

Eastern Baltimore County Pedestrian and Bicycle Access Plan

November 6, 2006

As Adopted by the Baltimore County Council on November 6, 2006

www.baltimorecountymd.gov/go/bikeped

COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND
Legislative Session 2006, Legislative Day No. 20

Resolution No. 87-06

Councilmembers Gardina, Bartenfelder & Olszewski

By the County Council, November 6, 2006

A RESOLUTION of the Baltimore County Council to adopt the Eastern Baltimore County Pedestrian and Bicycle Access Plan.

WHEREAS, the Eastern Baltimore County Pedestrian and Bicycle Access Plan for the Fifth, Sixth and Seventh Councilmanic Districts was developed by an advisory action committee composed of local citizens, elected officials and government staff; and

WHEREAS, the committee identified potential locations for both on-road bicycle facilities and off-road shared-use paths that together would comprise a bicycle facility network providing access to the area's major destinations, including parks, schools, shopping areas and employment areas; and

WHEREAS, the Plan includes recommendations for the construction of pedestrian and bicycle facilities, funding, supportive programs and regulations; and


WHEREAS, on July 20, 2006, the Baltimore County Planning Board held a public hearing on the proposed Plan and voted to approve the Plan as an amendment to the Baltimore County Master Plan 2010; and

WHEREAS, the County Council held a public hearing on the proposed Plan on October 16, 2006;
now, therefore

BE IT RESOLVED BY THE COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND,
that the Eastern Baltimore County Pedestrian and Bicycle Access Plan, a copy of which is attached hereto
and made a part hereof, be and it is hereby adopted and incorporated into the Baltimore County Master Plan
2010, subject to such further amendments as deemed advisable by the County Council.

READ AND PASSED this 6TH day of NOVEMBER, 2006.

BY ORDER



Thomas J. Peddicord, Jr.
Secretary

ITEM: RESOLUTION 87-06

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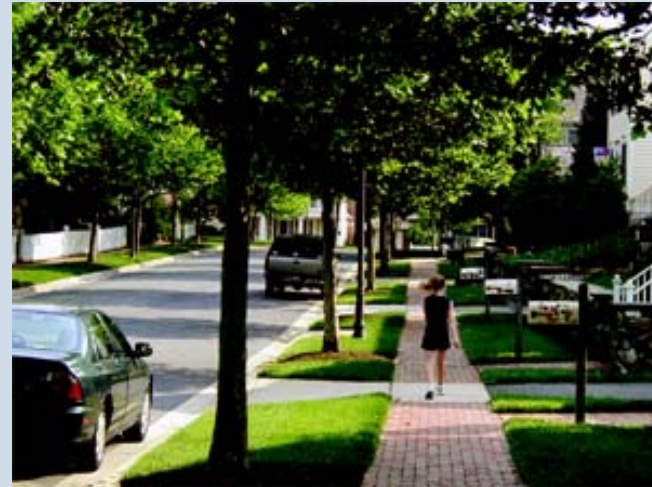
Introduction

The Eastern Baltimore County Pedestrian and Bicycle Access Plan is an action plan for constructing pedestrian and bicycle improvements. The plan was developed by an advisory committee composed of representatives from the walking/bicycling community and state and county government, and is based on the needs and desires expressed by the citizens who live or work in the area. The plan identifies specific projects to be implemented, and provides recommendations for phasing and funding. It is a comprehensive, long-range plan that will ultimately integrate walking and bicycling facilities into the county's infrastructure.

Background

Both the Maryland Department of Transportation and the Baltimore Metropolitan Council, the regional planning agency, have developed pedestrian and bicycle plans. This document supports and expands upon the work of these two plans. (Please see the inside back cover for more information about these plans.) However, the main impetus for undertaking this plan comes from Baltimore County's *Master Plan 2010*. The master plan describes the need to improve the variety of transportation options available to its citizens. It calls for a county-wide plan for developing and improving bicycle and pedestrian facilities.

As part of its work effort, the Eastern County Pedestrian and Bicycle Action Committee reviewed the master plan goals for





The first phase plan area consists of the Fifth, Sixth, and Seventh Council Districts.

pedestrian and bicycle facility improvements, and adopted them with a minor amendment as goals to guide this plan.

Goal for Bicycle Facilities

Develop and maintain bicycle facilities that provide an adequate level of convenience, mobility, and safety for bicyclists at all levels of experience, and encourage bicycle trips for utilitarian, recreational and commuting purposes.

Goal for Pedestrian Facilities

Develop and maintain pedestrian facilities that provide desirable levels of accessibility and safety for pedestrians, and encourage walking for both utilitarian and recreational purposes.

Plan Area

Ultimately, plans for improving pedestrian and bicycling facilities will be completed for the entire county. Because of the level of detail needed to make specific recommendations, the planning effort is being phased to focus on areas of manageable size, while being broad enough to plan for a linked bicycle network. The first phase consists of the Fifth, Sixth and Seventh Council Districts. This area was selected because of the opportunities to take advantage of the many investments the state and county are currently undertaking, including the Eastern Boulevard streetscape project and the extension of Campbell Boulevard. There are also significant undeveloped areas in the Perry Hall and Honeygo areas where new pedestrian and bicycle facilities can be constructed as development occurs.

Planning Process

The planning process was designed to maximize public input. The citizens who live and work in the area know best where improvements are needed, and where, if improvements are provided, they would use them.

The action committee planned the outreach efforts which included a series of four community workshops to be held at convenient locations throughout the plan area. The committee helped develop and distribute material advertising the workshops to the general public as well as specific community members and organizations. So that the workshop participants would have some ideas to get them started, the committee also prepared a preliminary bicycle route map that showed a potential regional network of bicycle lanes and trails.

The committee held the workshops in May 2003. Approximately 80 citizens attended the workshops. After a brief presentation about the planning process and the need for bicycle and pedestrian improvements, the participants were divided into small work groups. Each participant completed a questionnaire individually, and then discussed their responses with the group (see Appendix A, Sample Questionnaire). Members of the action committee facilitated and recorded each group's responses.

The participants were asked to focus on identifying the most important places where improvements to walking and bicycling



Citizens who came to workshops offered suggestions for improving pedestrian and bicycle facilities.



County staff analyzed the existing conditions of a variety of roads and potential trail locations to determine the feasibility of making improvements.

facilities are needed. Once these were recorded on a map, the groups brainstormed on what things prevented them from walking and bicycling and what things could be done that would encourage them to walk or bike more often (see Appendix B).

In addition to the workshops, a survey form was posted on the county's website that allowed citizens to input similar information. Approximately 30 citizens provided suggestions for bicycle and pedestrian improvements through the website.

Once all the data was collected, planning staff began the process of analyzing the existing conditions of the suggested areas and the feasibility of providing improvements. Citizens had identified over 200 miles of roads for bicycle improvements, 33 miles of shared use trail improvements, and 95 areas for pedestrian improvements.

The recommendations of the analysis are contained in this plan as two lists:

- Prioritized Pedestrian Projects with potential funding sources identified.
- Prioritized Bicycle Projects with potential funding sources identified.

The Action Committee reviewed the planning staff's preliminary recommendations. Their comments and suggestions were incor-

porated into the March 7, 2005 draft of the plan. The next step was a formal review with county agencies to examine the feasibility of actually implementing the plan. Projects for initial consideration were developed through a feasibility study (see the companion document, Preliminary Study of Bicycle Access, White Marsh–Middle River Plan). The next step is a formal community-wide citizen review. The plan document, as well as an interactive map and comment section, have been posted on the county's website (www.baltimorecountymd.gov/go/bikeped). Once refinements are made to the plan's recommendations based on citizen comment, the draft plan will be presented to the Baltimore County Planning Board, and subsequently, the County Council, for adoption after public hearings are held.

Why Walking and Bicycling?

There are a number of benefits that can come from encouraging Baltimore County residents to walk and bicycle. Walking and bicycling are gaining popularity nationwide as an alternative to the automobile for short trips. Promoting walking and bicycling can help address the national obesity crisis and enhance the livability of communities.

