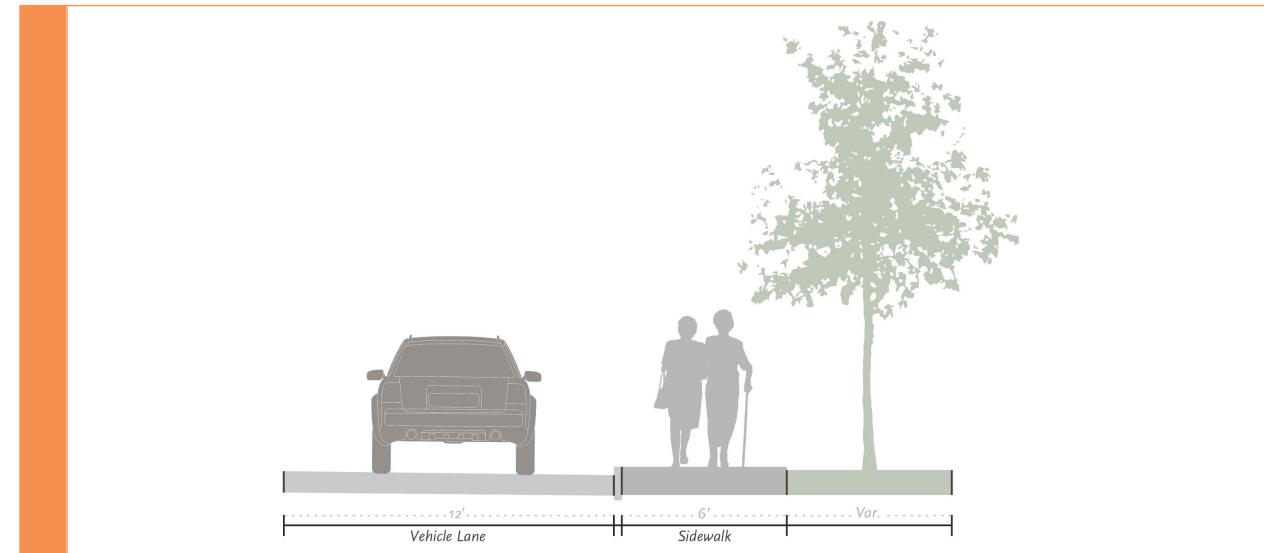
### AMENITIES

Where space allows, canopy trees for shade, benches for seating, pedestrian level lighting, and periodic trash receptacles make a sidewalk experience more comfortable and accommodating.

### OPERATIONS AND MAINTENANCE

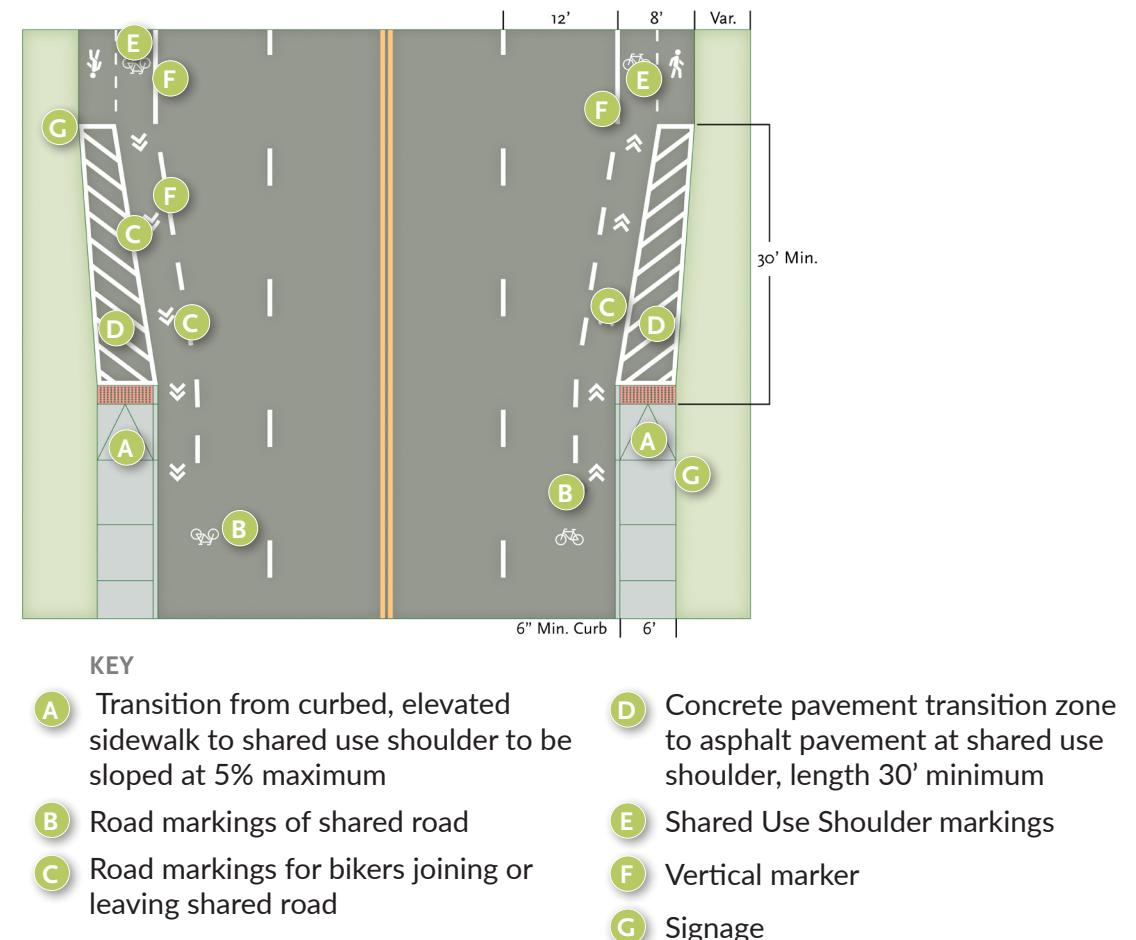
Proper sidewalk maintenance is essential for ensuring accessibility, safety, and the longevity of pedestrian infrastructure. Regular upkeep prevents hazards such as cracks, uneven surfaces, or debris, which can pose risks to pedestrians, especially those with mobility challenges. Repairing damage, removing obstructions like overgrown vegetation, clearing snow and ice, and ensuring compliance with accessibility standards shall be expected. Proactive maintenance not only improves user experience but also reduces long-term costs by preventing more significant repairs in the future.

## Sidewalk Typical Section



## Sidewalk Unique Transitions

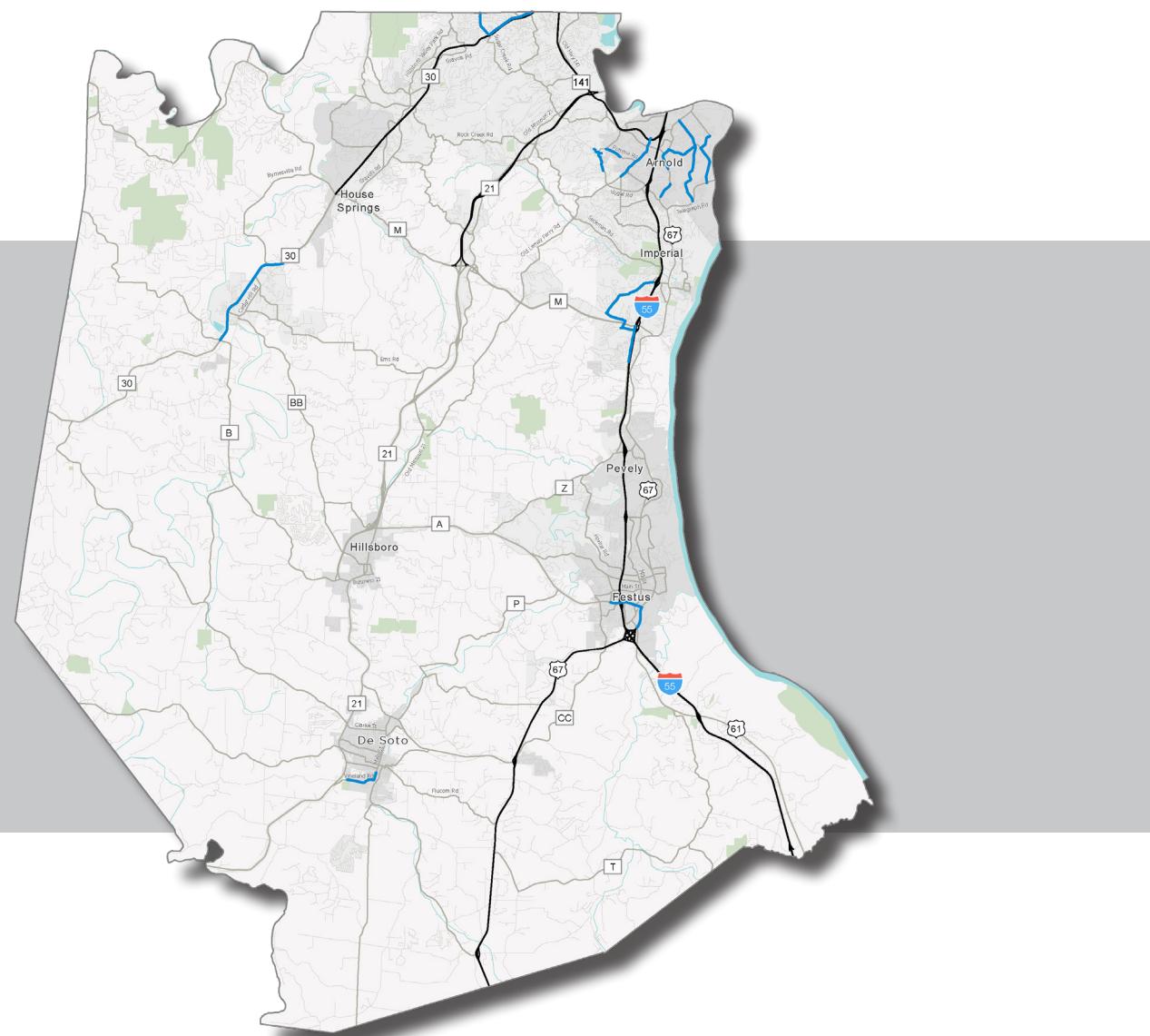
### CURBED SIDEWALK AND ON-ROAD BIKE FACILITY TO SHARED USE SHOULDER



## SEPARATED MULTI-USE PATH

A separated multi-use path provides a travel area buffered from motorized vehicles for cyclists, pedestrian, skaters, wheelchair users, joggers and other uses. The ideal separation should be of a 6 foot wide green space to include tree plantings for safety, comfort and lower stress levels of users. These facilities provide a low stress experience and comfortable alternative transportation network for a greater range of abilities and ages. A network of separated multi-use paths can connect neighborhoods, downtowns, schools, sport facilities and simply offer a recreational opportunity for the widest range of users. Jefferson County may have limited areas available for this facility type due to topography, dense developments and limited available property; however, it is recommended that this type be considered anywhere feasible to improve overall connectivity for all users.

Multi-Use Path Network



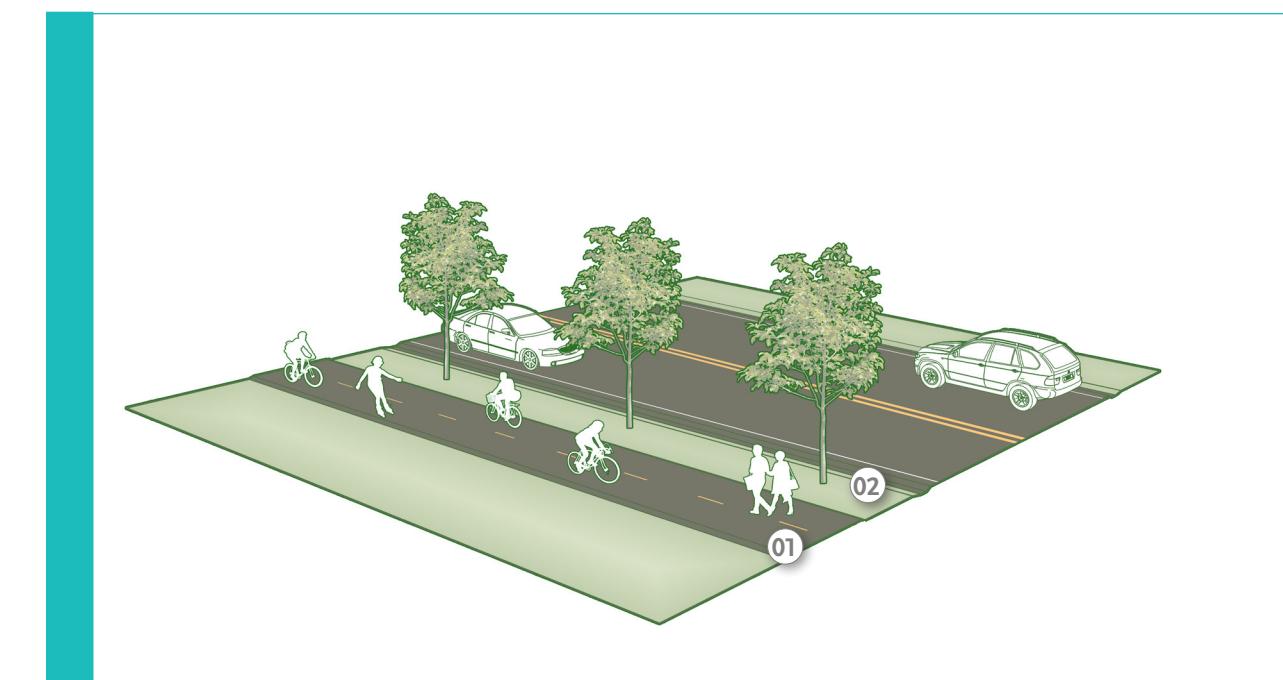
## Identified and Prioritized Routes

Below is a list of identified highest priority multi-use path routes within the County's jurisdiction:

- New Sugar Creek Road (Gravois Road to St. Louis County line)
- Imperial Main Street (Stonywold Rd to Old State Road)

High priority routes within state jurisdiction:

- Veterans Boulevard (Westwood Drive to Truman Boulevard)



### KEY COMPONENTS

- ① Multi-Use Path- designated space for a wide variety of non-motorized users including but not limited to walkers, runners, cyclists, skaters, and scooters of all kinds
- ② Vegetation - plantings provide shade and interest for pedestrians using the trail, and add a sense of security/buffer from the road

## Separated Multi-Use Path Design Guidance

### DIMENSIONS

The separated multi-use path width should be 8-foot minimum, preferred to be 12' -14' for convenient travel and safe passing of pedestrians and other users. The separated multi-use path works best on roadways that have wide rights-of-way and limited topography changes on either side of the road. Adequate space between the road and adjacent development is necessary to fit this type of facility.

### MATERIALS

Material for the multi-use path could be concrete or asphalt pavement. When road crossings are necessary, close attention shall be given to enhancements, such as median crossing islands, raised crossings, and/or detectable warning to increase comfort and safety to path users.

### SIGNAGE AND PAVEMENT MARKINGS

Separated multi-use paths are the most safe and user-friendly option of pedestrian and bicycle connectivity to various destinations. For 10' and wider multi-use paths, a middle stripe, or pavement marking, can be added to more clearly distinguish bi-directional or differing modes of travel. The most critical areas for multi-use path connections are transition zones between different facility types, such as a shared-use shoulder. In these zones, it is essential to use clear signage, vertical markers along the road edge, and pavement markings to alert drivers to other users entering or exiting the roadway. Signage can also be utilized to communicate intended use (for example, no motor vehicles) as well as way-finding and mileage markers for recreational use.

### AMENITIES

Separated multi-use paths are ideal for incorporating seating nodes or overlooks in areas with captivating views or points of interest. Tree plantings alongside on-road facilities enhance user comfort, provide shade to mitigate high temperatures during summer months, and further contribute to traffic calming. Tree planting spacing should preferably be at a minimum 50 feet and within a planted buffer a minimum of 8 feet from the edge of pavement. In areas where nice vistas of the county can be enjoyed and where topography and ROW conditions allow, benches and other facilities for resting could be added to the side of the road.

### OPERATIONS AND MAINTENANCE

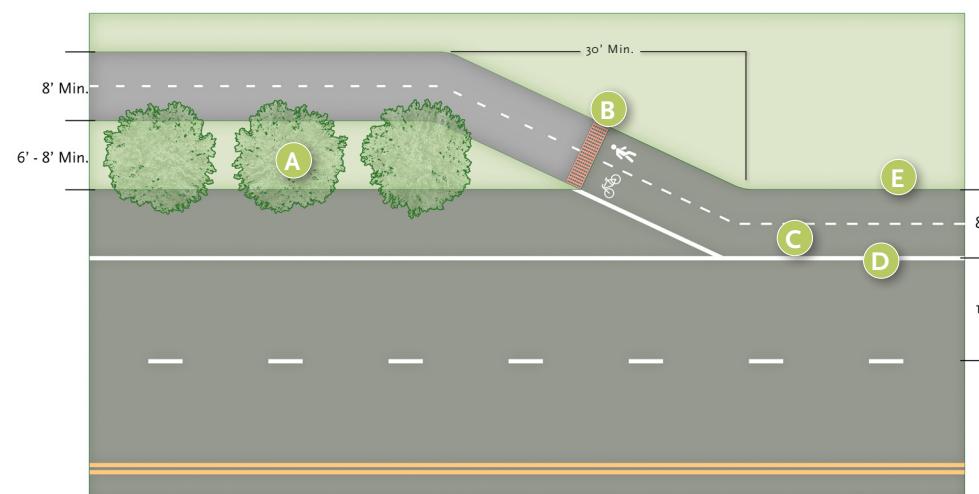
Maintaining multi-use paths is essential for ensuring safety, accessibility, and an enjoyable experience for all users, including pedestrians, cyclists, and other non-motorized traffic. Regular maintenance involves repairing cracks, potholes, and surface wear to prevent crashes, as well as clearing debris, snow, and vegetation to keep pathways unobstructed. Scheduled inspections and prompt repairs extend the lifespan of the path and reduce long-term costs while maintaining its usability and appeal.

## Multi-Use Path Typical Section



## Separated Multi-Use Path Unique Transitions

### TRANSITION FROM SEPARATED MULTI-USE PATH TO SHARED USE SHOULDER

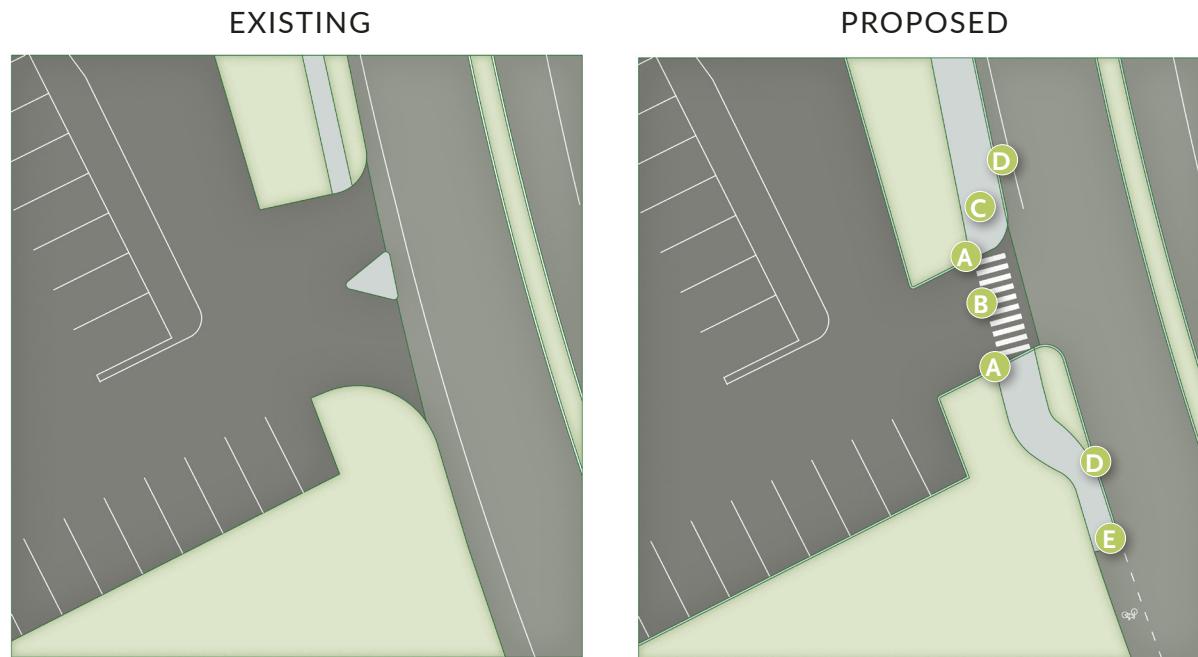


#### KEY

- (A) 6'-8' min. landscape buffer with tree plantings in center.
- (B) Concrete pavement transition zone to asphalt pavement at shared use shoulder, length 30' minimum
- (C) Shared use shoulder markings
- (D) Vertical Marker
- (E) Signage

## TRANSITION FROM CURBED MULTI-USE PATH TO SHARED USE SHOULDER

In some instances a vegetated buffer between the multi-use path and roadway may not be possible. Though not ideal, a curbed multi-use path may be an alternative to consider. This facility would require less space to implement but should be the exception, not the rule. When transitioning a curbed multi-use path to a shared use shoulder, consider the recommendations illustrated below.



