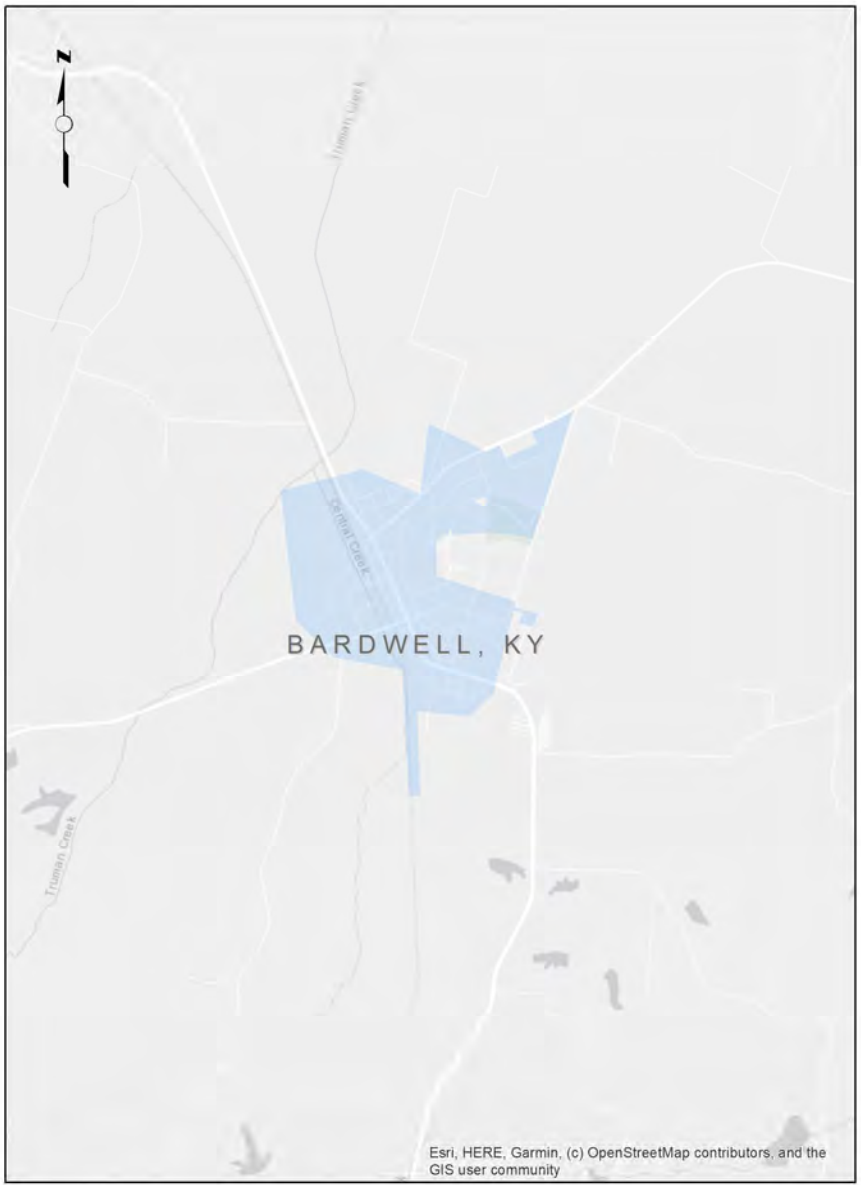

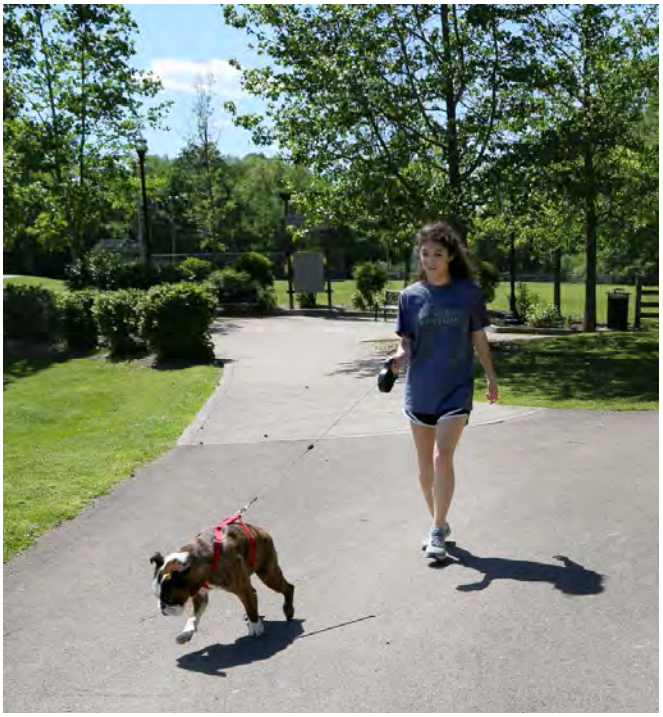

CREATING AN ACTIVE AMERICA, TOGETHER
ACTIVE PEOPLE, HEALTHY KENTUCKY℠

PURCHASE DISTRICT HEALTH DEPARTMENT ACTIVE LIVING BICYCLE AND PEDESTRIAN PLAN

City of Bardwell, Carlisle County, Kentucky

Approved: June 1, 2022

Gresham Smith

This report was developed by Gresham Smith in partnership with the Kentucky Cabinet for Health and Family Services and the Purchase District Health Department.

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LIST OF ACRONYMS

FHWA	Federal Highway Administration
AASHTO	American Association of State Highway and Transportation Officials
NACTO	National Association of City Transportation Officials
ADA	Americans with Disabilities Act

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CHAPTER 1: Introduction

The built environment has a strong influence on the community. Active, healthy communities are supported by infrastructure that encourages residents and visitors alike to choose walking or biking to nearby parks, businesses, and other destinations. In 2021, Bardwell in Carlisle County, Kentucky received a grant through the Purchase District Health Department to establish a bicycle and pedestrian plan based upon engagement from the residents and supported by community and county leaders.

Planning Process

On August 6th, 2021 the planning team met with local officials to kick off the planning process for Bardwell. During the kick off, the team discussed potential bicycle and pedestrian projects, and established a community survey to be provided to residents and stakeholders. Potential projects and opportunities discussed during the kick off included the desire to develop rails to trails projects in Bardwell. An online Survey Monkey seeking an evaluation of the existing bicycle and pedestrian network as well as feedback for potential improvements was presented to members of the community through city, county, and regional leaders. Feedback from the surveys included:

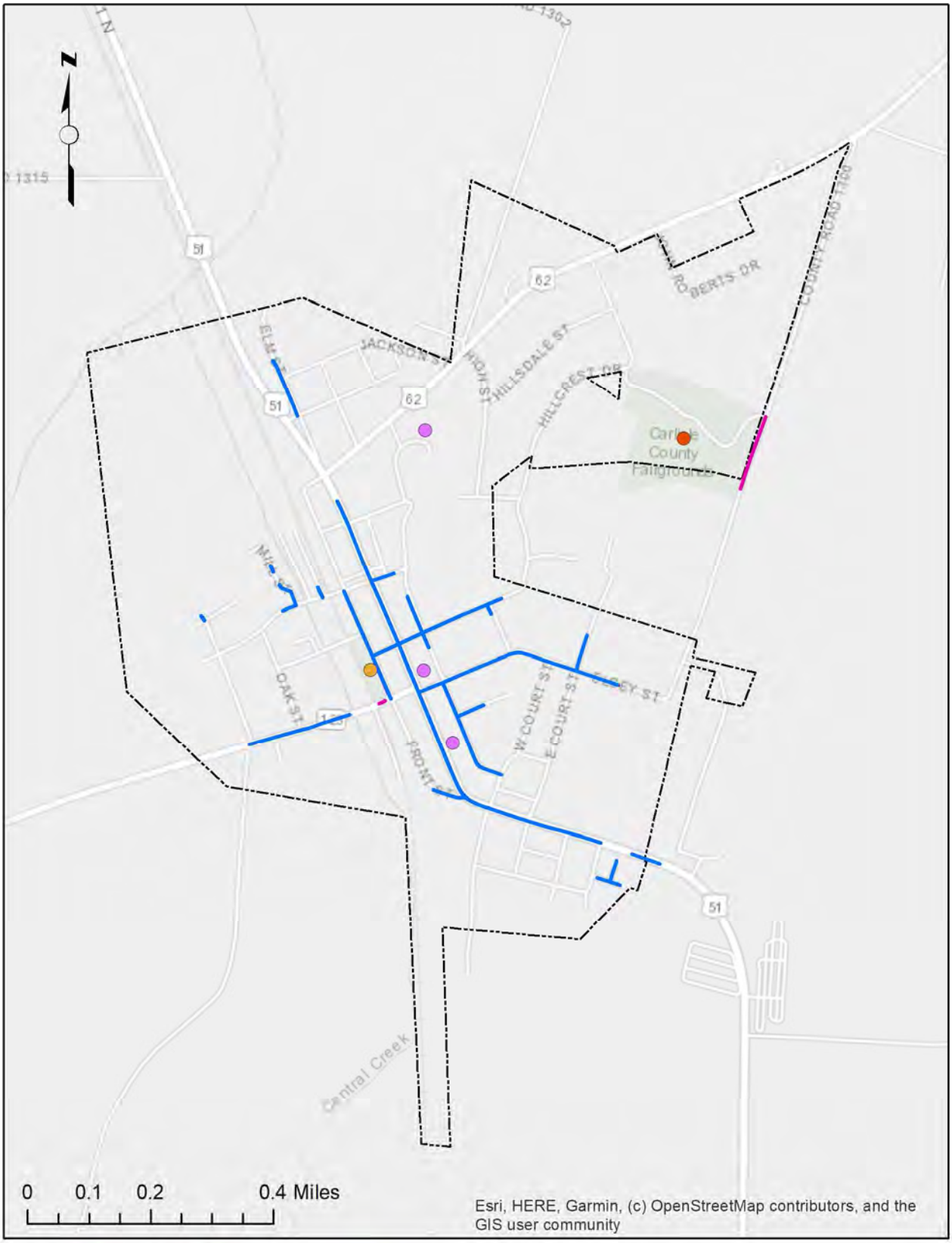
- Insufficient sidewalks and lack of bike lanes were the greatest barrier to residents making trips by foot or bike, followed by high traffic volume and insufficient safety signage.
    - 53% of respondents indicated insufficient sidewalks or bike lanes as a barrier preventing children from walking or biking to school, followed by traffic (27%), lack of safety signage (27%), and insufficient bike parking (20%). 47% of respondents indicated other factors as preventing children from walking or biking to school.
    - 89% of respondents indicated insufficient sidewalks or bike lanes as a barrier preventing residents from walking or biking to local destinations, followed by insufficient safety for children (42%), traffic (32%), insufficient bike parking (26%) and lack of safety signage (11%).
    - The school system for Carlisle County is not close in proximity to Bardwell, and students are not allowed walk or bike to school due to lack of facilities and bicycle storage.
- Desire for walking and bicycling facilities to:
    - Regional communities
    - Bardwell City Park
    - Carlisle County Fairgrounds
    - Residential areas, shopping, and grocery store
- Along with a city-wide need for repaired or connected sidewalks and bicycle facilities, specific gaps were identified in the active transportation network to be addressed in Bardwell, including the following:
    - US 62 (Paducah Road)
    - US 51 (Elm Street)