Transportation

The road network developed over the last half-century is a remarkable transportation system, providing residents and commerce with unprecedented mobility. Americans have grown to depend on the automobile, which is reflected in the ever increasing rate of automobile use. According to the Federal Highway



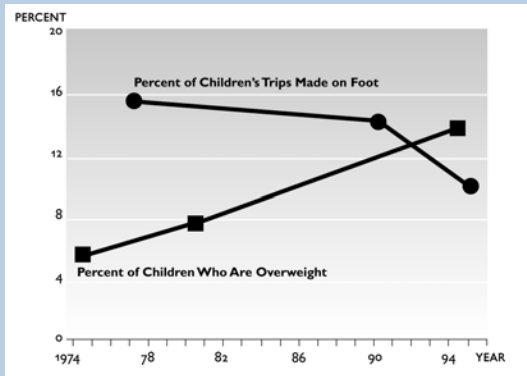
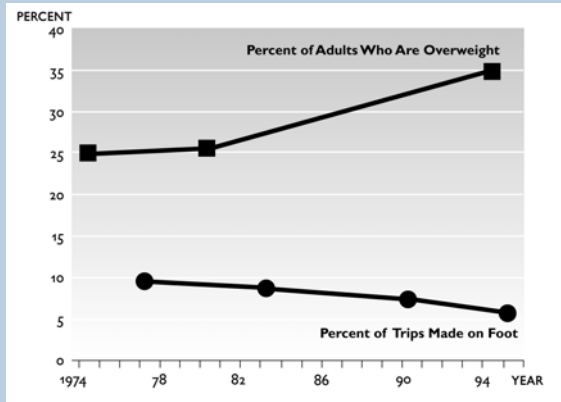
Traffic congestion costs the American public \$72 million per year in lost wages and wasted fuel.

Administration, the number of miles driven by Americans between 1980 and 1999 grew by 76 percent. Unfortunately, new roadway construction cannot keep pace with this rate of travel demand. Consequently, in urban areas such as the Baltimore region, over 32% of daily travel occurs in congested conditions — and the trend continues to climb. Annual delay per person has reached an average of 36 hours per year, costing each driver over \$900 in lost wages and wasted fuel.

Ten years ago, each household averaged about 6 trips per day. Now the average is 10 trips per day, up almost 70%. About 40% of all the trips that are made are relatively short trips, two miles or less. While less than 6% of those trips are made by walking or bicycling, studies have shown that more people would walk or bicycle if safe and convenient facilities were available. Improved facilities would also provide additional transportation choices for the 30% of the

The charts below compare the levels of obesity to the percentage of trips made by foot (from the Surface Transportation Policy Project).

Obesity in adults shows a dramatic increase overweight individuals, particularly after 1980, accompanied by a gradual decrease in the number of trips made by foot.



The statistics for children show an even greater rise in obesity over the last 30 years. Like the adults, the number of children's trips by foot decreased gradually until about 1990, but then takes a

nosedive. The most worrisome aspect of this trend is that individuals who became relatively inactive as children generally stay inactive as adults.

population that cannot or do not drive because they are too young, too old, or unable to afford a car. The high cost of gasoline provides even more incentive to consider cheaper alternatives.

Health

The national Centers for Disease Control (CDC) links obesity due to poor diet and lack of exercise to several major diseases, including cardiovascular diseases, diabetes and cancer. Obesity has become epidemic in American society, and Maryland ranks as one of the more problematic states. More than half of Marylanders are either overweight or obese. This is a leading factor making cardiovascular disease the number one cause of death.

Health officials are encouraging a healthy diet combined with regular physical activity to reduce the risk of cardiovascular disease and other ailments. The CDC recommends walking, in particular, as an inexpensive activity that people can most easily and routinely incorporate into their daily lives.

An added benefit when more people use non-polluting forms of transportation is improvement in air quality, which will help reduce respiratory diseases and chronic conditions such as asthma. Air pollution is a serious problem in the Baltimore region, particularly for ozone pollution which is a result of motor vehicle emissions. It is estimated that air pollution is responsible for over 600,000 deaths annually nationwide. A short, four-mile round trip by bicycle keeps about 15 pounds of pollutants out of the air.

Livable Communities

Less easy to quantify is the impact that the prevalence of walking and bicycling can have on the quality of life in communities. Streets where people are not visible are uncomfortable and sterile. Conversely, the presence of human activity creates vibrancy and increases the perception of safety. People out in their communities create more opportunities for social interaction, get to know their neighbors, and create a stronger sense of ownership and caring.

Putting it together

Since walking and bicycling provide so many benefits, why don't more people do it?

The built environment too often makes walking and bicycling difficult. Ever-increasing dependence on the automobile has resulted in sprawling land development, with the need for wider and wider roadways to serve them. Sidewalks, bikeways and trails are absent in most communities, or, when they are provided, often have limited connections to destinations. These barriers limit walking and bicycling as viable transportation choices, and affect the ability of citizens to integrate walking or bicycling into their daily lives as a regular physical activity. The opportunity for walking and bicycling to positively affect community livability is also lost.



Land uses and streets designed with pedestrians and bicyclists in mind encourage social interaction and create a sense of community.



Commercial corridors developed in the last half-century were typically designed for quick and convenient access by automobiles and trucks, with limited regard for pedestrians and bicyclists.

Destinations

Ideally, the design of communities should provide and encourage pedestrian and bicycle access to all destinations. The eastern Baltimore County area was developed with very limited accommodation for bicycles, and sporadic accommodation for walking. Retrofitting the area with bicycle facilities requires careful planning to link major destinations together into a regional bicycle framework that can be built upon over time. The approach for improving pedestrian facilities is somewhat different since walking is by nature a more local activity, and a regional network is not warranted. For the pedestrian system, specific locations needing improvements are targeted.

During the workshops, and through the web survey, citizens were asked to identify the important destinations that they would like to reach by walking or bicycling, and that have problems or need improvement. These destinations could be for any kind of trip, recreational, utility (such as running errands), or commuting. They could be places where the citizen currently walks or bikes, or places where they would like to walk or bike if the proper facilities were present. They could consider trips for themselves, or for other family members.

Examples of destinations include schools, work, parks, places of worship, libraries, post offices, regional shopping centers and malls, or more locally oriented commercial establishments such as convenience stores, pharmacies, or video stores.



Citizens identified a variety of destinations where pedestrian or bicycle access could be improved including numerous parks, schools, and shopping areas.

The most common destinations reported by the workshop participants were local parks, schools, and shopping areas. Many participants were interested in creating a bicycle network where access to all areas of the county by bicycle would be possible.

Barriers to Walking and Bicycling

Citizens were asked to identify the specific problems they encountered when walking or bicycling in their communities. They were asked to report three or four of the most problematic conditions that made the trip unsafe, inconvenient, or that prevented them from walking or biking.

Pedestrian Problems

No Sidewalk: This was the most common problem reported by citizens. In many locations, a sidewalk had not been constructed, had been constructed on only one side of the street, or was constructed only partially, with significant gaps along the route.

Lack of space for a sidewalk: In a number of locations, not only was a sidewalk lacking, but the right-of-way ended at the road paving edge. Constructing a new sidewalk would entail procuring additional right-of-way or an access easement. Because of the presence of existing development, relocation or removal of utilities, trees, fences, mailboxes and the like would complicate the improvement. Adjacent property owners may object to the diminished use of their property.

Lack of crosswalks or pedestrian signals: Another common problem identified by citizens was the difficulty in crossing roads with heavy traffic. Many busy intersections were lacking crosswalks and pedestrian signals altogether, or had them on only half of the intersection.



The absence of continuous sidewalks was the most common problem reported by citizens.



Two other problems with existing pedestrian facilities that were noted by citizens were lack of right-of-way for accommodating walks, and difficulty in crossing busy roads.

Poor paving condition: The condition of the paving in some areas can make walking hazardous. In some cases, improper drainage contributed to the poor condition of the walking experience.

Obstacles: Very often, obstacles such as telephone poles or fire hydrants block the walkway and make walking uncomfortable, particularly with strollers or wheelchairs. While citizens recognized this as a problem in general, they did not comment that the presence of obstacles had an impact on their ability to walk to their destinations.