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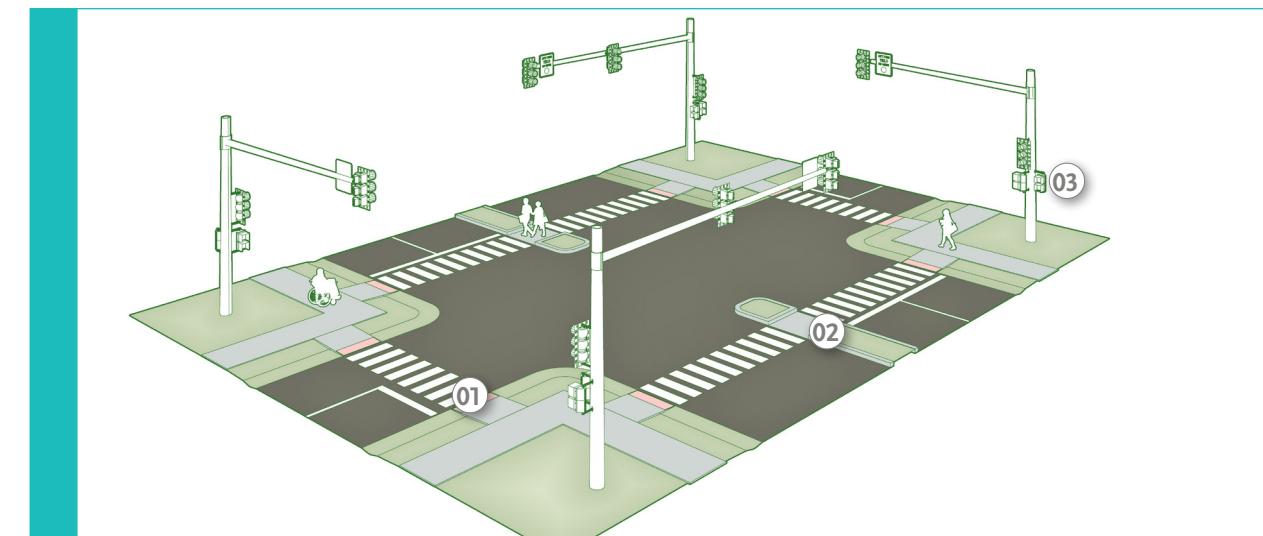
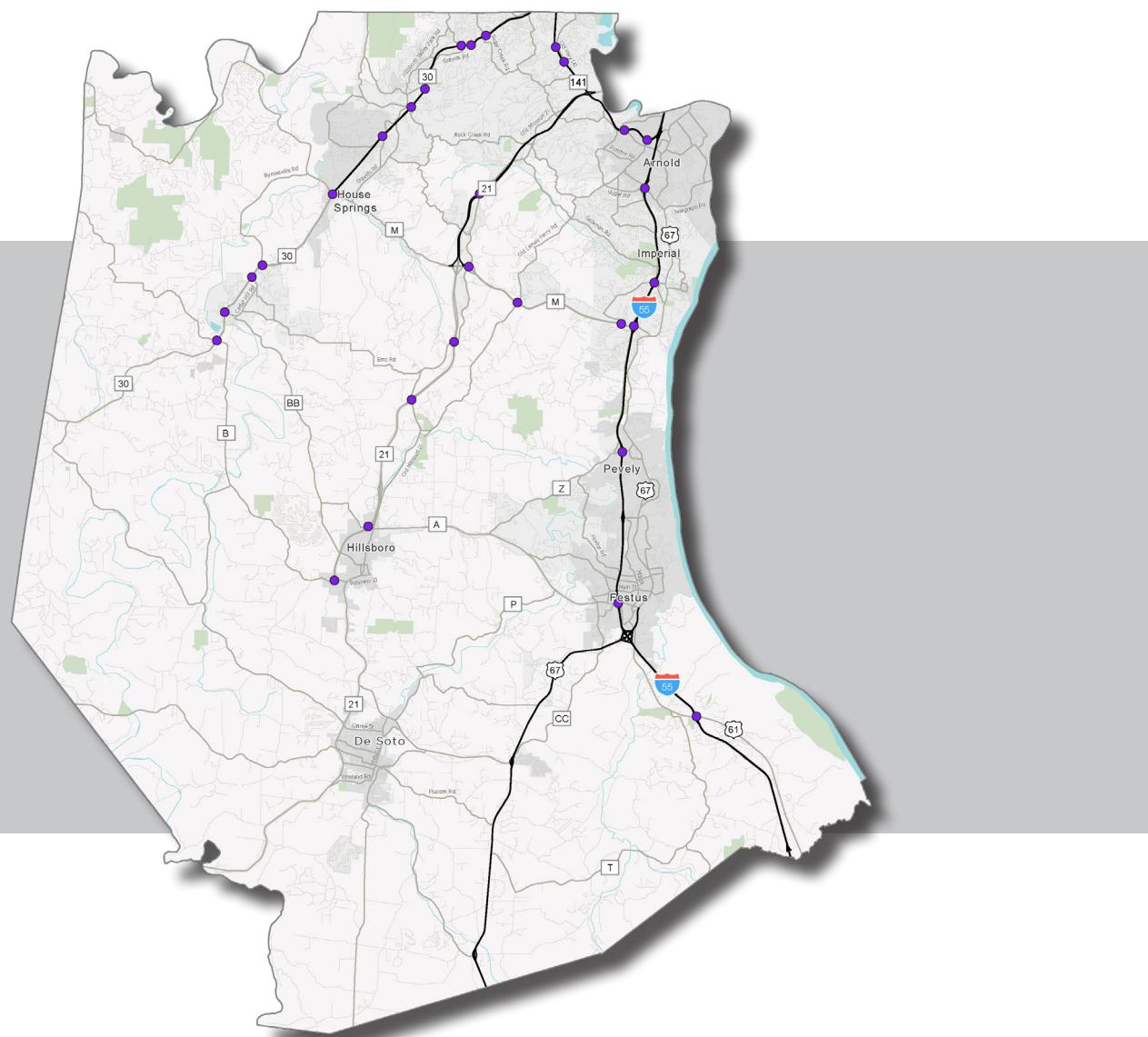
## KEY

- A** Minimize curb cut width at properties to 25' maximum
- B** Pedestrian/Bike crossing markings
- C** Curbed Multi-Use Path
- D** Curbs
- E** Transition from curbed elevation to road elevation; slope at 5% max with tapered curb

# SIGNALIZED ROAD CROSSINGS

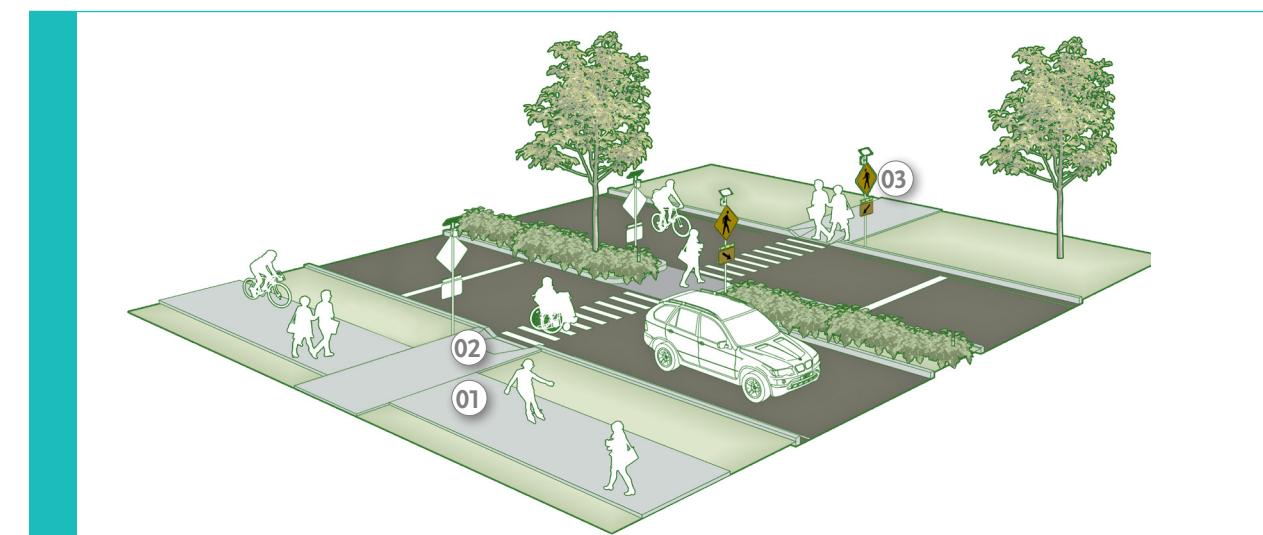
In areas where county road crossings are required for connectivity to neighborhoods or where facilities have to cross higher speed roadways, a signalized intersection should be considered. The road signals should be connected to a push button enabling non-motorized users to trigger a signal when needed. Road crossing refuge islands or medians should be considered for more user comfort and to reduce stress levels. Striping and signage shall be incorporated to maximize safety. It is recommended that a traffic study during the design phase evaluate the potential elimination of channelized right turn lanes at these locations to improve safety of those crossing the roadway.

Signalized Road Crossing Network



## KEY COMPONENTS

- 01 Curb Ramps and Truncated Domes- ADA-accessible crossings
- 02 Refuge Islands- a median for pedestrians when crossing multi-lane roads
- 03 Pedestrian Signals- synced with traffic lights and push buttons for walk signals at crosswalks



## KEY COMPONENTS

- 01 Pathway- designated space for pedestrians and bicyclists
- 02 Curb Ramps and Truncated Domes- ADA-accessible crossings
- 03 Pedestrian Signals- flashing signals draw attention to crosswalks for safe pedestrian crossings

## Signalized Road Crossing Design Guidance

### DIMENSIONS

Signalized road crossings should be wide enough to enable safe passage for users traveling in both directions including cyclists, pedestrians and other forms of mobility. Within developed areas with potentially more frequent crossings, crosswalks could be 8' - 10' wide, while in rural areas, crossings of more remote roadways shall be greater width of 12' - 14' for greater visibility.

### MATERIALS

High-visibility crossings typically include several elements designed to improve safety and awareness for both pedestrians and drivers. These may include: bright pavement markings, signage, lighting, flashing beacons, colored pavement, raised crosswalks, curb extensions, or advance stop or yield lines. These features work together to enhance safety, improve visibility, and ensure that crossings are easily recognizable to all users.

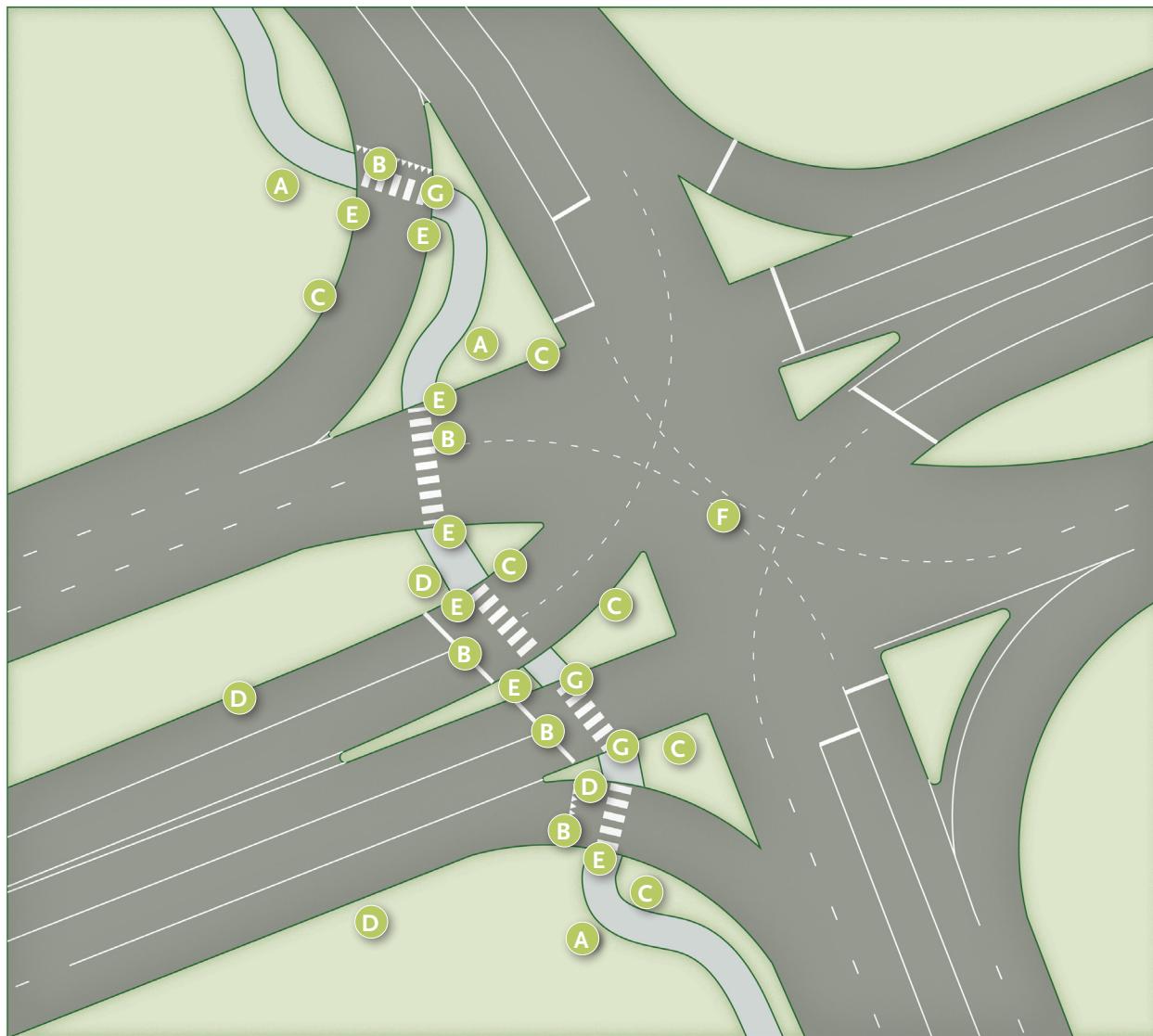
### OPERATIONS AND MAINTENANCE

Maintaining roadway crossings is essential for ensuring the safety and accessibility of pedestrians, cyclists, and drivers. Regular maintenance includes repairing damaged pavement markings, replacing worn-out signage, and ensuring that traffic signals, crosswalk lights, and flashing beacons are functioning properly. Clearing debris, trimming vegetation, and removing obstacles from crossing areas help maintain visibility and prevent hazards. Additionally, maintaining proper drainage around crossings helps prevent flooding or erosion, ensuring that the crossing remains safe, accessible, and functional year-round. Regular inspections and timely repairs are key to preventing crashes and improving the overall effectiveness of roadway crossings.

### ON-ROAD BIKE FACILITIES AT INTERSECTIONS

When designing on-road bike infrastructure at intersections, two key resources provide essential guidance: the AASHTO Guide for the Development of Bicycle Facilities and the NACTO Urban Bikeway Design Guide, specifically its "Don't Give Up at the Intersection" principles. The AASHTO guide offers comprehensive standards for safe and effective bicycle infrastructure, including intersection treatments that accommodate cyclists while minimizing conflicts with vehicles. Meanwhile, NACTO's "Don't Give Up at the Intersection" emphasizes the importance of extending bike facilities through intersections with features like bike boxes, protected signal phases, and green paint markings. These strategies ensure cyclists are visible, prioritized, and safe at critical points where conflicts are most likely to occur, creating a seamless and predictable riding experience.

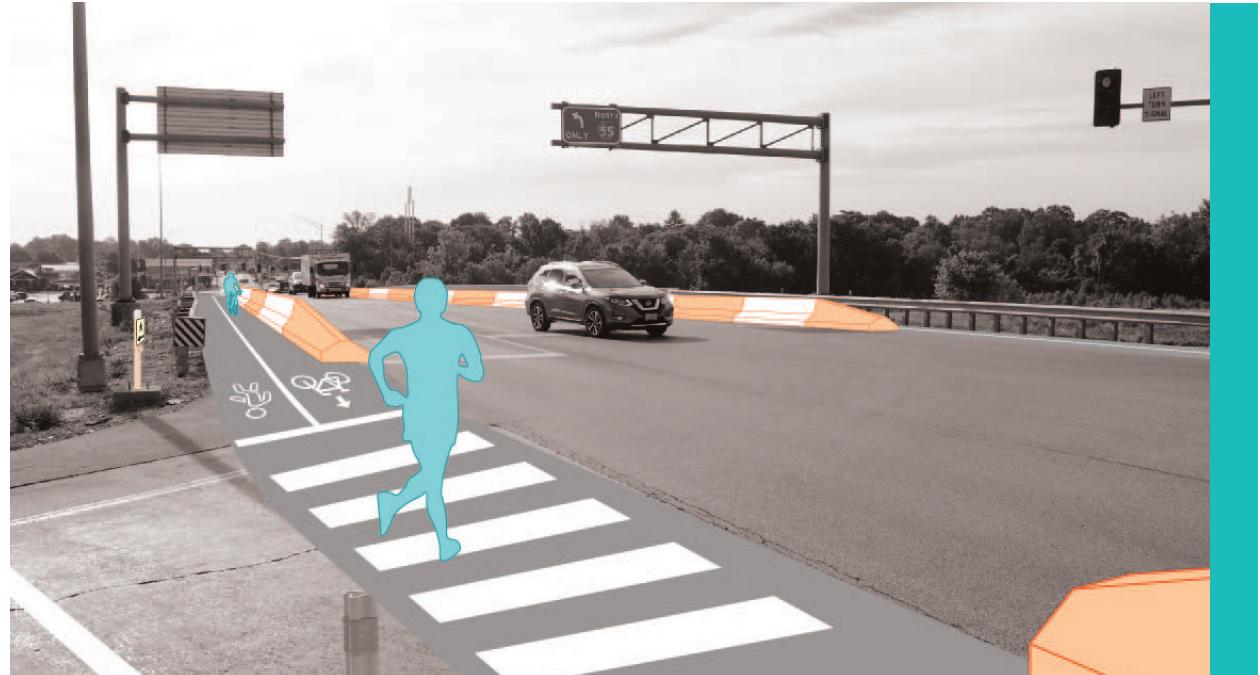
## SIGNALIZED ROAD CROSSING EXAMPLE (PLAN VIEW)



#### KEY

- Ⓐ Separated Multi-Use Path, 8' width minimum to enable perpendicular crossing ensuring better visibility of cyclists and pedestrians
- Ⓑ Crossing markings; align stop bars for smoother pedestrian crossing connections
- Ⓒ Curbed islands
- Ⓓ Warning signage of pedestrian crossings; signage at pedestrian crossings
- Ⓔ High visibility crossing signal
- Ⓕ Signalized intersection
- Ⓖ Curb ramps and truncated domes for accessible crossings

## I-55 CROSSINGS



Jefferson County has several crossings over Interstate I-55, many of which create significant barriers for bicycle and pedestrian connectivity. The paved areas adjacent to the vehicular traffic lanes present high-stress conditions for potential users. The striping of traffic lanes is fading, and pedestrian crossings at intersections and I-55 on/off ramps are poorly maintained, making them visually unrecognizable. Additionally, some I-55 on/off ramps connecting to Imperial Main Street lack traffic signal push buttons for pedestrians and cyclists. These conditions create an unwelcoming and unsafe environment for cyclists and pedestrians.

To improve safety and reduce user stress, installing jersey barriers between vehicular lanes and pedestrian/bicycle paths would effectively separate cyclists and pedestrians from high-speed traffic. Additionally, striping the shared-use trail to distinguish pedestrian and bicycle lanes would enhance safety. Clear striping at on-ramps and off-ramps, including stop bar markings and pedestrian crossing stripes, would raise awareness among drivers about the presence of pedestrians and cyclists. Traffic signals connected to the road signal push buttons should be adjusted to minimize wait times for trail users, reducing their exposure to extreme temperatures, harsh weather conditions, noise, and air pollution, while lowering overall stress levels.

Frequent maintenance of the multi-use trail is essential, including debris removal and snow and ice clearing. After snow events, the trail and crossings should be promptly cleared of snow pushed onto the trail by road maintenance crews.

## MODOT HIGHWAY WITHIN CITY LIMITS



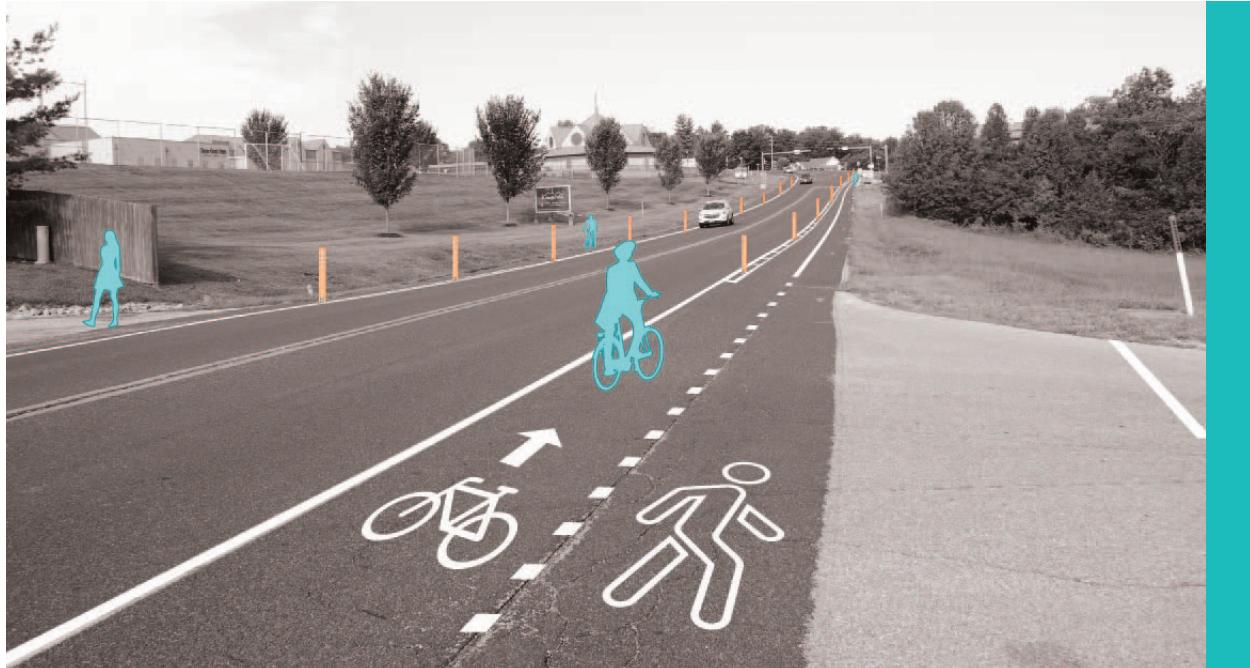
MoDOT roadways within the city limits of small towns and communities often lack separated pedestrian sidewalks and bike lanes to connect residential areas, businesses, and public facilities along the roadways. It is common for businesses to pave up to the roadway or for driveways to connect directly to highways, without any designated space for pedestrians or cyclists. As a result, users are exposed not only to high-speed vehicular traffic but also to traffic from business driveways, creating unsafe conditions and high stress levels.

Adding separate facilities for pedestrians and cyclists would significantly enhance safety. A curbed sidewalk with a minimum width of 6 feet, along with a minimum 6-foot bike lane that is clearly marked with striping and markers, would improve safety, reduce stress, and make the area more user-friendly. This is especially important for families who rely on walkable and bikeable connections within their communities.

Business entrances should be clearly defined through designated driveways, rather than allowing access across the entire length of the property.

The same improvements should be considered for county roads within the city limits of towns and communities to ensure consistent safety and accessibility.

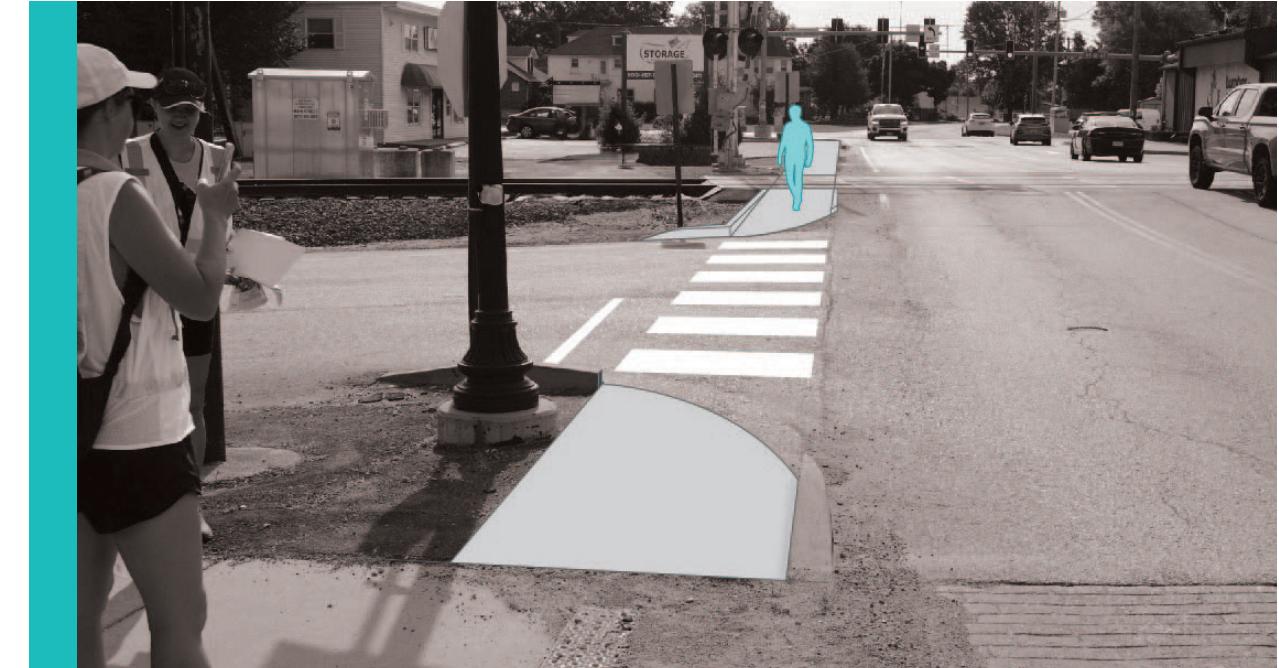
## PRECEDENT CONSIDERATIONS



### County Roads Outside of City Limits

County roadways outside the city limits of towns and communities play a vital role, providing essential connections for daily commutes, access to public and private facilities, and businesses, while also serving as recreational routes. However, the current condition of roadway shoulders does not promote safe or low-stress use, as they lack designated facilities for cyclists and pedestrians.

Where the roadways offer sufficient shoulder space, these areas could be re-purposed to create safer bike and pedestrian connections. Adding traffic markers, striping, and pavement markings, along with potential separation between biking and walking areas, would greatly enhance safety and reduce stress for users. These improvements would not only support daily travel but also encourage recreational use, fostering a safer and more accessible environment for all.