CHAPTER 2: Existing Conditions

The sidewalk network in Bardwell is largely located in the heart of downtown along US 51 (Elm Street) south of the intersection with US 62 (Paducah Road) as seen in Figure 2.1, with limited connectivity to the adjacent side streets. Crosswalks are unmarked, which can discourage walking by creating a perceived lack of safety. Additionally, in many locations the sidewalk is damaged or not designed to the Americans with Disabilities Act (ADA) standards for width and cross-slope which makes traveling along the sidewalk network difficult for people of all abilities. Existing sidewalks were likely constructed well before the ADA standards were developed. When traveling away from US 51, the sidewalks become disconnected or disappear altogether. The city of Bardwell does not have any multi-use path or bicycle infrastructure.

Despite the disconnected sidewalk network and lack of bicycle and multi-use infrastructure, people in the community clearly want to walk and bike in Bardwell as shown in the Strava heat maps for walking (Figure 2.2) and bicycling (Figure 2.3), particularly along US 62 and US 51. Although this information is only captured by those community members actively using the Strava app to track their activity, it is a strong indicator of support for built environment improvements to create a safer, more connected network that encourages a healthy and physically active community.

Figure 2.1 Map of existing infrastructure in Bardwell, KY.



Legend

- Church
- Fairgrounds
- Park
- Ferry
- School
- College/University
- Library
- Existing Bike Lane, Separated Bike Path, and Shared Bike Lane
- Existing Crosswalk
- Existing Multi-Use Path
- Existing Sidewalk

Figure 2.2 Strava heat density map of walking in Bardwell, KY.

Figure 2.3 Strava heat density map of bicycling in Bardwell, KY.

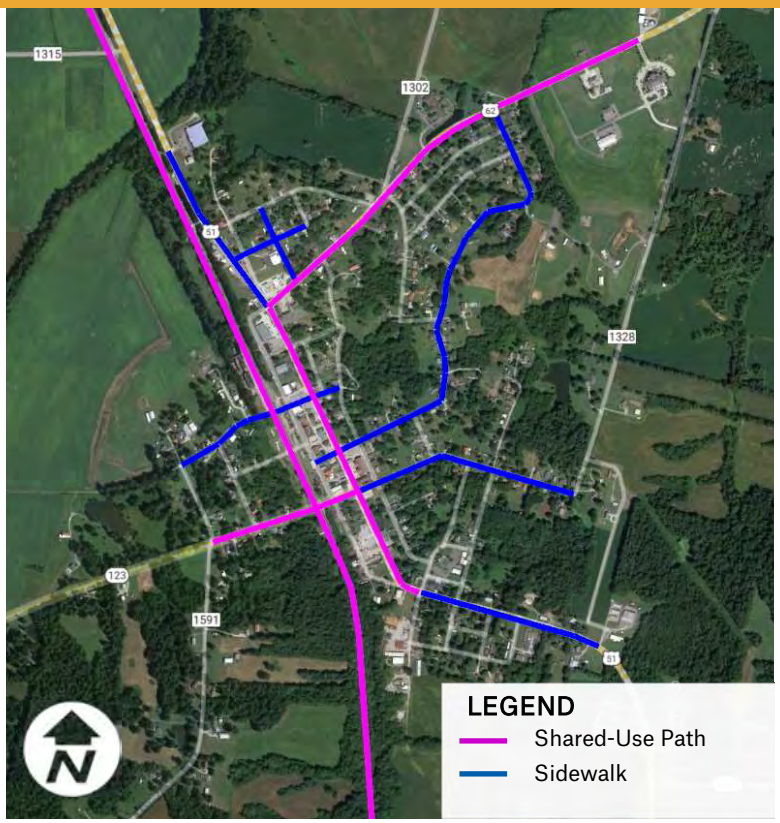


Figure 3.1: Planned Pedestrian Network

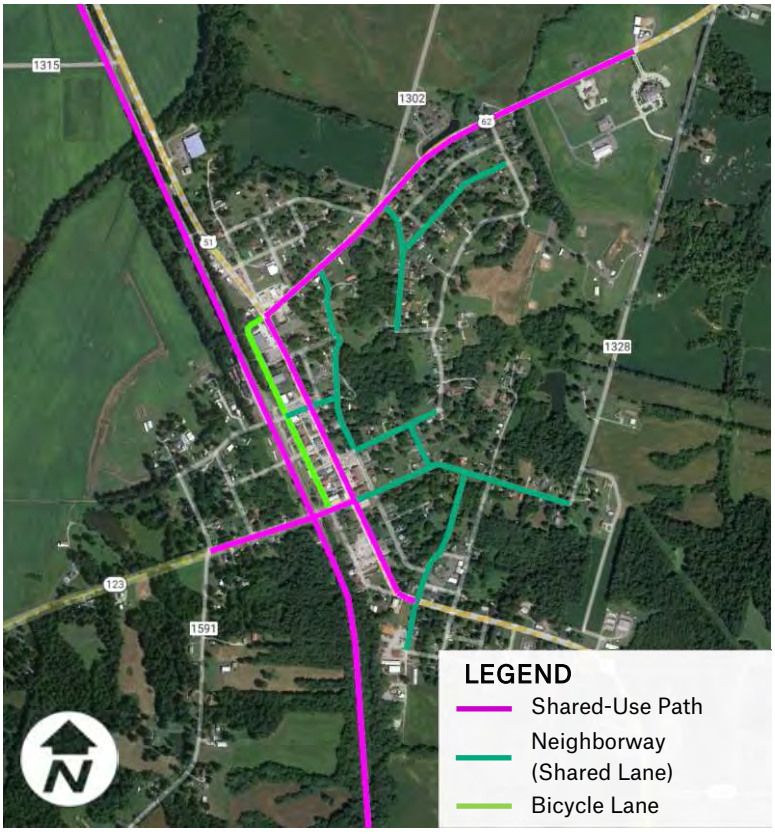


Figure 3.2: Planned Bicycle Network

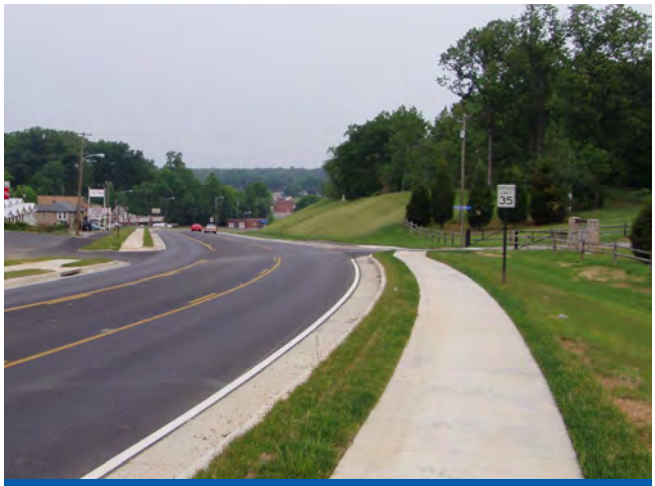
To support walking in Bardwell, gaps in sidewalk connectivity should be filled in and damaged sidewalk repaired throughout. The existing network should be extended north and east, along with implementing targeted shared-use path and dedicated bicycle infrastructure to support bicycling in Bardwell to local destinations. (Figures 3.1 and 3.2). Additionally, shared-use path (rail with trail) should be considered along abandoned rail bed, maintenance access routes, and available easement lease opportunities along the rail line, which could ultimately connect Bardwell to the City of Clinton, the City of Wickliffe and the Ohio River on foot and on bike through a regional trail system. Throughout Bardwell, accessible sidewalk and ADA ramps should be placed along with marked crosswalks at major crossings, near local destinations and parks to improve safety while walking.

Specific planning level multi-modal projects addressing the identified gaps and network expansion opportunities are identified in Figures 3.1-3.25. Each project page outlines the type of project, limits, and an opinion of probable construction cost estimate not including potential right-of-way and utility impacts.

For all project recommendations, design and construction of pedestrian and bicyclist facilities should consider the most current best practices established by the Federal Highway Administration (FHWA), the American Association of State Highway and Transportation Officials (AASHTO), and the National Association of City Transportation Officials (NACTO) along with all other applicable federal, state and local guidelines.

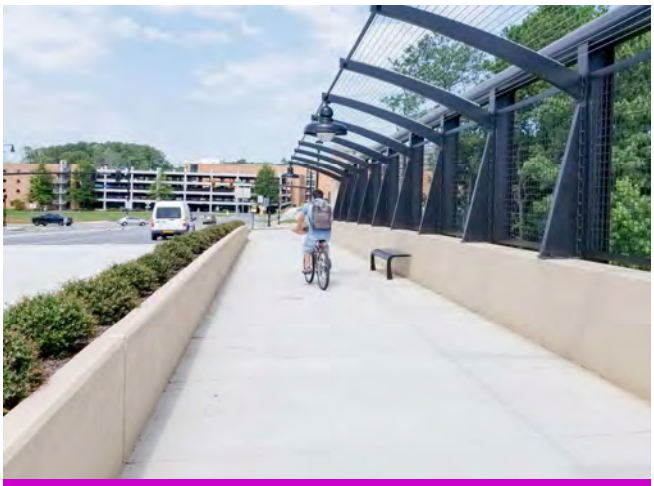
New construction of sidewalk and shared-use path or rehabilitation of existing pedestrian facilities must adhere to ADA and Proposed Public Rights-of-Way Accessibility Guidelines (PROWAG) standards in conjunction with any local and state guidelines. This includes, but is not limited to cross-slope, grade, and accessible ramps and landings.

