

Introduction

Livable communities balance travel between modes by accommodating pedestrians and cyclists for both recreational and utilitarian trips. The increasing demand for bicycle and pedestrian facilities as expressed by the public has culminated in an enhanced focus on these modes during the transportation planning process. Sometimes commuters find cycling more efficient, affordable, and convenient than traveling by automobile on congested urban streets. Although most people in the United States choose to travel by automobile, cycling and walking remain the best or only option for some people.

The Bicycle and Pedestrian Element of the *KYOVA 2040 Metropolitan Transportation Plan* emphasizes how local decisions can enhance safety and mobility for cyclists and pedestrians in the region's urban centers and rural routes. The *KYOVA 2040 MTP* blends efforts and recommendations from previous planning efforts with the other elements of the MTP, notably the roadway element. This chapter begins with an overview of the bicycle and pedestrian framework and planning context for this element. The heart of the Bicycle and Pedestrian element is a series of facility, program, and policy recommendations.



Bicycle and Pedestrian Framework

The benefits of cycling and walking are well documented. Taking trips by bike or on foot rather than driving improves the environment, promotes good health, saves money, eases the burden on roadways, and enhances the livability of a community. Despite these benefits, the transition from potential use of non-motorized transportation to its reality is not easy. This is particularly true given the geography of the KYOVA region and the barriers to connectivity that exist in downtown Huntington and elsewhere. However, throughout the public involvement process residents noted a need for improved bicycle and pedestrian facilities and programs to balance the transportation network. It should be noted that the inclusion of bicycle and pedestrian facilities on upgrades of existing roadways and newly constructed roadways will contribute to friendliness of the study area to bicyclists and pedestrians.

Five E's of Bicycle & Pedestrian Planning

Bicycle and pedestrian recommendations from the *KYOVA 2040 MTP* can be grouped into one or more of the following interrelated components.

- **Engineering**—Engineering refers to the network of pathways that must be planned, designed, and constructed.
- **Education**—Once facilities are in place, cyclists and pedestrians must be made aware of the location and proper use of the facilities as well as the destinations they connect.
- **Encouragement**—People need to be encouraged to bicycle and walk to validate public investment.
- **Enforcement**—To ensure safety of all users and the long-term sustainability of the bicycle and pedestrian system, the formal and informal “rules of the road” must be enforced.
- **Evaluation**—A regular review of the bicycle and pedestrian network should include an assessment of cycling and walking activity, safety analysis, and ways the community continues to work to improve these numbers.

Types of Users

To integrate the bicycle and pedestrian network into the overarching vision for the transportation system, the types of users and facilities must be understood. Types of users can be described in terms of trip purpose and skill level. Different reasons for traveling by bike or foot, combined with the varying levels of skill, require a flexible and responsive approach to bicycle and pedestrian planning. Bicycling and walking often falls into two distinct categories based on trip purpose:

- **Utilitarian, non-discretionary travel.** Often, children, persons with disabilities, and many elderly are not able to drive. Others simply cannot afford an automobile. For these people, the only option for required daily trips may be transit, bicycling, and/or walking. Other members of the population may choose non-motorized travel for their utilitarian trips to promote physical fitness, environmental stewardship, or cost savings.
- **Recreational, discretionary travel.** Walking and bicycling are excellent methods of exercise, helping residents establish a healthy lifestyle while enjoying the livability of their communities.

Both types of trip purposes require a complete network of bicycle and pedestrian facilities and programs that educate and encourage current and future users. Cyclists also can be categorized based on their level of riding skill.

- **Advanced cyclists** are usually the most experienced on the road and can safely ride on typical arterials that have higher traffic volumes and speeds. Most advanced cyclists prefer shared roadways in lieu of striped bike lanes and paths, but may be more willing to accept striped bike lanes when the street gutter is cleaned regularly. Although this group represents approximately 20% of all cyclists, they account for nearly 80% of annual bicycle miles traveled.

- **Basic adult cyclists** are less secure in their ability to ride in traffic without special accommodations. These cyclists are casual or new adult/teenage riders who typically prefer multi-use paths or bike lanes that reduce their exposure to fast-moving and heavy traffic. Surveys of the cycling public indicate that about 80% of cyclists can be categorized as basic cyclists.
- **Child bicyclists** have a limited field of vision while riding and generally keep to neighborhood streets, sidewalks, and greenways. On busier streets, this group likely will stay on sidewalks or off-street facilities that protect them from traffic. While riding on sidewalks generally should be discouraged, the comfort level of child and basic cyclists may warrant riding on sidewalks provided they yield to pedestrians.

The transition from basic to advanced cyclist requires facilities that accommodate users of all skill levels.

Types of Facilities

Roadways need to be designed with an eye toward both the intended use by cyclists and pedestrians and how the facility fits into a system-wide network. **Table 5.1** summarizes the major bicycle and pedestrian facilities.

Design considerations should also be given to ancillary bicycle facilities and amenities such as bike racks, bikes on buses and bike amenities at transit stops, and bike-friendly drainage inlets. For pedestrians, attention must be given to curb ramps as well as marked crosswalks and enhancements such as raised crosswalks, pedestrian refuge island, and curb extensions.

Table 5.1 – Bicycle and Pedestrian Facility Overview

Striped Bike Lanes

Description

- Exclusive-use area adjacent to the outer most travel lane
- Typical width: 4' to 5' (preferred)

Target User

- Basic and Intermediate Cyclists

Estimated Cost

- \$2,000 per mile (striping only)



Wide Outside Lane

Description

- Extra width in outermost travel lane
- Best on roadways with speed limits of 35 mph or higher and moderate to high daily traffic volumes
- Typical width: 14' outside lane preferred

Target User

- Advanced Cyclists

Estimated Cost

- \$2,000 per mile (striping only)



Multi-Use Path

Description

- Separated from traffic and located in open space (greenway) or adjacent to road with more setback and width than sidewalks (sidepath)
- Typical width: 10' preferred; 8' in constrained areas

Target User

- All Cyclists; Pedestrians

Estimated Cost

- \$220,000 per mile



Sidewalk

Description

- Dedicated space within right-of-way for pedestrians
- Should include a landscaped buffer from roadway
- Typical width: 5' preferred

Target User

- Pedestrians

Estimated Cost

- \$150,000 per mile



Unpaved Trail

Description

- Formal/informal hiking trail made of dirt, mulch, or pea gravel
- Typically connects recreational and environmental features of a community
- Typical width: 5-8' footpath; 8-10' bike trail

Target User

- Off-Road Cyclists; Pedestrians; Hikers

Estimated Cost

- \$10,000 to \$20,000 per mile



Note: Estimated costs shown above exclude right-of-way.