### Sidewalks Within City Limits

Sidewalks within city limits, communities, and downtown areas often lack continuity, are uninviting, or are interrupted by large vehicular access points and driveways.

To create a safe and low-stress walking experience, sidewalks should be curbed and elevated above traffic lanes. Drive entries, curb cuts, and property access points should be minimized to prioritize pedestrian connectivity. Ideally, sidewalks should be paved in a color distinct from the roadway, extending through access points to adjacent properties to highlight pedestrian priority and alert drivers. For larger property access openings, the sidewalk connection can be made more noticeable with striping and pedestrian crossing markings.

Sidewalks should have a minimum width of 6 feet. In areas with wider sidewalks, street lighting could be installed along the curb to further reduce stress for users.

Sidewalks should provide uninterrupted, safe connections throughout the community. Street crossings should be clearly striped with pedestrian crossing markings, and detectable warnings should be placed at the edges of flush curbs. Railroad crossings should be ADA accessible and equipped with automatic pedestrian gates to ensure safety for all users.

# BEST PRACTICES GUIDE

## Introduction

This document derives information and recommendations from national design guidelines provided by the U.S. Department of Transportation (USDOT) and the Federal Highway Administration (FHWA). The referenced FHWA guidelines include “A Resident’s Guide for Creating Safer Communities for Walking and Biking,” “Noteworthy Local Policies That Support Safe and Complete Pedestrian and Bicycle Networks,” and “Small Town and Rural Multi-modal Networks.” Also referenced are locally developed guidelines, such as the “Great Rivers Greenway / Design Guidelines”.

The document focuses on the unique challenges faced by towns and rural areas in Jefferson County, offering opportunities for incremental improvements despite geographic, fiscal, and other constraints often encountered by rural communities.

Historically, most small towns across America were established before the post-war era, a time when children walked to school, and people could navigate their communities without cars. While vehicles were essential for farms and industries, they were not necessary for short trips within the community. Over time, as roads were widened and designed to accommodate motor vehicles, the ability for people to walk or bike safely diminished.



## Best Practices References

In many small and rural communities today, infrastructure supporting active multi-modal transportation is often limited or entirely absent. Many of these communities are located on state and county roadways designed primarily for high-speed motorized traffic, making walking and biking unsafe and uncomfortable. These roads can be retrofitted or redesigned to include separated pedestrian and bicycle infrastructure, improving the transportation network to better support community safety, health, and economic vitality.

The rural active transportation network should be designed to accommodate a wide range of ages, abilities, incomes, and skill levels. It should enable residents to move independently within their community and experience the landscape between towns for travel, recreation, or even bicycle tourism.

As small towns, communities, and counties face increasing competition for growth opportunities, a comprehensive plan for biking, walking, and hiking infrastructure will be vital. Key to this development will be implementing safe, comfortable downtown streetscapes, ensuring connections between neighborhoods and downtowns, and creating a multi-modal transportation system. Successful implementation requires continuous sidewalk connections, clear crossings at streets and driveways, and safe, marked bicycle lanes. Overall, multi-modal improvements should prioritize biking and walking infrastructure over vehicular traffic design.

This guide takes into account the “Design User” of the facilities, focusing not just on physical dimensions, but on the characteristics and physical abilities that influence user comfort. Planners should design pedestrian and bicycle facilities, as well as roadway crossings, with these factors in mind to ensure the facilities will be fully utilized.

The current Federal Highway policy emphasizes incorporating safe and convenient walking and biking facilities into transportation projects, urging transportation agencies to go beyond the minimum standards to provide facilities that are both safe and accessible for all users (US DOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations, 2010).

Rural and small town multi-modal networks can be challenging to effectively incorporate right-sized walking and biking infrastructure, as there may not be as many users of walking and biking infrastructure, along with lower traffic volumes, when compared to design strategies in downtown and urban areas. Yet, safe and comfortable walking and biking options are still vital for residents in small towns and rural areas. Specifically, residential yield roadways and bicycle boulevards are street design strategies that improve walking and biking conditions without necessarily incorporating dedicated infrastructure or space for people walking and biking. These two street design strategies, along with detailed considerations for a rural and small-town multi-modal network, are included on the following pages.

## Existing Challenges

The data collection and evaluation of the road functional class, posted and average speed, existing sidewalk, pedestrian and bicycle crashes, crashes weighted by severity, hill grades and recently planned projects in Jefferson County equate to 96% of uncomfortable to very uncomfortable level for pedestrian experience of walking or wheeling along roadways and 97% of uncomfortable to very uncomfortable level to ride a bicycle in the county. The Challenges on rural roadways are mainly the lack of transportation options for walking and biking, as they are developed in a highly auto-oriented design and road crossings for pedestrians and biking in adequate distances are not defined. Especially challenging are the numerous bridges crossing over I-55, which does have a very high-level stress potential for bikers and pedestrians. Understanding and properly identifying issues that can cause biking or pedestrian safety problems is an important part of finding a solution. If the problem is not accurately identified, the wrong solution may be applied, and the problem could continue. Some typical problems that affect pedestrian and bicyclist safety include:

### POOR WALKING OR BICYCLING

- No place to walk or bike — There are not enough sidewalks, paths, bike facilities, or trails. Existing facilities do not connect to schools, transit stations, parks, churches, etc. Dirt paths may show where people are walking or biking and that more sidewalks or paths are needed.
- Safe biking facilities missing along roadways.
- Not enough space — Sidewalks are not wide enough for people to walk comfortably or pass each other, or roadway shoulders or travel lanes are too narrow for a bicycle to comfortably share the road with a motor vehicle.
- Poor surfaces — Sidewalk surfaces are uneven, broken, or covered with debris
- Blocked pathways — Sidewalks, bike lanes, or other paths are blocked by barriers such as vehicles, trash cans, vegetation, snow, utility poles, mail boxes, benches, or just discontinue, blocking connectivity.
- No buffer — There is not enough space between the sidepath and the roadway, or this space lacks trees or landscaping to make pedestrians and bicyclists feel comfortable.
- Difficult street crossings — There are long crossing distances and wide intersections that allow cars to turn at higher speeds. There are intersections with no pedestrian signals, curb ramps, median crossing islands, or markings to indicate where bicyclists should ride or wait. The signal at the intersection doesn't change for a bicycle or doesn't give enough time for a bicyclist to get through the intersection.
- Poor connectivity — There are many dead-end streets, sidewalks that end unexpectedly, few available roadway crossings, and indirect pedestrian or bike paths.
- Insufficient lighting — There are not enough streetlights to help pedestrians, bicyclists, and drivers see each other at night.
- Poor guidance — There are not enough signs or roadway markings to help pedestrians or bicyclists find important destinations or know where to bike, walk, or cross safely in construction areas or through complex intersections. Also, there is not enough signage or road markings to raise the awareness to vehicular traffic of bicyclists and pedestrian sharing the road corridor.
- No bike racks — There are not enough safe and secure places to park a bicycle at important destinations.
- Conflicts between pedestrians and bicyclists.
- Bicyclists riding on the sidewalk (possibly because they do not feel safe in the street) or even using the same shared-use path may cause conflicts with people walking.

## Building a Rural and Small Town Multi-modal Network

Communities and downtowns have invested in places to walk. However, complete networks that support people comfortably walking and bicycling in the periphery of the towns and communities, connection neighborhoods to downtowns, schools, sport facilities, and other public facilities, as well as throughout the county are very limited in Jefferson County.

A complete network to create safe, comfortable, and accessible multi-modal routes for people walking and bicycling may be comprised of varying facilities that appeal to a range of ages and abilities, such as multi-use paths, sidewalks, and bike lanes. Typically, separation between motor vehicles and those walking or bicycling or slowing motor vehicles to walking and bicycling compatible speeds, is desired to create a more comfortable network. These facilities also provide equitable transportation for people of all income levels. They provide convenient access to key destinations, while minimizing exposure to motor vehicle traffic.

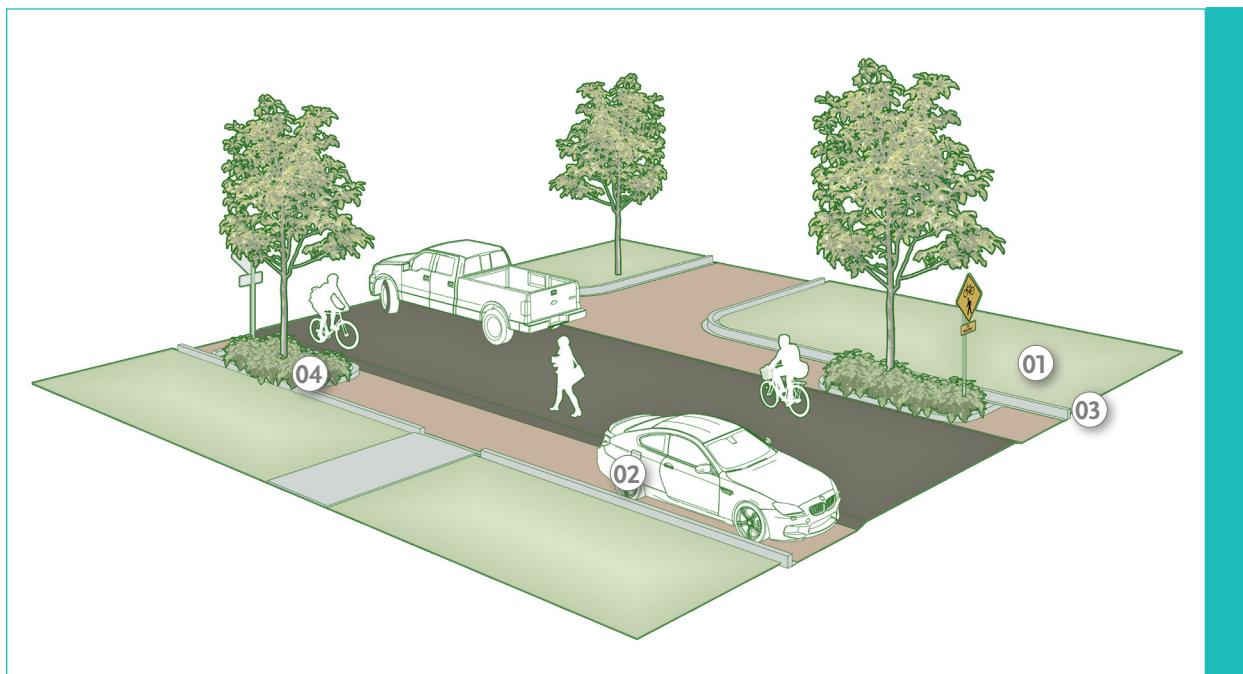
Small and rural towns have great potential for creating viable networks that serve residents and visitors. Common attributes of a small-town network include connections between communities that are located along highways and access to retail businesses and schools in a relatively small area within the community core. Jefferson County, with its great assets of beautiful landscapes, may also prioritize connections to natural areas, parks, schools and sport facilities, to name a few.

Residential neighborhoods and downtown areas might have or are to develop their own mix of traffic facilities, independent from Jefferson County roadway systems, however having connectivity to the larger systems in mind.

## Design Guide for Improvements within Cities, Communities, and Residential Neighborhoods

### RESIDENTIAL NEIGHBORHOOD YIELD ROADWAY

Within the residential neighborhoods of small to medium size towns a multi-modal streetscape might be developed that includes yield roadways, that are designed to serve pedestrians, bicyclists and motor vehicles in the same slow-speed travel area. They might have narrow two-way streets with a travel width of less than 10 feet per lane, without a center line, encouraging slow travel speeds. A parking lane could be constructed along the roadway, interrupted with tree plantings to visually and physically narrow the road-scape and add an aesthetic streetscape. Signs and street markings could be added to warn road users of the special characteristics of the neighborhood street. Raised pavement and signage at the entry into the neighborhoods could further indicate the change of use and raising the awareness of a shared use streetscape and possibly children playing in the streets.

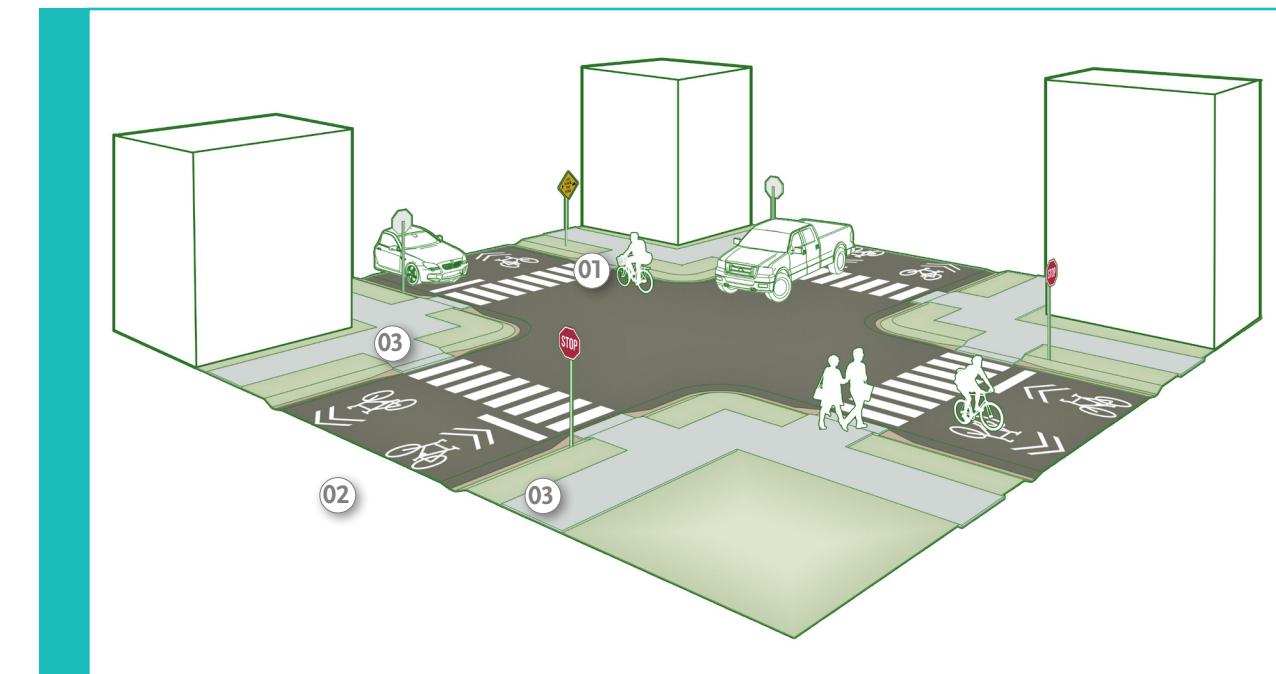


#### KEY COMPONENTS

- ① Signage to raise awareness of children playing and to reduce speed
- ② Designated parking spaces
- ③ Rolled curbs for ease of access to housing
- ④ Tree plantings as identifier of locations in the neighborhood and to provide shade

### LOW VEHICULAR SPEED - BICYCLE BOULEVARD:

Where space allows bicycle boulevards could be added within city limits in downtown areas, which are low-stress shared roadways bicycle facilities designed to offer priority for bicyclists operating within a roadway shared with vehicle traffic. For pedestrians a designated sidewalk, separate from the road, may be constructed or may be in place already. Road signs and road markings to alert all users that bicyclists are present, as equal users of the road. At road crossings signs and striping indicate pedestrian crossings and favor bicycles through traffic. Tree plantings visually and physically narrow the road-scape and add to the aesthetic pleasing streetscape.



#### KEY COMPONENTS

- ① Signage to raise awareness of bicycle and pedestrian crossing
- ② Pavement markings
- ③ Stop bars and pedestrian crossing bars

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# Priority Projects

## INTRODUCTION

This section includes an introduction and overview of proposed routes, or projects, that ranked high in priority throughout the proposed network. These projects illustrate the variety of improvements being recommended throughout Jefferson County to improve bicycle and pedestrian infrastructure, safety, and experiences.

The project selection phase involved grouping roadway segments into potential projects based on segment scoring, roadway ownership, and network connectivity. To ensure logical and feasible boundaries, the start and end points of these projects were identified at intersections or other realistic transition zones.



Arnold City Park Trail

This systematic approach resulted in the identification of over 100 potential projects. Of these, 25 were ranked as high-priority based on their alignment with strategic goals and potential impact. Ten projects that ranked highest in their facility type emerged as top recommendations for immediate focus and implementation.

The following section details these 10 projects and their key characteristics, high-level cost estimate, anticipated return on investment scoring, and particular implementation considerations. Detailed cost estimates for these 10 projects can be found in Appendix C. This phase serves as a vital step in advancing a cohesive and effective plan for an improved county-wide bicycle and pedestrian infrastructure improvement.

## HIGHWAY 61/67 AND FUTURE CROSS COUNTY CONNECTIONS

During the planning process the 61/67 corridor emerged early and often as an important north-south connection across Jefferson County, as well as an important connection to get to St. Louis County. The corridor connects many important destinations in Jefferson County and to the Great Rivers Greenway trail system in St. Louis County (Cliff Cave Park). Within Jefferson County the 61/67 corridor connects the urban centers of Arnold and Festus, as well as communities with unique assets along the way such as Imperial Main Street, Kimmswick, Pevely Main Street and Crystal City. The close proximity to the natural asset of the Mississippi River enhance this corridor as an ideal biking connection.

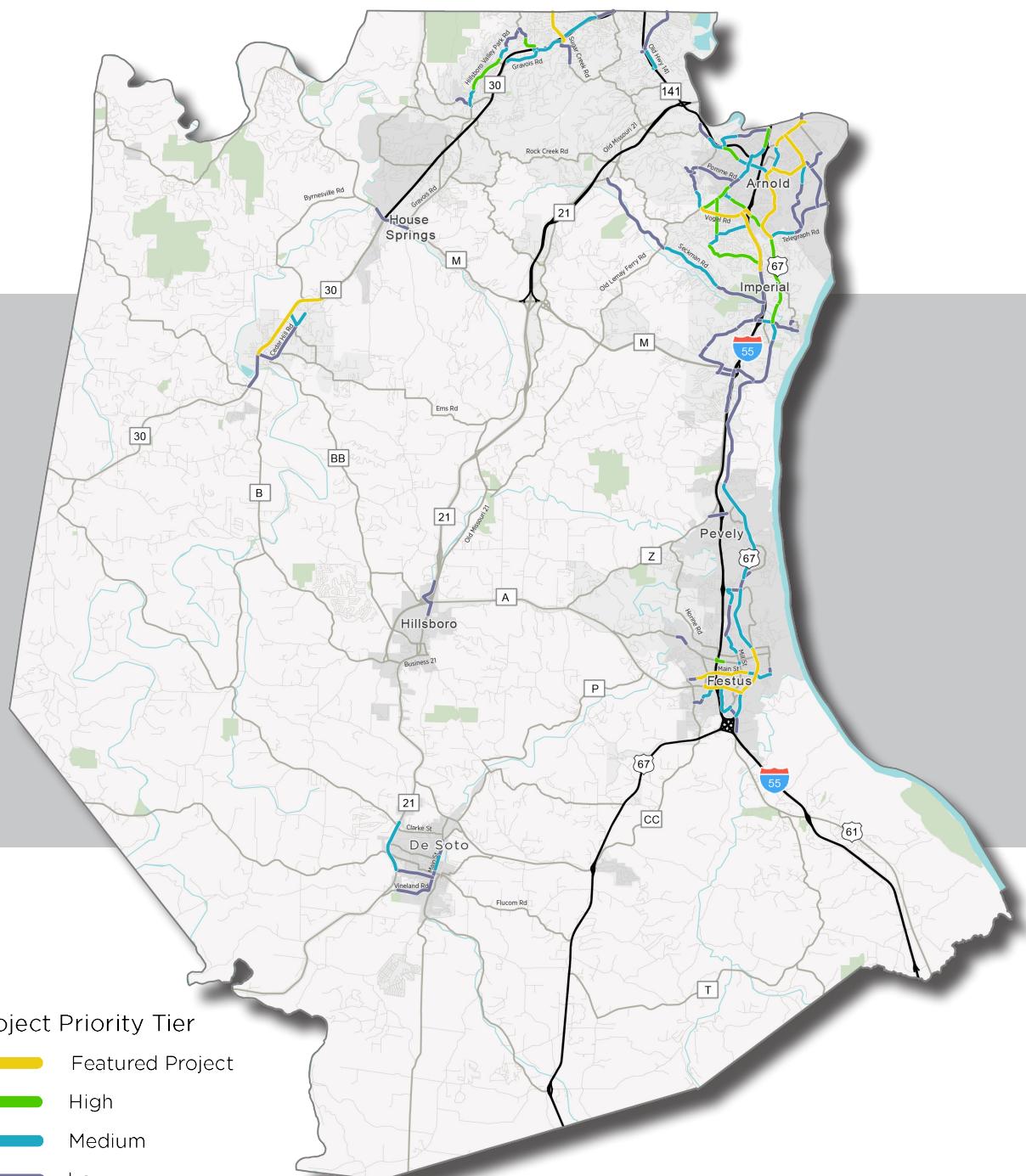
While the limits of this plan focus on space within the public right of way, considering a Road Diet through a future corridor plan is important. Coordination with the Missouri Department of Transportation (MoDOT) in scoping this corridor feasibility analysis is imperative as the owner of the roadway. If a road diet is not feasible due to needs of vehicular traffic on the corridor, MoDOT and Jefferson County should work together to determine the feasibility of a separated trail connection along the 61/67 corridor as an important north-south biking route within the overall biking network.

## Ten Example Priority Projects

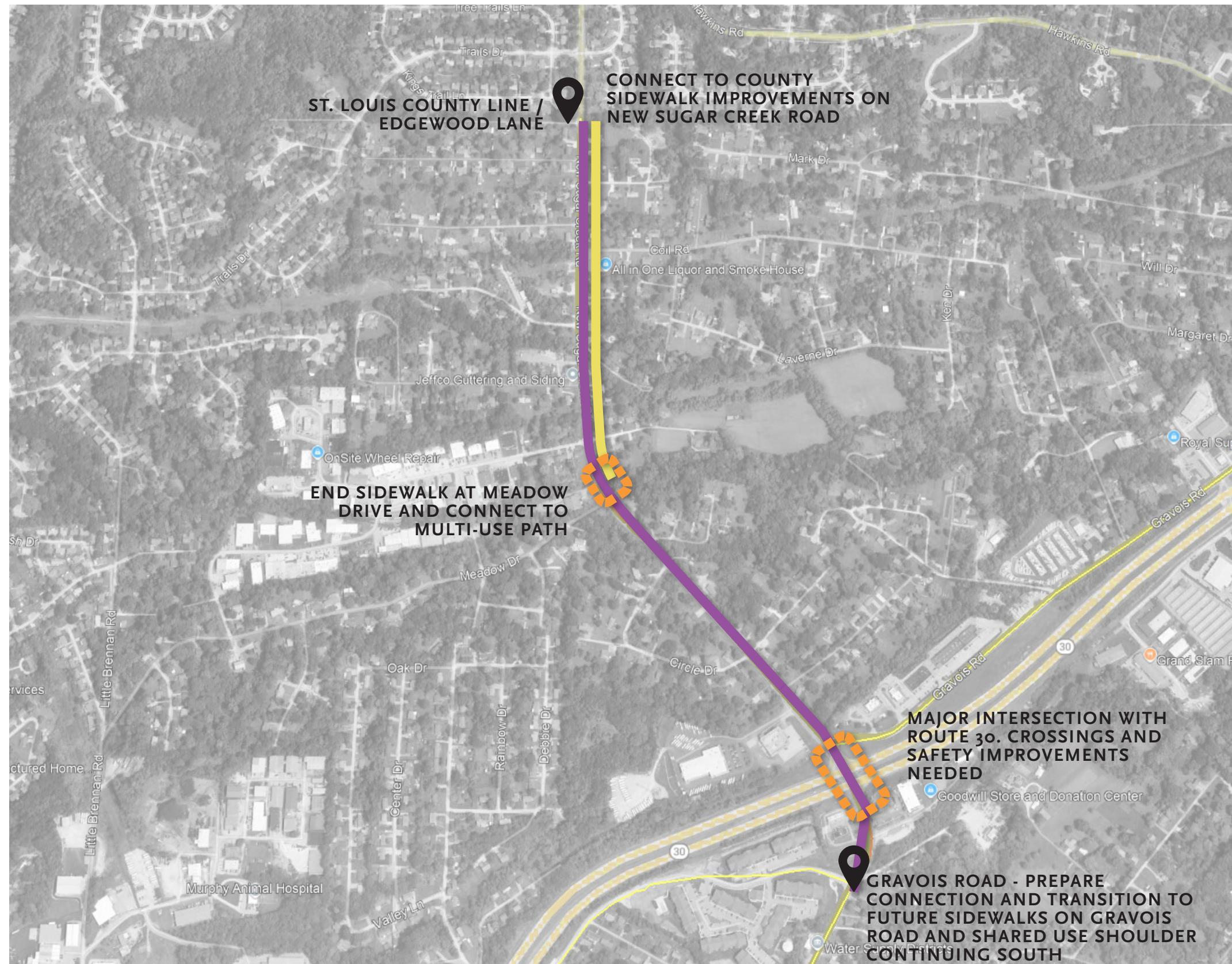
- PROJECT #3: New Sugar Creek Road (High Ridge) from County line to Gravois Road
- PROJECT #5: Commercial Blvd./Truman Blvd. from 11th Street to Veteran's Boulevard
- PROJECT #6: W Main St in Festus from Midmeadow Lane to Adams Street
- PROJECT #7: Highway A/US 61/Veterans Boulevard (Festus) Collins to 55
- PROJECT #10: Jeffco Blvd. from Arnold Tenbrook to 231
- PROJECT #12: Vogel Road (Arnold) Old Lemay Ferry Road to I-55/Richardson
- PROJECT #13: Jeffco Blvd. from Arnold Park to Hwy 141
- PROJECT #14: Tenbrook Road (Arnold) City Project
- PROJECT #18: Outer Road (Arnold) Vogel to Lakewood Drive
- PROJECT #27: Route 30 (Cedar Hill) Scenic View Ln/Gravois Rd to Industrial Drive/BB

Jefferson County is applying for Transportation Alternatives Program (TAP) funding for Project #3 (New Sugar Creek Road) in 2025. Jefferson County was also awarded a Safe Streets and Roads for All (SS4A) Planning and Demonstration Grant Award in 2024 for temporary safety improvements to portions of Vogel Road, Seckman Road, and Old Highway 141.