Project Types



Sidewalk

Sidewalks are a minimum of six feet in width, and are considered pedestrian and mobility assisted access only. Some communities allow children to bike on sidewalks. Typically constructed of concrete.

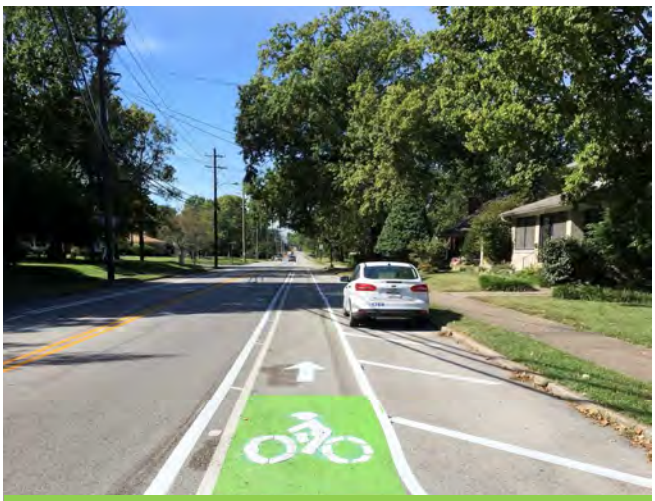


Shared-Use Path or Trail

Shared-use paths are a minimum of ten feet in width, and are considered accessible to pedestrians and bicyclists. May be constructed with either concrete or asphalt with concrete access ramps. May be used separate from a roadway as a trail or on high volume or high speed (45 mph or more) roadways to safely separate bicyclists and pedestrians from motor vehicle conflicts.

Neighborway (Shared Lane)

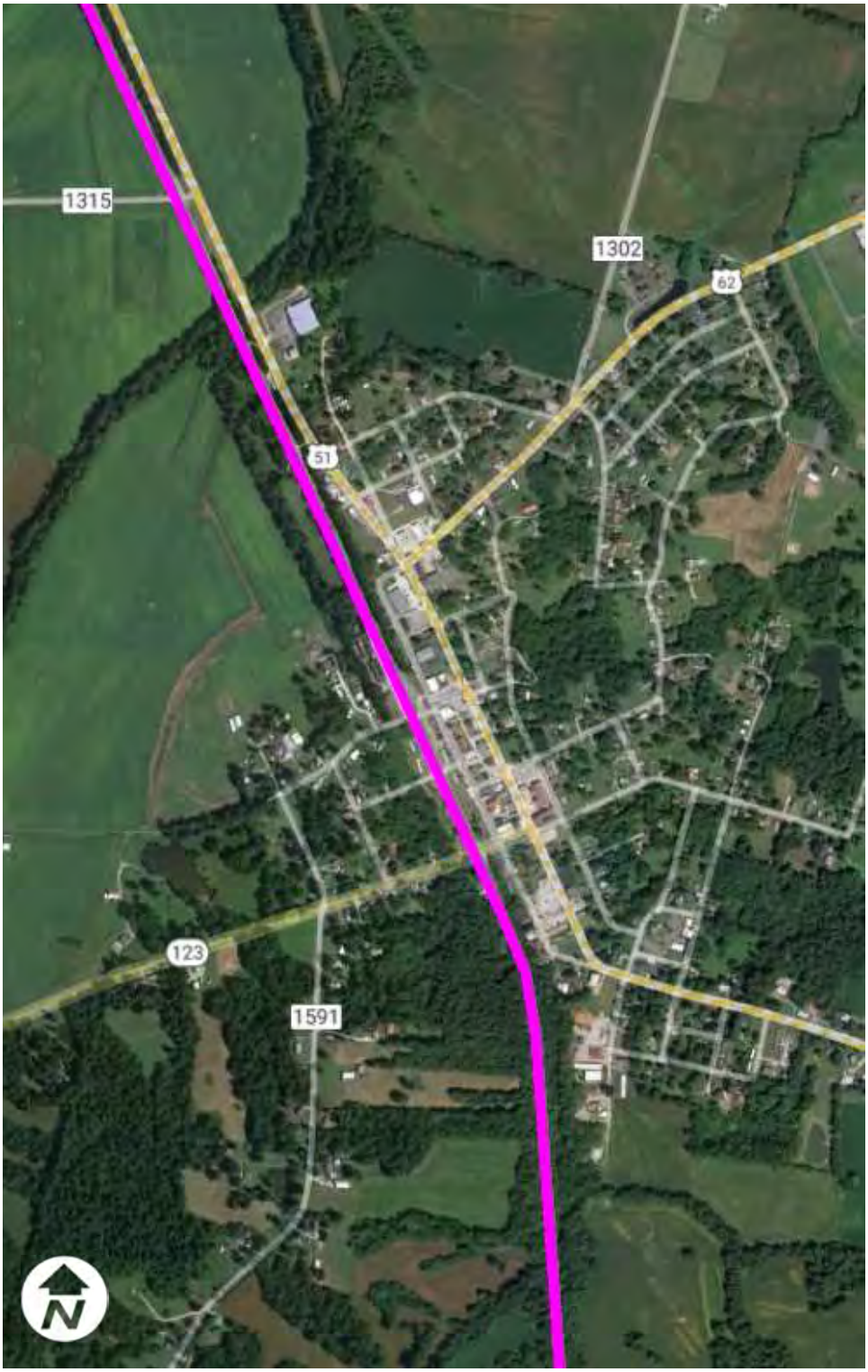
A neighborway consists of shared bicycle lane markings and signage to bring awareness of bicyclists on the roadway. Typically installed on low speed, low volume roadways without enough width for a dedicated bicycle lane.



Bicycle Lane

A dedicated bicycle lane may include a lane line or buffer with posts separating bicycle traffic from motor vehicle traffic and signage to bring awareness of bicyclists on the roadway. May be installed on any roadway with enough width and a speed lower than 45 mph.

FIGURE 3.3 Rail with Trail Regional Trail



Limits: To Be Determined

Length: Length of the alignment will vary depending on alignment chosen.

Description: Shared-use path regional trail should be considered along abandoned rail bed, maintenance access routes, and available easement lease opportunities along the rail line as part of an independent planning study. Ultimately this regional trail could connect Bardwell to the City of Clinton, the City of Wickliffe and the Ohio River on foot and on bike. Additional considerations include, but are not limited to right-of-way acquisition, utility easements, trail maintenance responsibilities, and safety along active rail bed.

Estimated Construction Cost: Cost will vary widely upon the alignment, access and leasing opportunities, materials, and trail amenities.

Note: Estimated construction cost is an opinion of probable construction estimate including 30% contingency for the year 2022, and do not reflect potential costs of design, utility relocation, signals, lighting, right-of-way acquisition or maintenance.