Bicycling Problems — On-Road Facilities

Inadequate area: The most common problem cited by citizens concerned the fact that there were few areas where they felt comfortable riding a bike. Most people were not comfortable riding on the roadways in their present conditions. Some felt the addition of bicycle lanes would encourage them to bicycle. Others would prefer off-road facilities.

Too much traffic: This was the most cited reason for people not to use county roadways for bicycling. Even the most experienced on-road bicycle riders noted particular routes as ones they avoid because of heavy traffic.

Narrow bridges, Interchanges: Overpasses and bridges over streams are expensive to construct, and usually are the minimum width needed to accommodate vehicle traffic lanes with no extra area for shoulders. Interchanges can also be a deterrent to



Poor paving conditions and obstacles in the walk discourage their use.



Many citizens do not feel comfortable riding bicycles on roads because of traffic, lack of space, or lack of experience.



On-road bicyclists encounter a number of problems including (clockwise from top) high-speed merging vehicles, lack of bicycle parking at the destination, and unsafe storm drain grates.

bicycle riders as traffic exits the ramps at fairly high speeds, not expecting to encounter bicycles in the roadway. While there was general agreement that bridges and overpasses presented problems for bicyclists, no specific areas were identified.

Storm drain grates: The presence of unsafe storm drain grates was cited as a general problem throughout the area. These are the older grates with bars running parallel to the road, creating slots that can easily catch a bicycle tire and throw the rider off the bike.

Secure bicycle parking: While not a deterrent to bicycle riding in general, several citizens noted that major destinations did not provide bicycle racks, and that secure parking at major destinations should be a component of any bicycle improvement.



Local trails are extremely popular, including the No. 8 & 9 Rail Trails in Catonsville (top), the North Central Rail Trail in northern Baltimore County (middle), and the B&A Trail in Anne Arundel County (bottom).

Shared Use Trails

A number of the citizens at the workshops said they would like to have shared use trails, both for walking and bicycling. These off-road facilities are generally more conducive to encouraging walking and bicycling as a recreational activity, but many said they would use trails adjacent to roads for transportation purposes as well. Since they are separated from traffic, they are more comfortable for younger riders and less experienced riders. Experienced riders generally preferred to bicycle on the road because they are able to get to their destination more directly and maintain a higher speed.

In general, the kinds of problems associated with new trail development include:

Not conveniently located to origins and/or destinations. If the trail follows an existing stream, utility or abandoned right-of-way corridor, it may not connect residential areas with potential destinations.

Perceptions that there will be increased crime and lack of privacy, and an associated decline in property values. Efforts to convert stream valleys, abandoned rail lines or utility corridors in this area, as well as around the county, frequently encounter intense opposition from adjoining property owners when first proposed. Experience has demonstrated, however, that once in place, communities embrace trails. Many trails have citizen organizations that manage and improve the trails with beautifica-



Examples of trails successfully integrated with developed areas exist locally and nationally.

tion projects. The trails become so well used that crime is not a significant problem. Proximity to trails becomes a selling point for nearby residential properties, and property values increase.

Dave Dionne, Superintendent of Trails for Anne Arundel County, notes that the presence of the B&A Trail, which traverses commercial and residential development, is seen as a major quality of life component in the community. When the trail was first built, adjacent property owners quickly put up fences to shut out the trail. A few months later, doorways began to appear in the fences as the property owners wanted their own access to the trail. Now, adjoining neighborhoods clamor for trail extensions to connect their communities to the trail. Houses along the trail have increased in value significantly. When the occasional property goes on the market, it is snapped up within days.

That being said, careful planning for an off-road trail is necessary. Designing the trail must include substantial input from the neighboring property owners and community associations. Sections of the trail should be built in phases and with appropriate access points to promote its use while providing for the privacy of adjacent property owners.

Types of Improvements

Pedestrian Improvements

Improvements for pedestrians can take a number of different forms, from basic construction of sidewalks to features that make walking more comfortable.

New construction: The most common improvement that is needed is to simply construct sidewalks. New construction can be complicated by existing utility poles and other development or when adequate right-of-way is lacking. Creative approaches may be warranted when planning for new walkways, such as narrowing the roadway to accommodate a sidewalk, placing markings on a roadway as a pedestrian “lane,” or acquiring a walkway easement across private property.

Variety of paving materials: When designing new walks, the type of paving material to be used should be given consideration. While concrete is likely to be the most cost effective, a more decorative paving such as brick or colored concrete may add extra visual interest in special locations. In a more naturalistic environment, an asphalt material may be appropriate.

Curb ramps: All new construction will include curb ramps in accordance with federal regulations. However, there are still numerous existing sidewalks in the county that lack curb ramps. These areas should be addressed systematically.



Walks can be constructed of a number of different materials, including: standard concrete (top), a more naturalistic asphalt (middle), or colorful brick (bottom).

Medians: Providing medians with pedestrian refuges is an approach to make crossing wide, heavily trafficked roads safer. Medians are also useful for traffic calming (see next page).

Crosswalks: Pedestrian crossings may be marked with reflective material or paint, or, in some locations, it may be desirable to use a specialized material or color. New materials are available to stamp and color markings in asphalt, which can be used to create a distinctive, richer visual appearance. The Maryland State Highway Administration Another is testing another approach--a flashing light mechanism similar to airport runway lights that is triggered when a pedestrian is in the crosswalk.

Pedestrian traffic signals: A number of pedestrian traffic signaling devices are available, including the standard “Walk/Don’t Walk” sign. Pedestrian push-button devices activate the “Walk/Don’t Walk” sign and extend the amount of time the walking signal remains on, giving the pedestrian more time to cross the road. Newer devices that are available include audible signals and count-down signals that display in seconds the amount of time available to cross the road before the “Don’t Walk” sign is activated.



A median offers a pedestrian refuge at the center of a wide street (top, left), paint and stamping is used to dress up a crosswalk (top, right) and, brick pavers are used to accentuate curb ramps (left).



Pedestrian crossing signals count the seconds remaining to cross the street are available (top), as well as push button devices that activate the crossing signal and extend the crossing time (right).





Long straight stretches of road encourage speeding, which creates an uncomfortable environment for walkers and bicyclists (top, left). Interspersing roundabouts (top, right), crosswalks (bottom), or other traffic calming devices slows down motorists' speeds and encourages walking and bicycling.



Providing amenities such as benches supports pedestrian activity.

Traffic Calming: Cars speeding down roadways create an unpleasant pedestrian environment. Very wide or long, straight roads entice drivers to speed. Providing obstacles, such as roundabouts or medians, induces a “calming” effect, as drivers must slow down to maneuver through them.

Intra-block crossings can double as traffic-calming devices. This involves using curb bump-outs and small medians to narrow the travel lane of the vehicles, and the amount of area where the pedestrian is exposed to moving traffic.

Pedestrian Amenities: Street trees, lighting, benches, trash receptacles and bus shelters should be incorporated into all pedestrian improvements as appropriate to support and encourage pedestrian activity. Street trees provide shade during the summer. Additionally, trees have a calming effect on traffic speed, which also makes the environment more pleasant for pedestrians. Benches and trash receptacles should be placed strategically where people are likely to pause to rest or wait for transit. Adequate lighting should be provided for all pedestrian routes along streets, and in other locations, such as parks, where night-time use occurs.

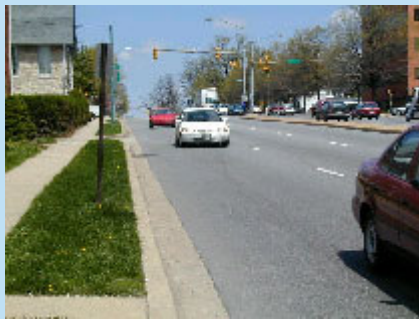
Bicycling Improvements

There is a variety of roadway improvements that can be made to accommodate bicycles. Which improvement is most appropriate will depend on the available width of the roadway, the amount of traffic and the level of bicycle use anticipated.

Under Maryland law, bicycles are vehicles that may operate on any road that is not an expressway or otherwise prohibited. Bicycles are not permitted on roads where the posted speed is more than 50 m.p.h., but riding on the shoulder is permitted. Bicycles must use shoulders or bike lanes where they are present, except to make left turns or to avoid obstacles.