Priority Projects



## PROJECT #3: New Sugar Creek Road (County Line To Gravois Rd)



START/END POINTS

 MULTI-USE PATH (COUNTY)

 SIDEWALK (COUNTY)

 TRANSITION OR INTERSECTION CONSIDERATIONS

LENGTH: 5,200 feet  
COST ESTIMATE\*: \$1,198,827  
ROI VALUE: 9.8 | 9.9 per mile

\* What's included in project costs:  
Construction costs (including retrofit of existing signals for pedestrians)  
Contingency (15%) & Inflation (3 years)  
Engineering Design & Inspection Fees

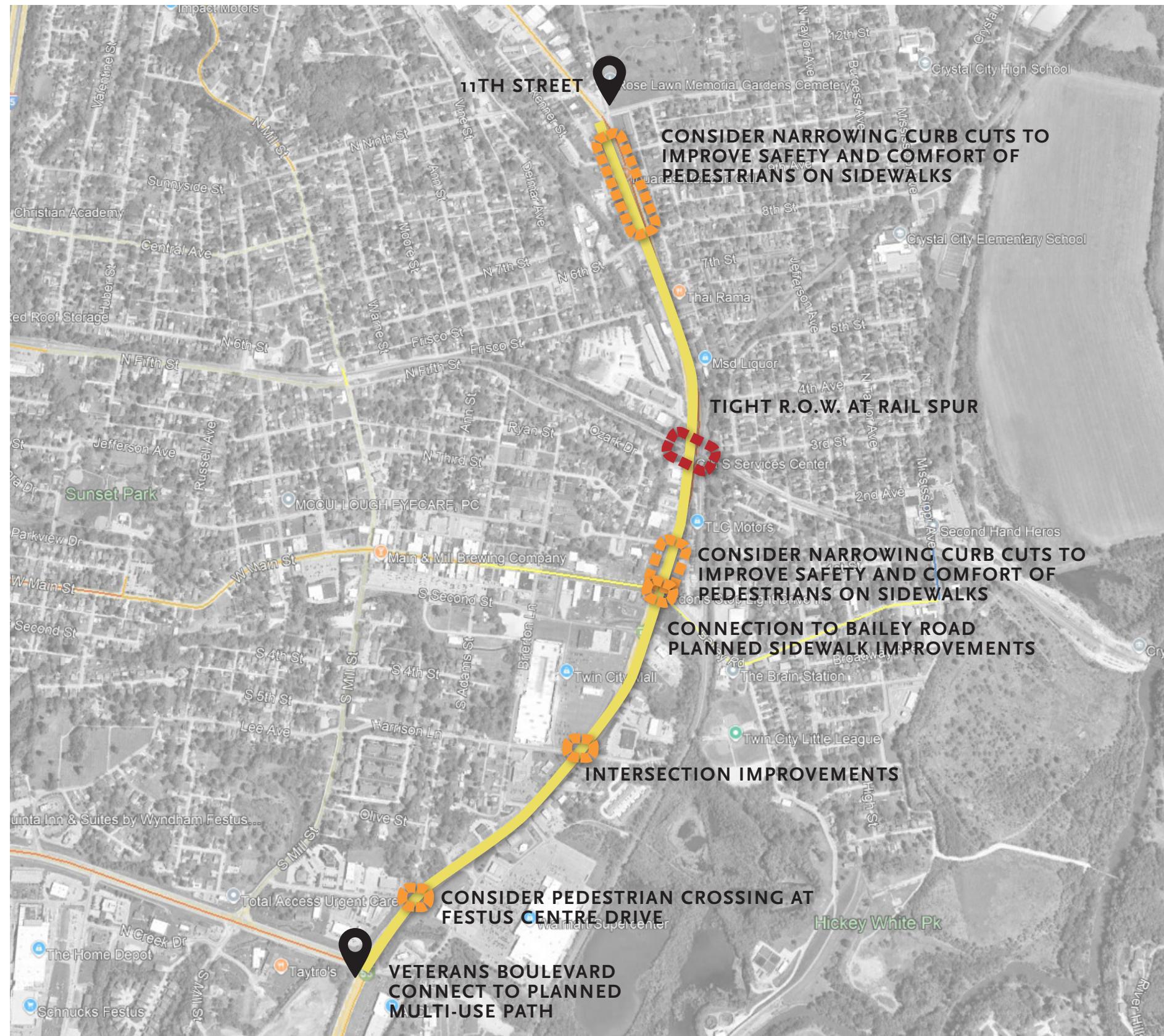
What's not included:  
Right-of-way acquisition (if necessary)  
New signal installs (if necessary)  
Landscaping & Drainage improvements (if necessary)

### NOTES:

PROJECT COULD BE SPLIT INTO SEGMENTS  
DEPENDING ON COSTS. BREAK AT ROUTE 30/  
GRAVOIS ROAD.

Jefferson County is applying for Transportation Alternatives Program (TAP) funding for this project in 2025. TAP is a federal grant program that provides funding for pedestrian and bicycle facilities.

## PROJECT #5: Truman (11th to Veterans Blvd)



- START/END POINTS
- SIDEWALK WITH ONROAD BIKE LANES (MODOT)
- TRANSITION OR INTERSECTION CONSIDERATIONS
- RAILROAD COORDINATION NEEDED

**NOTES:**  
PROJECT COULD BE SPLIT AT RAILROAD UNDERPASS

THIS MAY REQUIRE A ROAD DIET DUE TO SPACE CONSTRAINTS WITHIN THE RIGHT-OF-WAY.  
FURTHER DESIGN STUDY AND TRAFFIC ANALYSIS NEEDED.

LENGTH: 7,700 feet  
COST ESTIMATE\*: \$2,788,000  
ROI VALUE: 5.5 | 3.7 per mile

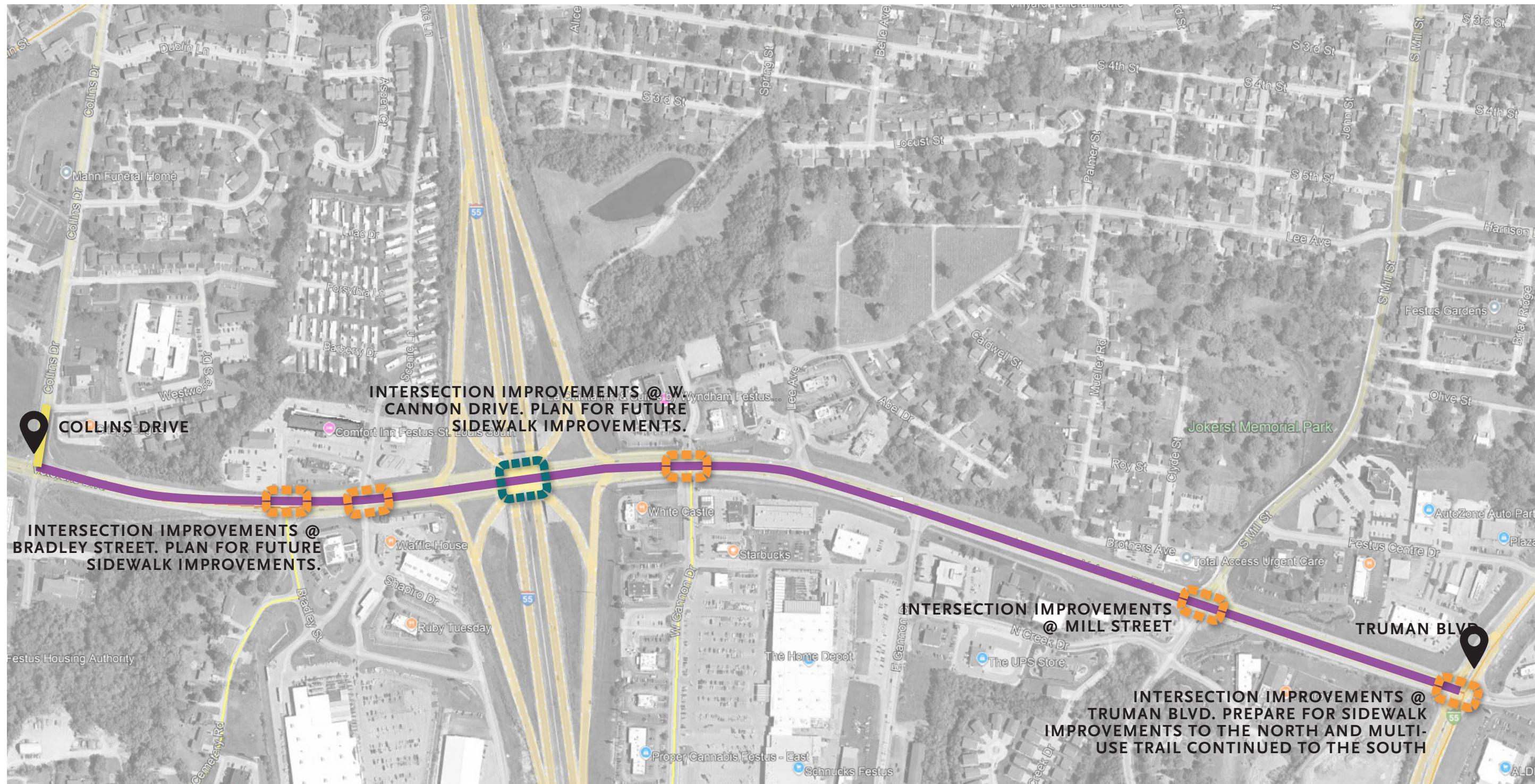
\* What's included in project costs:  
Construction costs (including retrofit of existing signals for pedestrians)  
Contingency (15%) & Inflation (3 years)  
Engineering Design & Inspection Fees

What's not included:  
Right-of-way acquisition (if necessary)  
New signal installs (if necessary)  
Landscaping & Drainage improvements (if necessary)

## PROJECT #6: W. Main Street (Festus Middle School To N. Adams Street)



## PROJECT #7: Veterans Boulevard/Hwy A (Collins To Truman Blvd.)



- SIDEWALKS
- MULTI-USE PATH (MODOT)
- TRANSITION OR INTERSECTION CONSIDERATIONS

- HIGHWAY INTERCHANGE. SEE EXAMPLE IN GUIDE FOR PROTECTED/BARRIER FOR MULTI-USE PATH
- START/END POINTS

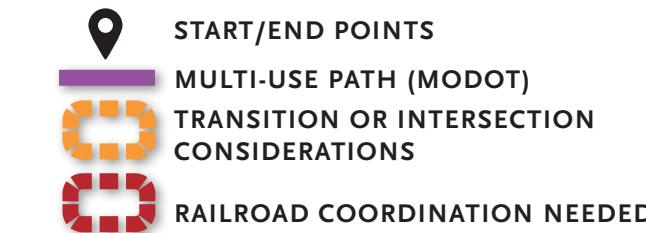
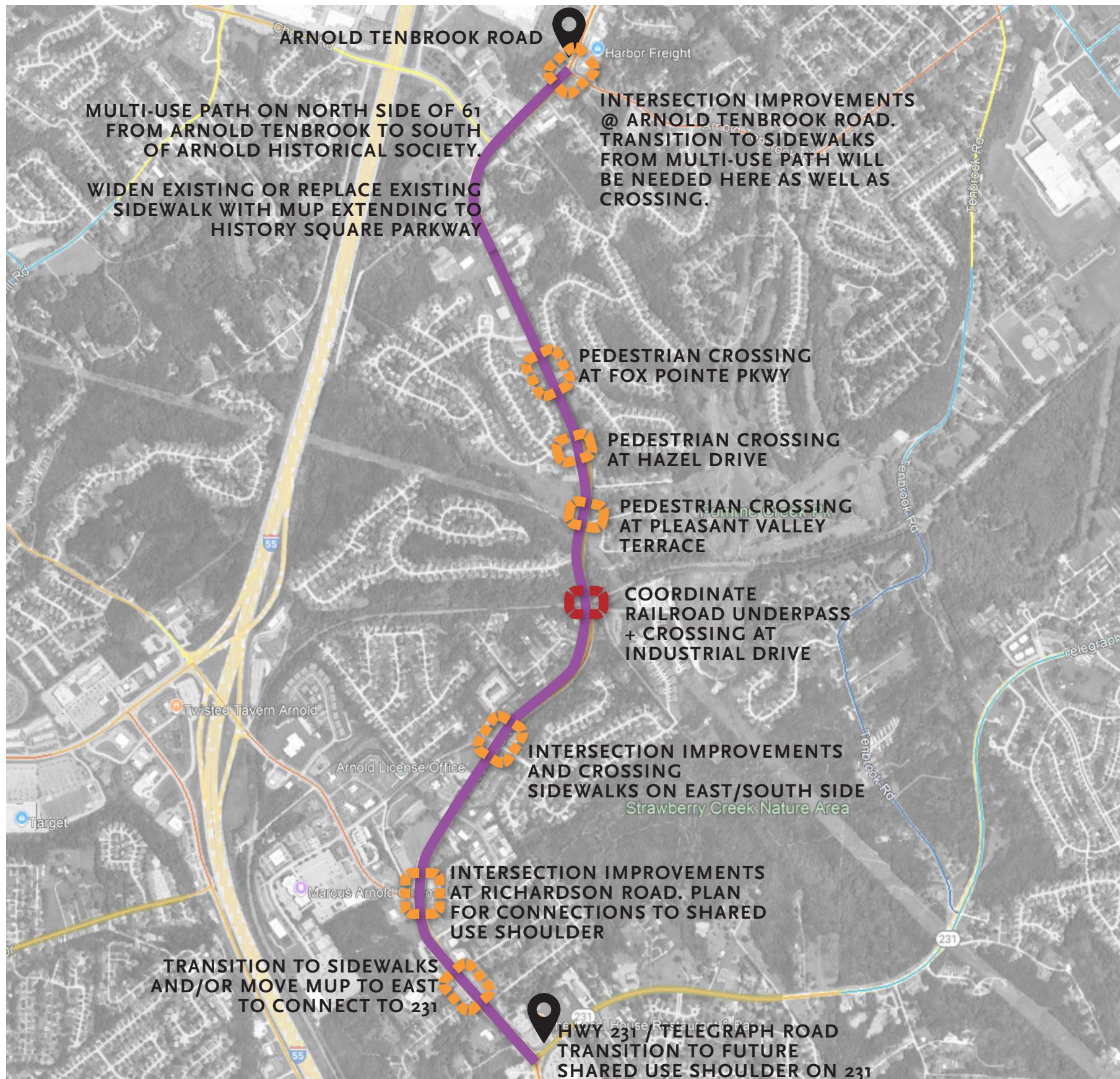
**NOTES:**  
COULD BE SEPARATED INTO TWO PROJECTS AT INTERCHANGE

\* What's included in project costs:  
Construction costs (including retrofit of existing signals for pedestrians)  
Contingency (15%) & Inflation (3 years)  
Engineering Design & Inspection Fees

LENGTH: 5,700 feet  
COST ESTIMATE\*: \$1,309,000  
ROI VALUE: 12.8 | 11.3 per mile

What's not included:  
Right-of-way acquisition (if necessary)  
New signal installs (if necessary)  
Landscaping & Drainage improvements (if necessary)

## PROJECT #10: Jeffco Blvd. (Arnold Tenbrook To Hwy 231)



**NOTES:**  
PROJECT COULD BE SPLIT INTO SEGMENTS  
DEPENDING ON COSTS. BREAK AT RICHARDSON  
ROAD OR CHURCH ROAD AS WELL AS THE  
RAILROAD.

THIS MAY REQUIRE A ROAD DIET DUE TO SPACE  
CONSTRAINTS WITHIN THE RIGHT-OF-WAY.  
FURTHER DESIGN STUDY AND TRAFFIC ANALYSIS  
NEEDED.

LENGTH: 12,500 feet  
COST ESTIMATE\*: \$2,992,927  
ROI VALUE: 7.0 | 2.9 per mile

\* What's included in project costs:  
Construction costs (including retrofit of existing signals  
for pedestrians)  
Contingency (15%) & Inflation (3 years)  
Engineering Design & Inspection Fees

What's not included:  
Right-of-way acquisition (if necessary)  
New signal installs (if necessary)  
Landscaping & Drainage improvements (if necessary)

## PROJECT #12: Vogel Road (Old Lemay Ferry To Hwy 55)



SHARED USE SHOULDER (COUNTY)  
 TRANSITION OR INTERSECTION CONSIDERATIONS

START/END POINTS

SHARED USE SHOULDER (CITY)  
 SHARED USE SHOULDER (SIDEWALK ON ONE SIDE (CITY))

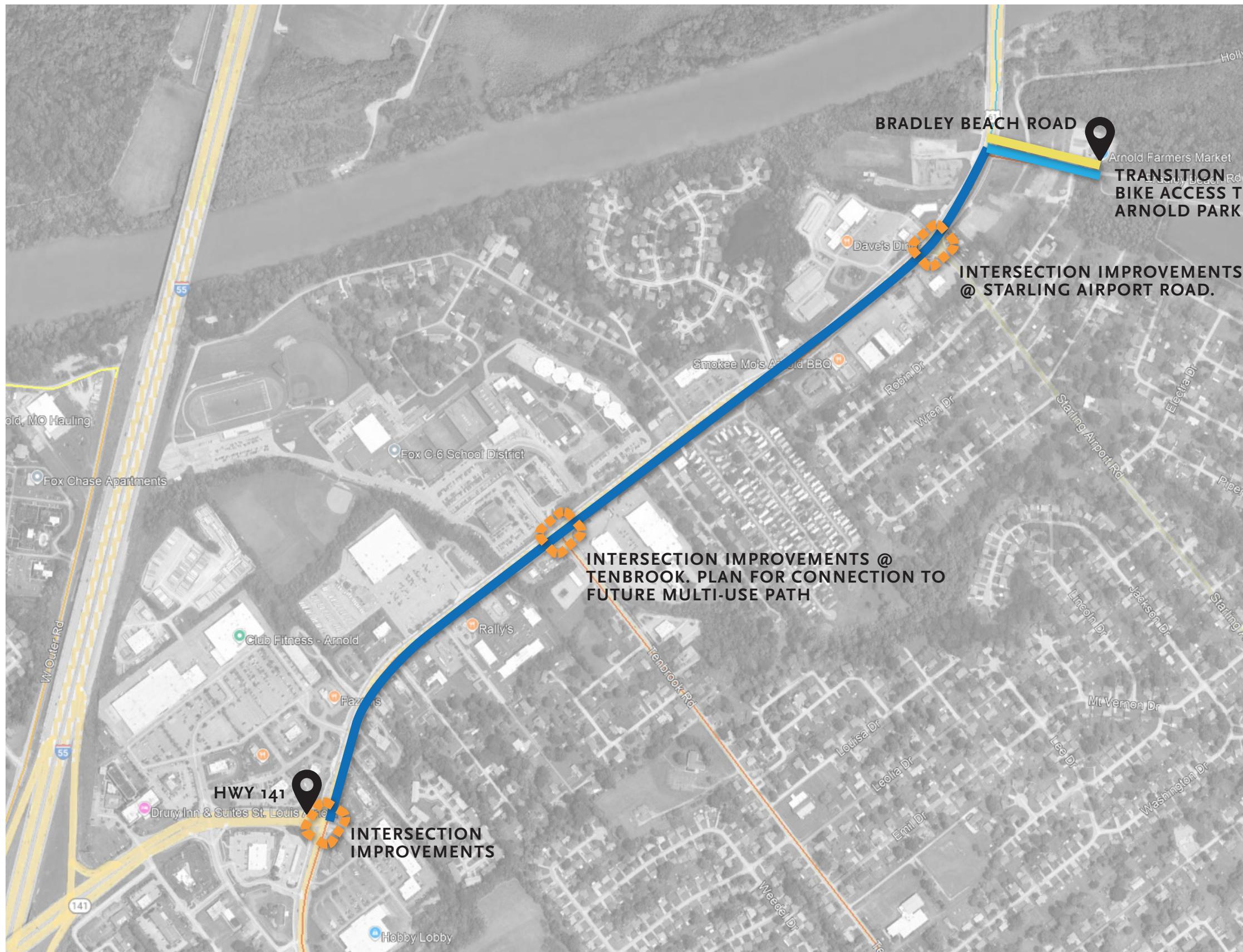
**NOTES:**  
COULD BE SEPARATED INTO TWO PROJECTS AT CITY LINE. SS4A FUNDS AWARDED FOR DEMONSTRATION PROJECT ON VOGEL.