FIGURE 3.4 US 51 (Elm Street) Shared-Use Path

Limits: US 62 (Paducah Road) to W. Court Street

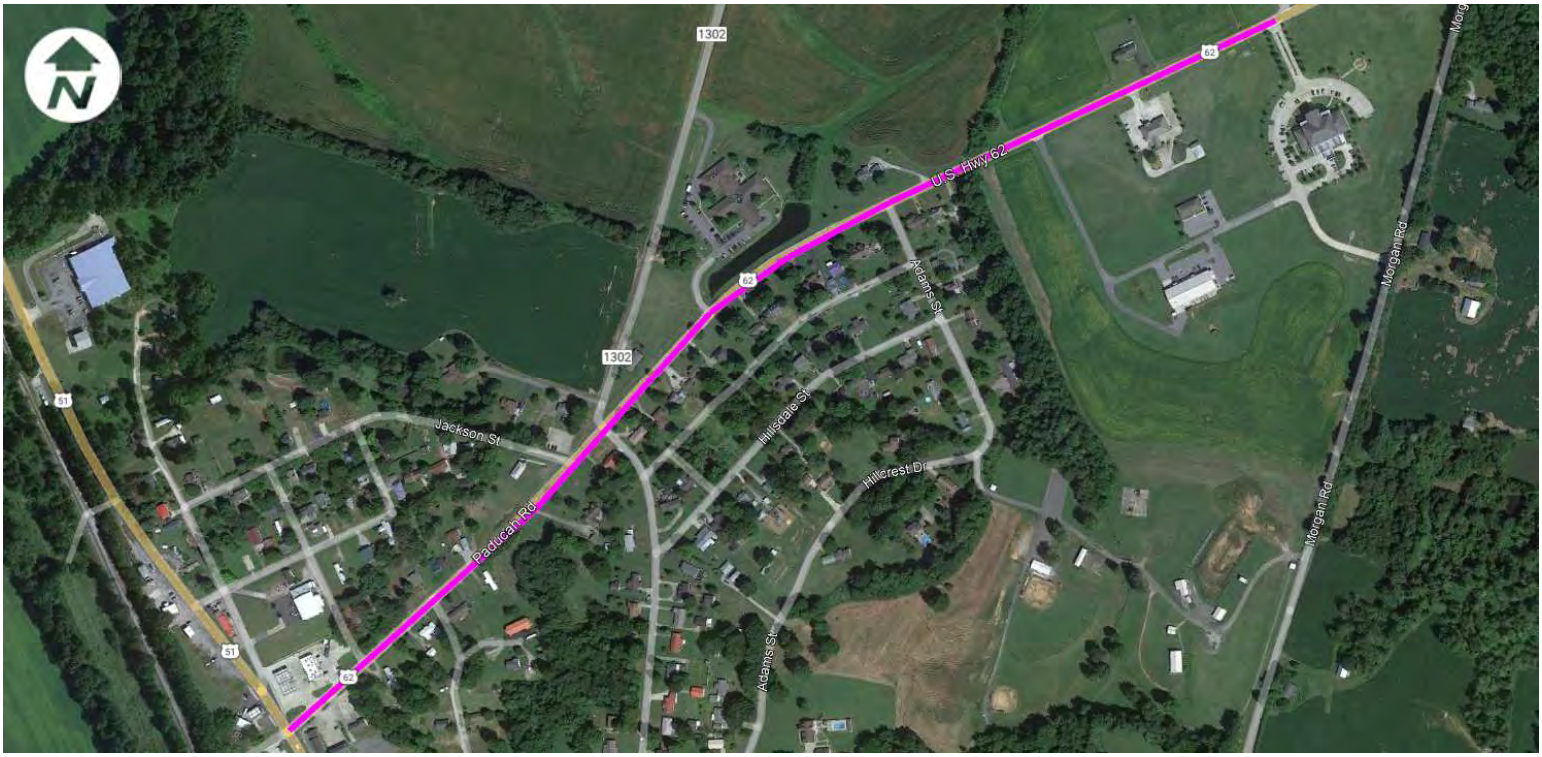
Length: 0.61 miles

Description: Shared-use path along the west side of US 51 (Elm Street) avoiding overhead utility conflicts on the east side, and utilizing existing space graded for sidewalks. Shared-use path provides a fully separated walking and biking facility that is comfortable for all ages and abilities along a busy roadway, reconnecting the southern neighborhoods of Bardwell to shopping and dining to the north. Enhanced crossings at intersections including high visibility crosswalks should be considered at all controlled crossings and recommended at all major intersections such as the intersection with US 62 (Paducah Road). Pedestrian crossing signals should be considered at the signalized intersection with Jennings Street, and bicyclists may utilize the pedestrian signal crossing. Mid-block and uncontrolled crossings should be considered at key residential access points and near destinations such as shopping and dining, and should follow all current best practices established by FHWA for uncontrolled crossings.

Estimated Construction Cost: $643,000

Note: Estimated construction cost is an opinion of probable construction estimate including 30% contingency for the year 2022, and do not reflect potential costs of design, utility relocation, signals, lighting, right-of-way acquisition or maintenance.

FIGURE 3.5 US 62 (Paducah Road) Shared-Use Path



Limits: Jefferson Street to US 51 (Elm Street)

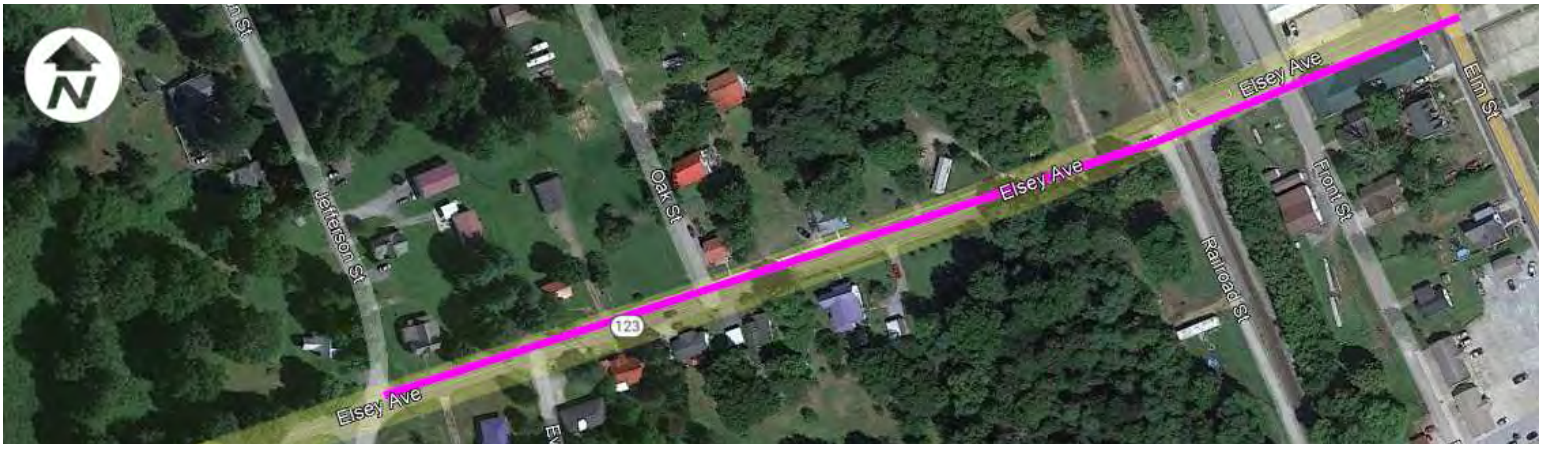
Length: 0.86 miles

Description: Shared-use path along the south side of US 62 (Elm Street) avoiding overhead utility conflicts on the north side. Shared-use path provides a fully separated walking and biking facility that is comfortable for all ages and abilities along a busy roadway, connecting Bardwell neighborhoods to the Carlisle County Courthouse and the Carlisle County Fairgrounds. Enhanced crossings at intersections including high visibility crosswalks should be considered at all controlled crossings and recommended at all major intersections such as the intersection with US 51 (Elm Street). Mid-block and uncontrolled crossings should be considered at key residential access points and near destinations such as shopping and dining, and should follow all current best practices established by FHWA for uncontrolled crossings.

Estimated Construction Cost: $905,000

Note: Estimated construction cost is an opinion of probable construction estimate including 30% contingency for the year 2022, and do not reflect potential costs of design, utility relocation, signals, lighting, right-of-way acquisition or maintenance.

FIGURE 3.6 KY 123 (Elsey Avenue) Shared-Use Path



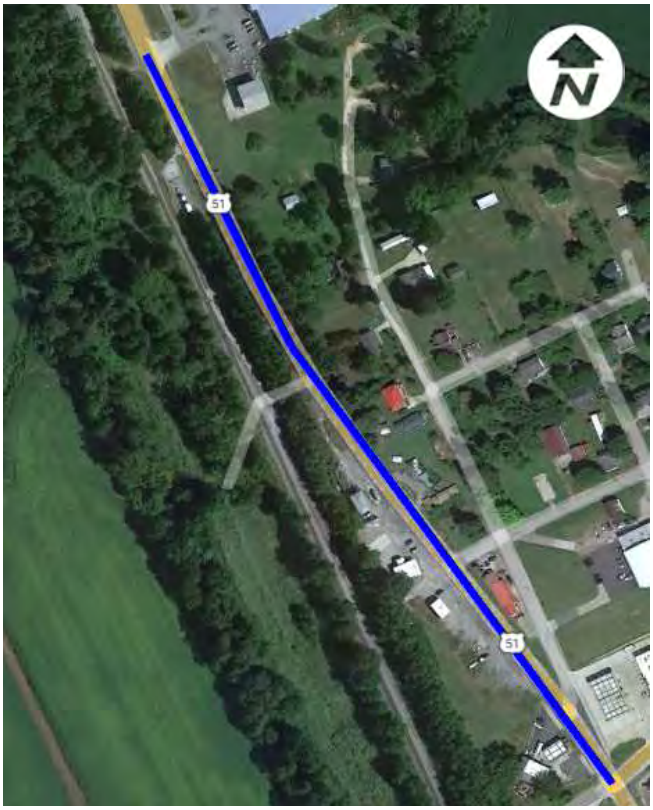
Limits: Jefferson Street to US 51 (Elm Street)

Length: 0.29 miles

Description: Shared-use path on the north side of KY 123 avoiding steeper grades and drainage ditches, and capitalizing on existing graded space for sidewalk to provide a fully separated walking and bicycling facility connecting to planned shared-use path along US 51 (Elm Street), the Bardwell City Park along Front Street, and potential regional trail along the rail line. Enhanced crossings at intersections including high visibility crosswalks should be considered at all controlled crossings and recommended at all major intersections such as the intersection with US 51. Mid-block and uncontrolled crossings should be considered at key residential access points, and should follow all current best practices established by FHWA for uncontrolled crossings.