Design Guidelines

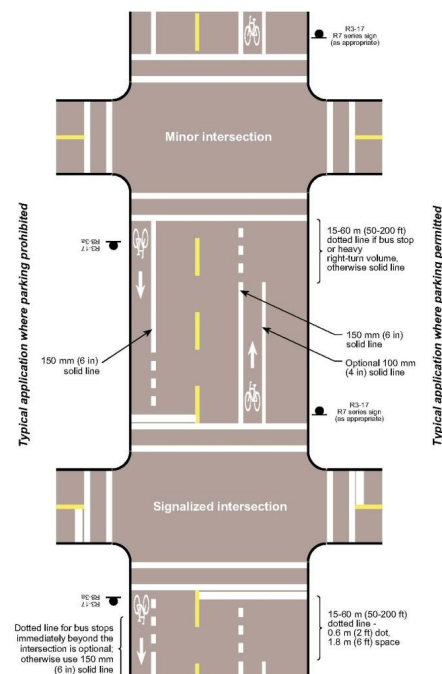
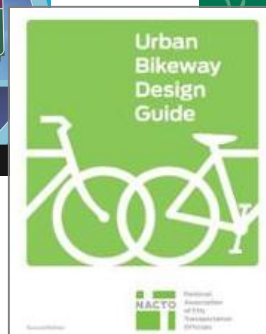
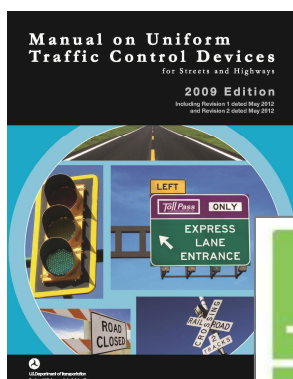
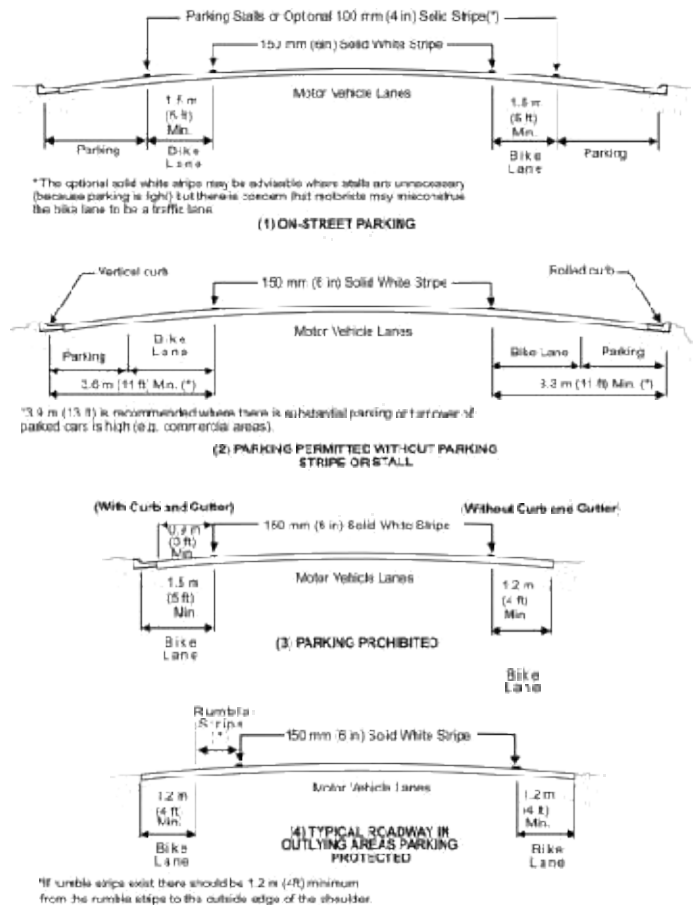
United States Code Title 23 USC 217 states:

Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation facilities.

Recommendations that include bike paths on the pavements should be designed according to the 1999 American Association of State Highway and Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities* for bicycle lane marking and the 2009 US Department of Transportation's *Manual on Uniform Traffic Control Devices* (MUTCD). The diagrams at right show a sample of the plan views and cross sections from the AASHTO *Guide for the Development of Bicycle Facilities*. These diagrams show the standard widths for bicycle lane marking with or without on-street parking as well as the treatment at intersections.

Facility designs also should reference the *Urban Bikeway Design Guide* produced by the National Association of City Transportation Officials (NACTO) to provide cities with state-of-the-practice solutions that can help create complete streets. The treatments included in this guideline are not directly referenced in the current AASHTO *Guide for the Development of Bicycle Facilities*. However, all but two treatments are permitted under the MUTCD.

Bike lane Standard Design



Facility Recommendations

Bicycling and walking are important modes of transportation in Huntington and throughout the Tri-State region. These modes are available to people of all ages and socioeconomic backgrounds. In urban areas such as downtown Huntington, the modes are efficient and convenient ways to travel. Throughout the region, recreational bicycling is gaining in popularity as expert and novice cyclists take to the scenic rural roads. Regardless of the trip purpose, bicycling and walking provide a high level of independence, flexibility, and freedom of choice relative to where you want to go and when you want to get there. A complete network of bicycle and pedestrian facilities as well as programs that educate and encourage current and future users is necessary for bicycling and walking to reach its potential as a transportation alternative in the region.

Several barriers challenge the flow of bicyclists and pedestrians, specifically to major destinations such as Ritter Park, Marshall University, and Beech Fork State Park. Based on a review of current conditions and stakeholder comments, the following issues are concerns and constraints that should be addressed as long-range transportation improvements:

- Need for bike lanes in downtown Huntington
- Connections between downtown Huntington and other municipalities/points of interest
- Viaducts and bridges
- Pedestrian crosswalks at key intersections

Recommendations to improve bicycle and pedestrian movements for the *KYOVA 2040 MTP* include bicycle lanes with pavement markings on the street, separated multi-use paths, signed bicycle routes, viaduct and bridge enhancements, sidewalk improvements, and discussion on water ferry service. These recommendations are developed to provide connections to schools, employment centers, commercial facilities, and other modes.

Connections to Destinations

Enhancing access to Huntington and the Paul Ambrose Trail for Health (PATH)—a proposed 32-mile bicycle and pedestrian trail system in Huntington—are key considerations. Few connections exist from Huntington to Ceredo and Kenova, Barboursville, Burlington, Lavalette, or Proctorville. Recommended improvements link key destination points and tie into proposed transit and water ferry routes. The recommendations also should make walking and biking to Marshall University and other area schools more attractive. A combination of recommended facilities connect:

- | | |
|-----------------|--------------------------------|
| • Schools | • Marshall University |
| • Hospitals | • Pullman Square |
| • Parks | • Huntington CBD |
| • Harveytown | • Huntington Antiques District |
| • Kenova/Ceredo | • Huntington Civic Arena |
| • Barboursville | • Huntington Museum of Art |
| • Chesapeake | • Beech Fork State Park |
| • Proctorville | • Dean State Forest |
| • South Point | • Ritter Park |

The first 10 to 12 miles of the PATH should be completed by 2013. By 2011, a one-mile section at St. Cloud's Common and several miles of Share the Road sections downtown were completed. Huntington currently is working to fund, design, and implement these proposed facilities.

- The trail along the Ohio River is under design.
- Bids were opened in October 2012 on short portions of the trail located in West Huntington, Harveytown, and Guyandotte.
- A trail connection between Harveytown and Ritter Park broke ground in October 2012. It includes a bicycle-pedestrian bridge across Hal Greer Boulevard at Cabell Huntington Hospital. Huntington City Council has approved a design contract for the bridge.