\* What's included in project costs:  
Construction costs (including retrofit of existing signals for pedestrians)  
Contingency (15%) & Inflation (3 years)  
Engineering Design & Inspection Fees

LENGTH: 7,300 feet  
COST ESTIMATE\*: \$599,075  
ROI VALUE: 22.8 | 14.6 per mile

What's not included:  
Right-of-way acquisition (if necessary)  
New signal installs (if necessary)  
Landscaping & Drainage improvements (if necessary)

## PROJECT #13: Jeffco Blvd. (Arnold Park To Hwy 141)



### START/END POINTS

- ON-ROAD BIKE FACILITY (MODOT)
- ON-ROAD BIKE FACILITY (CITY)
- SIDEWALK (CITY)

### TRANSITION OR INTERSECTION CONSIDERATIONS

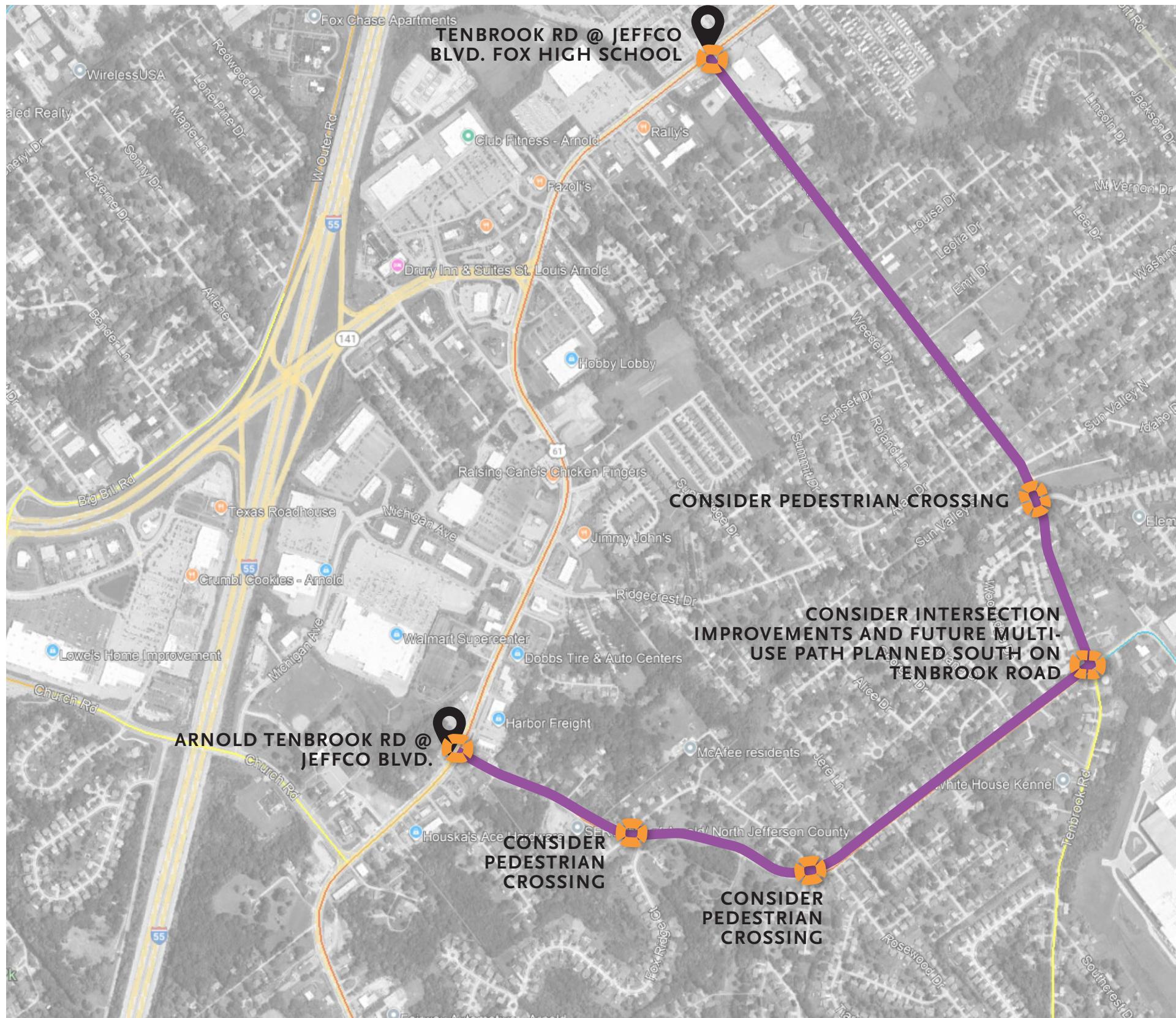
**NOTES:**  
 SIDEWALKS EXIST ON BOTH SIDES OF JEFFCO BLVD. NEED TO PROVIDE ON-ROAD BICYCLE FACILITY WITHIN THE ROADWAY - BOTH SIDES, IDEALLY. THIS MAY REQUIRE A ROAD DIET DUE TO SPACE CONSTRAINTS WITHIN THE RIGHT-OF-WAY. FURTHER DESIGN STUDY AND TRAFFIC ANALYSIS NEEDED.

**LENGTH:** 6,000 feet  
**COST ESTIMATE\*:** \$390,000  
**ROI VALUE:** 52.4 | 28.1 per mile

\* What's included in project costs:  
 Construction costs (including retrofit of existing signals for pedestrians)  
 Contingency (15%) & Inflation (3 years)  
 Engineering Design & Inspection Fees

What's not included:  
 Right-of-way acquisition (if necessary)  
 New signal installs (if necessary)  
 Landscaping & Drainage improvements (if necessary)

## PROJECT #14: Tenbrook Loop (Arnold Identified Project)



- START/END POINTS
- MULTI-USE PATH (CITY)
- TRANSITION OR INTERSECTION CONSIDERATIONS

### NOTES:

SIDEWALKS EXIST ALONG SOME PARTS OF THIS ROUTE. RECOMMEND MULTI-USE PATH ALONG SOUTH SIDE OF ARNOLD TENBROOK ROAD UNTIL THE INTERSECTION AT TENBROOK ROAD. RECOMMEND MULTI-USE PATH ON EAST SIDE OF TENBROOK ROAD BETWEEN FOX HIGH SCHOOL AND ARNOLD TENBROOK ROAD.

LENGTH: 10,800 feet

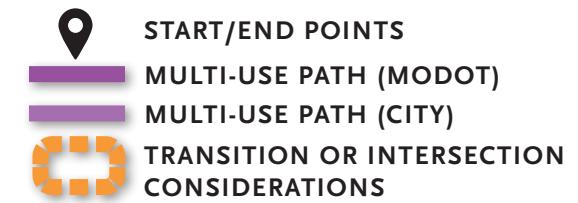
COST ESTIMATE\*: \$1,804,041

ROI VALUE: 5.1 | 2.4 per mile

\* What's included in project costs:  
 Construction costs (including retrofit of existing signals for pedestrians)  
 Contingency (15%) & Inflation (3 years)  
 Engineering Design & Inspection Fees

What's not included:  
 Right-of-way acquisition (if necessary)  
 New signal installs (if necessary)  
 Landscaping & Drainage improvements (if necessary)

## PROJECT #18: W. Outer Road (Vogel To Lakewood Landing)



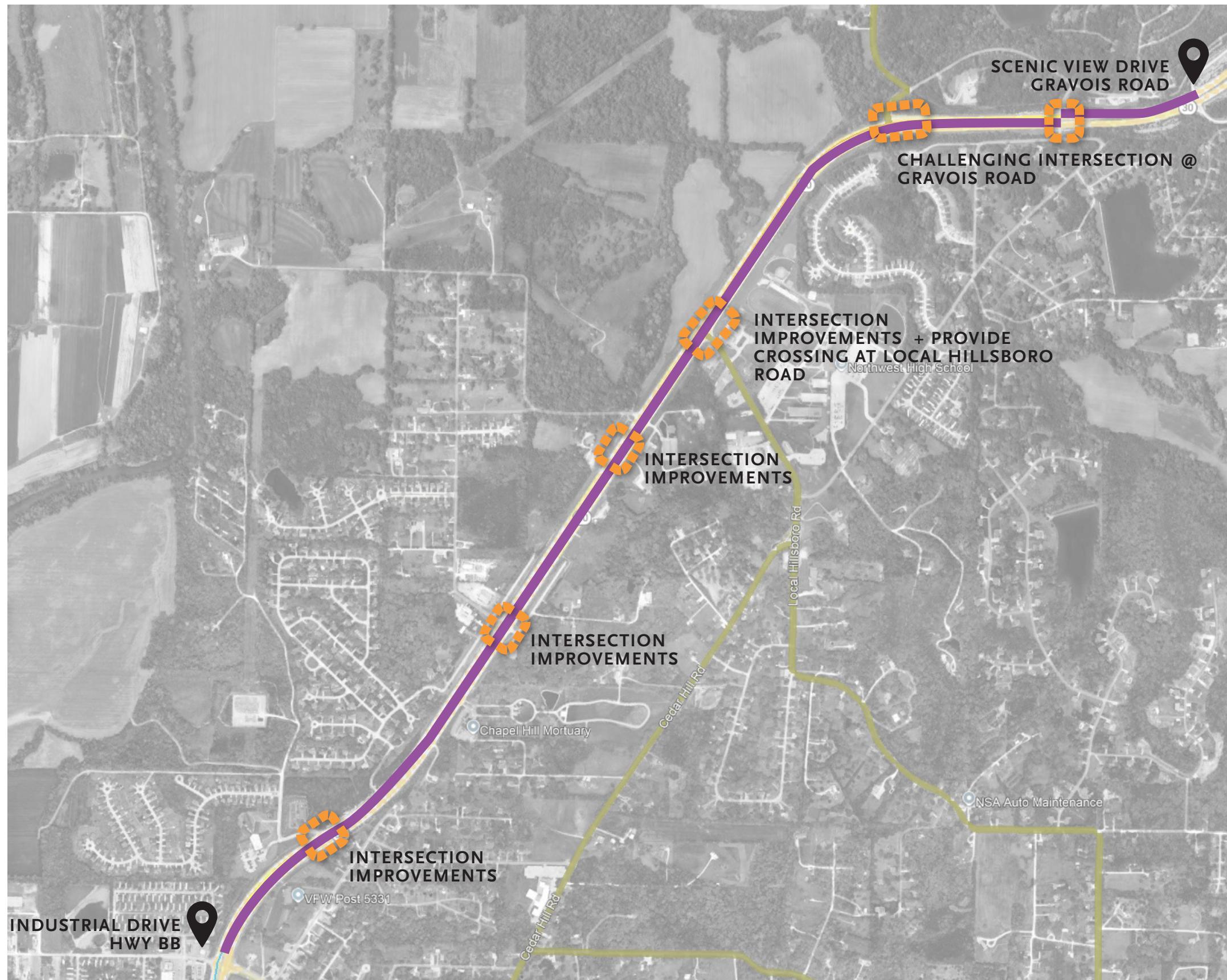
NOTES:  
PROJECT COULD BE SPLIT AT ELM TO MAKE TWO SMALLER IMPROVEMENTS.

LENGTH: 8,500 feet  
COST ESTIMATE\*: \$977,000  
ROI VALUE: 16.3 | 9.1 per mile

\* What's included in project costs:  
Construction costs (including retrofit of existing signals for pedestrians)  
Contingency (15%) & Inflation (3 years)  
Engineering Design & Inspection Fees

What's not included:  
Right-of-way acquisition (if necessary)  
New signal installs (if necessary)  
Landscaping & Drainage improvements (if necessary)

## PROJECT #27: Route 30 (Gravois To Hwy BB)



START/END POINTS



MULTI-USE PATH (MODOT)  
TRANSITION OR INTERSECTION  
CONSIDERATIONS

### NOTES:

NEED TO CONSIDER HOW TO START/STOP THESE AT THE "ENDS" WHERE NO FUTURE CONNECTION IS RECOMMENDED IN THE PLAN

MULTI-USE PATH MAY ONLY BE FEASIBLE ON ONE SIDE OF GRAVOIS ROAD MAKING CROSSINGS NECESSARY. FURTHER EVALUATION IN DESIGN AND ENGINEERING PHASE NEEDED.

LENGTH: 14,000 feet  
COST ESTIMATE\*: \$2,060,409  
ROI VALUE: 4.4 | 1.7 per mile

\* What's included in project costs:  
Construction costs (including retrofit of existing signals for pedestrians)  
Contingency (15%) & Inflation (3 years)  
Engineering Design & Inspection Fees

What's not included:  
Right-of-way acquisition (if necessary)  
New signal installs (if necessary)  
Landscaping & Drainage improvements (if necessary)

## Priority Project Matrix

Roadway	Ownership	Facility Type	Project Value Score	Project Length (miles)	Cost Estimate	Facility ROI (value score per \$mil)
New Sugar Creek Road	County Road	Shared Use Shoulder, Sidewalk	11.7	0.98	\$1,199,000	9.8
Commercial Boulevard	US Highway, City Road	Shared Use Shoulder, Sidewalk	15.3	1.49	\$2,788,000	5.5
W Main Street	City Road	Sidewalk	15.3	1.50	\$1,408,000	10.9
Highway A	State Highway	Multi-use Path, Sidewalk	16.8	1.13	\$1,309,000	12.8
Jeffco Boulevard	US Highway, County Road	Multi-use Path, Shared Use Shoulder	20.9	2.38	\$2,993,000	7.0
Vogel Road	County Road, City Road	Shared Use Shoulder	13.7	1.57	\$599,000	22.8
Highway 61	US Highway	Shared Use Shoulder	20.4	1.86	\$390,000	52.4
Arnold/Tenbrook Road	City Road	Multi-use Path	9.1	2.07	\$1,804,000	5.1
West Outer Road	State Maintained Road	Shared Use Shoulder	15.9	1.79	\$977,000	16.3
Highway 30	State Highway	Multi-use Path	9.0	2.62	\$2,060,409	4.4

## Average Facility Cost

The priority projects listed above underwent detailed cost estimation to prepare Jefferson County for rapid and effective implementation. The detailed cost estimates for each priority project are available in [Appendix C](#). To estimate costs for the rest of the 100 identified projects, the project team applies average costs per mile by facility type, which were derived from these detailed estimates. While this method is substantially less precise, it provides a conservative planning-level cost estimate that can be used to estimate facility ROI and prepare for more detailed engineering design and construction steps.

The full project ROI matrix is available in [Appendix A](#).

### Average Costs Per Mile

Facility Type	Cost
Shared Use Shoulder	\$440,000
Multi-Use Path	\$1,146,000
Sidewalk	\$1,587,000
Bike Facility	\$344,000

# 07

# Implementation Guide

## INTRODUCTION

This chapter provides information and strategies on how to implement the Walk Bike Plan. Without proper implementation strategies, it will be difficult to bring the proposed walking and biking networks, and other projects mentioned in this plan, to reality. Funding for projects, coordination and partnerships with different agencies and jurisdictions, and a County implementation and maintenance program are all key aspects to successfully executing the projects and strategies identified in this plan.



Kimmswick Historical Society Museum

# POTENTIAL FUNDING PROGRAMS

Several funding sources exist to assist Jefferson County in implementing projects to contribute to the walking and biking networks identified in this plan.

## Safe Streets and Roads for All (SS4A)

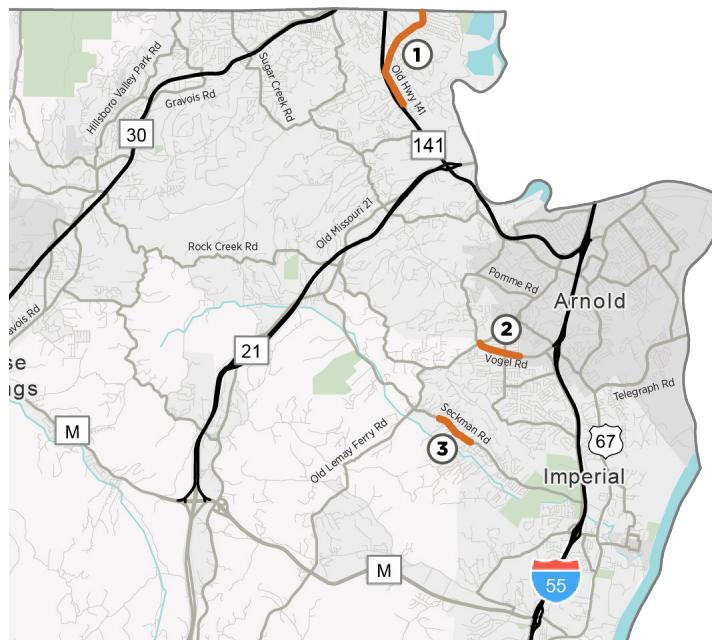
The Safe Streets and Roads for All (SS4A) federal grant program allocated \$5 billion in funds from 2022-2026 to fund initiatives that prevent death and serious injuries on roadways. As many of the proposed improvements in this plan are safety-related, SS4A offers an excellent opportunity for MoDOT, Jefferson County, and local jurisdictions within Jefferson County to apply for and receive grant funding to implement these projects. Two funding cycles remain for the SS4A program, FY 2025 and FY 2026.



Two grant types are offered: Planning and Demonstration Grants are provided to fund Safety Action Plans, and Implementation Grants are provided to implement infrastructural, behavioral, and/or operational projects and strategies that have been identified in a Safety Action Plan. As this plan provides an in-depth analysis of current safety concerns and offers strategies to improve roadway safety, projects in this plan would be eligible for Implementation Grants within the SS4A program.

In November 2024, the US Department of Transportation awarded Jefferson County a Planning and Demonstration Grant Award for \$720,000. This award will be used by Jefferson County to conduct a demonstration project implementing temporary measures to create safe, separated active transportation facilities intended to complete safe, walkable and bikeable connections for vulnerable road users to and from important county destinations. The demonstration activities will

include installation of temporary bike and pedestrian facilities using low-cost materials like paint, bollards, planters, and signs. This award will allow a strategy to be tested and also allow potential benefits to be measured to help inform further implementation. This award focuses on streets identified early in project prioritization, including Old Highway 141, Vogel Road, and Seckman Road.



- ① Old Highway 141; Fiedler Ln to County Line
- ② Vogel Rd; Old Lemay Ferry Rd to Arnold City Limits
- ③ Seckman Rd; Frisco Hill Rd to Seckman High School

## Transportation Alternatives Program (TAP)

The Transportation Alternatives Set-Aside (TA) from the Surface Transportation Block Grant Program (STBG) includes funding for pedestrian and bicycle facilities, recreational trails, safe routes to school projects, and vulnerable road user safety assessments. There are approximately \$15 million allocated in TAP funds for the state of Missouri in FY 2025.

## MoDOT Cost Share Program

The purpose of the Missouri Department of Transportation's Cost Share Program is to build partnerships with local entities to pool efforts and resources to deliver state highway and bridge projects. MoDOT allocates Cost Share funds based on the Missouri Highways and Transportation Commission's (MHTC) approved funding distribution formula. Projects are selected by the Cost Share Committee then recommended for approval by the MHTC via a Statewide Transportation Improvement Program (STIP) amendment.



# FUNDING AND IMPLEMENTATION PARTNERSHIPS

## MoDOT

Working with MoDOT to coordinate the implementation of improvements along MoDOT-owned roads is a key aspect of implementing this plan. Additionally, there are opportunities to partner with MoDOT for joint funding opportunities.

## Great Rivers Greenway (GRG)



While the focus of this plan is on improvements adjacent to streets and within existing public right-of-way, residents made clear their desire for an off-street trail network within Jefferson County throughout the community engagement process. Great Rivers Greenway (GRG) is the regional parks and trails district for the St. Louis region, currently including St. Louis City, St. Louis County, and St. Charles County.

To aid in the implementation of an off-street trail network, Jefferson County should work to become part of the GRG district. GRG can then coordinate logistics and construction of an off-street trail network that connects to other GRG trails in St. Louis County, using funds generated from a sales tax within the GRG district.

# COMMUNITY EDUCATION STRATEGIES

Promoting walking and biking to school and work can help to shift the community's mindset and lead them to be more willing to walk or bike as a form of transportation. Walk and bike to school/work days are a great way to start encouraging more walking and biking by showcasing the benefits of reducing car trips. Working with employers to provide incentives for workers to walk or bike (or carpool) to work is an additional step that can be taken to encourage more walking and biking. For example, employees should be offered an incentive if they do not use a parking spot at work. Educating drivers through education and enforcement campaigns is critical to ensuring that everyone is familiar with the laws regarding how to treat someone walking or biking on or along a street. This can include, but is not limited to: crosswalk and right-of-way laws for pedestrians; bicyclists' right to use full traffic lanes and safe passing distances to pass bicyclists. Creating community champions for walking and biking through the promotion of the benefits of walking and biking can help lead to future funding prioritization through advocacy.

# IMPLEMENTATION GUIDANCE

**Chambers of Commerce** organize businesses and can run promotional and advocacy efforts to support the growth of businesses in the community.

**Bike Ped Commissions** as a part of County government include members of the public who focus on advising County Council and other decision-making bodies regarding walking and biking. A Bike Ped Commission holds meetings and can accept comments from the public regarding concerns or desires about walking and biking. The commission can do further analysis and can advise County Council on recommended actions. These commissions are typically made up of walking and biking experts, enthusiasts, and those who work with groups of people who may need unique attention regarding walking and biking, such as people living with disabilities, the elderly, and youth.

# Appendix A

## Project Routes

Appendix A includes a chart of all proposed projects identified, and a breakdown of the scoring and prioritization of each project. The methodology used to reach the project value score is explained in [Chapter 4](#). A project map showing all projects, and a breakdown of the top 10 highest priority projects are included in [Chapter 6](#).

A value score per mile, which considers the project value score and project length, a cost estimate and cost estimate per mile, and a facility return of investment (ROI) and ROI per mile are all included with each identified project route. The scores for overall projects are the sum of the corresponding segment scores in [Appendix B](#) that make up an overall project. These scoring analyses were all used to reach project prioritization, which includes high (with projects noted as "highlight" called out in [Chapter 6](#)), medium, and low priority rankings.



Bicyclists on a bike path

Project Number	Roadway	From	To	Project Priority	Ownership	Facility Type	Project Value Score	Project Length (miles)	Value Score per Mile	Cost Estimate	Est. Cost per Mile	Facility ROI (value score per \$mil)	ROI per mile
1	Hillsboro Valley Park Road	Lower Skyline Dr	Harter Farms Mn	High	County Road	Shared Use Shoulder, Side-walk	10.8	1.19	9.1	\$988,000	\$833,000	10.9	9.2
2	Brennan Road	Cassie Ct	Little Brennan Rd	High	County Road	Sidewalk	3.7	0.41	9.0	\$471,000	\$1,148,000	7.8	19.0
3	New Sugar Creek Road	Gravois Rd	STL County Line	Highlight	County Road	Multi-use Path + Sidewalk	11.7	0.98	11.9	\$1,893,000	\$1,925,000	6.2	6.3
4	N Fifth Street	Alexander Dr	W of Fairview Ave	High	City Road	Sidewalk	3.6	0.26	13.9	\$298,000	\$1,148,000	12.1	46.6
5	US 61/67	Veterans Blvd	11th St	Highlight	US Highway, City Road	Sidewalk with Bike Facility	15.3	1.49	10.3	\$2,819,000	\$1,890,000	5.4	3.6
6	W Main Street	Midmeadow Ln	Adams St	Highlight	City Road	Sidewalk	15.3	1.50	10.2	\$1,410,000	\$943,000	10.8	7.3
7	Veterans Blvd	Westwood Dr	US 61/67	Highlight	State Highway	Multi-use Path	16.8	1.13	14.8	\$1,285,000	\$1,132,000	13.1	11.5
8	US 61/67	Holly Ct	Telegraph Rd	High	US Highway	Shared Use Shoulder	13.9	2.10	6.6	\$947,000	\$450,000	14.7	7.0
9	Big Bill Road	Miller Rd	Blossom Ln	High	City Road	Multi-use Path	2.7	0.47	5.7	\$520,000	\$1,101,000	5.2	11.0
10	US 61/67	Telegraph Rd	Arnold Tenbrook Rd	Highlight	US Highway, County Road	Multi-use Path	20.9	2.38	8.8	\$2,562,000	\$1,078,000	8.2	3.4
11	Richardson Road	Marty Dr	US 61/67	High	City Road	Shared Use Shoulder	4.3	0.52	8.2	\$235,000	\$450,000	18.2	34.8
12	Vogel Road	Old Lemay Ferry Rd	Richardson Rd	Highlight	County Road, City Road	Shared Use Shoulder	13.7	1.57	8.7	\$621,000	\$397,000	22.0	14.1
13	US 61/67	Bradley Beach Rd	Highway 141	Highlight	US Highway	Sidewalk with Bike Facility	12.6	1.14	11.1	\$403,000	\$355,000	31.2	27.5
14	Arnold/Ten-brook Road	US 61/67 @ Tenbrook	US 61/67 @ Arnold Tenbrook	Highlight	City Road	Multi-use Path	9.1	2.07	4.4	\$1,805,000	\$873,000	5.1	2.4
16	US 61/67	Main St	Holly Ct	High	US Highway	Shared Use Shoulder	4.0	0.53	7.6	\$237,000	\$450,000	16.9	32.1
17	Missouri State Road	Astra Way	Woodland Villas	High	City Road	Shared Use Shoulder	3.6	0.50	7.2	\$225,000	\$450,000	16.0	32.0
18	Outer Road	Vogel Rd	Lakewood Lndg	Highlight	State Maintained Road	Multi-use Path	15.9	1.79	8.9	\$944,000	\$527,000	16.9	9.4
21	Miller Road	Miller Rd	Outer Rd	High	County Road	Sidewalk	13.5	1.71	7.9	\$1,960,000	\$1,147,000	6.9	4.0
22	Old Lemay Ferry Road	Vogel Rd	Miller Rd	High	County Road	Sidewalk	3.6	0.50	7.1	\$576,000	\$1,146,000	6.2	12.3
23	Miller Road	Elm Dr	Old Lemay Ferry Rd	High	County Road	Sidewalk	7.9	1.00	7.8	\$1,153,000	\$1,147,000	6.8	6.8
24	Richardson Road	Theodore Dr	Vogel Rd	High	City Road	Sidewalk	6.7	0.52	12.8	\$602,000	\$1,147,000	11.1	21.2
25	Outer Road	Lonedell Rd	Judy Dr	High	City Road	Sidewalk	3.5	0.51	6.9	\$583,000	\$1,148,000	6.1	11.9
26	Highway 21	Amvets Dr	Ball Creek Bowl Dr	Medium	State Highway	Shared Use Shoulder	8.8	1.52	5.8	\$682,000	\$450,000	12.9	8.5