Estimated Construction Cost: $306,000

FIGURE 3.7 US 51 (Elm Street) Sidewalk



Limits: US 62 (Paducah Road) to Hardware Store

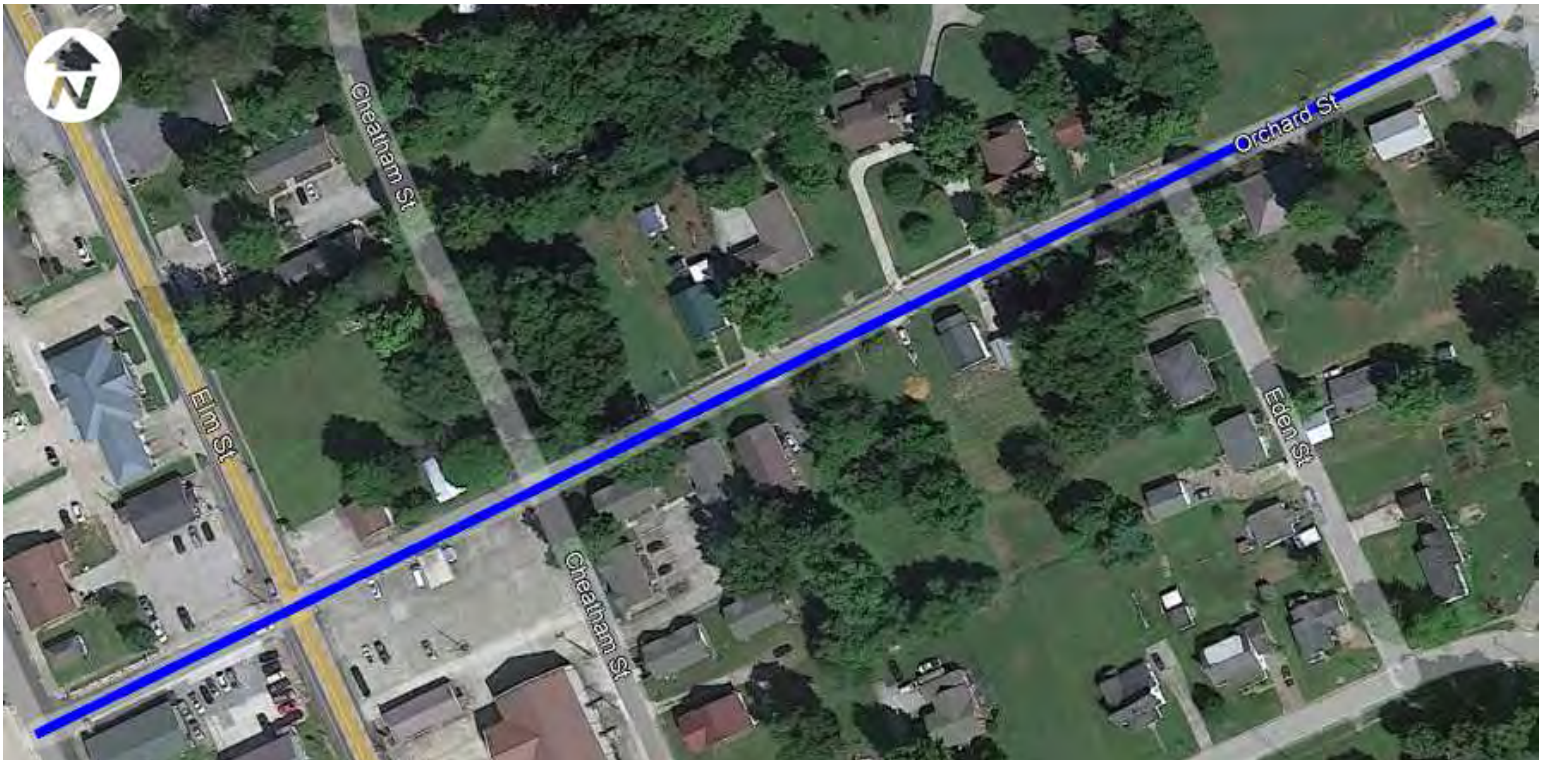
Length: 0.35 miles

Description: Sidewalk on both sides of US 51 expanding pedestrian access to the neighborhood and destinations to the north. Enhanced crossings at intersections including high visibility crosswalks should be considered at all controlled crossings and recommended at US 62 (Paducah Road). Mid-block and uncontrolled crossings should be considered at key residential access streets and destinations, and should follow all current best practices established by FHWA for uncontrolled crossings.

Estimated Construction Cost: $272,000

Note: Estimated construction cost is an opinion of probable construction estimate including 30% contingency for the year 2022, and do not reflect potential costs of design, utility relocation, signals, lighting, right-of-way acquisition or maintenance.

FIGURE 3.8 Orchard Street Sidewalk



Limits: Front Street to Hillcrest Drive/Adams Street

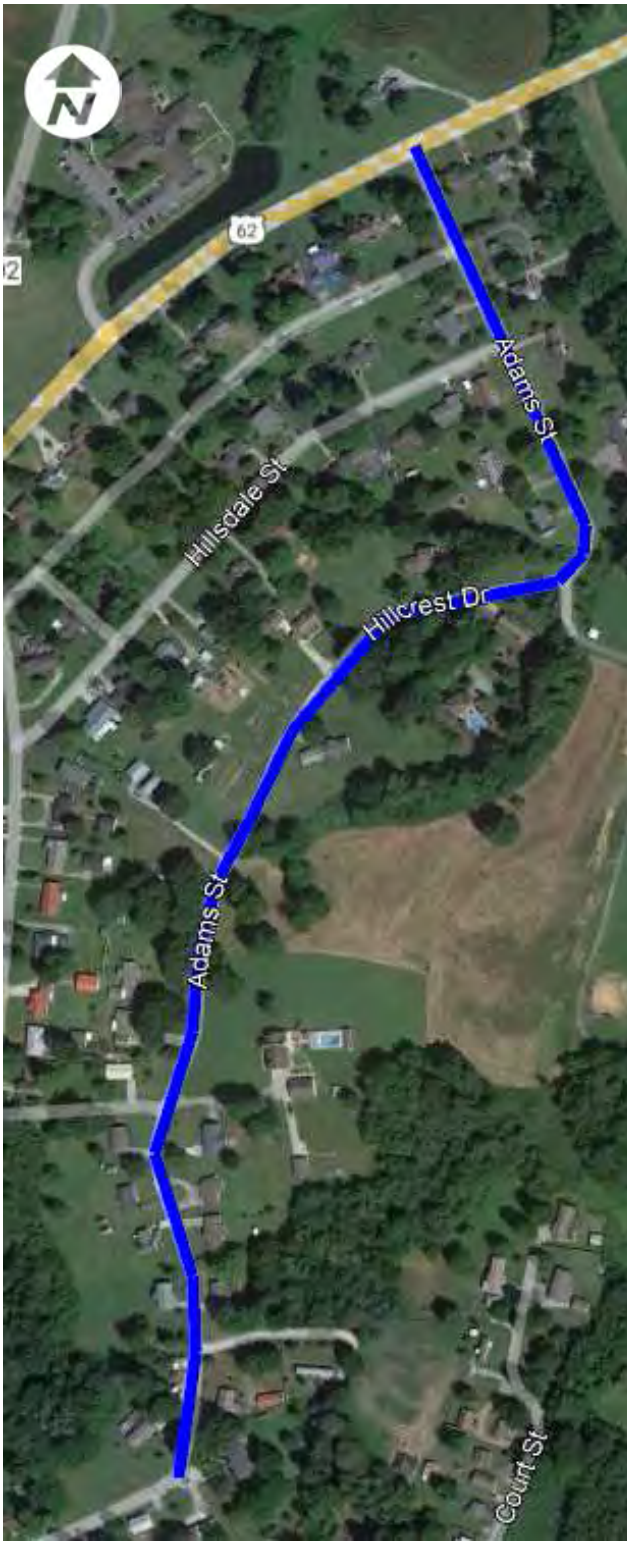
Length: 0.26 miles

Description: Sidewalk on both sides of Orchard Street replacing sidewalks in disrepair and filling in gaps in pedestrian access to the neighborhood and destinations along US 51 (Elm Street). Enhanced crossings at intersections including high visibility crosswalks should be considered at all controlled crossings and recommended at US 51 (Elm Street). Mid-block and uncontrolled crossings should be considered at key residential access streets and destinations, and should follow all current best practices established by FHWA for uncontrolled crossings.

Estimated Construction Cost: $203,000

Note: Estimated construction cost is an opinion of probable construction estimate including 30% contingency for the year 2022, and do not reflect potential costs of design, utility relocation, signals, lighting, right-of-way acquisition or maintenance.

FIGURE 3.9 Hillcrest Drive/Adams Street Sidewalk



Limits: Orchard Street to US 62 (Paducah Road)

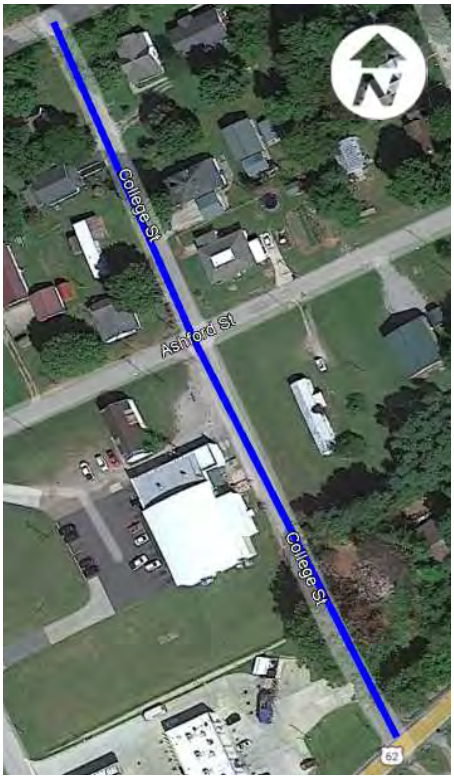
Length: 0.65 miles

Description: Sidewalk on both sides of Hillcrest Drive and Adams Street addressing a gap in pedestrian access to the neighborhood and Carlisle County Fairgrounds, and connecting to the Carlisle County Courthouse through the planned shared-use path along US 62 (Paducah Road). Enhanced crossings at intersections including high visibility crosswalks should be considered at all controlled crossings and recommended at US 62 (Paducah Road). Mid-block and uncontrolled crossings should be considered at key residential access streets and at the entrance to the fairgrounds, and should follow all current best practices established by FHWA for uncontrolled crossings.

Estimated Construction Cost: $505,000

Note: Estimated construction cost is an opinion of probable construction estimate including 30% contingency for the year 2022, and do not reflect potential costs of design, utility relocation, signals, lighting, right-of-way acquisition or maintenance.

FIGURE 3.10 College Street Sidewalk



Limits: US 62 (Paducah Road) to Jackson Street

Length: 0.15 miles

Description: Sidewalk on both sides of College Street addressing a gap in pedestrian access to the grocery store and other destinations in the neighborhood, and connecting to the Carlisle County Courthouse through the planned shared-use path along US 62 (Paducah Road). Enhanced crossings at intersections including high visibility crosswalks should be considered at all controlled crossings and recommended at US 62 (Paducah Road). Mid-block and uncontrolled crossings should be considered at key residential access streets and destinations such as the grocery store, and should follow all current best practices established by FHWA for uncontrolled crossings.