While the current law gives bicyclists the ability to operate on most of the roads in Baltimore County, the design of the roads, high traffic levels, and prevalent attitudes of motorists tend to discourage the use of roads by bicyclists. To encourage bicycle use, a higher level of bicycle accommodation is needed.

The American Associations of Highway and Transportation Officials' *Guide to the Development of Bicycle Facilities* and the Federal Highway Administration's report "Selecting Roadway Design Treatments to Accommodate Bicycles" provides guidance on the planning and design of bicycle facilities. These references are used in this plan's recommendations.



Types of on-road bicycle improvements (clockwise from top left): Bike route signs, shoulder, wide curb lane, and bicycle lane

Bike route signs: The easiest improvement to make is installing signs, marking the roadway as a designated bicycle route. Bicycle route signs should be accompanied by markers identifying the destinations of the routes. The route signs encourage bicycle ridership and also indicate to motorists that bicycles are likely to be present on the road, and that they should modify their driving behavior to accommodate them.

Widened curb lanes: Extra paving width is provided in the traffic lane adjacent to the curb to accommodate bicycles. It allows for bicycle accommodation on roads at a lower cost. Many experienced bicyclists prefer this type of accommodation because it gives them the same maneuvering ability as any motorized vehicle on the street. Not marking a bike lane also allows cars to move across the whole lane (when bicyclists are not present), creating a sweeping motion that helps keep the bicycling area free of debris.

Shoulders: Generally provided as an emergency pull-off for motorists, shoulders double as bicycle lanes. Because shoulders tend to become cluttered with litter, gravel, etc., it is important to keep them clear if a shoulder is intended to be used by bicycles.

Bicycle lanes: Marked on each side of the road for the exclusive use by bicycles, bicycle lanes are typically 5 feet wide. There is much debate over the benefits and problems of striping bicycle lanes. There has not been any conclusive research that striping a bicycle lane improves safety for bicyclists on the road. It does, however, encourage greater bicycle use. Having marked lanes



Examples of bicycle lanes: one with a parking lane (top), and one without (middle). When parking needs are few and traffic is light, a parking and bicycle lane can be combined, as was done on Edmondson Avenue (bottom).

instills confidence for the rider that he/she is allowed to be on the road. However, there is also a concern that striped lanes could encourage children and less experienced bicyclists to ride on busy roadways in an unsafe manner. It is likely that bicyclists will need to mix with vehicle traffic at intersections, and may need to cross several lanes of traffic to make a left turn. It is useful to note that in areas of the country that have a large number of bicycle riders, such as San Diego, Portland, and Denver, citizens desire bicycle lanes on roads with higher levels of traffic. This desire was also expressed by Baltimore County residents at the workshops as a way to encourage more bicycle ridership. Providing bicycle lanes should be accompanied with an educational and enforcement program that clarifies the risks and responsibilities for both bicyclists and motorists.

Storm drain grates: Newer storm drain grates are configured to be safe for bicyclists. When replacing the older, unsafe grates, the area around the grate may need to be regraded to remove severe depressions.

Secure bicycle parking: Bicycle racks are available in several different styles, and are among the cheapest and easiest bicycle improvement that can be made. For long term bicycle parking, such as at park 'n rides, transit stops or places of employment, bicycle lockers are the best option.

Bike lanes can make roads wider; however, the lane striping and a landscaped median can minimize the visual effect of the extra paving.



A bicycle-safe storm drain grate (top) and bicycle parking (bottom) are two improvements that support bicycling.

Shared Use Improvements

Shared use improvements can take several different forms. Trails can be paved, usually with asphalt, or gravel. Trails through sensitive environmental areas may be constructed as boardwalks.

Generally, trails are built through natural areas and parks, which offer a pleasant experience for the user, but often don't connect to many destinations. Occasionally, trails are built adjacent to roadways. While these trails are more attractive than bicycle lanes to children and less experienced adults, there can be safety issues for this type of trail. One problem is the difficulty for bicycle users in crossing intersections. When a trail is itself crossed by driveways, there is a greater chance that drivers will not expect fast-moving bicycles from both directions as they cross the pathway.



Trails integrated into communities in a number of ways: a trail paralleling a roadway (top), a trail along a stream valley (middle), a trail in a park.

Looking for Opportunities

Retrofitting pedestrian and bicycle facilities into existing development can be difficult when land is not available to accommodate them. In addition to identifying where facilities are needed, citizens at the workshops were asked to suggest areas where opportunities to provide facilities might be available.

Similar to other suburban locations throughout the country, many state and county roads have been built with very wide cross sections. With the current trend toward more narrow streets and traffic calming, the potential exists for restriping roadways to reduce the travel lane for cars from the average of 12' wide to a minimum of 10' wide, and using the extra paving area for bicycle lanes or a widened curb lane. This type of accommodation can be done with minimal expense.

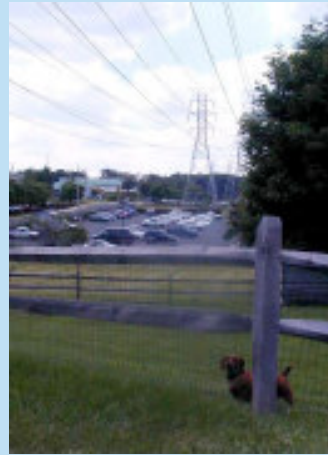
Where concrete or grassed medians exist, their widths may also be reduced to create extra surface paving for bikes. This is a more expensive solution, but the bikes are accommodated within the existing right-of-way. If the right-of-way must be widened to accommodate either bicycles or walkways, the expense is likely to be prohibitive. In addition to the cost of acquiring the land, it is likely that utility poles, storm drains, fire hydrants, driveway aprons, and numerous other items will need to be relocated or reconstructed. However, if a road widening is planned to accommodate vehicular traffic volumes, it should include appropriate bicycle and pedestrian facilities.



The computer enhanced photograph on the bottom illustrates how bike lanes can be striped on wide roadways. Adding the striping also narrows the area available to motorists, acting as a traffic calming measure.



Utility corridors can provide opportunities to construct shared use trails. Sometimes, however, the utility company does not own the land.



Stream valleys present another possibility for shared use trails, depending on the steepness of the surrounding terrain and the difficulty of getting across intersecting roads.