Upon completion, approximately 76% of the population of Huntington will live within one mile of the PATH.

Table of Recommendations

Figure 5.1 shows the recommended PATH network. **Figure 5.2** incorporates the PATH system into the larger regional network proposed through the KYOVA 2040 MTP. The bicycle recommendations are summarized in **Tables 5.2, 5.3, and 5.4** based on location and address ongoing bicycle and pedestrian projects and issues. Conceptual costs were developed for each recommended improvement. Within each table, the projects have been prioritized with consideration given to:

- Connecting origin-destination locations such as schools, parks and neighborhoods;
- Completing work on the Paul Ambrose Trail for Health (PATH);
- Addressing needs identified through public involvement and mobility assessment;
- Furthering overall goals of the plan;
- Identifying potential eligibility for federal funding programs; and
- Accessing downtown Huntington.

A column in the tables distinguishes between recommendations that are considered a part of the PATH. The tables also include recommendations from the *Downtown Huntington Access Study*. Please refer to the *Downtown Huntington Access Study* for details regarding the viaducts and greenways.

Pedestrian Recommendations

The KYOVA 2040 MTP operates at a multi-county regional scale, which makes it difficult to identify all deficiencies in the pedestrian network. While specific sidewalk recommendations are not provided in the text or on maps, the region and its jurisdiction should continue to identify and correct gaps in the pedestrian network. Many of the roadway recommendations presented in **Chapter 3** and the intersection improvements presented in **Chapter 4** will enhance the safety and convenience of traveling on foot to a variety of destinations. The *Downtown Huntington Access Study* includes specific pedestrian recommendations within its study area.

Priority Improvements

The top priorities are improvements to the 1st Street, 8th Street and 10th Street viaducts as well as ADA compliant curb ramps and crosswalks. The viaducts create a barrier with narrow walkways, dirty conditions, dilapidated handrails, and flanking vehicular traffic. These conditions create an unpleasant environment for pedestrians. ADA compliance is recommended for all intersections, including curb ramps, crosswalks, and pedestrian countdown timers. Curb ramps downtown are being improved to be ADA compliant as part of the signal coordination project. Crosswalks also are being marked. The work should be extended to other intersections throughout Huntington and include pedestrian countdown timers. In total, 56 intersections have been completed as part of signal coordination projects. An additional 65 intersections from 10th Street to the west and from Hal Greer Boulevard to the east have yet to be completed.

Other priorities include:

- Bike lanes on Hal Greer Boulevard (8th Avenue to Washington Boulevard), Veteran's Memorial Parkway, 8th Street, 3rd Avenue, 4th Avenue, 5th Avenue;
- Signed route on 5th Street and 14th Street as part of the PATH;
- Improvements to 16th Street viaduct;
- Bike lanes on US 60, 29th street, WV 2, SR 7, and 1st Street;
- Trails and walkways in Ironton; and
- Signed bike routes in Barboursville and Ironton.





Funding Considerations

Tables 5.2, 5.3, and 5.4 also include conceptual costs and potential funding sources. The July 2011 Ohio Department of Transportation's Procedure for Budget Estimating was used to develop conceptual costs. While funding through other programs cannot be guaranteed, the potential sources are shown as a way to maximize implementation of the recommendations. Funding sources available for bicycle lanes and multi-use paths include:

- National Highway System (NHS)
- Surface Transportation Program (STP)
- Transportation Alternative Program (TA)
- Bridge (BR)
- Highway Safety Improvement Program (HSIP)
- Congestion Mitigation/Air Quality Program (CMAQ)
- Federal Transit Capital, Urban & Rural Funds (FTA)
- Scenic Byways (SB)

When possible, recommendations should be combined with planned roadway improvement or safety projects. The project sheets in **Chapter 3** include provisions for bicyclists and pedestrians. NHS, STP, and CMAQ funding that are being used through KYOVA for maintenance or safety funds can be applied to include the bicycle and pedestrian recommendations. Coordination among organizations and local agencies can help pool resources to advance core projects.

Approximately 10% of the states' National Highway Performance Program, Surface Transportation Program, and Highway Safety Improvement Program are for the Transportation Alternative Program. The WVDOT and ODOT have an electronic process for Transportation Enhancement project applications.

State and federal grants can play an important role in implementing strategic elements of the transportation network. Several grants have multiple applications, including Transportation Alternatives Program (TAP) grants. TAP, established by Congress through MAP-21, combines the Enhancement Grant program, Recreational Trails program, and Safe Routes to School (SRTS) program into one competitive funding source. TAP ensures the implementation of projects not typically associated with the road-building mindset. While the construction of roads is not the intent of the grant, the construction of bicycle and pedestrian facilities is one of many enhancements that the grant targets.

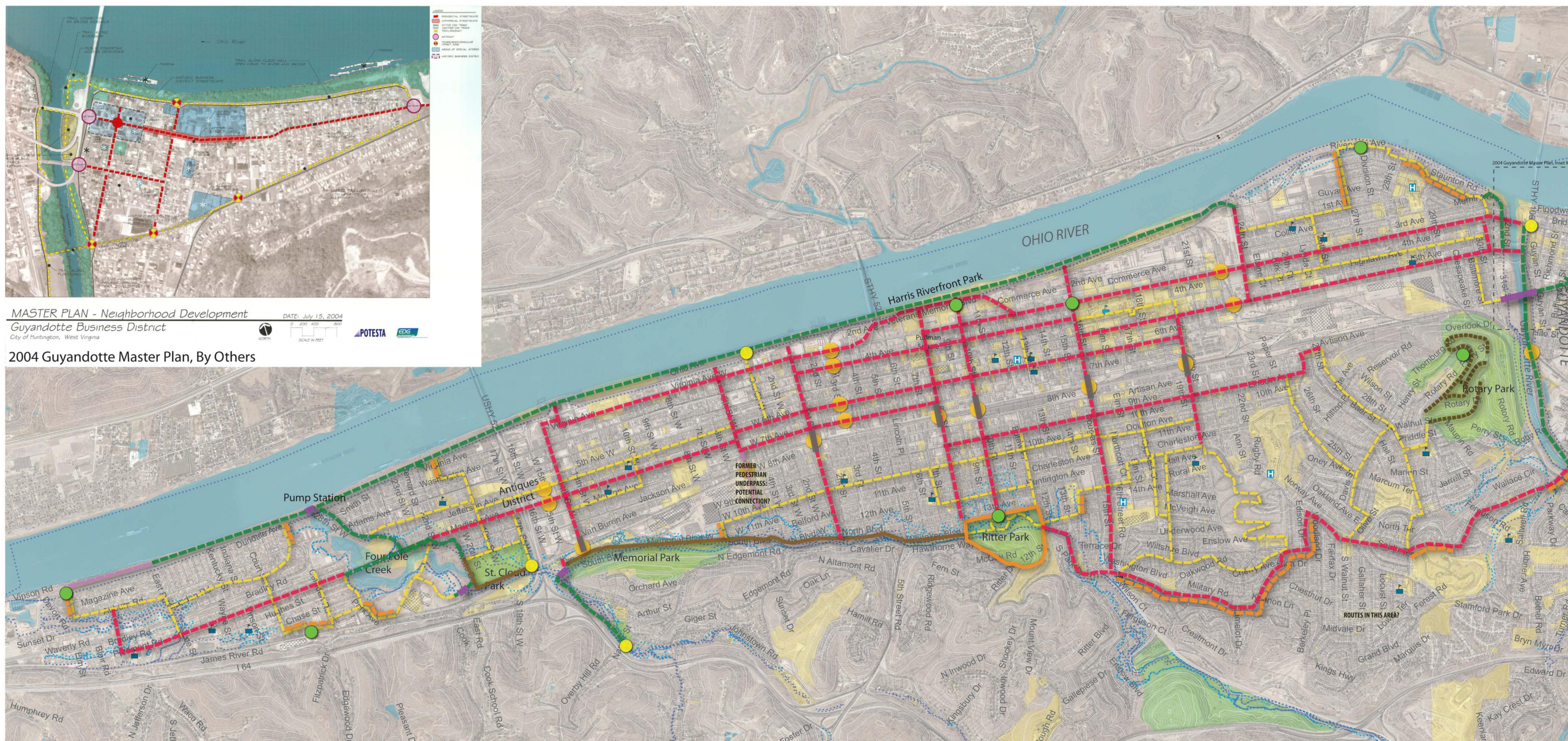
The Governor's Office of Highway Safety Grant Program (HSIP) is administered through WVDOT and ODOT and targets locations with high crash rates for specific improvements to address safety problems. MAP-21 reaffirmed this as a core program and doubled the funding nationally. Several improvements recommended in this chapter may be eligible for this program. A safety study meeting state requirements would be required to apply for these funds.