Estimated Construction Cost: $117,000

FIGURE 3.11 Ashford Street Sidewalk

Limits: Orchard Street to US 62 (Paducah Road)

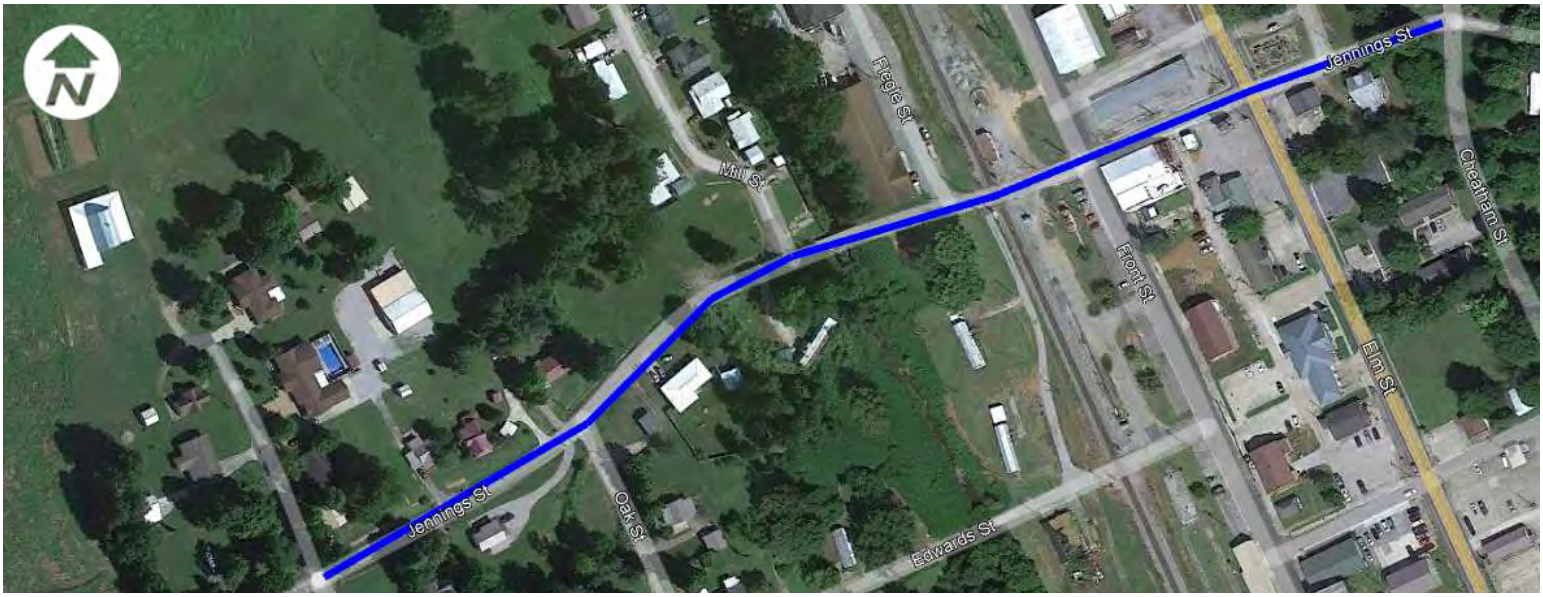
Length: 0.15 miles

Description: Sidewalk on both sides of Ashford Street addressing a gap in pedestrian access to the grocery store and other destinations in the neighborhood. Enhanced crossings at intersections including high visibility crosswalks should be considered at all controlled crossings and recommended at US 51 (Elm Street). Mid-block and uncontrolled crossings should be considered at key residential access streets and destinations such as the grocery store, and should follow all current best practices established by FHWA for uncontrolled crossings.

Estimated Construction Cost: $117,000

Note: Estimated construction cost is an opinion of probable construction estimate including 30% contingency for the year 2022, and do not reflect potential costs of design, utility relocation, signals, lighting, right-of-way acquisition or maintenance.

FIGURE 3.12 Jennings Street Sidewalk



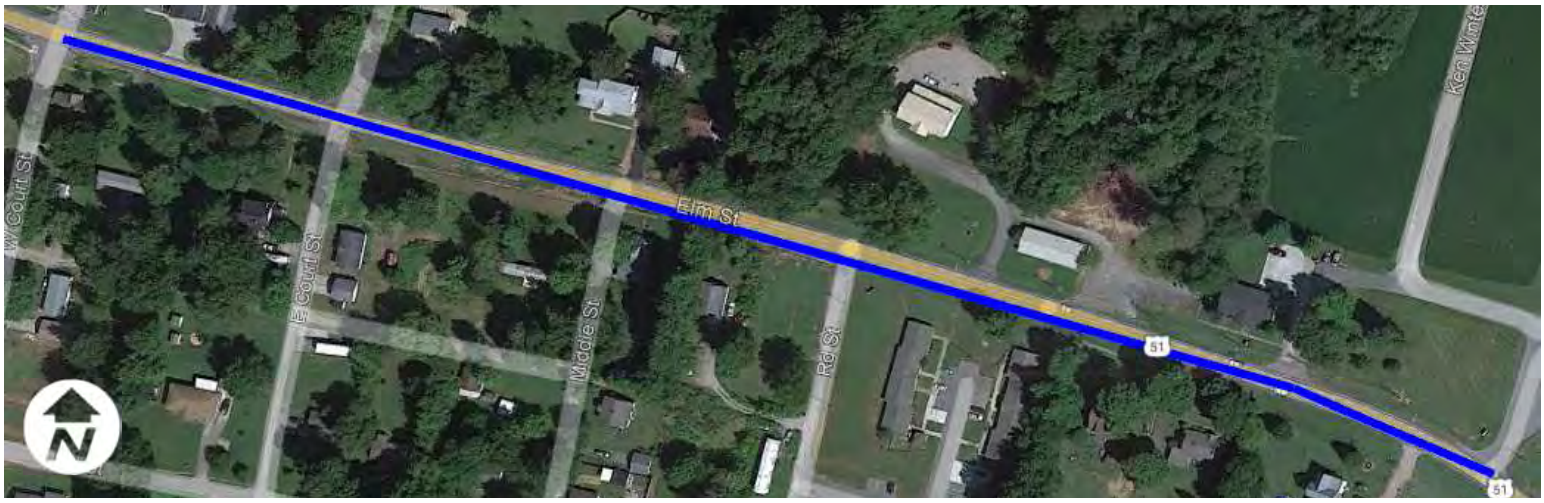
Limits: Jefferson Street to Cheatham Street

Length: 0.33 miles

Description: Sidewalk on both sides of Jennings Street addressing a gap in pedestrian access to the western neighborhoods of Bardwell. Enhanced crossings at intersections including high visibility crosswalks should be considered at all controlled crossings and recommended along with pedestrian crossing signals at US 51 (Elm Street). Mid-block and uncontrolled crossings should be considered at key residential access streets and destinations, and should follow all current best practices established by FHWA for uncontrolled crossings.

Estimated Construction Cost: $257,000

FIGURE 3.13 US 51 (Elm Street) Sidewalk



Limits: W. Court Street to Ken Winters Drive

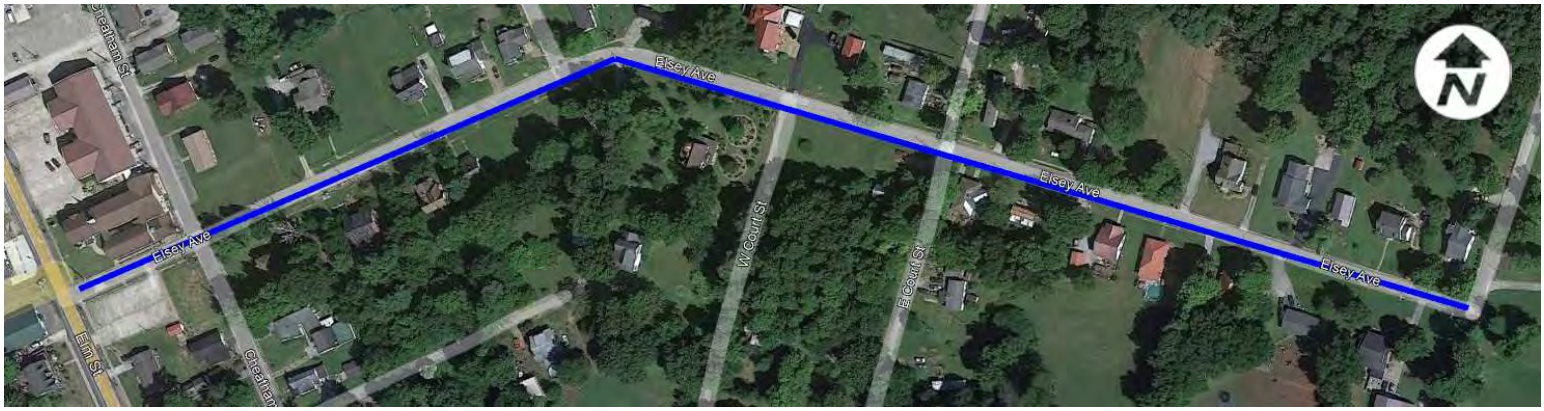
Length: 0.35 miles

Description: Sidewalk on both sides of Elm Street addressing a gap in pedestrian access to the southern neighborhoods of Bardwell. Enhanced crossings at intersections including high visibility crosswalks should be considered at all controlled crossings. Mid-block and uncontrolled crossings should be considered at key residential access streets and destinations, and should follow all current best practices established by FHWA for uncontrolled crossings.

Estimated Construction Cost: $272,000

Note: Estimated construction cost is an opinion of probable construction estimate including 30% contingency for the year 2022, and do not reflect potential costs of design, utility relocation, signals, lighting, right-of-way acquisition or maintenance.

FIGURE 3.14 Elsey Avenue Sidewalk



Limits: US 51 (Elm Street) to CR 1300

Length: 0.43 miles

Description: Sidewalk on both sides of Elsey Avenue providing pedestrian access to the eastern neighborhoods of Bardwell to the planned shared-use path along US 51 (Elm Street). Enhanced crossings at intersections including high visibility crosswalks should be considered at all controlled crossings and recommended at US 51 (Elm Street). Mid-block and uncontrolled crossings should be considered at key residential access streets and destinations, and should follow all current best practices established by FHWA for uncontrolled crossings.

Estimated Construction Cost: $335,000

FIGURE 3.15 Eden Street Neighborway (Shared Lane)

Limits: Elsey Avenue to Orchard Street

Length: 0.10 miles

Description: Bicyclist and motorist shared lanes with shared lane markings and signage providing wayfinding for bicyclists to access the planned shared-use path along US 51 (Elm Street) via the planned neighborways on Elsey Avenue or Orchard Street, and raising motorist awareness of bicyclists along the roadway. Bicyclist safety enhancements including, but not limited to traffic calming, pavement markings and signage at intersections, entrances, and other locations with motor vehicle conflicts should be considered based on best practices established by AASHTO, NACTO, and FHWA.