Project Number	Roadway	From	To	Project Priority	Ownership	Facility Type	Project Value Score	Project Length (miles)	Value Score per Mile	Cost Estimate	Est. Cost per Mile	Facility ROI (value score per \$mil)	ROI per mile
27	Highway 30	Hwy BB	Scenic View Ln	Highlight	State Highway	Multi-use Path	9.0	2.62	3.4	\$2,156,000	\$823,000	4.2	1.6
28	Fiedler Lane	Springdale Blvd	Old Highway 141	Medium	State Maintained Road, County Road	Sidewalk	2.6	0.08	31.0	\$96,000	\$1,153,000	26.9	323.1
29	Gravois Road	Brennan Rd	Old Sugar Creek Rd	Medium	County Road	Sidewalk	9.2	1.11	8.3	\$1,268,000	\$1,147,000	7.2	6.5
30	Williams Creek Road	Antire Rd	Lower Skyline Dr	Medium	County Road	Shared Use Shoulder	2.8	0.53	5.2	\$241,000	\$451,000	11.6	21.7
31	Hillsboro Valley Park Road	Harter Farms Mn	Samone Ln	Medium	County Road	Sidewalk	3.1	0.41	7.6	\$471,000	\$1,146,000	6.6	16.2
32	Gravois Road	High Ridge Pkwy	Emerson Rd	Medium	County Road	Sidewalk	6.1	0.95	6.4	\$1,090,000	\$1,147,000	5.6	5.8
33	Gravois Road	New Sugar Creek Rd	W of Hawkins Rd	Medium	State Maintained Road	Multi-use Path	6.1	1.13	5.5	\$1,241,000	\$1,101,000	5.0	4.4
35	YMCA Drive/W Gannon Drive	American Legion Dr	Veterans Blvd	Medium	City Road	Sidewalk	5.9	1.01	5.9	\$1,160,000	\$1,147,000	5.1	5.1
36	Gamel Cemetery Rd	Parkville Ln	Veterans Blvd	Medium	City Road	Sidewalk	5.6	0.43	12.8	\$498,000	\$1,146,000	11.2	25.8
37	US 61/67	American Legion Dr	Veterans Blvd	Medium	US Highway	Multi-use Path, Sidewalk	6.2	0.71	8.6	\$787,000	\$1,101,000	7.8	11.0
38	Bailey Road	Adams St	Mississippi Ave	Medium	City Road	Sidewalk	6.2	0.75	8.3	\$863,000	\$1,146,000	7.2	9.6
39	Scenic Drive	Westchester Dr	McNutt St	Medium	City Road	Shared Use Shoulder	2.7	0.53	5.0	\$240,000	\$450,000	11.2	21.0
40	Scenic Drive	Scenic Hts	Sunnyside St	Medium	City Road	Sidewalk	3.5	0.53	6.5	\$611,000	\$1,147,000	5.7	10.6
41	US 61/67	Joachim Ave	Marble Springs Rd	Medium	US Highway	Shared Use Shoulder	13.2	3.05	4.3	\$1,375,000	\$450,000	9.6	3.2
42	US 61/67/Main St	Old State Rd	Windsor Dr	Medium	US Highway, County Road	Shared Use Shoulder, Sidewalk	5.7	0.76	7.5	\$524,000	\$688,000	10.8	14.3
43	Seckman Road	E of Old Lemay Ferry Rd	Burgundy Dr	Medium	County Road	Shared Use Shoulder	11.4	1.86	6.1	\$839,000	\$450,000	13.5	7.3
44	Tenbrook Road	Southgate Dr	Arnold Tenbrook Rd	Medium	City Road	Multi-use Path	3.2	0.52	6.1	\$571,000	\$1,101,000	5.5	10.7
45	Vogel Road	Old Lemay Ferry Rd	Bluff Park Dr	Medium	County Road	Shared Use Shoulder	3.1	0.53	5.9	\$237,000	\$449,000	13.1	24.9
46	Telegraph Road	US 61/67	E of Dana Dr	Medium	State Highway	Shared Use Shoulder	4.0	0.68	5.9	\$307,000	\$450,000	13.1	19.3
47	Missouri State Road	Rockdale Ln	Astra Way	Medium	County Road, City Road	Shared Use Shoulder	2.8	0.53	5.3	\$238,000	\$449,000	11.9	22.5
48	Astra Way/Lonedell Rd	Missouri State Rd	Parkview Ct	Medium	County Road, City Road	Sidewalk	6.3	0.69	9.1	\$789,000	\$1,147,000	7.9	11.6
49	Main Street	Pratt St	Stewart St	Medium	City Road	Sidewalk	3.0	0.39	7.7	\$452,000	\$1,146,000	6.7	17.1

Project Number	Roadway	From	To	Project Priority	Ownership	Facility Type	Project Value Score	Project Length (miles)	Value Score per Mile	Cost Estimate	Est. Cost per Mile	Facility ROI (value score per \$mil)	ROI per mile
50	Richardson Road	Old Lemay Ferry Rd	Theodore Dr	Medium	City Road	Sidewalk	3.2	0.39	8.1	\$449,000	\$1,146,000	7.0	17.9
51	Church Road	Woodland Villas	US 61/67	Medium	City Road	Shared Use Shoulder	7.5	1.00	7.5	\$450,000	\$450,000	16.6	16.6
52	Big Bill Road	Pearl Dr	Judy Dr	Medium	City Road	Multi-use Path, Sidewalk	9.1	1.25	7.2	\$1,403,000	\$1,119,000	6.5	5.2
53	Elm Drive/Miller Road	Spring Forest Rd	Outer Rd	Medium	County Road	Sidewalk	9.9	1.45	6.9	\$1,661,000	\$1,147,000	6.0	4.1
54	Old Highway 141	Fiedler Ln	13th St	Medium	County Road	Sidewalk	2.9	0.52	5.6	\$594,000	\$1,147,000	4.9	9.5
55	N Mill Street	5th St	Frisco St	Medium	City Road	Sidewalk	3.2	0.03	121.0	\$30,000	\$1,140,000	106.1	4,033.4
56	Vineland School Road	E of Jarvis Mountain Rd	Pratt St	Low	City Road	Multi-use Path, Sidewalk	5.5	1.59	3.5	\$1,765,000	\$1,113,000	3.1	2.0
57	Amvets Drive	Highway 21	Main St	Low	City Road	Shared Use Shoulder, Sidewalk	7.3	1.09	6.8	\$1,041,000	\$959,000	7.1	6.5
58	Highway 21	Pioneer Rd	Viking Dr	Low	State Highway, State Maintained Road, City Road	Shared Use Shoulder	4.9	1.28	3.8	\$577,000	\$450,000	8.5	6.6
59	Highway 30	Hwy NN/B	Hwy BB	Low	State Highway	Multi-use Path	3.9	1.05	3.7	\$1,154,000	\$1,101,000	3.4	3.2
60	State Road W	Hallmark Dr	Main St	Low	State Highway, County Road	Sidewalk	4.9	1.11	4.4	\$1,274,000	\$1,147,000	3.8	3.4
61	Highway Z	Trautman Quarry Rd	Daniel Dunklin Blvd	Low	State Highway	Shared Use Shoulder	4.5	0.52	8.6	\$234,000	\$451,000	19.0	36.7
62	13th Street	Winding Bluffs Dr	Old Highway 141	Low	State Maintained Road	Sidewalk	3.7	0.14	27.3	\$155,000	\$1,147,000	23.8	175.9
63	Old Highway 141	13th St	STL County Line	Low	County Road	Sidewalk	7.3	1.46	5.0	\$1,677,000	\$1,147,000	4.3	3.0
64	Antire Road	Sunshine Dr	High Ridge Blvd	Low	County Road	Shared Use Shoulder	2.1	0.52	4.0	\$234,000	\$449,000	8.9	17.0
65	Highway 30 Crossing	Al Del Dr	Gravois Rd	Low	None	Shared Use Shoulder	2.2	0.05	40.4	\$25,000	\$456,000	88.6	1,614.3
66	Hillsboro Valley Park Road	Samone Ln	Brennan Rd	Low	County Road	Sidewalk	4.7	0.82	5.7	\$943,000	\$1,148,000	5.0	6.1
67	Brennan Road	Hillsboro Valley Park Rd	Cassie Ct	Low	County Road	Sidewalk	3.3	0.41	8.0	\$471,000	\$1,148,000	7.0	17.0
68	Old Sugar Creek Road	Gravois Rd	Schumacher Rd	Low	County Road	Shared Use Shoulder	5.9	0.86	6.8	\$389,000	\$450,000	15.0	17.4
69	Gravois Road	W of Hawkins Rd	STL County Line	Low	County Road	Multi-use Path	2.1	0.56	3.7	\$621,000	\$1,102,000	3.4	6.0
70	Sunshine Drive	Gran Vista Dr	Fadler Dr	Low	City Road	Shared Use Shoulder	1.5	0.35	4.2	\$159,000	\$450,000	9.4	26.7

Project Number	Roadway	From	To	Project Priority	Ownership	Facility Type	Project Value Score	Project Length (miles)	Value Score per Mile	Cost Estimate	Est. Cost per Mile	Facility ROI (value score per \$mil)	ROI per mile
71	American Legion Drive/US 61	YMCA Dr	Airport Rd	Low	US Highway, City Road	Shared Use Shoulder, Side-walk	9.7	1.02	9.5	\$846,000	\$827,000	11.4	11.2
72	Gamel Cemetery Road	Pounds Rd	Parkville Ln	Low	City Road	Sidewalk	2.0	0.37	5.4	\$422,000	\$1,147,000	4.7	12.9
73	Mississippi Avenue	Bailey Rd	2nd Ave	Low	City Road	Sidewalk	3.9	0.17	23.1	\$192,000	\$1,146,000	20.1	120.1
74	W Main Street	Meadow Wood Dr	Midmeadow Ln	Low	City Road	Sidewalk	2.4	0.23	10.3	\$265,000	\$1,146,000	9.0	38.9
75	US 61/67/ McNutt St	Scenic Plaza Dr	Scenic Dr	Low	US Highway, City Road	Shared Use Shoulder	3.8	0.91	4.2	\$410,000	\$450,000	9.3	10.2
76	Scenic Drive	Cedar Heights	Westchester Dr	Low	City Road	Sidewalk	4.9	1.07	4.6	\$1,222,000	\$1,147,000	4.0	3.8
77	US 61/67	Marble Springs Rd	Old State Rd M	Low	US Highway	Shared Use Shoulder	7.3	3.51	2.1	\$1,578,000	\$450,000	4.6	1.3
78	Highway M	Caitlin Dr	US 61/67	Low	State Highway	Sidewalk	4.8	1.10	4.4	\$1,261,000	\$1,147,000	3.8	3.5
79	Metropolitan Boulevard	Bayberry Ln	Caitlin Dr	Low	State Maintained Road	Multi-use Path	5.2	1.49	3.5	\$1,645,000	\$1,101,000	3.2	2.1
80	Metropolitan Boulevard	Marriott Ln	Highway M	Low	State Maintained Road	Multi-use Path	1.0	0.17	5.9	\$184,000	\$1,100,000	5.3	32.0
81	Caitlin Dr/Old Highway M	Marriott Ln	Castlebrook Dr	Low	County Road	Multi-use Path	3.2	1.40	2.3	\$1,536,000	\$1,101,000	2.1	1.5
82	Old Antonia Road	Castlebrook Dr	Stonywold Dr	Low	County Road	Multi-use Path	2.7	1.10	2.5	\$1,206,000	\$1,101,000	2.2	2.0
83	US 61/67	Old State Rd M	Windsor Dr	Low	US Highway	Shared Use Shoulder	3.2	1.50	2.1	\$676,000	\$450,000	4.7	3.2
84	Highway K	US 61/67	Front St	Low	State Highway, County Road, City Road	Sidewalk	8.9	0.83	10.7	\$951,000	\$1,147,000	9.4	11.3
85	Montebello Road	Vine St	Monsanto Park Dr	Low	County Road	Sidewalk	2.6	0.14	19.1	\$155,000	\$1,145,000	16.6	122.9
86	Imperial Main Street	Stonywold Rd	Old State Rd	Low	County Road	Multi-use Path, Shared Use Shoulder	7.8	0.79	9.9	\$711,000	\$903,000	10.9	13.9
87	Outer Road	Main St	Seckman Rd	Low	State Maintained Road	Shared Use Shoulder	4.0	0.63	6.4	\$282,000	\$450,000	14.3	22.8
88	Outer Road	Seckman Rd	Lakewood Lndg	Low	State Maintained Road	Shared Use Shoulder	2.5	0.96	2.6	\$433,000	\$450,000	5.8	6.1
89	Seckman Road	Burgundy Dr	Outer Rd	Low	County Road	Shared Use Shoulder	4.3	1.51	2.9	\$679,000	\$450,000	6.4	4.2
90	Lions Den Road	Old Hwy 21	Seckman Rd	Low	County Road	Shared Use Shoulder	3.2	2.87	1.1	\$1,292,000	\$450,000	2.5	0.9
91	Telegraph Road	US 61/67	STL County Line	Low	City Road	Shared Use Shoulder	9.5	2.19	4.3	\$986,000	\$450,000	9.6	4.4

Project Number	Roadway	From	To	Project Priority	Ownership	Facility Type	Project Value Score	Project Length (miles)	Value Score per Mile	Cost Estimate	Est. Cost per Mile	Facility ROI (value score per \$mil)	ROI per mile
92	Tenbrook Road	Telegraph Rd	Pomme Creek	Low	None	Multi-use Path	2.8	1.04	2.7	\$1,142,000	\$1,101,000	2.5	2.4
93	Tenbrook Road	Pomme Creek	Southgate Dr	Low	None	Multi-use Path	1.9	0.52	3.8	\$571,000	\$1,101,000	3.4	6.6
94	Arnold Tenbrook Road	Tenbrook Rd	Telegraph Rd	Low	City Road	Multi-use Path, Shared Use Shoulder	5.9	1.54	3.8	\$1,523,000	\$991,000	3.9	2.5
95	Manufacturers Drive	Arnold Tenbrook Rd	Starling Airport Rd	Low	City Road	Multi-use Path	2.4	0.56	4.3	\$615,000	\$1,101,000	3.9	6.9
96	Vogel Road/ Lonedell Rd	Bluff Park Dr	Lonedell Rd	Low	County Road	Multi-use Path, Sidewalk	5.0	1.08	4.6	\$1,202,000	\$1,116,000	4.2	3.9
97	Lonedell Road	Tomahawk Dr	Claystone Dr	Low	N/A	Multi-use Path	1.1	0.22	4.9	\$239,000	\$1,099,000	4.5	20.7
98	Pomme Road	Henley Woods Dr	Old Lemay Ferry Rd	Low	City Road	Multi-use Path, Sidewalk	4.6	1.12	4.1	\$1,257,000	\$1,124,000	3.6	3.2
99	US 61/67	Bradley Beach Rd	STL County Line	Low	US Highway	Sidewalk	2.4	0.22	11.0	\$255,000	\$1,149,000	9.6	43.2
100	Missouri State Road	Lakemont Dr	Rockdale Ln	Low	County Road	Shared Use Shoulder	1.9	0.53	3.5	\$238,000	\$449,000	7.8	14.8
101	Lonedell Road	Parkview Ct	Outer Rd	Low	City Road	Sidewalk	5.5	1.02	5.4	\$1,165,000	\$1,147,000	4.7	4.7
102	Old Lemay Ferry Road	Blossom Ln	Pearl Dr	Low	City Road	Multi-use Path	2.2	0.47	4.6	\$520,000	\$1,101,000	4.2	8.9
103	Main Street	Stewart St	Frederica St	Low	City Road	Sidewalk	3.7	0.48	7.7	\$550,000	\$1,147,000	6.7	14.1
104	US 61/67	McNutt St	11th St	Medium	Shared Use Shoulder	US Highway	7.6	1.91	4.0	\$860,000	\$450,000	8.9	4.6
105	US 61/67	Highway 141	Arnold Tenbrook Rd	Medium	Shared Use Shoulder	US Highway	7.9	0.73	10.8	\$328,000	\$450,000	24.0	32.9
106	Local Hillsboro Rd/Cedar Hill Rd	MO 30	OBrien Dr	Medium	County Road	Sidewalk	2.8	0.79	3.5	\$910,000	\$1,147,000	3.1	3.9
107	Cedar Hill Rd/ MO BB	Local Hillsboro Rd	MO 30	Low	State Highway, County Road	Sidewalk	4.1	1.70	2.4	\$1,946,000	\$1,147,000	2.1	1.2

# Appendix B

## Segment Data

Appendix B further breaks down project data in [Appendix A](#) by identifying specific segments that make up a proposed project. This allows for more detailed analysis on higher and lower priority segments within a project, in the event that a project needs to be completed in phases, or if there are other obstacles that prohibit a larger project from being completed all at once.

There may also be different recommended facility types for different segments within a project. For example, recommendations for a project along a roadway may consist of sidewalks in one area and a multi-use path in another. Breaking projects down by segment identifies where these changes occur, and provides a cost estimate for each segment, rather than just for the entire project. Details on scoring methodology are in [Chapter 4](#), and details on projects and segments are in [Chapter 6](#).



Photo Credit: Patricia M. Robertson

Project Number	Roadway	Project Priority	Facility Type	Ownership	Segment Number	Segment Length (miles)	Segment Score	Segment Value Bucket	Cost Estimate
1	Hillsboro Valley Park Road	High	Shared Use Shoulder	County	41	0.53	3.70	High	\$240,731
1	Hillsboro Valley Park Road	High	Sidewalk	County Road	133	0.12	3.48	High	\$133,409
1	Hillsboro Valley Park Road	High	Sidewalk	County Road	171	0.53	3.63	High	\$613,597
2	Brennan Road	High	Sidewalk	County	38	0.41	3.68	High	\$470,705
3	New Sugar Creek Road	High	Multi-use Path	County	17	0.39	4.14	Very High	\$425,359
3	New Sugar Creek Road	High	Multi-use Path	County Road	131	0.21	4.15	Very High	\$231,837
3	New Sugar Creek Road	High	Multi-use Path + Sidewalk	County Road	165	0.39	3.40	Medium	\$742,543
4	N Fifth Street	High	Sidewalk	City Road	56	0.26	3.61	High	\$297,757
5	US 61/67	High	Sidewalk with Bike Facility	US Highway	18	0.49	4.30	Very High	\$709,051
5	US 61/67	High	Sidewalk with Bike Facility	City Road	57	0.02	3.24	Medium	\$29,973
5	US 61/67	High	Sidewalk with Bike Facility	US Highway	240	0.49	3.51	High	\$709,051
5	US 61/67	High	Sidewalk with Bike Facility	US Highway	241	0.49	4.28	Very High	\$709,051
6	W Main Street	High	Sidewalk	City Road	6	0.42	3.59	High	\$484,576
6	W Main Street	High	Sidewalk	City Road	114	0.17	3.44	High	\$192,114
6	W Main Street	High	Sidewalk	City Road	258	0.45	4.29	Very High	\$519,090
6	W Main Street	High	Sidewalk	City Road	260	0.45	3.97	High	\$519,090
7	Veterans Blvd	High	Multi-use Path	State Highway	16	0.25	4.70	Very High	\$270,268
7	Veterans Blvd	High	Multi-use Path	State Highway	106	0.60	4.55	Very High	\$660,564
7	Veterans Blvd	High	Sidewalk	State Highway	115	0.05	3.44	Medium	\$54,236
7	Veterans Blvd	High	Multi-use Path	State Highway	160	0.24	4.09	High	\$266,545
8	US 61/67	High	Shared Use Shoulder	US Highway	24	0.53	2.76	Medium	\$236,794
8	US 61/67	High	Shared Use Shoulder	US Highway	193	0.53	4.33	Very High	\$236,794
8	US 61/67	High	Shared Use Shoulder	US Highway	194	0.53	3.66	High	\$236,794
8	US 61/67	High	Shared Use Shoulder	US Highway	195	0.53	3.19	Medium	\$236,794
9	Big Bill Road	High	Multi-use Path	City Road	200	0.47	2.70	Medium	\$520,019
10	US 61/67	High	Multi-use Path	US Highway	2	0.22	3.98	High	\$240,504
10	US 61/67	High	Multi-use Path	US Highway	27	0.54	4.38	Very High	\$594,093
10	US 61/67	High	Multi-use Path	US Highway	190	0.54	4.28	Very High	\$594,093
10	US 61/67	High	Multi-use Path	US Highway	191	0.54	3.91	High	\$594,093
10	US 61/67	High	Multi-use Path	US Highway	192	0.54	4.36	Very High	\$594,093
11	Richardson Road	High	Shared Use Shoulder	City Road	197	0.52	4.27	Very High	\$234,826
12	Vogel Road	High	Shared Use Shoulder	County Road, City Road	28	0.52	4.96	Very High	\$234,826
12	Vogel Road	High	Shared Use Shoulder	City Road	198	0.52	4.14	High	\$234,826
12	Vogel Road	High	Shared Use Shoulder	County Road	199	0.52	4.57	Very High	\$234,826

Project Number	Roadway	Project Priority	Facility Type	Ownership	Segment Number	Segment Length (miles)	Segment Score	Segment Value Bucket	Cost Estimate
13	US 61/67	High	Sidewalk with Bike Facility	US Highway	94	0.47	4.71	Very High	\$674,132
13	US 61/67	High	Sidewalk with Bike Facility	US Highway	180	0.20	2.31	Very High	\$293,844
13	US 61/67	High	Sidewalk with Bike Facility	US Highway	181	0.47	5.55	Very High	\$674,132
14	Arnold/Tenbrook Road	High	Multi-use Path	City Road	4	1.03	4.18	Very High	\$1,134,449
14	Arnold/Tenbrook Road	High	Multi-use Path	City Road	5	1.04	4.94	Very High	\$1,141,637
16	US 61/67	High	Shared Use Shoulder	US Highway	196	0.53	4.00	High	\$236,794
17	Missouri State Road	High	Shared Use Shoulder	City Road	178	0.50	3.60	High	\$224,985
18	West Outer Road	High	Multi-use Path	State Maintained Road	50	0.46	3.99	High	\$507,996
18	West Outer Road	High	Multi-use Path	State Maintained Road	101	0.41	4.41	Very High	\$448,471
18	West Outer Road	High	Multi-use Path	State Maintained Road	208	0.46	4.06	High	\$507,996
18	West Outer Road	High	Multi-use Path	State Maintained Road	209	0.46	3.46	High	\$507,996
21	Miller Road	High	Sidewalk	County Road	261	0.57	4.82	Very High	\$653,414
21	Miller Road	High	Sidewalk	County Road	262	0.57	4.72	Very High	\$653,414
21	Miller Road	High	Sidewalk	County Road	263	0.57	3.92	High	\$653,414
22	Old Lemay Ferry Road	High	Sidewalk	County Road	34	0.50	3.56	High	\$576,305
23	Miller Road	High	Sidewalk	County Road	203	0.50	3.93	High	\$576,305
23	Miller Road	High	Sidewalk	County Road	204	0.50	3.93	High	\$576,305
24	Richardson Road	High	Sidewalk	City Road	11	0.39	3.67	High	\$449,478
24	Richardson Road	High	Sidewalk	City Road	140	0.13	3.04	Medium	\$152,483
25	West Outer Road	High	Sidewalk	City Road	177	0.51	3.53	High	\$582,599
26	Highway 21	Medium	Shared Use Shoulder	State Highway	32	0.49	2.51	Low	\$222,321
26	Highway 21	Medium	Shared Use Shoulder	State Highway	117	0.53	3.17	Medium	\$237,771
26	Highway 21	Medium	Shared Use Shoulder	State Highway	249	0.49	3.13	Medium	\$222,321
27	Highway 30	Medium	Multi-use Path	State Highway	14	1.57	3.67	High	\$1,730,934
27	Highway 30	Medium	Multi-use Path	State Highway	253	0.52	2.63	Medium	\$576,978
27	Highway 30	Medium	Multi-use Path	State Highway	254	0.52	2.71	Medium	\$576,978
28	Old Highway 141	Medium	Sidewalk	State Maintained Road/County Road	126	0.08	2.58	Low	\$95,538
29	Gravois Road	Medium	Sidewalk	None	74	0.45	3.26	Medium	\$512,440
29	Gravois Road	Medium	Sidewalk	County Road	132	0.21	2.74	Medium	\$243,071
29	Gravois Road	Medium	Sidewalk	None	166	0.45	3.16	Medium	\$512,441
30	Williams Creek Road	Medium	Shared Use Shoulder	County Road	172	0.53	2.80	Medium	\$240,731
31	Hillsboro Valley Park Road	Medium	Sidewalk	County Road	39	0.41	3.13	Medium	\$471,269
32	Gravois Road	Medium	Sidewalk	County Road	281	0.48	3.03	Medium	\$545,117