The Bikes Belong Coalition welcomes grant applications from organizations and agencies within the United States that are committed to putting more people on bicycles more often. Fundable projects include paved bike paths, lanes, and rail-trails as well as mountain bike trails, bike parks, BMX facilities, and large-scale bicycle advocacy initiatives.



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Figure 5.1



Preliminary PATH System

Paul Ambrose Trail for Health Huntington, WV












Author: Shannon Simms
Date: January 2011

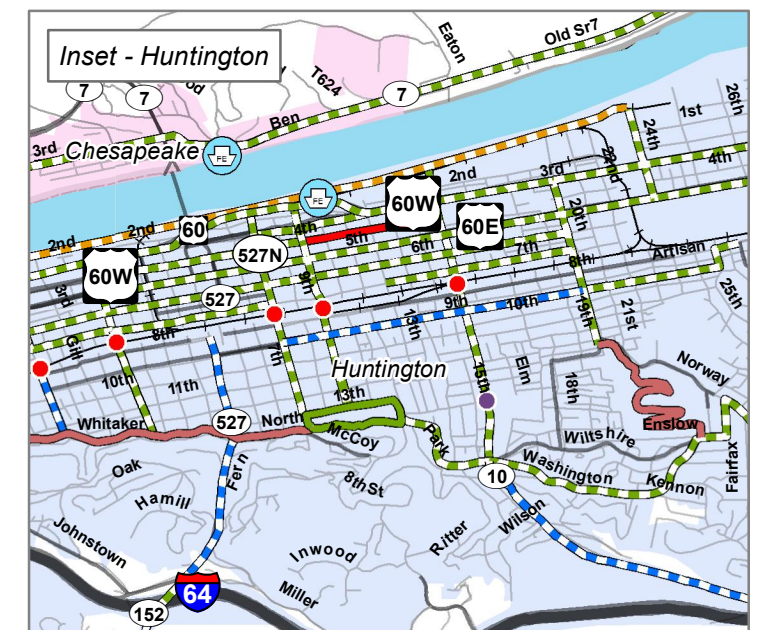
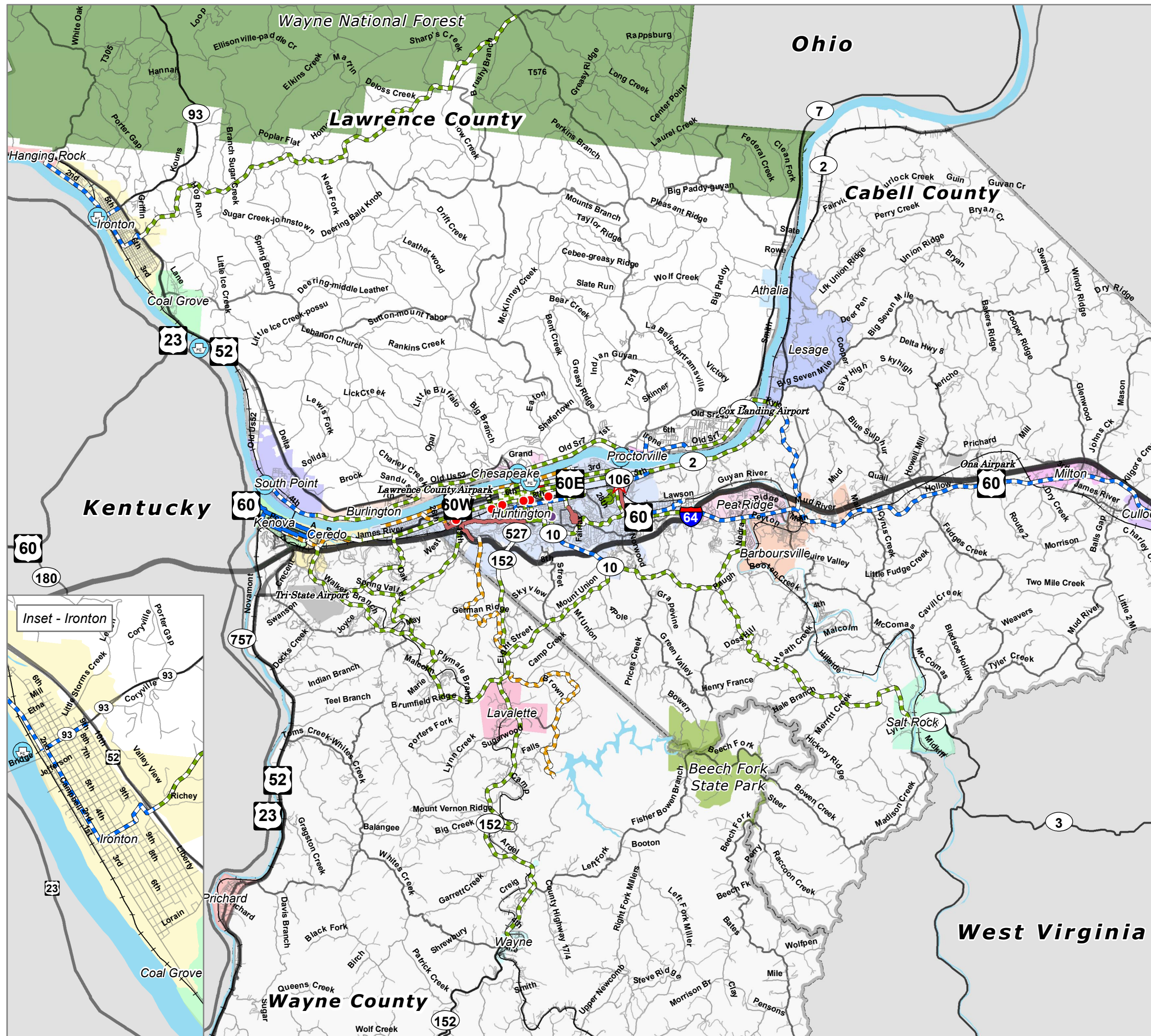