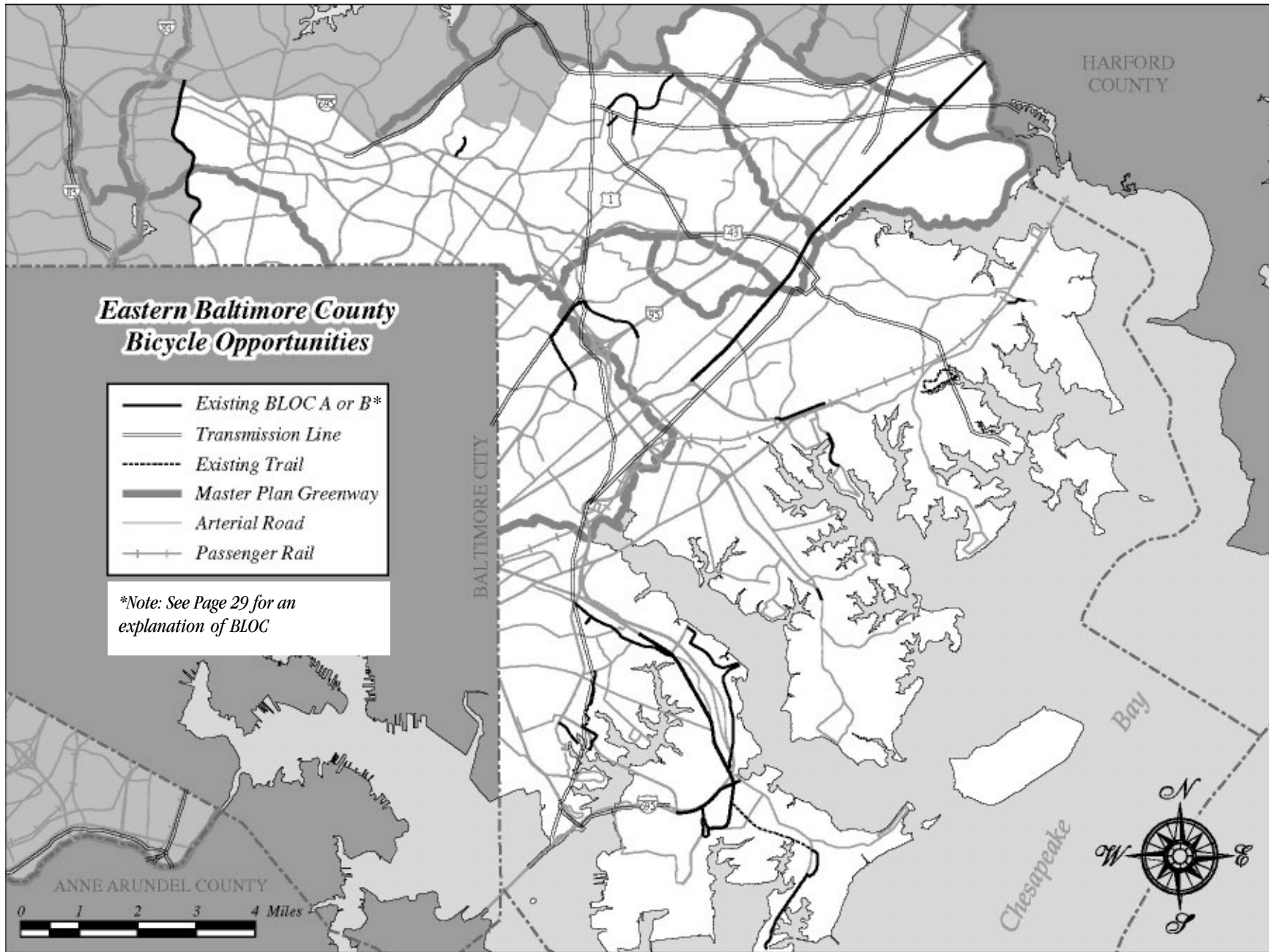


Off-road shared use trails are among the most difficult facilities to retrofit into existing development. The *Baltimore County Master Plan 2010* designates some stream valleys for future development as recreational trails (see map, next page). Existing trails in Baltimore County have been constructed on abandoned rail lines (Northern Central Rail Trail, and the No. 8 and No. 9 trolley line trails in Catonsville) or within parks such as the Eastern Regional Park.

In the study area, streams and utility transmission lines were examined for their potential to provide linear corridors for trails. In many instances, it was found that the corridors frequently crossed roadways at dangerous locations for bicycles and pedestrians, or that the topography was impassable. Additionally, the property along the stream or under the transmission lines can be owned by private parties, so land or easement acquisition is an issue.

There are several locations that appear promising, however, for portions of stream valleys or utility right-of-ways to be used within a trail network. The most extensive of these is the potential to follow the Gunpowder Falls through the Gunpowder Falls State Park, creating a trail system that would encircle the north and east plan area and link Dundee-Salt peter Park with Loch Raven Reservoir and Cromwell Valley Park.

The Minebank Run stream valley also appears promising for the development of a shared use trail. A trail adjacent to the stream would link Loch Raven High School with Cromwell Valley Park and Loch Raven Reservoir. It would also provide an alternative route for bicyclists on the scenic but hazardous Cromwell Bridge Road.



White Marsh Run between Walther Boulevard and the White Marsh Mall also looks promising as a potential route for a shared use trail. The trail could join with a combination on-road and offroad bicycle route following Campbell Boulevard, linking the mall with the county's waterfront area.

Three potential vacant or underused road rights-of-way have been identified as having potential as shared use trails—Leland Avenue, Walther Boulevard and Gunview Road. An abandoned rail line paralleling North Point Road formerly owned by United Railway and Electric may also provide an opportunity for a trail. Much of this right-of-way is now part of North Point State Park.



The Leland Avenue right-of-way paralleling the Amtrak line could be improved for a shared use trail. An extension of the right-of-way along the railroad through undeveloped properties could link to Eastern Regional Park.

East Coast Greenway

A final consideration of this plan is the potential for providing a link for the East Coast Greenway. The East Coast Greenway is a concept being promoted by a national non-profit organization, the East Coast Greenway Alliance, formed in 1991. Their goal is to link existing and planned trails to make a contiguous spine route between cities along the east coast from Maine to Florida. The 2,600-mile greenway will be an urban equivalent of the Appalachian Trail, linking urban areas that showcase the nation's industrial, intellectual, and cultural past.

The trail would be used by local residents to travel short distances from their homes to local points of interest, as well as tourists who would travel the trail for a few days or even weeks. Having this long-distance pathway linking major east coast cultural centers has the added benefits of encouraging ecotourism and adventure travel, stimulating local economic development, and providing cultural and historical education and enrichment. The East Coast Greenway will be heavily marketed by the East Coast Alliance as a tourist attraction. The proximity of the historic and cultural resources in the Baltimore-Washington area is likely to make the region a major destination of trail users.

Once a trail is designated as part of the East Coast Greenway, the East Coast Greenway Alliance will provide identification signs



and monitor trail conditions to ensure consistency in trail quality. However, each trail remains locally owned and managed.

The East Coast Alliance is a source of funding for trail facilities. Additionally, the ECG qualifies for funding through several federal programs including the Transportation Enhancement, National Scenic Byways, and Chesapeake Bay Gateway programs. The greenway has the political support of 23 senators representing the states along the eastern seaboard, including Senator Paul S. Sarbanes (D-MD).

So far, about 20% of the 2600-mile greenway is open for use. Sixty-five individual trails have been designated in 25 states. The goal of the alliance to have 80% of the greenway designated as off-road trails by 2010.

The officially designated segments of the East Coast Greenway in Maryland include the Gwynn's Falls Trail in Baltimore City, Anne Arundel County's BWI Trail (circling BWI Airport) and the Baltimore and Annapolis (B&A) Trail, the Colonial Annapolis Maritime Trail, and Prince George's Trail System, including part of the Washington, Baltimore and Annapolis (WB&A) Trail.

The East Coast Alliance is looking at other potential routes that would tie the existing trails together and provide linkage from Delaware or Pennsylvania to the north and Annapolis to the south (see map on page 28). The Route 40 corridor through Harford and Baltimore counties and Baltimore City is the most direct route