Project Number	Roadway	Project Priority	Facility Type	Ownership	Segment Number	Segment Length (miles)	Segment Score	Segment Value Bucket	Cost Estimate
32	Gravois Road	Medium	Sidewalk	County Road	284	0.48	3.02	Medium	\$545,117
33	Gravois Road	Medium	Multi-use Path	State Maintained Road	163	0.56	3.35	Medium	\$620,507
33	Gravois Road	Medium	Multi-use Path	State Maintained Road	164	0.56	2.79	Medium	\$620,507
35	YMCA Drive/W Gannon Drive	Medium	Sidewalk	City Road	59	0.51	2.78	Medium	\$580,246
35	YMCA Drive/W Gannon Drive	Medium	Sidewalk	City Road	242	0.51	3.17	Medium	\$580,246
36	Gamel Cemetery Road	Medium	Sidewalk	City Road	150	0.07	2.73	Medium	\$76,342
36	Gamel Cemetery Road	Medium	Sidewalk	City Road	243	0.37	2.85	Medium	\$422,095
37	US 61/67	Medium	Multi-use Path	None	15	0.36	2.65	Medium	\$393,526
37	US 61/67	Medium	Multi-use Path	None	244	0.36	3.53	High	\$393,526
38	Bailey Road	Medium	Sidewalk	City Road	111	0.48	2.93	Medium	\$554,117
38	Bailey Road	Medium	Sidewalk	City Road	113	0.27	3.29	Medium	\$309,360
39	Scenic Drive	Medium	Shared Use Shoulder	City Road	25	0.53	2.69	Medium	\$239,758
40	Scenic Drive	Medium	Sidewalk	City Road	237	0.53	3.46	High	\$611,116
41	US 61/67	Medium	Shared Use Shoulder	US Highway	31	1.05	3.68	High	\$472,755
41	US 61/67	Medium	Shared Use Shoulder	US Highway	224	0.50	3.43	Medium	\$225,460
41	US 61/67	Medium	Shared Use Shoulder	US Highway	225	0.50	3.04	Medium	\$225,460
41	US 61/67	Medium	Shared Use Shoulder	US Highway	226	1.00	3.09	Medium	\$450,921
42	US 61/67	Medium	Shared Use Shoulder	US Highway	26	0.50	2.91	Medium	\$225,460
42	US 61/67	Medium	Sidewalk	County Road	134	0.26	2.77	Medium	\$298,402
43	Seckman Road	Medium	Shared Use Shoulder	County Road	29	0.50	2.60	Medium	\$226,475
43	Seckman Road	Medium	Shared Use Shoulder	County Road	97	0.35	2.93	Medium	\$159,084
43	Seckman Road	Medium	Shared Use Shoulder	County Road	213	0.50	2.83	Medium	\$226,475
43	Seckman Road	Medium	Shared Use Shoulder	County Road	214	0.50	3.00	Medium	\$226,475
44	Tenbrook Road	Medium	Multi-use Path	City Road	186	0.52	3.17	Medium	\$570,818
45	Vogel Road	Medium	Shared Use Shoulder	County Road	60	0.53	3.11	Medium	\$237,478
46	Telegraph Road	Medium	Shared Use Shoulder	State Highway	95	0.68	4.04	High	\$306,661
47	Missouri State Road	Medium	Shared Use Shoulder	County Road, City Road	53	0.53	2.83	Medium	\$238,317
48	Astra Way	Medium	Sidewalk	City Road	99	0.18	2.93	Medium	\$206,478
48	Astra Way	Medium	Sidewalk	County Road	174	0.51	3.33	Medium	\$582,600
49	Main Street	Medium	Sidewalk	City Road	119	0.39	3.04	Medium	\$452,247
50	Richardson Road	Medium	Sidewalk	City Road	255	0.39	3.16	Medium	\$449,478
51	Church Road	Medium	Shared Use Shoulder	City Road	0	0.50	4.08	High	\$224,985
51	Church Road	Medium	Shared Use Shoulder	City Road	179	0.50	3.40	Medium	\$224,985
52	Big Bill Road	Medium	Sidewalk	City Road	8	0.51	3.21	Medium	\$582,599

Project Number	Roadway	Project Priority	Facility Type	Ownership	Segment Number	Segment Length (miles)	Segment Score	Segment Value Bucket	Cost Estimate
52	Big Bill Road	Medium	Multi-use Path	City Road	98	0.27	3.11	Medium	\$300,783
52	Big Bill Road	Medium	Multi-use Path	City Road	201	0.47	2.74	Medium	\$520,019
53	Elm Drive/ Miller Road	Medium	Sidewalk	County Road	161	0.47	4.11	High	\$542,126
53	Elm Drive/ Miller Road	Medium	Sidewalk	County Road	202	0.50	2.69	Medium	\$576,305
53	Elm Drive/ Miller Road	Medium	Sidewalk	County Road	205	0.47	3.15	Medium	\$542,126
54	Old Highway 141	Medium	Sidewalk	County Road	127	0.52	2.91	Medium	\$593,908
55	N Mill Street	Medium	Sidewalk	City Road	55	0.03	3.18	Medium	\$30,187
56	Vineland School Road	Low	Multi-use Path	City Road	35	0.60	0.92	Very Low	\$656,258
56	Vineland School Road	Low	Sidewalk	City Road	246	0.39	2.56	Low	\$452,247
56	Vineland School Road	Low	Multi-use Path	City Road	247	0.60	2.01	Low	\$656,258
57	Amvets Drive	Low	Sidewalk	City Road	36	0.40	2.73	Medium	\$454,381
57	Amvets Drive	Low	Shared Use Shoulder	City Road	118	0.29	1.68	Very Low	\$132,167
57	Amvets Drive	Low	Sidewalk	City Road	248	0.40	2.93	Medium	\$454,381
58	Highway 21	Low	Shared Use Shoulder	City Road	37	0.46	0.74	Very Low	\$208,274
58	Highway 21	Low	Shared Use Shoulder	City Road	122	0.38	1.99	Low	\$170,746
58	Highway 21	Low	Shared Use Shoulder	State Maintained Road, City Road	123	0.13	0.40	Very Low	\$60,725
58	Highway 21	Low	Shared Use Shoulder	State Highway	124	0.30	1.79	Low	\$137,068
59	Highway 30	Low	Multi-use Path	State Highway	251	0.52	1.63	Very Low	\$576,978
59	Highway 30	Low	Multi-use Path	State Highway	252	0.52	2.30	Low	\$576,978
60	State Road W	Low	Sidewalk	County Road	22	0.62	2.26	Low	\$707,564
60	State Road W	Low	Sidewalk	State Highway	144	0.28	1.11	Very Low	\$320,999
60	State Road W	Low	Sidewalk	County Road, State Highway	145	0.21	1.50	Very Low	\$245,836
61	Highway Z	Low	Shared Use Shoulder	State Highway	64	0.28	1.96	Low	\$127,928
61	Highway Z	Low	Shared Use Shoulder	State Highway	151	0.23	2.50	Low	\$105,599
62	13th Street	Low	Sidewalk	State Maintained Road	21	0.09	1.66	Very Low	\$98,394
62	13th Street	Low	Sidewalk	State Maintained Road	125	0.05	2.02	Low	\$56,601
63	Old Highway 141	Low	Sidewalk	County Road	19	0.55	2.41	Low	\$628,088
63	Old Highway 141	Low	Sidewalk	County Road	128	0.12	1.39	Very Low	\$138,792
63	Old Highway 141	Low	Sidewalk	County Road	129	0.36	1.95	Low	\$413,951
63	Old Highway 141	Low	Sidewalk	County Road	162	0.43	1.51	Very Low	\$496,598
64	Antire Road	Low	Shared Use Shoulder	County	40	0.52	2.07	Low	\$234,374
65	Highway 30 Crossing	Low	Shared Use Shoulder	None	42	0.05	2.21	Low	\$24,692
66	Hillsboro Valley Park Road	Low	Sidewalk	County	169	0.41	2.35	Low	\$471,269

Project Number	Roadway	Project Priority	Facility Type	Ownership	Segment Number	Segment Length (miles)	Segment Score	Segment Value Bucket	Cost Estimate
66	Hillsboro Valley Park Road	Low	Sidewalk	County	170	0.41	2.37	Low	\$471,269
67	Brennan Road	Low	Sidewalk	County	168	0.41	3.29	Medium	\$470,705
68	Old Sugar Creek Road	Low	Shared Use Shoulder	County	130	0.43	3.28	Medium	\$194,540
68	Old Sugar Creek Road	Low	Shared Use Shoulder	County	167	0.43	2.58	Low	\$194,540
69	Gravois Road	Low	Multi-use Path	County	62	0.56	2.09	Low	\$620,507
70	Sunshine Drive	Low	Shared Use Shoulder	City Road	61	0.35	1.50	Very Low	\$158,861
71	American Legion Drive/US 61/67	Low	Sidewalk	City Road	58	0.32	2.30	Low	\$369,422
71	American Legion Drive/US 61/67	Low	Shared Use Shoulder	US Highway	107	0.24	2.50	Low	\$105,776
71	American Legion Drive/US 61/67	Low	Shared Use Shoulder	US Highway	108	0.24	2.50	Low	\$105,776
71	American Legion Drive/US 61/67	Low	Sidewalk	US Highway	288	0.23	2.37	Low	\$265,067
72	Gamel Cemetery Road	Low	Sidewalk	City Road	63	0.37	2.00	Low	\$422,095
73	Mississippi Road	Low	Sidewalk	City Road	109	0.08	1.43	Very Low	\$89,831
73	Mississippi Road	Low	Sidewalk	City Road	110	0.07	1.41	Very Low	\$82,067
73	Mississippi Road	Low	Sidewalk	City Road	112	0.02	1.02	Very Low	\$20,311
74	W Main Street	Low	Sidewalk	City Road	259	0.23	2.38	Low	\$265,207
75	US 61/67	Low	Shared Use Shoulder	City Road	102	0.24	0.45	Very Low	\$108,530
75	US 61/67	Low	Shared Use Shoulder	US Highway	103	0.36	1.50	Very Low	\$163,224
75	US 61/67	Low	Shared Use Shoulder	City Road	104	0.31	1.84	Low	\$137,909
76	Scenic Drive	Low	Sidewalk	City Road	238	0.53	2.58	Low	\$611,116
76	Scenic Drive	Low	Sidewalk	City Road	239	0.53	2.31	Low	\$611,117
77	US 61/67	Low	Shared Use Shoulder	US Highway	227	0.50	0.95	Very Low	\$225,460
77	US 61/67	Low	Shared Use Shoulder	US Highway	228	0.50	0.84	Very Low	\$225,460
77	US 61/67	Low	Shared Use Shoulder	US Highway	229	0.50	0.80	Very Low	\$225,460
77	US 61/67	Low	Shared Use Shoulder	US Highway	230	0.50	0.82	Very Low	\$225,460
77	US 61/67	Low	Shared Use Shoulder	US Highway	231	0.50	0.94	Very Low	\$225,460
77	US 61/67	Low	Shared Use Shoulder	US Highway	232	0.50	1.70	Very Low	\$225,460
77	US 61/67	Low	Shared Use Shoulder	US Highway	233	0.50	1.26	Very Low	\$225,460
78	Highway M	Low	Sidewalk	State Highway	52	0.46	1.17	Very Low	\$523,657
78	Highway M	Low	Sidewalk	State Highway	148	0.13	1.10	Very Low	\$152,168
78	Highway M	Low	Sidewalk	State Highway	149	0.12	0.99	Very Low	\$134,448
78	Highway M	Low	Sidewalk	State Highway	289	0.39	1.58	Very Low	\$450,400
79	Metropolitan Boulevard	Low	Multi-use Path	None	49	0.50	1.89	Low	\$548,357

Project Number	Roadway	Project Priority	Facility Type	Ownership	Segment Number	Segment Length (miles)	Segment Score	Segment Value Bucket	Cost Estimate
79	Metropolitan Boulevard	Low	Multi-use Path	State Maintained Road	256	0.50	1.47	Very Low	\$548,357
79	Metropolitan Boulevard	Low	Multi-use Path	State Maintained Road	257	0.50	1.87	Low	\$548,357
80	Metropolitan Boulevard	Low	Multi-use Path	State Maintained Road	147	0.17	0.98	Very Low	\$184,219
81	Old State Road M	Low	Multi-use Path	County Road	47	0.17	0.97	Very Low	\$188,125
81	Old State Road M	Low	Multi-use Path	None	146	0.13	0.96	Very Low	\$141,624
81	Old State Road M	Low	Multi-use Path	County Road	220	0.55	0.75	Very Low	\$603,113
81	Old State Road M	Low	Multi-use Path	County Road	221	0.55	0.56	Very Low	\$603,113
82	Old Antonia Road	Low	Multi-use Path	County Road	48	0.55	1.64	Very Low	\$603,113
82	Old Antonia Road	Low	Multi-use Path	County Road	222	0.55	1.05	Very Low	\$603,113
83	US 61/67	Low	Shared Use Shoulder	US Highway	234	0.50	0.93	Very Low	\$225,460
83	US 61/67	Low	Shared Use Shoulder	US Highway	235	0.50	0.54	Very Low	\$225,460
83	US 61/67	Low	Shared Use Shoulder	US Highway	236	0.50	1.74	Very Low	\$225,460
84	Highway K	Low	Sidewalk	State Highway	7	0.35	2.53	Low	\$397,529
84	Highway K	Low	Sidewalk	None	141	0.23	2.25	Low	\$260,816
84	Highway K	Low	Sidewalk	City Road	142	0.17	2.16	Low	\$193,479
84	Highway K	Low	Sidewalk	County Road, City Road	143	0.09	1.96	Low	\$99,289
85	Montebello Road	Low	Sidewalk	County Road	266	0.14	2.58	Low	\$155,223
86	Imperial Main Street	Low	Shared Use Shoulder	County Road	135	0.12	1.86	Low	\$56,044
86	Imperial Main Street	Low	Shared Use Shoulder	County Road	137	0.07	1.76	Very Low	\$32,372
86	Imperial Main Street	Low	Shared Use Shoulder	County Road	139	0.04	1.85	Low	\$19,452
86	Imperial Main Street	Low	Multi-use Path	County Road	223	0.55	2.30	Low	\$603,113
87	West Outer Road	Low	Shared Use Shoulder	State Maintained Road	23	0.40	1.95	Low	\$179,049
87	West Outer Road	Low	Shared Use Shoulder	State Maintained Road	136	0.15	1.60	Very Low	\$68,207
87	West Outer Road	Low	Shared Use Shoulder	State Maintained Road	138	0.08	0.48	Very Low	\$34,889
88	West Outer Road	Low	Shared Use Shoulder	State Maintained Road	51	0.96	2.52	Low	\$433,403
89	Seckman Road	Low	Shared Use Shoulder	County Road	210	0.50	1.31	Very Low	\$226,475
89	Seckman Road	Low	Shared Use Shoulder	County Road	211	0.50	1.11	Very Low	\$226,475
89	Seckman Road	Low	Shared Use Shoulder	County Road	212	0.50	1.89	Low	\$226,475
90	Lions Den Road	Low	Shared Use Shoulder	County Road	96	0.50	0.18	Very Low	\$226,495
90	Lions Den Road	Low	Shared Use Shoulder	County Road	215	0.50	1.10	Very Low	\$226,495
90	Lions Den Road	Low	Shared Use Shoulder	County Road	216	0.50	0.05	Very Low	\$226,495
90	Lions Den Road	Low	Shared Use Shoulder	County Road	217	0.50	(0.03)	Very Low	\$226,495
90	Lions Den Road	Low	Shared Use Shoulder	County Road	218	0.50	(0.07)	Very Low	\$226,495
90	Lions Den Road	Low	Shared Use Shoulder	County Road	219	0.35	1.99	Low	\$159,084

Project Number	Roadway	Project Priority	Facility Type	Ownership	Segment Number	Segment Length (miles)	Segment Score	Segment Value Bucket	Cost Estimate
91	Telegraph Road	Low	Shared Use Shoulder	City Road	12	0.41	1.91	Low	\$183,448
91	Telegraph Road	Low	Shared Use Shoulder	County Road	13	0.68	4.03	High	\$306,437
91	Telegraph Road	Low	Shared Use Shoulder	City Road	93	0.69	1.78	Low	\$312,236
91	Telegraph Road	Low	Shared Use Shoulder	City Road	189	0.41	1.77	Low	\$183,448
92	Tenbrook Road	Low	Multi-use Path	None	183	0.52	1.43	Very Low	\$570,818
92	Tenbrook Road	Low	Multi-use Path	None	184	0.52	1.37	Very Low	\$570,818
93	Tenbrook Road	Low	Multi-use Path	None	185	0.52	1.95	Low	\$570,818
94	Arnold/Tenbrook Road	Low	Multi-use Path	City Road	1	0.45	0.95	Very Low	\$493,386
94	Arnold/Tenbrook Road	Low	Shared Use Shoulder	City Road	100	0.26	2.26	Low	\$116,504
94	Arnold/Tenbrook Road	Low	Multi-use Path	City Road	187	0.43	1.91	Low	\$468,829
94	Arnold/Tenbrook Road	Low	Multi-use Path	City Road	188	0.40	0.76	Very Low	\$444,273
95	Manufacturers Drive	Low	Multi-use Path	City Road	3	0.56	2.39	Low	\$615,056
96	Vogel Road/Lonedell Road	Low	Multi-use Path	County Road	44	0.20	1.16	Very Low	\$222,282
96	Vogel Road/Lonedell Road	Low	Sidewalk	County Road	45	0.35	1.47	Very Low	\$398,694
96	Vogel Road/Lonedell Road	Low	Multi-use Path	County Road	206	0.53	2.38	Low	\$581,030
97	Lonedell Road	Low	Multi-use Path	N/A	46	0.22	1.08	Very Low	\$239,426
98	Pomme Road	Low	Sidewalk	City Road	10	0.56	2.18	Low	\$641,562
98	Pomme Road	Low	Multi-use Path	City Road	207	0.56	2.38	Low	\$615,832
99	US 61/67	Low	Sidewalk	US Highway	30	0.22	2.45	Low	\$254,577
100	Missouri State Road	Low	Shared Use Shoulder	County Road	173	0.53	1.86	Low	\$238,317
101	Lonedell Road	Low	Sidewalk	City Road	175	0.51	2.59	Low	\$582,600
101	Lonedell Road	Low	Sidewalk	City Road	176	0.51	2.92	Medium	\$582,600
102	Big Bill Road	Low	Multi-use Path	City Road	9	0.47	2.19	Low	\$520,019
103	Main Street	Low	Sidewalk	City Road	120	0.38	2.04	Low	\$430,585
103	Main Street	Low	Sidewalk	City Road	121	0.10	1.68	Very Low	\$119,360
104	US 61/67	High	Shared Use Shoulder	US Highway	33	1.47	3.75	High	\$660,135
104	US 61/67	High	Shared Use Shoulder	US Highway	105	0.44	3.87	High	\$199,996
105	US 61/67	High	Shared Use Shoulder	US Highway	182	0.47	4.88	Very High	\$209,792
105	US 61/67	High	Shared Use Shoulder	US Highway	290	0.26	3.00	Very High	\$118,347
106	Local Hillsboro Rd	Medium	Sidewalk	County Road	291	0.37	1.39	Very Low	\$429,566
106	Cedar Hill Rd	Medium	Sidewalk	County Road	292	0.42	1.41	Very Low	\$480,318
107	Cedar Hill Rd	Low	Sidewalk	County Road	293	0.63	1.60	Very Low	\$718,224
107	Cedar Hill Rd	Low	Sidewalk	County Road	294	0.68	1.04	Very Low	\$774,796
107	MO BB	Low	Sidewalk	State Highway	295	0.40	1.42	Very Low	\$453,431

# Appendix C

## Detailed Project Costs

Appendix C includes summary tables of the top 10 projects, including facility type, total estimated costs, and cost per mile. Each of the top 10 projects is then broken down with detailed cost estimates. Estimated costs are provided using 2027 dollars, to allow for several years to plan for and receive funding to complete each project, and to account for projected future increases in inflation and construction costs.

These top 10 projects are detailed in priority projects in [Chapter 6](#). Cost per mile is applied to all other projects in [Appendix A](#).