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Figure 5.2

Bicycle and Pedestrian Recommendations

-  Existing Pedestrian Trail
-  Existing Signed Bike Route
-  Existing Striped Bike Lane or Wide Shoulder
-  Existing Multi-Use Trail
-  Proposed Signed Bike Route
-  Proposed Striped Bike Lane or Wide Shoulder
-  Proposed Multi-Use Trail
-  Proposed Viaduct/Tunnel Improvement
-  Proposed Grade-Separated Pedestrian Crossing
-  Proposed Bike/Abandoned Railroad Bridge
-  Proposed Water Ferry Location





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Table 5.2: Bicycle Recommendations – Lawrence County, Ohio

| Project | Description | Issues | Components | Cost Estimate | PATH Status | Potential Funding Source | Benefits |
|-------------------------------------|--|--------|--|---|-------------|--------------------------|---|
| Lawrence County, OH | | | | | | | |
| High Priority | | | | | | | |
| Ironton Trails and Walkways | Trail system throughout the City of Ironton and connections to the Tri-State Trails Systems | | Multi-use path | TBD | Non-PATH | STP, CMAQ, TA | Provides circulation through and around Ironton |
| Union-Rome Trails and Walkways | Trail System throughout Union and Rome Townships in Lawrence County, inclusive of Chesapeake and Proctorville | | Multi-use path | TBD | Non-PATH | STP, CMAQ, TA | Provides circulation through and around Union Township, Rome Township, Chesapeake, and Proctorville |
| ADA compliance on all intersections | | | Curb ramps and crosswalks Pedestrian countdown timers | \$150K per intersection including signals | Non-PATH | NHS, STP, CMAQ, TA | Provides safe crossings for pedestrians |
| Medium Priority | | | | | | | |
| SR 7 Bike Lanes | Bike lane markings along SR 7 from Chesapeake to Proctorville. This could be implemented along existing SR 7 when Chesapeake Bypass is constructed | | Pave both shoulders to 4'; Pavement markings; Signs | \$6,490,000 | Non-PATH | NHS, STP, RTP, CMAQ, TA | Connects Proctorville to Huntington via SR 106 Ohio River crossing |



| Project | Description | Issues | Components | Cost Estimate | PATH Status | Potential Funding Source | Benefits |
|------------------------------------|---|---|---|---------------|-------------|--------------------------|--|
| Ironton Bike Circulator Route | Signed bike route/pavement markings throughout Ironton to connect Ironton schools, Downtown, and Beechwood Park | | Pavement markings Signs | \$4,800 | Non-PATH | NHS, STP, CMAQ, TA | Provide circulation through and around Ironton |
| SR 141 Bike Lanes | Bike lane markings along SR 141 from US 52 to SR 775 | Guardrail on some segments is too close to the roadway, slope is too steep for shoulder, and rock approaches roadway. | Pave both shoulders to 4'; Pavement markings; Signs | \$27,750,000 | Non-PATH | NHS, STP, CMAQ, TA | Connects Ironton to northern Lawrence County |
| Low Priority | | | | | | | |
| Proctorville Circulator Bike Route | Signed bike route throughout Proctorville to connect SR 7 and Fairland schools | | Pavement markings; Signs | \$1,000 | Non-PATH | NHS, STP, CMAQ, TA | Provide circulation through and around Proctorville and Fairland Schools |
| CR 107 Bike Lanes | Signed bike route/pavement markings throughout Proctorville (CR 107) to connect SR 7 and Fairland schools | | Pave both shoulders to 4'; Pavement markings; Signs | \$5,540,000 | Non-PATH | NHS, STP, CMAQ, TA | Provide circulation through and around Proctorville and Fairland Schools |



| Project | Description | Issues | Components | Cost Estimate | PATH Status | Potential Funding Source | Benefits |
|-----------------------------------|---|--|---|---------------|-------------|--------------------------|--|
| CR 1 Bike Lanes | Bike lane markings/signed route along CR 1 from Chesapeake to South Point | 6,460' section east of South Point where guardrail is close as result of slope that cannot be paved. | Pave both shoulders to 4'; Pavement markings; Signs | \$10,350,000 | Non-PATH | NHS, STP, RTP, CMAQ, TA | Connects South Point to Chesapeake schools and Huntington via SR 106 Ohio River crossing |
| South Point Circulator Bike Route | Signed bike route/pavement markings throughout South Point to connect CR 1, South Point schools, and South Point Park | | Pavement markings; Signs | \$2,900 | Non-PATH | NHS, STP, CMAQ, TA | Provide circulation through and around South Point |
| Ironton-Russell Bridge Bike Route | Signed route across the new bridge from Ohio to Kentucky | | Signs | \$1,600 | Non-PATH | NHS, STP, BR, CMAQ, TA | Connects Ironton to Russell |
| Hanging Rock Bike Route | Signed route from Ironton to the Hanging Rock area of Wayne National Forest | | Signs | \$7,200 | Non-PATH | NHS, STP, CMAQ, TA | Connects Ironton to Hanging Rock area of Wayne National Forest |

Table 5.3: Bicycle Recommendations – Cabell County, West Virginia

| Project | Description | Issues | Components | Cost Estimate | PATH Status | Potential Funding Source | Benefits |
|--|---|--------|---|---------------|-------------|---|--|
| Cabell County, WV | | | | | | | |
| High Priority | | | | | | | |
| 1 st Street Viaduct | Bike lane markings and sidewalks improvements from 7 th Ave to 8 th Ave | | Improvements to viaducts to improve bicycle and pedestrian mobility | \$350,000 | PATH | NHS, STP, CMAQ, BR, CST, CDBG, City funds | Connects West End to existing paths at Memorial Park and Ritter Park, allows for north-south bike movement |
| 8 th Street Viaduct | Bike lane markings and sidewalks improvements from 7 th Ave to 8 th Ave | | Improvements to viaducts to improve bicycle and pedestrian mobility | \$450,000 | PATH | NHS, STP, CMAQ, BR, TA | Connects Downtown to existing paths at Ritter Park, allows for north-south bike movement |
| 10 th Street Viaduct | Bike lane markings and sidewalks improvements from 7 th Ave to 8 th Ave | | Improvements to viaducts to improve bicycle and pedestrian mobility | \$350,000 | PATH | NHS, STP, CMAQ, BR, TA | Connects Downtown to existing paths at Ritter Park, allows for north-south bike movement |
| Hal Greer Boulevard Bike Lanes | Bike lane markings and sidewalks improvements from 8 th Ave to Washington Blvd | | Pavement markings, signs, ADA compliant curb ramps | \$160,000 | PATH | NHS, STP, CMAQ, TA | Connects Downtown to existing paths at Ritter Park, allows for north-south bike movement |
| Walkers Branch Bike Route | Signed route from I-64 to Spring Valley Rd via Walkers Branch Rd and WV 75 | | Signs | \$7,800 | Non-PATH | STP, CMAQ, TA | Connects West Huntington to Lavelette |
| Veterans Memorial Boulevard Bike Lanes | David Harris Riverfront Park to W 3 rd St | | Pavement markings; Signs | \$14,600 | PATH | NHS, STP, CMAQ, TA | Connection from David Harris Riverfront Park to West End |