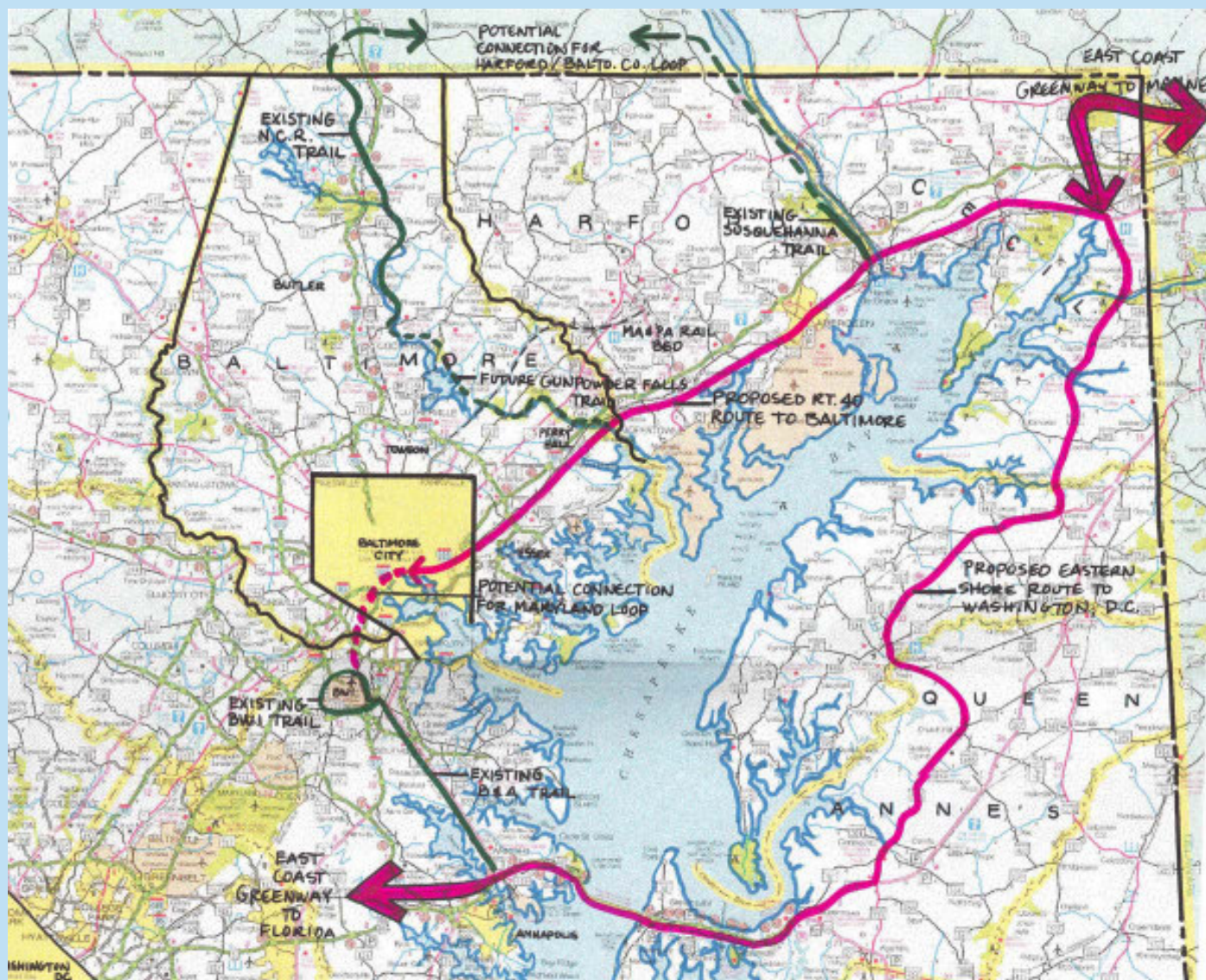
Designation of Maryland Route 40, with its wide shoulders, as a link in the East Coast Greenway will provide access to the cultural and recreational resources of Baltimore County for the trail users, and economic and other benefits for county businesses and residents.

under consideration. The visual character of the corridor is less than ideal in some areas, but new development and redevelopment is likely in the future which will improve the area's visual quality. Route 40 can provide a gateway into the Gunpowder Falls State Park, which could link to Loch Raven Reservoir and the North Central Rail Trail, the waterfront areas of Baltimore County, and the historic resources at North Point and Essex/Middle River (including Martin Marietta Aviation Museum). Additionally, the Maryland State Highway Administration is already in the process of marking the road's wide shoulders as a bike lanes.

Another ECG route under consideration is one that traverses the Eastern Shore, crossing the Bay Bridge to Annapolis, and bypassing both Baltimore County and Baltimore City. A third route would

utilize the Baltimore County's North Central Trail, linking to Pennsylvania to the north and the City's Jones Falls Trail to the south. Possibly, the eastern shore route could be combined with one or both of the other routes, thereby providing the opportunity for week-end or week-long visitors to complete a Maryland loop that would provide access to a wealth of scenic, historic and cultural experiences associated with the Chesapeake Bay.

Also under consideration is a route following the Maryland and Pennsylvania (Ma and Pa) rail line through northeastern Baltimore County and Harford County. The old railbed is still visible in many of the areas the railroad once traversed. Further study is needed to determine whether enough of the rail access rights still exists to make a rail to trail conversion feasible.



Opportunities for an East Coast Greenway route through Maryland include Route 40 through Baltimore County and Route 213 through the Eastern Shore. Designation of both routes would provide a Chesapeake Bay loop that could be marketed as a tourism destination.

Data Analysis and Recommendations

Planning staff created two lists of potential projects that were identified through the workshops and the online survey — one for pedestrian improvements and one for bicycle improvements.

The locations of all of the projects are shown on the maps on pages 36 (Pedestrian) and 44 (Bicycle). The tables that accompany the maps show the project identification number, type of improvement, potential funding source and projected implementation phase. For bicycle projects, the existing and projected Bicycle Level of Comfort (BLOC) for each segment was calculated (see box at right.)

Project Number: Each pedestrian and bicycle project is identified with a project number. For the sidewalk projects, it is noted on the map and tables whether the improvement is needed on both sides, or only one side of the street. For bicycle projects, roads or corridors are divided into segments with individual project numbers. The segments are based on factors that would influence the type or feasibility of a bicycle improvement, such as number of lanes, presence of a median, etc.

Recommendations: The recommended pedestrian projects fall into three general categories:

Bicycle Level of Comfort (BLOC)

Bicycle Level of Comfort is a nationally accepted means of analyzing bicycling conditions on roads. It is based on research that statistically evaluated how safe bicyclists felt after riding on roads with varying conditions including road width, posted speed limits, level of motor vehicle traffic, level of truck traffic, etc. Level A reflects the best conditions for bicyclists. Roads with an A rating could be generally characterized as having excellent to good paving conditions, light traffic, and a wide shoulder or bicycle lane. A Level F roadway has the worst conditions. A road with an F rating typically has heavy auto and truck traffic, high speeds, and no shoulder.

BLOC was calculated for each road segment both in its existing condition and then with the type of improvements that would be needed to achieve a BLOC of C or better. In general, each of the following actions can improve BLOC by about one increment:

- Restriping the vehicle travel lanes to provide a widened curb lane
- Striping a bicycle lane
- Reducing the posted traffic speeds by 5 to 10 mph
- Improving poor paving conditions

For roads with high levels of traffic, several of these actions generally is needed to reach a BLOC score of C.

- New sidewalk construction where sidewalks are lacking or in disrepair.
- Intersection improvements, including crosswalks and pedestrian signals.
- Specialized improvements for specific areas.

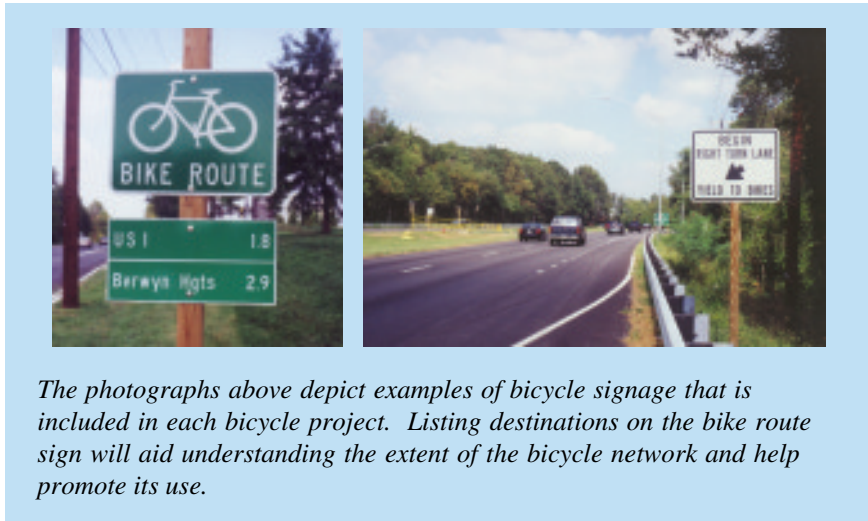
In several cases, the need for sidewalks and bicycle improvements occur on the same stretch of road. Where it is appropriate, these needs are combined into the recommendation for a shared use trail.

The bicycle projects are categorized into the following types of improvements:

- 0. Not Recommended:** Some roads are not recommended for bicycle improvements because of dangerous traffic conditions, or because specific improvements are not necessary.
- 1. Share the Road/Bicycle Route Sign:** This is the most minimal bicycle improvement, and consists of signage designating the roadway as a bicycle route, and the route's destinations. This type of improvement is recommended where the existing BLOC score is an "A" or "B", or where existing conditions are such that any of the other bicycling improvements would be extremely difficult, such as where a roadway is adjacent to steep slopes.

Note: Each of the following on-road improvements also includes bicycle route signage.