Anheuser Estate

Project	Recommended Treatments	Length (feet)	Estimated Cost
Hwy 61 (Arnold Park to Hwy 141)	Sidewalks & Dedicated Bike Facility	6,000	\$403,000
Hwy 61 (Arnold Park to Hwy 141)	Dedicated Bike Facility	5,350	\$302,250
Hwy 61 (Arnold Park to Hwy 141)	Sidewalks with Dedicated Bike Facility	650	\$100,750
Hwy 61 (Arnold Tenbrook to Hwy 231)	Multiuse Path and Sidewalk	12,500	\$2,562,000
W Main Street (Festus Middle School to N Adams St)	Sidewalks & Shared Bike Facility	5,700	\$1,410,000
New Sugar Creek Road (County Line to Gravois Rd)	Multiuse Path and Sidewalk	5,200	\$1,893,000
Route 30 (Gravois to Hwy BB)	Multiuse Path, Shared Use Shoulder	14,000	\$2,156,000
Tenbrook Loop (Arnold Identified Project)	Multiuse Path and Sidewalk	10,800	\$1,805,000
Truman (11th to Veterans Blvd)	Sidewalks	7,700	\$2,819,000
Veterans Boulevard (Collins to Hwy 61)	Multiuse Path, Shared-Use Shoulder	5,700	\$1,285,000
Vogel Road (Old Lemay Ferry to Highway 55)	Shared-Use Shoulders	7,300	\$621,000
W Outer Rd (Vogel to Miller)	Multiuse Path, Shared-Use Shoulder	8,500	\$944,000

Project	Facility Type	Length (feet)	Length (miles)	Total Cost (2027)	Cost Per Mile (2027)
Hwy 61 (Arnold Park to Hwy 141)	Bike Facility	5350	1.01	\$302,250.00	\$298,295.33
Hwy 61 (Arnold Park to Hwy 141)	Bike Facility with Sidewalk	650	0.12	\$100,750.00	\$818,400.00
Hwy 61 (Arnold Tenbrook to Hwy 231)	Multi Use	12500	2.37	\$2,562,000.00	\$1,082,188.80
New Sugar Creek	Multi Use	5200	0.98	\$1,893,000.00	\$1,922,123.08
Route 30	Multi Use	14000	2.65	\$2,156,000.00	\$813,120.00
Tenbrook Loop	Multi Use	10156	1.92	\$1,805,000.00	\$938,400.95
Truman	Bike Facility with Sidewalk	7800	1.48	\$2,819,000.00	\$1,908,246.15
Veterans	Multi Use	5500	1.04	\$1,285,000.00	\$1,233,600.00
Vogel	Shared Use	7300	1.38	\$621,000.00	\$449,161.64
W Main St	Bike Facility with Sidewalk	4625	0.88	\$1,410,000.00	\$1,609,686.49
W Outer Rd	Multi Use	8100	1.53	\$944,000.00	\$615,348.15

PROJECT #13A: HWY 61 (ARNOLD PARK TO HWY 141) - *Road diet with bike lanes*

Item	Quantity	Unit	Unit Price	Amount
CONCRETE SIDEWALK, 7 IN.	16	S.Y.	\$75.00	\$1,166.67
TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	16	S.Y.	\$10.00	\$155.56
6 IN. CONCRETE MEDIAN STRIP	10	S.Y.	\$110.00	\$1,140.74
4 IN. YELLOW HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS	13,375	LF	\$0.50	\$6,687.50
6 IN. WHITE HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS	28,970	LF	\$0.50	\$14,485.13
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE	210	LF	\$20.00	\$4,200.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 30 IN WHITE MIDBLOCK	140	EA	\$170.00	\$23,800.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 12 IN WHITE, YIELD LINE TRIANGLES	70	EA	\$55.00	\$3,850.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, BICYCLE SYMBOL, WHITE	8	EA	\$260.00	\$2,080.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, STRAIGHT ARROW	8	EA	\$260.00	\$2,080.00
36 IN. SURFACE-MOUNT DELINEATOR POST	268	EA	\$95.00	\$25,412.50
2 IN. PSST POST - 12 GA.	254	LF	\$28.00	\$7,112.00
DRIVEN POST ANCHOR FOR 2 IN. PSST - 12 GA.	20	EA	\$200.00	\$4,000.00
SH-FLAT SHEET	27	S.F.	\$28.00	\$756.00
SHF-FLAT SHEET FLUORESCENT	109	S.F.	\$30.00	\$3,270.00
SIGNAL IMPROVEMENTS	1	L.S.	\$35,000.00	\$35,000.00
TRAFFIC CONTROL	1	L.S.	\$50,000.00	\$50,000.00
<b>Road Diet with Bike Lanes Subtotal</b>				<b>\$185,196.09</b>

## Hwy 61 (Arnold park to hwy 141) - Sidewalk Connection Items

Item	Quantity	Unit	Unit Price	Amount
LINEAR GRADING, CLASS 2, MODIFIED	13.0	STA.	\$2,500.00	\$32,500.00
TURF TYPE TALL FESCUE SODDING	240.7	S.Y.	\$12.00	\$2,888.89
CONCRETE SIDEWALK, 4 IN.	289	S.Y.	\$60.00	\$17,333.33
TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	289	S.Y.	\$10.00	\$2,888.89
TRUNCATED DOMES	20	S.F.	\$30.00	\$600.00
CONCRETE CURB RAMP	2	EA	\$2,250.00	\$4,500.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, SHARED LANE SYMBOL, WHITE	2	EA	\$260.00	\$520.00
2 IN. PSST POST - 12 GA.	26	LF	\$28.00	\$728.00
DRIVEN POST ANCHOR FOR 2 IN. PSST - 12 GA.	2	EA	\$200.00	\$400.00
SH-FLAT SHEET	13	S.F.	\$28.00	\$364.00
<b>Sidewalk Connection Subtotal</b>				<b>\$62,723.11</b>

Final Construction Costs	Rounded Total Costs
Construction Cost Total (2024 Dollars)	\$250,000.00
Contingency (15%)	\$40,000.00
Inflation (5%, three years)	\$45,000.00
Preliminary Engineering (10%)	\$34,000.00
Construction Engineering/Inspection (10%)	\$34,000.00
<b>Project Total (2027 Dollars)</b>	<b>\$403,000.00</b>

## PROJECT #13B: HWY 61 (ARNOLD TENBROOK TO HWY 231)

Item	Qty	Unit	Unit Price	Amount
LINEAR GRADING, CLASS 2, MODIFIED	125.0	STA.	\$2,500.00	\$312,500.00
TURF TYPE TALL FESCUE SODDING	2314.8	S.Y.	\$12.00	\$27,777.78
CONCRETE SIDEWALK, 4 IN.	3704	S.Y.	\$60.00	\$222,222.22
CONCRETE SIDEWALK, 7 IN.	16	S.Y.	\$75.00	\$1,222.22
TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	5,942	S.Y.	\$10.00	\$59,422.22
PAVED APPROACH	2,222	S.Y.	\$95.00	\$211,111.11
TRUNCATED DOMES	768	S.F.	\$30.00	\$23,040.00
CONCRETE CURB RAMP	48	EA	\$2,250.00	\$108,000.00
6 IN. CONCRETE MEDIAN STRIP	8	S.Y.	\$110.00	\$896.30
CURB AND GUTTER TYPE B	8,750	LF	\$55.00	\$481,250.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE	280	LF	\$20.00	\$5,600.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 30 IN WHITE MIDBLOCK	168	EA	\$170.00	\$28,560.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 12 IN WHITE, YIELD LINE TRIANGLES	56	EA	\$55.00	\$3,080.00
2 IN. PSST POST - 12 GA.	126	LF	\$28.00	\$3,528.00
DRIVEN POST ANCHOR FOR 2 IN. PSST - 12 GA.	8	EA	\$200.00	\$1,600.00
SHF-FLAT SHEET FLUORESCENT	87	S.F.	\$30.00	\$2,610.00
SIGNAL IMPROVEMENTS	1	L.S.	\$65,000.00	\$65,000.00
TRAFFIC CONTROL	1	L.S.	\$50,000.00	\$50,000.00
<b>Subtotal</b>			<b>\$1,607,419.85</b>	

Final Construction Costs	Rounded Total Costs
Construction Cost Total (2024 Dollars)	\$1,610,000.00
Contingency (15%)	\$240,000.00
Inflation (5%, three years)	\$292,000.00
Preliminary Engineering (10%)	\$210,000.00
Construction Engineering/Inspection (10%)	\$210,000.00
<b>Project Total (2027 Dollars)</b>	<b>\$2,562,000.00</b>

## PROJECT #6: W MAIN STREET (FESTUS MIDDLE SCHOOL TO N ADAMS ST)

Item	Qty	Unit	Unit Price	Amount
LINEAR GRADING, CLASS 2, MODIFIED	69.4	STA.	\$2,500.00	\$173,437.50
TURF TYPE TALL FESCUE SODDING	47.6	S.Y.	\$12.00	\$570.99
CONCRETE SIDEWALK, 4 IN.	1542	S.Y.	\$60.00	\$92,500.00
CONCRETE SIDEWALK, 7 IN.	2	S.Y.	\$75.00	\$166.67
TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	2,340	S.Y.	\$10.00	\$23,401.85
PAVED APPROACH	796	S.Y.	\$95.00	\$75,648.15
TRUNCATED DOMES	440	S.F.	\$30.00	\$13,200.00
CONCRETE CURB RAMP	44	EA	\$2,250.00	\$99,000.00
6 IN. CONCRETE MEDIAN STRIP	1	S.Y.	\$110.00	\$162.96
CONCRETE CURB (6 IN. HEIGHT AND UNDER) TYPE S	6,938	LF	\$45.00	\$312,187.50
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE	182	LF	\$20.00	\$3,640.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 30 IN WHITE MIDBLOCK	136	EA	\$170.00	\$23,120.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 12 IN WHITE, YIELD LINE TRIANGLES	16	EA	\$55.00	\$880.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, SHARED LANE SYMBOL, WHITE	8	EA	\$260.00	\$2,080.00
2 IN. PSST POST - 12 GA.	202	LF	\$28.00	\$5,656.00
DRIVEN POST ANCHOR FOR 2 IN. PSST - 12 GA.	14	EA	\$200.00	\$2,800.00
SH-FLAT SHEET	50	S.F.	\$28.00	\$1,400.00
SHF-FLAT SHEET FLUORESCENT	73	S.F.	\$30.00	\$2,190.00
TRAFFIC CONTROL	1	L.S.	\$50,000.00	\$50,000.00
<b>Subtotal</b>			<b>\$882,041.62</b>	

Final Construction Costs	Rounded Total Costs
Construction Cost Total (2024 Dollars)	\$880,000.00
Contingency (15%)	\$130,000.00
Inflation (5%, three years)	\$160,000.00
Preliminary Engineering (10%)	\$120,000.00
Construction Engineering/Inspection (10%)	\$120,000.00
<b>Project Total (2027 Dollars)</b>	<b>\$1,410,000.00</b>

## PROJECT #3: NEW SUGAR CREEK ROAD (COUNTY LINE TO GRAVOIS RD)

Item	Qty	Unit	Unit Price	Amount
LINEAR GRADING, CLASS 2, MODIFIED	77.0	STA.	\$2,500.00	\$192,500.00
TURF TYPE TALL FESCUE SODDING	1425.9	S.Y.	\$12.00	\$17,111.11
CONCRETE SIDEWALK, 4 IN.	2096	S.Y.	\$60.00	\$125,777.78
CONCRETE SIDEWALK, 7 IN.	9	S.Y.	\$75.00	\$666.67
TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	3,031	S.Y.	\$10.00	\$30,311.11
PAVED APPROACH	926	S.Y.	\$95.00	\$87,962.96
TRUNCATED DOMES	590	S.F.	\$30.00	\$17,700.00
CONCRETE CURB RAMP	71	EA	\$2,250.00	\$159,750.00
6 IN. CONCRETE MEDIAN STRIP	17	S.Y.	\$110.00	\$1,874.07
CURB AND GUTTER TYPE B	7,700	LF	\$55.00	\$423,500.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE	112	LF	\$20.00	\$2,240.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 30 IN WHITE MIDBLOCK	40	EA	\$170.00	\$6,800.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 12 IN WHITE, YIELD LINE TRIANGLES	56	EA	\$55.00	\$3,080.00
MGS GUARDRAIL	200	LF	\$30.00	\$6,000.00
CRASHWORTHY END TERMINAL	2	EA	\$1,000.00	\$2,000.00
2 IN. PSST POST - 12 GA.	126	LF	\$28.00	\$3,528.00
DRIVEN POST ANCHOR FOR 2 IN. PSST - 12 GA.	8	EA	\$200.00	\$1,600.00
SHF-FLAT SHEET FLUORESCENT	87	S.F.	\$30.00	\$2,610.00
SIGNAL IMPROVEMENTS	1	L.S.	\$40,000.00	\$40,000.00
TRAFFIC CONTROL	1	L.S.	\$50,000.00	\$50,000.00
		Subtotal	\$1,175,011.70	

Final Construction Costs	Rounded Total Costs
Construction Cost Total (2024 Dollars)	\$1,180,000.00
Contingency (15%)	\$180,000.00
Inflation (5%, three years)	\$213,000.00
Preliminary Engineering (10%)	\$160,000.00
Construction Engineering/Inspection (10%)	\$160,000.00
<b>Project Total (2027 Dollars)</b>	<b>\$1,893,000.00</b>

## PROJECT #27: ROUTE 30 (GRAVOIS TO HWY BB)

Item	Qty	Unit	Unit Price	Amount
LINEAR GRADING, CLASS 2, MODIFIED	235.0	STA.	\$2,500.00	\$587,500.00
TURF TYPE TALL FESCUE SODDING	4352	S.Y.	\$12.00	\$52,222.22
CONCRETE SIDEWALK, 4 IN.	6963	S.Y.	\$60.00	\$417,777.78
CONCRETE SIDEWALK, 7 IN.	4	S.Y.	\$75.00	\$333.33
TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	7,097	S.Y.	\$10.00	\$70,970.37
PAVED APPROACH	130	S.Y.	\$95.00	\$12,314.81
TRUNCATED DOMES	480	S.F.	\$30.00	\$14,400.00
CONCRETE CURB RAMP	30	EA	\$2,250.00	\$67,500.00
6 IN. CONCRETE MEDIAN STRIP	2	S.Y.	\$110.00	\$244.44
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE	238	LF	\$20.00	\$4,760.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 30 IN WHITE MIDBLOCK	196	EA	\$170.00	\$33,320.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 12 IN WHITE, YIELD LINE TRIANGLES	308	EA	\$55.00	\$16,940.00
2 IN. PSST POST - 12 GA.	98	LF	\$28.00	\$2,744.00
DRIVEN POST ANCHOR FOR 2 IN. PSST - 12 GA.	6	EA	\$200.00	\$1,200.00
SHF-FLAT SHEET FLUORESCENT	73	S.F.	\$30.00	\$2,190.00
SIGNAL IMPROVEMENTS	1	L.S.	\$20,000.00	\$20,000.00
TRAFFIC CONTROL	1	L.S.	\$50,000.00	\$50,000.00
		Subtotal	\$1,354,416.96	

Final Construction Costs	Rounded Total Costs
Construction Cost Total (2024 Dollars)	\$1,350,000.00
Contingency (15%)	\$200,000.00
Inflation (5%, three years)	\$246,000.00
Preliminary Engineering (10%)	\$180,000.00
Construction Engineering/Inspection (10%)	\$180,000.00
<b>Project Total (2027 Dollars)</b>	<b>\$2,156,000.00</b>

## PROJECT #14: TENBROOK LOOP (ARNOLD IDENTIFIED PROJECT)

Item	Qty	Unit	Unit Price	Amount
LINEAR GRADING, CLASS 2, MODIFIED	110.0	STA.	\$2,500.00	\$275,000.00
TURF TYPE TALL FESCUE SODDING	70.0	S.Y.	\$12.00	\$839.51
CONCRETE SIDEWALK, 4 IN.	3022	S.Y.	\$60.00	\$181,333.33
CONCRETE SIDEWALK, 7 IN.	4	S.Y.	\$75.00	\$333.33
TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	3,953	S.Y.	\$10.00	\$39,525.93
PAVED APPROACH	926	S.Y.	\$95.00	\$87,962.96
TRUNCATED DOMES	1,498	S.F.	\$30.00	\$44,940.00
CONCRETE CURB RAMP	97	EA	\$2,250.00	\$218,250.00
6 IN. CONCRETE MEDIAN STRIP	3	S.Y.	\$110.00	\$325.93
CONCRETE CURB (6 IN. HEIGHT AND UNDER) TYPE S	4,080	LF	\$45.00	\$183,600.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE	182	LF	\$20.00	\$3,640.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 30 IN WHITE MIDBLOCK	116	EA	\$170.00	\$19,720.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 12 IN WHITE, YIELD LINE TRIANGLES	16	EA	\$55.00	\$880.00
2 IN. PSST POST - 12 GA.	44	LF	\$28.00	\$1,218.00
DRIVEN POST ANCHOR FOR 2 IN. PSST - 12 GA.	2	EA	\$200.00	\$400.00
SHF-FLAT SHEET FLUORESCENT	44	S.F.	\$30.00	\$1,305.00
SIGNAL IMPROVEMENTS	1	L.S.	\$20,000.00	\$20,000.00
TRAFFIC CONTROL	1	L.S.	\$50,000.00	\$50,000.00
<b>Subtotal</b>		<b>\$1,129,273.99</b>		

Final Construction Costs	Rounded Total Costs
Construction Cost Total (2024 Dollars)	\$1,130,000.00
Contingency (15%)	\$170,000.00
Inflation (5%, three years)	\$205,000.00
Preliminary Engineering (10%)	\$150,000.00
Construction Engineering/Inspection (10%)	\$150,000.00
<b>Project Total (2027 Dollars)</b>	<b>\$1,805,000.00</b>

## PROJECT #5: TRUMAN (11TH TO VETERANS BLVD)

Item	Qty	Unit	Unit Price	Amount
LINEAR GRADING, CLASS 2, MODIFIED	78.0	STA.	\$2,500.00	\$195,000.00
TURF TYPE TALL FESCUE SODDING	99.3	S.Y.	\$12.00	\$1,191.77
CONCRETE SIDEWALK, 4 IN.	3218	S.Y.	\$60.00	\$193,066.67
CONCRETE SIDEWALK, 7 IN.	22	S.Y.	\$75.00	\$1,666.67
TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	4,351	S.Y.	\$10.00	\$43,511.11
PAVED APPROACH	1,111	S.Y.	\$95.00	\$105,555.56
TRUNCATED DOMES	550	S.F.	\$30.00	\$16,500.00
CONCRETE CURB RAMP	42	EA	\$2,250.00	\$94,500.00
6 IN. CONCRETE MEDIAN STRIP	15	S.Y.	\$110.00	\$1,629.63
CURB AND GUTTER TYPE B	14,480	LF	\$55.00	\$796,400.00
4 IN. YELLOW HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS	19,500	LF	\$0.50	\$9,750.00
6 IN. WHITE HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS	42,237	LF	\$0.50	\$21,118.50
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE	406	LF	\$20.00	\$8,120.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 30 IN WHITE MIDBLOCK	224	EA	\$170.00	\$38,080.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 12 IN WHITE, YIELD LINE TRIANGLES	80	EA	\$55.00	\$4,400.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, BICYCLE SYMBOL, WHITE	10	EA	\$260.00	\$2,600.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, STRAIGHT ARROW	10	EA	\$260.00	\$2,600.00
36 IN. SURFACE-MOUNT DELINEATOR POST	390	EA	\$95.00	\$37,050.00
2 IN. PSST POST - 12 GA.	341	LF	\$28.00	\$9,548.00
DRIVEN POST ANCHOR FOR 2 IN. PSST - 12 GA.	26	EA	\$200.00	\$5,200.00
SH-FLAT SHEET	33	S.F.	\$28.00	\$924.00
SHF-FLAT SHEET FLUORESCENT	153	S.F.	\$30.00	\$4,590.00
SIGNAL IMPROVEMENTS	1	L.S.	\$120,000.00	\$120,000.00
TRAFFIC CONTROL	1	L.S.	\$50,000.00	\$50,000.00
<b>Subtotal</b>		<b>\$1,763,001.90</b>		

Final Construction Costs	Rounded Total Costs
Construction Cost Total (2024 Dollars)	\$1,764,000.00
Contingency (15%)	\$265,000.00
Inflation (5%, three years)	\$320,000.00
Preliminary Engineering (10%)	\$235,000.00
Construction Engineering/Inspection (10%)	\$235,000.00
<b>Project Total (2027 Dollars)</b>	<b>\$2,819,000.00</b>

## PROJECT #7: VETERANS BOULEVARD (COLLINS TO HWY 61)

Item	Qty	Unit	Unit Price	Amount
LINEAR GRADING, CLASS 2, MODIFIED	55.0	STA.	\$2,500.00	\$137,500.00
TURF TYPE TALL FESCUE SODDING	150.9	S.Y.	\$12.00	\$1,810.70
CONCRETE SIDEWALK, 4 IN.	1630	S.Y.	\$60.00	\$97,777.78
CONCRETE SIDEWALK, 7 IN.	30	S.Y.	\$75.00	\$2,250.00
TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	1,692	S.Y.	\$10.00	\$16,920.37
PAVED APPROACH	32	S.Y.	\$95.00	\$3,078.70
TRUNCATED DOMES	624	S.F.	\$30.00	\$18,720.00
CONCRETE CURB RAMP	10	EA	\$2,250.00	\$22,500.00
6 IN. CONCRETE MEDIAN STRIP	17	S.Y.	\$110.00	\$1,874.07
CURB AND GUTTER TYPE B	2,750	LF	\$55.00	\$151,250.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE	308	LF	\$20.00	\$6,160.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 30 IN WHITE MIDBLOCK	212	EA	\$170.00	\$36,040.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 12 IN WHITE, YIELD LINE TRIANGLES	154	EA	\$55.00	\$8,470.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, BICYCLE SYMBOL, WHITE	4	EA	\$260.00	\$1,040.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, PEDESTRIAN SYMBOL, WHITE	4	EA	\$260.00	\$1,040.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, STRAIGHT ARROW	8	EA	\$260.00	\$2,080.00
CONCRETE TRAFFIC BARRIER, TYPE B	500	LF	\$200.00	\$100,000.00
2 IN. PSST POST - 12 GA.	317	LF	\$28.00	\$8,876.00
DRIVEN POST ANCHOR FOR 2 IN. PSST - 12 GA.	20	EA	\$200.00	\$4,000.00
SHF-FLAT SHEET FLUORESCENT	222	S.F.	\$30.00	\$6,660.00
SIGNAL IMPROVEMENTS	1	L.S.	\$120,000.00	\$120,000.00
TRAFFIC CONTROL	1	L.S.	\$50,000.00	\$50,000.00
<b>Subtotal</b>		<b>\$798,047.63</b>		

Final Construction Costs	Rounded Total Costs
Construction Cost Total (2024 Dollars)	\$800,000.00
Contingency (15%)	\$120,000.00
Inflation (5%, three years)	\$145,000.00
Preliminary Engineering (10%)	\$110,000.00
Construction Engineering/Inspection (10%)	\$110,000.00
<b>Project Total (2027 Dollars)</b>	<b>\$1,285,000.00</b>

## PROJECT #12: VOGEL ROAD (OLD LEMAY FERRY TO HIGHWAY 55)

Item	Qty	Unit	Unit Price	Amount
LINEAR GRADING, CLASS 2, MODIFIED	5.4	STA.	\$2,500.00	\$13,500.00
TURF TYPE TALL FESCUE SODDING	100	S.Y.	\$12.00	\$1,200.00
CONCRETE SIDEWALK, 4 IN.	107	S.Y.	\$60.00	\$6,400.00
CONCRETE SIDEWALK, 7 IN.	36	S.Y.	\$75.00	\$2,666.67
TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	142	S.Y.	\$10.00	\$1,422.22
TRUNCATED DOMES	192	S.F.	\$30.00	\$5,760.00
CONCRETE CURB RAMP	24	EA	\$2,250.00	\$54,000.00
6 IN. CONCRETE MEDIAN STRIP	18	S.Y.	\$110.00	\$1,955.56
6 IN. WHITE HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS	44,626	LF	\$0.50	\$22,313.18
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE	462	LF	\$20.00	\$9,240.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 30 IN WHITE MIDBLOCK	316	EA	\$170.00	\$53,720.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 12 IN WHITE, YIELD LINE TRIANGLES	126	EA	\$55.00	\$6,930.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, BICYCLE SYMBOL, WHITE	8	EA	\$260.00	\$2,080.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, PEDESTRIAN SYMBOL, WHITE	8	EA	\$260.00	\$2,080.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, STRAIGHT ARROW	16	EA	\$260.00	\$4,160.00
36 IN. SURFACE-MOUNT DELINEATOR POST	292	EA	\$95.00	\$27,740.00
2 IN. PSST POST - 12 GA.	380	LF	\$28.00	\$10,640.00
DRIVEN POST ANCHOR FOR 2 IN. PSST - 12 GA.	26	EA	\$200.00	\$5,200.00
SHF-FLAT SHEET FLUORESCENT	208	S.F.	\$30.00	\$6,240.00
SIGNAL IMPROVEMENTS	1	L.S.	\$100,000.00	\$100,000.00
TRAFFIC CONTROL	1	L.S.	\$50,000.00	\$50,000.00
<b>Subtotal</b>		<b>\$387,247.62</b>		

Final Construction Costs	Rounded Total Costs
Construction Cost Total (2024 Dollars)	\$390,000.00
Contingency (15%)	\$60,000.00
Inflation (5%, three years)	\$71,000.00
Preliminary Engineering (10%)	\$50,000.00
Construction Engineering/Inspection (10%)	\$50,000.00
<b>Project Total (2027 Dollars)</b>	<b>\$621,000.00</b>

## PROJECT #18: W OUTER ROAD (VOGEL TO MILLER)

Item	Qty	Unit	Unit Price	Amount
LINEAR GRADING, CLASS 2, MODIFIED	81.0	STA.	\$2,500.00	\$202,500.00
TURF TYPE TALL FESCUE SODDING	55.6	S.Y.	\$12.00	\$666.67
CONCRETE SIDEWALK, 4 IN.	2400	S.Y.	\$60.00	\$144,000.00
TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	2,983	S.Y.	\$10.00	\$29,833.33
PAVED APPROACH	583	S.Y.	\$95.00	\$55,416.67
TRUNCATED DOMES	256	S.F.	\$30.00	\$7,680.00
CONCRETE CURB RAMP	32	EA	\$2,250.00	\$72,000.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE	28	LF	\$20.00	\$560.00
PREFORMED THERMOPLASTIC PAVEMENT MARKING, 30 IN WHITE MIDBLOCK	32	EA	\$170.00	\$5,440.00
SIGNAL IMPROVEMENTS	1	L.S.	\$20,000.00	\$20,000.00
TRAFFIC CONTROL	1	L.S.	\$50,000.00	\$50,000.00
		Subtotal		\$588,096.67

Final Construction Costs	Rounded Total Costs
Construction Cost Total (2024 Dollars)	\$590,000.00
Contingency (15%)	\$89,000.00
Inflation (5%, three years)	\$107,000.00
Preliminary Engineering (10%)	\$79,000.00
Construction Engineering/Inspection (10%)	\$79,000.00
<b>Project Total (2027 Dollars)</b>	<b>\$944,000.00</b>