| Project | Description | Issues | Components | Cost Estimate | PATH Status | Potential Funding Source | Benefits |
|---|---|---|--|---|-------------|--------------------------|--|
| W. 14 th Street Bike Route | From levee to Memorial Blvd | Street width does not allow for separate bike lanes | Signs | \$500 | PATH | NHS, STP, CMAQ, TA | Connects Central City Market to existing paths at Memorial Park and Ritter Park |
| W. 5 th Street Bike Route | From 8 th Ave to Memorial Blvd | Street width does not allow for separate bike lanes | Signs | \$500 | PATH | NHS, STP, CMAQ, TA | Connects West End to existing paths at Memorial Park and Ritter Park, allows for north-south bike movement |
| 8 th Street Bike Lanes | Veterans Memorial Blvd to Ritter Park | | Pavement markings; Signs | \$14,500 | PATH | NHS, STP, CMAQ, TA | Connects Downtown to Ritter Park |
| 10 th Street Bike Lanes | Veterans Memorial Blvd to Ritter Park | | Pavement markings; Signs; Sidewalks | \$2,310,000 | PATH | NHS, STP, CMAQ, TA | Connects Downtown to Ritter Park |
| 3 rd Avenue Bike Lanes | Bike lane markings from 8 th St to Guyandotte | | Pavement markings; Signs | \$46,400 | PATH | NHS, STP, CMAQ, TA | Connects Marshall University to Pullman Square |
| 4 th Avenue Bike Lanes | Bike lane markings from W 1 st St to 16 th St | | Pavement markings; Signs | \$19,500 | PATH | NHS, STP, CMAQ, TA | Connects Marshall University to Downtown |
| 5 th Avenue Bike Lanes | Bike lane markings from 1 st St to 31 st St | | Pavement markings; Signs | \$48,000 | PATH | NHS, STP, CMAQ, TA | Connects Marshall University to Downtown |
| Hal Greer Boulevard grade-separated pedestrian crossing | Pedestrian bridge over Hal Greer Boulevard near hospital | | Grade-separated crossing | \$2,000,000 to \$4,000,000 | Non-PATH | NHS, STP, CMAQ, TA | Safe crossing of Hal Greer Boulevard |
| ADA compliance on all intersections | | | Curb ramps and crosswalks Pedestrian countdown timers | \$150K per intersection including signals | Non-PATH | NHS, STP, CMAQ, TA | Provides safe crossings for pedestrians |



| Project | Description | Issues | Components | Cost Estimate | PATH Status | Potential Funding Source | Benefits |
|-------------------------------------|--|--|--|---------------|-------------|--------------------------|--|
| Medium Priority | | | | | | | |
| WV 2 East Bike Lanes | Bike lane markings along WV 2 from Guyandotte to Big Ben Bowen Hwy (SR 193) | 2,000' section has guardrail close to roadway as result of slope near railroad | Pave both shoulders to 4'; Pavement markings; Signs | \$8,270,000 | Non-PATH | NHS, STP, CMAQ, TA | Connects Huntington to Merritts Creek Road development |
| US 60 Bike Route | Signed bike route along US 60 from Barboursville to Milton to connect to the Charleston to Huntington Greenway in Milton | | Signs | \$11,300 | Non-PATH | TA | Connects Barboursville to Milton and the Charleston to Huntington Trail |
| Barboursville Circulator Bike Route | Signed bike route/pavement markings throughout Barboursville to connect US 60, Barboursville schools, and Barboursville Park | | Pavement markings; Signs | \$8,800 | Non-PATH | NHS, STP, CMAQ, TA | Provide circulation through and around Barboursville |
| Hal Greer Boulevard Viaduct | Bike lane markings and sidewalks improvements from 7 th Ave to 8 th Ave | | Improvements to viaducts to improve bicycle and pedestrian mobility Cost includes replacement of railroad viaduct | \$11,000,000 | PATH | NHS, STP, CMAQ, BR, TA | Connects Downtown and Marshall University to South Side and Cabell Huntington Hospital, allows for north-south bike movement |



| Project | Description | Issues | Components | Cost Estimate | PATH Status | Potential Funding Source | Benefits |
|------------------------------------|---|--|---|----------------------|-------------|--------------------------|--|
| US 60 (Midland Trail) Bike Lanes | Bike lane markings on US 60 from Washington Blvd to Barboursville to connect proposed PATH to Barboursville | No existing right of way on north side | Pave shoulder on south side to 4' from Washington Blvd to I-64; Pavement markings; Signs Signs from I-64 to Barboursville | \$900,000 \$2,621 | Non-PATH | NHS, STP, CMAQ, TA | Connects Huntington to Barboursville |
| 1 st Street Bike Lanes | 3 rd Ave to 12 th Ave | | Signs from 7 th Ave to 12 th Ave Widen roadway by 10' from 3 rd Ave to 12 th Ave; Pavement markings; Signs | \$900 \$368,000 | PATH | NHS, STP, CMAQ, TA | Connects West End to existing paths at Memorial Park and Ritter Park, allows for north-south bike movement |
| 20 th Street Bike Lanes | 3 rd Ave to 12 th Ave | | Pavement markings; Signs | \$12,400 | PATH | NHS, STP, CMAQ, TA | Connects to Marshall University |
| 24 th Street Bike Lanes | Oley St to 5 th Ave. | | Pavement markings; Signs | \$6,500 | PATH | NHS, STP, CMAQ, TA | Connects to Marshall University and Cabell Huntington Hospital |
| 6 th Avenue Bike Lanes | Bike lane markings and crosswalks from W 5 th St to 20 th St | | Pavement markings; Signs | \$21,000 | PATH | NHS, STP, CMAQ, TA | Connects Marshall University to Downtown |
| 7 th Avenue Bike Lanes | Bike lane markings from W 5 th St to 20 th St as part of PATH | | Pavement markings; Signs | \$21,000 | PATH | NHS, STP, CMAQ, TA | Provides east-west connection |
| 9 th Avenue Bike Route | From 8 th St to 20 th St | Width does not allow for separate bike lanes | Signs | \$2,000 | PATH | NHS, STP, CMAQ, TA | Provides east-west connection |
| Abandoned CSX railroad bridge | Bike path on railroad bridge over Guyandotte River | | | TBD | PATH | NHS, STP, CMAQ, TA | Connects across Guyandotte River |