- 2. Widened Curb Lane:** Narrowing the inner traffic lanes (to a minimum of 10' wide) to create a widened curb lane. There were only a few instances where this level of improvement resulted in a BLOC score of "C" or better.
- 3a. Bike Lane by Striping:** An existing shoulder or an area along the curb is striped and/or marked for a bike lane, without restriping any of the existing traffic lanes.
- 3b. Bike Lane by Restriping:** The traffic lanes are narrowed (to a minimum of 10' wide) to accommodate bike lanes.
- 4a. Bike Lane by Reconfiguring Medians:** Where a median exists, space for bike lanes is created by a combination of narrowing the median as well as the traffic lanes.
- 4b. Bike Lane By Widening within Existing Right-of-Way:** Space for bike lanes is created by widening the road within the existing right-of-way. Since few roads have spare right-of-way, this type of improvement is rare.



The photographs above depict examples of bicycle signage that is included in each bicycle project. Listing destinations on the bike route sign will aid understanding the extent of the bicycle network and help promote its use.



Many of the county's roads are wide enough to accommodate bike lanes by striping or by narrowing the traffic lanes, which are category type 3a and 3b improvements, respectively.

5. Bike Lane by Right-of-Way Widening: Additional right-of-way or an access easement is needed to accommodate the added bike lane paving.

6a. Off-road Shared Use Trail: Construction of a 10' wide trail with a crushed stone surface.

6b. Off-road Shared Use Trail: Construction of a 10' wide trail with a paved surface.

Note: For on-road bicycle improvements, each successive category from 1 through 5 is an increasingly expensive type of improvement. It is very likely that type 4a, 4b, or 5 improvements will be prohibitively expensive if considered for bicycle improvements alone. It is expected that, in most cases, these improvements would be made in conjunction with a project that also improved conditions for motor vehicles.

Funding Source: A variety of funding sources will need to be tapped to implement this plan. Beginning on page 58, a description of potential funding sources currently available is provided. Some of the funding for projects within public rights-of-way will likely come from either the state or county capital improvement program, depending on whether the roadway is state or county owned. Federal assistance is recommended for larger scale projects and shared use trails. The funding source identified on the table is the most promising at this time, but may need to be adjusted as the projects are planned in more detail. The following designations are used in the tables:

- C** County Capital Improvement Project
- S** State Capital Improvement Project
- F** Federal funding
- P** Private funding
- O** County Street Rehabilitation Project, including a pavement overlay to improve paving condition
- MP** Improvement designated by the county master plan, or by this plan, to be built by a developer as part of a development project.

Phasing: A number of factors were considered in determining the implementation priority of the pedestrian and bicycle projects:

- Potential for a high level of use:
 - Areas with higher density residential development
 - Serving popular destinations for pedestrians and bicyclists such as parks, schools, transit stops, and shopping areas
 - Areas that already have pedestrian or bicycle activity but that need improvement, particularly for safety reasons.
- Cost effectiveness
- Ability to be incorporated with another construction project or maintenance operation, such as a road overlay or widening project.

For bicycle projects, two additional factors were considered in determining priorities:

- Able to achieve a BLOC of at least a “C”
- Serve as a link in a regional network

In combination with the factors listed above, direct routes providing access to the major destinations of the area are categorized as Priority 1, and constitute the primary routes of the network, or its “spine.” Secondary routes, supporting the spine, are categorized as Priority 2. Routes that are more localized received a Priority 3. (See page 51 for a map of the primary spine routes.)

Implementation of Pedestrian and Bicycle Projects

It is recommended that implementation of this plan be guided by an advisory committee composed of citizens and government representatives. The committee will have the ability to recommend adjustments to the types of facility improvements, funding sources and scheduling as appropriate to meet community needs and to take advantage of opportunities to combine projects. In their considerations, the committee will include the recommendations of adopted local area community plans that provide a further refinement of pedestrian and bicycle improvement needs. Prior to the implementation of projects, the committee will undertake a more detailed review of the proposal with the citizens affected by the improvement.

Bicycle Implementation Strategies

Retrofitting a bicycle network in Baltimore County’s developed areas is a major undertaking, both physically and financially. To

ensure that the facilities will be used, and the cost of making the improvements is justified, it is advisable to add a further refinement to the prioritization. The focus of the first few years of the plan implementation for bicycle facilities will be on routes within and between White Marsh and Essex/Middle River (see map on page 52). These mostly offroad facilities will link residents to major parks and commercial destinations and should attract a high level of use. Later projects will build upon and extend the limits of the initial projects.

The implementation schedule can be adjusted as opportunities and constraints occur. If the opportunity to incorporate a bicycle improvement occurs through a private development project or a public road improvement project, it should be undertaken regardless of its priority. At the very least, accommodations should be made to provide the right-of-way and/or area for the facility, and paving if appropriate.

Also, before the implementation of any bicycle facility project, the Baltimore County Department of Public Works and the Maryland State Highway Administration, as appropriate, will evaluate it to ensure that impacts to motorized traffic capacity, safety and the neighboring community are not of concern. If there is a concern, the project may be postponed until the situation can be remedied.

A type of bicycle improvement that was not considered as part of the data analysis was that of sharing existing sidewalks with bicycles. There are several instances of routes where bicycle

lanes cannot be accommodated other than by widening the road. In these situations, widening the adjoining sidewalks to also accommodate bicycles is the only option for the foreseeable future.

There are several limitations to the joint use of sidewalks. In areas with a higher degree of pedestrian use, the width of the pavement must be wider, up to 12 feet. The route also must not be crossed by any more than a few driveways or intersecting streets to minimize conflicts between motorists and bicyclists. Finally, there is a legislative deterrent that must be overcome. Because state law considers bicycles to be vehicles, it prohibits their use on sidewalks. State law does provide that local governments can enact their own legislation to permit bicycles on sidewalks. Appendix C contains a legislative amendment to allow bicycle use on specifically designated sidewalks. This amendment should be enacted into the Baltimore County Code along with the adoption of this plan.

Supportive Strategies

For successful bicycle and pedestrian transportation planning, a four-pronged approach consisting of Engineering, Enforcement, Education and Encouragement is recommended. The focus of this plan is on the Engineering aspect--that of physically creating bicycle and pedestrian facilities. But once in place, supportive programs are needed to promote the system (Encouragement) and provide for the continued safety and enjoyment (Enforcement)

and Education) of its users. The strategies recommended by this plan include:

- Establish a committee of citizen and government representatives to oversee the plan's implementation and coordinate the supportive strategies.
- Create partnerships with other groups to promote safe walking and biking, such as the Baltimore County Police Department, Baltimore County Department of Recreation and Parks, Baltimore County Safety Council, Maryland Highway Safety Office, League of American Bicyclists, Baltimore Bicycling Club, Dundalk Bicycling Club, insurance companies, and health groups such as the National Brain Injury Association.
- Encourage local PTAs and community associations to take the lead in identifying areas for physical pedestrian improvements and in promoting walking to and from school. Promote their participation in the Safe Routes to School Program.
- Expand the safety curriculum in public and private schools.
- Hold community events such as bicycle round-ups for kids, Bike to Work Day, and Walk a Child to School Week.
- Publish brochures targeted for different age groups and interests.
- Work with the Baltimore Metropolitan Council to produce a

educational and promotional video to be shown on public cable stations.

- Include motorist awareness information in publications and programs.
- Encourage community adoption of trails and routes to help with patrolling and maintenance, and to organize events. Groups should name and develop logos for the routes they adopt to strengthen their sense of ownership.

Incorporation of Other Plans

Since the inception of this planning process, two other bicycle/pedestrian plans within the plan area have been formulated--the Essex-Middle River UDAT plan and the Hawthorne plan. The recommendations of these plans are consistent with, and further refine those of this plan, and are hereby also incorporated into this plan. Some of the recommendations include:

- Trail network encompassing the Hawthorne community
- Using alleys as signed bike routes
- Connections to the County Ridge neighborhood
- Promenade along Dark Cove connecting Lockheed Martin to Chesapeake Village Park
- Pedestrian improvements to the 400-500 block of Eastern Avenue.