Estimated Construction Cost: $3,000

Note: Estimated construction cost is an opinion of probable construction estimate including 30% contingency for the year 2022, and do not reflect potential costs of design, utility relocation, signals, lighting, right-of-way acquisition or maintenance.

FIGURE 3.16 Orchard Street Neighborway (Shared Lane)

Limits: Cheatham Street to Hillcrest Drive/Adams Street

Length: 0.17 miles

Description: Bicyclist and motorist shared lanes with shared lane markings and signage providing wayfinding for bicyclists to access the planned shared-use path along US 51 (Elm Street) and raising motorist awareness of bicyclists along the roadway. Bicyclist safety enhancements including, but not limited to traffic calming, pavement markings and signage at intersections, entrances, and other locations with motor vehicle conflicts should be considered based on best practices established by AASHTO, NACTO, and FHWA.

Estimated Construction Cost: $4,000

FIGURE 3.17 Cheatham Street Neighborway (Shared Lane)

Limits: Brown Street to Orchard Street

Length: 0.22 miles

Description: Bicyclist and motorist shared lanes with shared lane markings and signage providing wayfinding for bicyclists to access the planned shared-use path along US 51 (Elm Street) and US 62 (Paducah Road) via the planned neighborways on Orchard Street and Water Street, and raising motorist awareness of bicyclists along the roadway. Bicyclist safety enhancements including, but not limited to traffic calming, pavement markings and signage at intersections, entrances, and other locations with motor vehicle conflicts should be considered based on best practices established by AASHTO, NACTO, and FHWA.

Estimated Construction Cost: $4,000

Note: Estimated construction cost is an opinion of probable construction estimate including 30% contingency for the year 2022, and do not reflect potential costs of design, utility relocation, signals, lighting, right-of-way acquisition or maintenance.

FIGURE 3.18 Jennings Street Neighborway (Shared Lane)

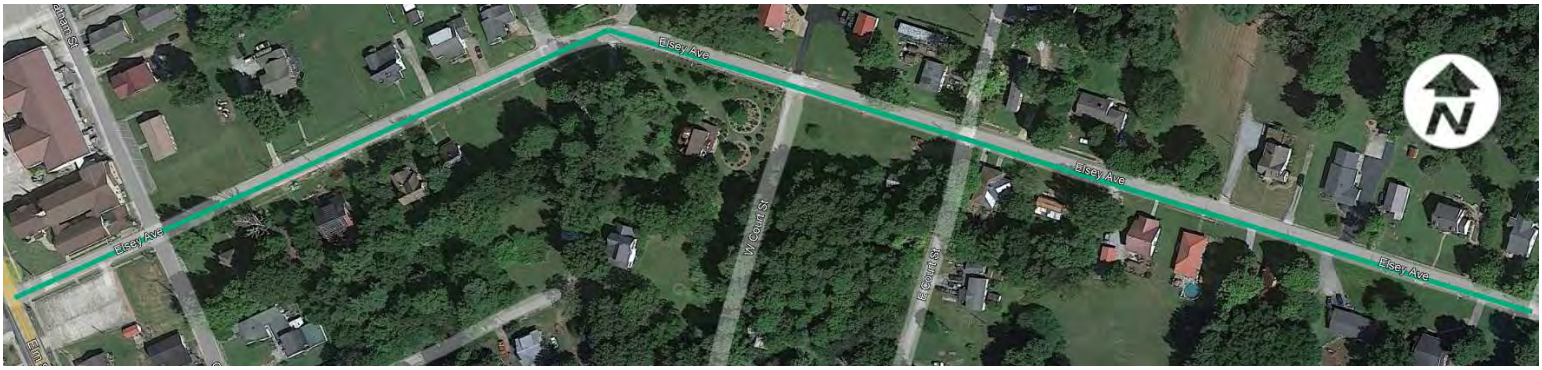
Limits: Front Street to Cheatham Street

Length: 0.10 miles

Description: Bicyclist and motorist shared lanes with shared lane markings and signage providing wayfinding for bicyclists to access the planned shared-use path along US 51 (Elm Street), and raising motorist awareness of bicyclists along the roadway. Bicyclist safety enhancements including, but not limited to traffic calming, pavement markings and signage at intersections, entrances, and other locations with motor vehicle conflicts should be considered based on best practices established by AASHTO, NACTO, and FHWA.

Estimated Construction Cost: $4,000

FIGURE 3.19 Elsey Avenue Neighborway (Shared Lane)



Limits: US 51 (Elm Street) to CR 1300

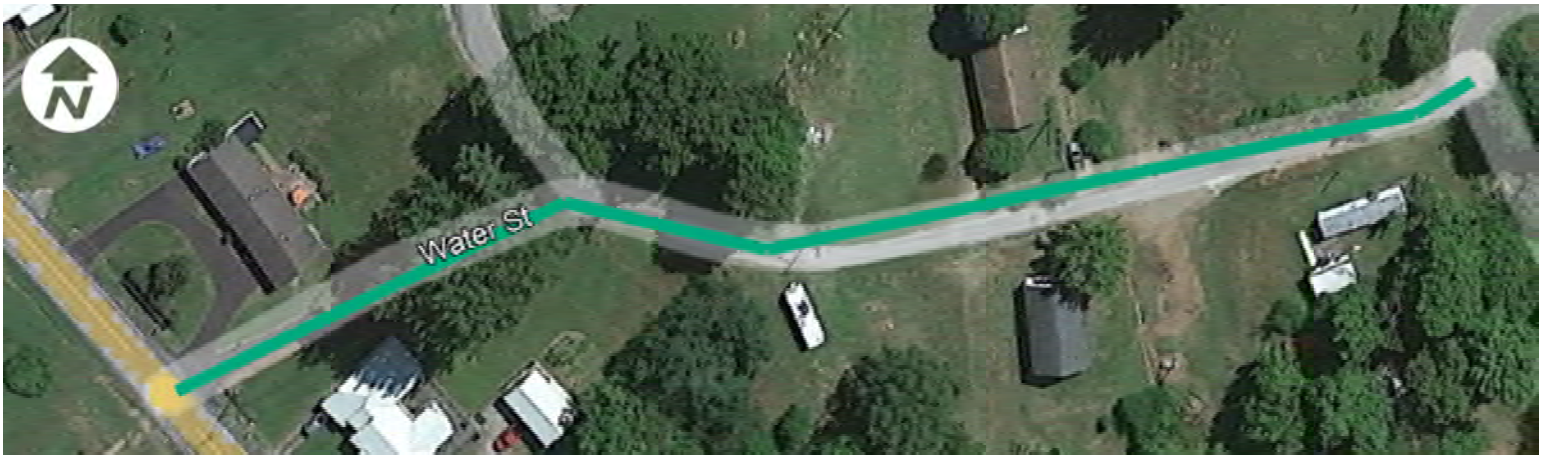
Length: 0.43 miles

Description: Bicyclist and motorist shared lanes with shared lane markings and signage raising motorist awareness of bicyclists along the roadway and providing wayfinding for bicyclists to access the planned shared-use paths along US 51 (Elm Street) and Elsey Avenue, Bardwell City Park, and other destinations throughout the City. Bicyclist safety enhancements including, but not limited to traffic calming, pavement markings and signage at intersections, entrances, and other locations with motor vehicle conflicts should be considered based on best practices established by AASHTO, NACTO, and FHWA.

Estimated Construction Cost: $8,000

Note: Estimated construction cost is an opinion of probable construction estimate including 30% contingency for the year 2022, and do not reflect potential costs of design, utility relocation, signals, lighting, right-of-way acquisition or maintenance.

FIGURE 3.20 Water Street Neighborway (Shared Lane)



Limits: US 62 (Paducah Road) to Brown Street

Length: 0.13 miles

Description: Bicyclist and motorist shared lanes with shared lane markings and signage providing wayfinding for bicyclists to access the planned shared-use path along US 62 (Paducah Road) and raising motorist awareness of bicyclists along the roadway. Bicyclist safety enhancements including, but not limited to traffic calming, pavement markings and signage at intersections, entrances, and other locations with motor vehicle conflicts should be considered based on best practices established by AASHTO, NACTO, and FHWA.

Estimated Construction Cost: $3,000

FIGURE 3.21 W. Court Street Neighborway (Shared Lane)

Limits: Road Street to Elsey Avenue

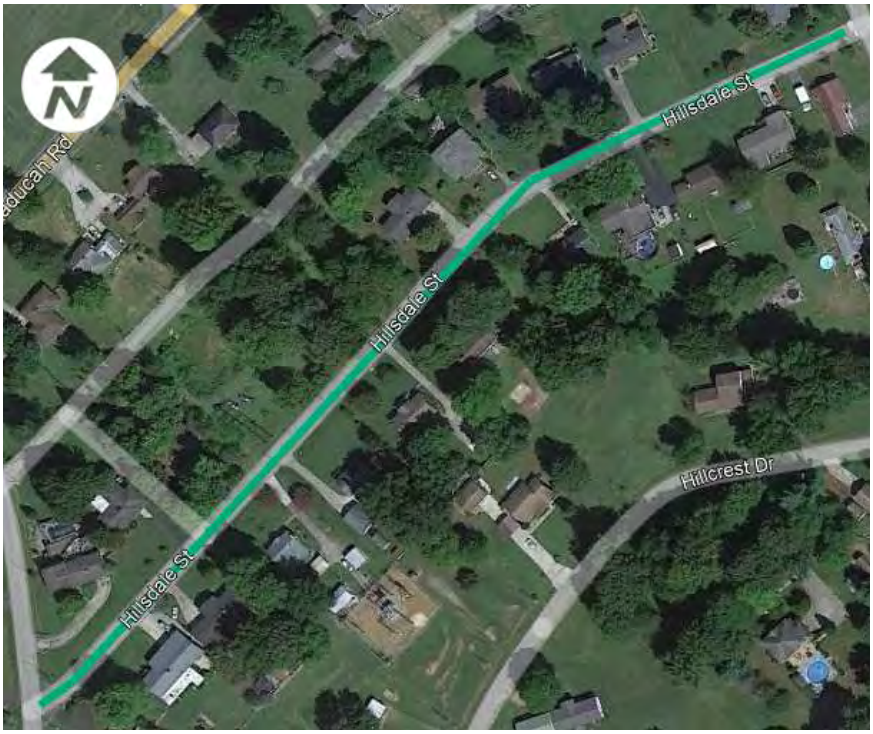
Length: 0.36 miles

Description: Bicyclist and motorist shared lanes with shared lane markings and signage providing wayfinding for bicyclists to access the planned shared-use path along US 51 (Elm Street), connecting residents in the southern neighborhoods to destinations in Bardwell, and raising motorist awareness of bicyclists along the roadway. Bicyclist safety enhancements including, but not limited to traffic calming, pavement markings and signage at intersections, entrances, and other locations with motor vehicle conflicts should be considered based on best practices established by AASHTO, NACTO, and FHWA.