| Project | Description | Issues | Components | Cost Estimate | PATH Status | Potential Funding Source | Benefits |
|--|---|--------|---|---|-------------|--------------------------|--|
| Low Priority | | | | | | | |
| Merritts Creek Bike Route | Signed bike route to connect WV 2 to Barboursville | | Signs | \$5,000 | Non-PATH | NHS, STP, CMAQ, TA | Connects Merritts Creek Road development to Barboursville |
| Altizer Park Bike Route | Signed bike route along Riverside Dr from Washington Blvd to Guyan River Rd | | Signs | \$12,000 | Non-PATH | NHS, STP, CMAQ, TA | Connects Huntington to Altizer Park and Altizer Elementary School |
| Madison Avenue | W 21 st St to Carson Street | | Pave both shoulders to 4'; Pavement markings from Carson Street to W 21 st St Signs from Carson St to Camden St and W 21 st St to W 5 th St | \$2,770,000 \$2,430 | PATH | NHS, STP, CMAQ, TA | Provides east-west connection from Downtown to West End |
| Washington Boulevard Bike Lanes | Bike lane markings from Hal Greer Blvd to US 60 | | Pavement markings; Signs | \$21,000 | PATH | NHS, STP, CMAQ, TA | Provides east-west connection and routes to Meadows Elementary School and Cabell Huntington Hospital |
| Jackson Avenue Bike/Ped Tunnel | Connection under US 52 | | Precast tunnel Wingwalls Excavation/fill MOT | \$500,000 \$20,000 \$800,000 \$160,000 | PATH | NHS, STP, CMAQ, TA | Provides east-west connection from West End to Kiwanis Park |
| 5 th Street Bike/Ped Tunnel | Connection between 7 th Ave and 8 th Ave | | Precast tunnel Excavation and fill | \$263,000 \$400,000 | PATH | NHS, STP, CMAQ, TA | Connects West End to existing paths at Memorial Park and Ritter Park, allows for north-south bike movement |

Table 5.4: Bicycle Recommendations – Wayne County, West Virginia

| Project | Description | Issues | Components | Cost Estimate | PATH Status | Potential Funding Source | Benefits |
|--|---|----------------------------------|---|---|-------------|--------------------------|--|
| Wayne County, WV | | | | | | | |
| High Priority | | | | | | | |
| ADA compliance on all intersections | | | Curb ramps and crosswalks Pedestrian countdown timers | \$150K per intersection including signals | Non-PATH | NHS, STP, CMAQ, TA | Provides safe crossings for pedestrians throughout Huntington |
| Medium Priority | | | | | | | |
| US 60 Bike Lanes from Huntington to Ceredo | Bike lane markings from Carson St in Huntington to B St in Ceredo to connect proposed PATH to existing bike routes in Ceredo/Kenova | Conflict with trees in tree lawn | Signs; Widen roadway by 10' Pave both shoulders to 4'; Pavement markings; Signs | \$213,000 \$2,848,000 | Non-PATH | NHS, STP, CMAQ, TA | Connects existing bike routes in Ceredo/Kenova to Huntington |
| WV 152 Bike Lanes | Bike lane markings along WV 152 from I-64 to Lavalette | | Pave both shoulders to 4'; Pavement markings; Signs | \$5,850,000 | Non-PATH | NHS, STP, CMAQ, TA | Connects Huntington to Lavalette and Wayne |
| Harvey Road Multi-Use Path | Multi-use trail along Harvey Rd from Johnstown Rd to German Ridge Rd (CR 6) to Orchard Dr (CR 6) at WV 152 | | Pave both shoulders to 4'; Pavement markings; Signs | \$7,870,000 | Non-PATH | NHS, STP, CMAQ, TA | Connects Heritage Farm and Harveys town to Lavalette and Beech Fork State Park |
| Low Priority | | | | | | | |
| Bike Route to Beech Fork State Park | Signed route from Huntington via Spring Valley Rd (CR 7), WV 75, WV 152, CR 43, WV 10, and Davis Creek Rd | | Signs | \$42,000 | Non-PATH | NHS, STP, CMAQ, TA | Connects Huntington to Beech Fork State Park |

Programs and Policy Issues

In addition to the construction of bicycle and pedestrian facilities, awareness of the rights and responsibilities of non-motorized users needs to be improved. Some safety problems can be solved through programs. The programs also can contribute to a safer bicycling and walking environment and better understanding between bicyclists/pedestrians and other road and path users. The best areas for bicyclists and pedestrians balance the Five E's—Engineering, Education, Encouragement, Enforcement, and Evaluation.

Engineering. Engineering refers to the network of pathways that must be planned, designed, and constructed. The network can enhance user safety and enjoyment and may increase the attraction of each mode. Bicycle and pedestrian facility projects can be divided into two types:



- Independent projects are separate from scheduled highway projects.
- Incidental projects are constructed as a part of a highway project.

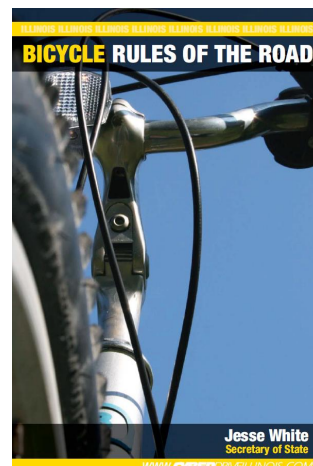
A combination of both types of projects is necessary to develop a well-connected and user-friendly network while maintaining cost-effectiveness.

Education. Once the pathways are in place, new and experienced cyclists and pedestrians must be made aware of their locations and the destinations that can be reached by using them. Bicyclists, pedestrians, and motorists must be educated on the rules of the road to ensure everyone's safety while operating on and adjacent to the bicycle and pedestrian facilities. Education programs can be initiated from a variety of sources. Local governments can host workshops and bike rodeos, law enforcement officers can launch school-based education programs, and local advocacy groups can distribute educational materials.

Encouragement. People need to be encouraged to bicycle and walk. Encouragement should become easier as the network makes the region more bicycle- and pedestrian-friendly. Encouragement becomes more critical as these facilities are constructed to justify the investment. Popular encouragement programs include Safe Routes to School, Walk/Bike to School Days, Bicycle to Work Week, Bicycle Rodeos, and Bicycle Mentor Programs.



Enforcement. To ensure the safety of all users and the long-term sustainability of the bicycle and pedestrian system, the formal and informal “rules of the road” must be heeded by all. Effective enforcement programs ensure consistent enforcement of traffic laws affecting motorists and bicyclists. These programs include bicycle licensing/registration efforts and positive reinforcement programs implemented by local law enforcement.



Evaluation. Though often overlooked, evaluation is a critical component of bicycle and pedestrian planning. The friendliest communities for cyclists and pedestrians have a system in place to assess existing programs and outline steps for future expansion.

The facilities recommended as part of the *KYOVA 2040 MTP* should be supplemented with coordinated programs and policies that instruct and encourage bicyclists and pedestrians in the full and proper use of the non-motorized transportation network.

Existing Programs

Current programs and initiatives that promote bicycling and walking within the region that should continue in the near-term include:

Marshall Eco-Cycle Bike Loan Program

Marshall University developed a new way for students to commute around campus and throughout Huntington. Marshall University's sustainability department developed a bicycle rental program for students. Students can use the bikes on campus or for travel throughout the Huntington area. Helmets and locks also are available to checkout. All equipment is available for checkout during the Eco-Cycle office's hours of operation and should be returned on the same day.

Annual Events

The PATH FitFest is a 5K/10K run/walk run and community health event held annually to raise funding for the construction and maintenance of the PATH.

The Tour de PATH was held in July 2012 to promote bicycle riding in Huntington. Kidical Mass was held in November 2011 to teach kids, parents and caregivers safety skills and provide a ride in which to practice them.



Recommended Programs

The continued development, marketing, and awareness of the PATH should be emphasized. Other programs also are needed. Many cyclists within Huntington are riding on sidewalks, creating an unsafe environment for pedestrians and cyclists. Educational programs can help bicyclists understand the risks involved and develop skills to become more comfortable selecting routes and sharing the road with traffic. Education programs and enforcement by local officials and safety officers is needed to prevent pedestrian and bicycle conflicts. An education program for bicycling in the KYOVA region also should promote safe routes to schools for students/ educators and safe use of bicycle lanes.

Programs also should be developed to educate non-cyclists. Bicycle awareness typically is not taught in drivers' education classes nor included on driver licensing exams. Awareness can occur by displaying messages in the print media, providing public service announcements, conducting group presentations, and pursuing marketing campaigns. New programs and initiatives to educate and encourage bicycling could include:

Potential Programs

Events and Outreach

- Host annual bike events
- Update the WVDOT bicycle program website
- Conduct bicycle rodeos
- Provide bicycle stickers, posters, brochures, and other promotional items
- Provide a tour by bike of bicycle facilities
- Sponsor a partner in commuting program to assist commuters in choosing bike routes
- Organize fun runs or walks along with community events

Educational Materials and Events

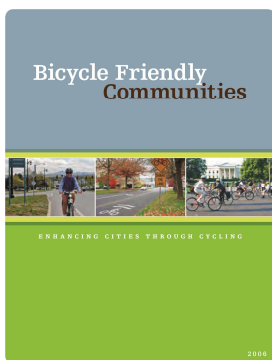
- Insert awareness material in water bill inserts
- Provide local training webinars for engineers and planners
- Provide bicycle awareness presentations to RTA new operators classes
- Provide bicycle mapping resources

Educational Campaigns

- Implement Share the Road campaigns
- Partner with organizations such as the Safe Routes to School Program and YMCA
- Educate cyclists on how to use bike racks on transit to promote safe usage
- Provide “Basics of Bicycling” school curriculum at one pilot school
- Offer adult bicycle skills classes
- Provide bicycle awareness in drivers’ education and licensing
- Produce and update videos for distribution to bike shops, bike clubs, government channel broadcast and website viewing



In May 2012, the City of Huntington received an honorable mention as a Bicycle Friendly Community through the League of American Bicyclists. The city should continue to seek designation as a Bicycle Friendly Community. Only one city in the state of West Virginia (Morgantown) holds this distinction. Local sponsors also should identify ways to track progress in pursuing their educational and awareness goals. Tracking existing educational programs will establish a benchmark to demonstrate the success of the expanded range of education and awareness programs envisioned.

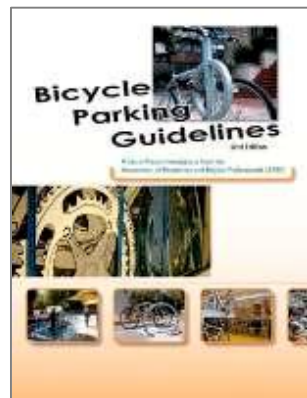


Additional Considerations

Bicycle Parking

Bike racks and shelters can promote the use of biking. The KYOVA region lacks sufficient bicycle parking. Municipalities should pursue funding and work with local land and business owners. Bicycle parking should be required with new development.

The Association of Pedestrian and Bicycle Professionals published *Bicycle Parking Guidelines*, a basic guide to the selection and placement of bicycle racks specifically for short-term parking. These guidelines should be referred to for the location of racks and shelters throughout the KYOVA region.



Critical locations for bicycle parking include:

- Schools
- Marshall University
- Pullman Square
- Hospitals
- Huntington Parks (e.g. Ritter, St. Cloud, Memorial, Harris, Rotary)
- Huntington Central Business District
- Huntington Antiques District
- Chesapeake
- South Point at David Harris Riverfront Park
- Kenova at Virginia Point Park
- Downtown Ironton

The cost for an 11-bike in-ground rack ranges from \$250 to \$1,400 per rack. Bike lockers also can be used along with the racks and shelters at a cost ranging from \$200 to \$1,200. The cost of bike shelters range from \$1,000 to \$10,000 depending on the size and style.



Water Service

Water ferries are a potential way to connect Proctorville and Ironton to South Point, Huntington, and Ashland. Initial questions on the applicability of such a service hinge on how many people live within walking distance ($\frac{1}{4}$ - or $\frac{1}{2}$ -mile) or bicycling distance (up to 2 miles) from potential ferry stops. According to a recent study for similar service in Australia¹, capturing 5 to 10% of the population within these distances would represent a strong or average market for the service.

It also is helpful to understand how point-to-point travel times by water ferry compare to traveling by car. An initial evaluation of travel times indicates water ferry service to Ironton, South Point, and Ashland (at 15 to 25 knots on the Ohio River) would take longer than traveling by vehicle. Travel times from Proctorville and Chesapeake to David Harris Riverfront Park in Huntington would be competitive.

Consideration should be given to the type of vessels, the pier structure, low level landings, shelter, access roads, car parking, access footpaths, lighting, seats, and signage. Cost, including operating and capital, are an important factor.

Operating. Annual operating costs (including personnel, fuel, maintenance, insurance, and licensing) can range from \$280,000 to \$512,000 depending on length and time of service. For comparison, water ferry service on the Inner Harbor in Baltimore, Maryland had a 2010 annual operating cost of \$297,000 for a 3.8-mile service. Annual operation cost for the service in Australia was listed as \$176,000 to \$213,000 for a service ranging from 1.9 to 3.5 miles.

Capital. The Australian study¹ reports variability in the cost of landings (\$110,000 to \$1,350,000 each). According to the USDOT, the typical cost (based on 2005 dollars) for a small water taxi is \$250,000 and \$1,000,000 or more for a large vehicle and passenger-only ferries.

MAP-21 created a program called “Construction of Ferry Boats and Ferry Terminal Facilities” that provides 80% of the capital cost for water ferries. The program does not include set-asides for specific states, and funding is not discretionary. In general, revenue generated from the water ferry services will not offset the cost of operating a vessel, so a dedicated public source of funds would be needed. A detailed analysis of the feasibility of water ferry service on the Ohio River would be necessary to determine ridership, capital costs, and operating costs. This study could consider the possibility of a small-scale trail service geared toward special event traffic as a way to gauge interest in a full-scale ferry service.

¹ Derwent River Commuter Ferries in Tasmania, 06 July 2009, AECOM Australia Pty Ltd for the Tasmania Department of Infrastructure, Energy and Resources



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