Estimated Construction Cost: $7,000

Note: Estimated construction cost is an opinion of probable construction estimate including 30% contingency for the year 2022, and do not reflect potential costs of design, utility relocation, signals, lighting, right-of-way acquisition or maintenance.

FIGURE 3.22 Hillsdale Street Neighborway (Shared Lane)



Limits: High Street to Hillcrest Drive/Adams Street

Length: 0.26 miles

Description: Bicyclist and motorist shared lanes with shared lane markings and signage providing wayfinding for bicyclists to access the planned shared-use path along US 62 (Paducah Road) via the planned neighborway on High Street and raising motorist awareness of bicyclists along the roadway. Bicyclist safety enhancements including, but not limited to traffic calming, pavement markings and signage at intersections, entrances, and other locations with motor vehicle conflicts should be considered based on best practices established by AASHTO, NACTO, and FHWA.

Estimated Construction Cost: $6,000

FIGURE 3.23 High Street Neighborway (Shared Lane)

Limits: US 62 (Paducah Road) to Locust Street

Length: 0.25 miles

Description: Bicyclist and motorist shared lanes with shared lane markings and signage providing wayfinding for bicyclists to access the planned shared-use path along US 62 (Paducah Road) and raising motorist awareness of bicyclists along the roadway. Bicyclist safety enhancements including, but not limited to traffic calming, pavement markings and signage at intersections, entrances, and other locations with motor vehicle conflicts should be considered based on best practices established by AASHTO, NACTO, and FHWA.

Estimated Construction Cost: $4,000

Note: Estimated construction cost is an opinion of probable construction estimate including 30% contingency for the year 2022, and do not reflect potential costs of design, utility relocation, signals, lighting, right-of-way acquisition or maintenance.

FIGURE 3.24 Front Street Bicycle Lanes

Limits: High Street to Hillcrest Drive/Adams Street

Length: 0.26 miles

Description: Bicycle lanes in both directions along Front Street connecting residents and visitors bicycling to the Bardwell City Park and the planned regional trail with dedicated, separated space from motor vehicles. Installation of bicycle lanes will require an evaluation of the conversion of angled parking to parallel parking. Alternatively, back-in angled parking to improve visibility of, and therefore reduce conflicts with, cyclists may be used in conjunction with shared lanes in either direction in lieu of separated bicycle lanes. Bicyclist safety enhancements including, but not limited to traffic calming, pavement markings and signage at intersections, entrances, and other locations with motor vehicle conflicts should be considered based on best practices established by AASHTO, NACTO, and FHWA.

Estimated Construction Cost: $11,000

Note: Estimated construction cost is an opinion of probable construction estimate including 30% contingency for the year 2022, and do not reflect potential costs of design, utility relocation, signals, lighting, right-of-way acquisition or maintenance.

FIGURE 3.25 Summary of Potential Improvements

Fig.	Location	From	To	Potential Improvement	Estimated Construction Cost
3.3	Rail with Trail	Bardwell, KY	Clinton/Wickliffe, KY	Shared-Use Path	TBD
3.4	US 51 (Elm St.)	US 62 (Paducah Rd.)	W. Court St.	Shared-Use Path	$ 643,000
3.5	US 62 (Paducah Rd.)	Jefferson St.	US 51 (Elm St.)	Shared-Use Path	$ 905,000
3.6	KY 123 (Elsey Ave.)	Jefferson St.	US 51 (Elm St.)	Shared-Use Path	$ 306,000
3.7	US 51 (Elm St.)	US 62 (Paducah Rd.)	Hardware Store	Sidewalk	$ 272,000
3.8	Orchard St.	Front St.	Hillcrest Dr./Adams St.	Sidewalk	$ 203,000
3.9	Hillcrest Dr./Adams St.	Orchard St.	US 62 (Paducah Rd.)	Sidewalk	$ 505,000
3.10	College St.	US 62 (Paducah Rd.)	Jackson St.	Sidewalk	$ 117,000
3.11	Ashford St.	Orchard St.	US 62 (Paducah Rd.)	Sidewalk	$ 117,000
3.12	Jennings St.	Jefferson St.	Cheatham St.	Sidewalk	$ 257,000
3.13	US 51 (Elm St.)	W. Court St.	Ken Winters Dr.	Sidewalk	$ 272,000
3.14	Elsey Ave.	US 51 (Elm St.)	CR 1300	Sidewalk	$ 335,000
3.15	Eden St.	Elsey Ave.	Orchard St.	Neighborway	$ 3,000
3.16	Orchard St.	Cheatham St.	Hillcrest Dr./Adams St.	Neighborway	$ 4,000
3.17	Cheatham St.	Brown St.	Orchard St.	Neighborway	$ 4,000
3.18	Jennings St.	Front St.	Cheatham St.	Bicycle Lanes	$ 4,000
3.19	Elsey Ave.	US 51 (Elm St.)	CR 1300	Neighborway	$ 8,000
3.20	Water St.	US 62 (Paducah Rd.)	Brown St.	Neighborway	$ 3,000
3.21	W. Court St.	Road St.	Elsey Ave.	Neighborway	$ 7,000
3.22	Hillsdale St.	High St.	Hillcrest Dr./Adams St.	Neighborway	$ 6,000
3.23	High St.	US 62 (Paducah Rd.)	Locust St.	Neighborway	$ 4,000
3.24	Front St.	High St.	Hillcrest Dr./Adams St.	Bicycle Lanes	$ 11,000

Note: Estimated construction cost is an opinion of probable construction estimate including 30% contingency for the year 2022, and do not reflect potential costs of design, utility relocation, signals, lighting, right-of-way acquisition or maintenance.

CHAPTER 4: Implementation Plan

Cities across the Commonwealth continue to be asked to do more with fewer dollars allocated directly to their community. Transportation infrastructure improvements often require significant construction costs during implementation, particularly for sidewalk, shared-use path, and traffic signal upgrades. Often, a community must choose between repairing the roadway or improving the active transportation network with their limited available funding. To leverage limited available local funding and capitalize on larger grant funding opportunities, both short-term and long-term implementation strategies are key.

Short-Term Implementation

In some instances, lower-cost and relatively short-term installation methods with paint and post may be used to provide interim walking and bicycling facilities. The FHWA *Small Town and Rural Multimodal Networks Guide* is a resource that includes guidance on how to implement safe walking and bicycling in rural communities like Bardwell. These short-term installation opportunities may also be combined with roadway maintenance projects like resurfacing and lane reconfigurations to leverage available funding. Installation of bicycle racks are another lower-cost opportunity to support bicycling in a community. Bicycle racks should be considered at schools, parks, churches and other destinations where people gather to socialize and play to support healthy transportation choices and recreation by giving people a safe place to park and secure their bicycles.

In addition to physical improvements, education and events that promote safe walking and bicycling are also low– to no-cost opportunities to encourage a culture of active transportation and healthy recreation in a community. Hosting local events for walking or bicycling to work, school, church, sports events, and others can normalize these choices and bring awareness to the safety and comfort of vulnerable roadway users.

Long-Term Implementation

Federal funding is available through grant opportunities to communities who invest in multimodal infrastructure, including rural communities like Bardwell. Every year, the Federal Government releases a Notice of Funding Opportunity (NOFO) that details available funding sources, the requirements to pursue funding, and other information. On January 20th, 2022 FHWA released a fact sheet highlighting the Building a Better America program which includes 25 available or soon to be available sources of funding that local governments, with a focus on cities, can compete for directly. Ten of these grant programs are listed as transportation focused, with programs like Rebuilding American Infrastructure Sustainably and Equitably (RAISE), Safe Streets and Roads for All, Reconnecting Communities and more that could be evaluated and potentially pursued for long-term implementation of physical infrastructure improvements.

Grant program names and funding availability often change over time. However, grant opportunities to address active transportation infrastructure related to walking and bicycling are becoming much more widely available to communities across the nation. Grant sources will also occasionally further support rural communities by providing 100% federal funding opportunities for infrastructure. A sample of federal grants available at the time of this report include, but are not limited to:

Rebuilding American Infrastructure Sustainably and Equitably (RAISE) Grants

A state or city government can appropriate funds from this existing competitive grant program at the Department of Transportation, which provides $7.5 billion with an additional $7.5 billion subject to Congressional approval in funding for road, rail, transit, and other surface transportation of local and/or regional significance. Selection criteria include safety, sustainability, equity, economic competitiveness, mobility, and community connectivity. Under the Bipartisan Infrastructure Law, RAISE expands the number of communities eligible for 100 percent federal share of funding, specifically those in rural communities, areas of persistent poverty and historically disadvantaged communities.

Safe Streets and Roads for All

This new $5 billion competitive grant program at the Department of Transportation will provide funding directly to and exclusively for local governments to support their efforts to advance “vision zero” plans and other complete street improvements to reduce crashes and fatalities, especially for cyclists and pedestrians.

Reconnecting Communities

The Bipartisan Infrastructure Law creates a first-ever $1 billion program at the Department of Transportation to reconnect communities divided by transportation infrastructure. This new competitive program will provide dedicated funding to state, local, metropolitan planning organizations, and tribal governments for planning, design, demolition, and reconstruction or retrofit of street grids, parks, or other infrastructure to address these legacy impacts.

Additional funding and support for active transportation improvements may be also available through Kentucky-based resources. The KYTC Office of Local Programs (OLP) administers the state Transportation Alternatives Program (TAP), and the Kentucky Cabinet for Health and Family Services (CHFS) are Commonwealth of Kentucky resources that are available to assist local communities in identifying, obtaining, or otherwise leveraging funding for walking and bicycling in rural communities.