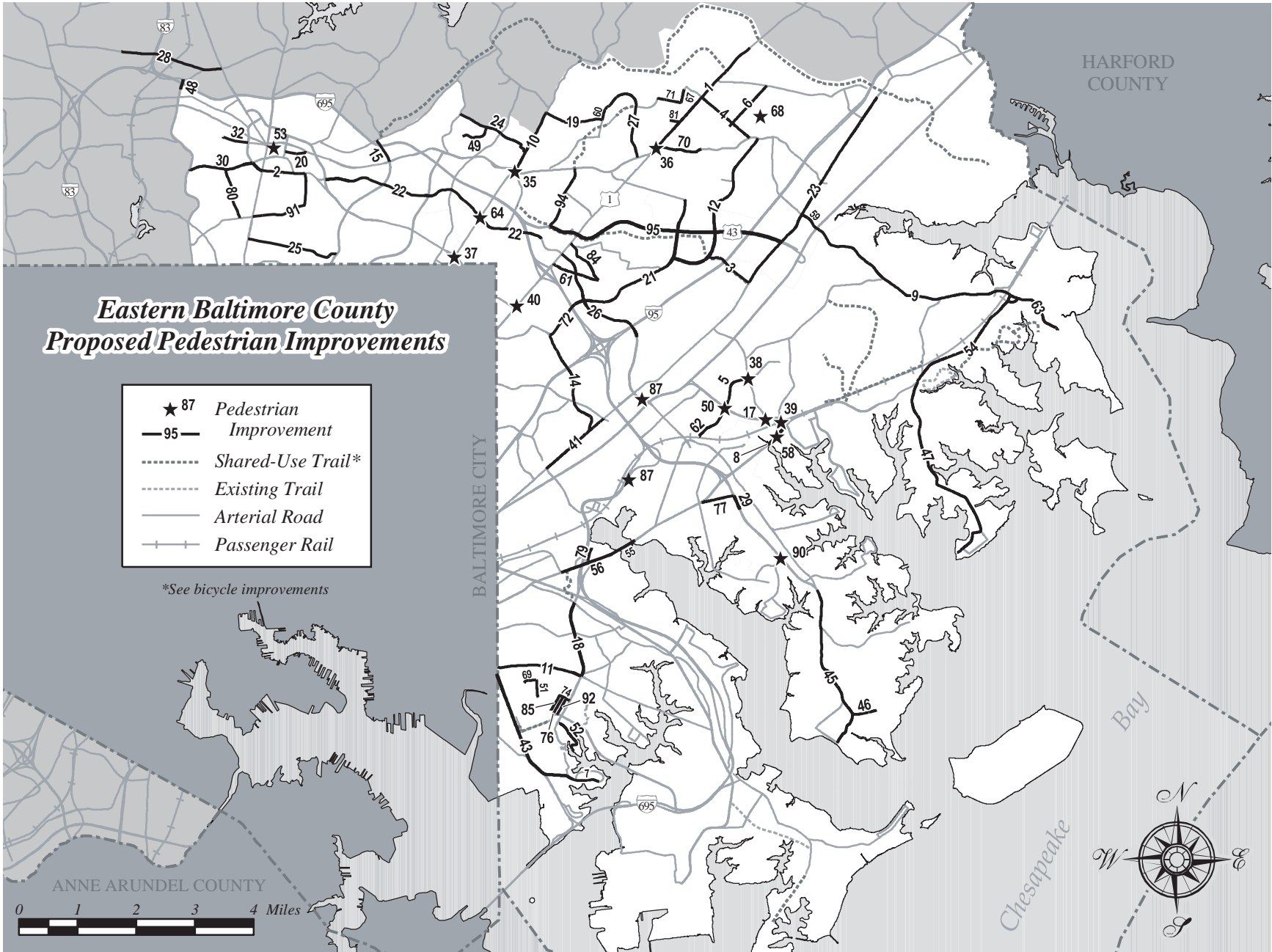
Funding Recommendations

Expanded funding will be needed to make Baltimore County more pedestrian and bicycle friendly. In addition to the capital funds needed to install pedestrian and bicycle facilities, additional funding will be needed for ongoing maintenance, including street sweeping of bicycle lanes, refurbishing of pavement markings, etc. To improve funding levels, the following is recommended:

1. Tap a variety of existing funding sources to the greatest extent possible (see Appendix D, page 58).
2. Piggyback onto other road or maintenance projects to reduce costs. For example, restripe roadways for bike lanes as part of a scheduled road resurfacing project.
3. Create new funding sources/implementation requirements.
 - a) Initiate a bond referendum to complete the projects in Phase One.
 - b) Create a project category in the county's capital budget for pedestrian and bicycle improvements to implement this plan of at least \$1,000,000 per biennial year.
 - c) Establish a Sidewalk Waiver Fund similar to Local Open Space Fund. Require any developer receiving a sidewalk waiver to pay a fee in lieu equal to the cost of providing the waived sidewalk. Money in this fund may only be used to provide or improve sidewalks in existing developed areas, with projects listed in an approved plan taking precedence.
 - d) Require developers to provide bicycle improvements according to AASHTO or adopted county standards as part of the development plan in two situations:

- Where the property to be developed lies adjacent to or includes the area recommended for an improvement by this plan, or other adopted community plan; and
- Where a bicycle improvement is required by the County's Road Standards.

Bicycle improvements may be waived to allow for construction of a continuous facility by the county at a future date. The land area must be reserved for this future construction, pregraded and free from impediments such as street trees, fences, signs, utility appurtenances, etc., and with appropriate public access rights recorded. A Bicycle Facilities Waiver Fund shall be established similar to (c) above to provide funds for this construction.



PEDESTRIAN IMPROVEMENT PROJECT LIST

Proj. No.	Road Name	From	To	Length (Mi.)	Project Description	Sides of Street	Funding Source	Phasing
1	Belair Road	Ebenezer Road	Gunpowder Falls St. Pk	2.49	New sidewalks (gaps)			
1 a	Belair Road			1.83	Sidewalk exists	0		0
1 b	Belair Road			0.09	New sidewalk	1	MP, C	2
1 c	Belair Road			0.57	New sidewalk	2	MP, C	2
2	Burke Ave.	Towsontown Blvd.	Stevenson Lane	0.94	New sidewalk (gaps)			
2 a	Burke Ave.			0.43	New sidewalk	2	C	1
2 b	Burke Ave.			0.13	New sidewalk	1	C	1
2 c	Burke Ave.			0.17	Sidewalk exists	0	C	0
2 d	Burke Ave.			0.10	New sidewalk	1	C	1
2 e	Hillen Rd.			0.11	New sidewalk	1	C	1
3	Campbell Blvd	Honeygo Blvd.	Philadelphia Road	0.85	Shared use trail on SW side	1	P, C, F	1
3 a	Campbell Blvd			0.10	New sidewalk	1	MP	2
3 b	Campbell Blvd			0.26	Sidewalk exists on NE side	0		0
3 c	Campbell Blvd			0.31	New sidewalk	1		3
3 d	Campbell Blvd			0.09	Sidewalk exists	0		0
3 e	Campbell Blvd			0.09	New sidewalk	1		3
4	Chapel Road	Belair Road	Joppa Rd.	1.07	New sidewalk			
4 a	Chapel Road			1.03	New sidewalk	2	MP	2
4 b	Chapel Road			0.04	Sidewalk exists	0		0
5	Compass Road	Martin Blvd.	Middle River Road	0.72	New sidewalk			
5 a	Compass Road			0.14	New sidewalk	1	C	1
5 b	Compass Road			0.10	Sidewalk exists	0		
5 c	Compass Road			0.48	New sidewalk	1	C	1
6	Cross Road	Honeygo Park	Forge Road	0.94	New sidewalk			
6 a	Cross Road			0.45	New sidewalk	2	MP	2
6 b	Cross Road			0.49	New sidewalk	1	MP	2
7	Dundalk Avenue	in Watersedge Park		0.47	New sidewalk (gaps)			
7 a	Dundalk Avenue			0.03	New sidewalk	1	C	2
7 b	Dundalk Avenue			0.44	Sidewalk exists	0		
8	Eastern Blvd.	Middle River Bridge	Martin Blvd. Interchange	0.45	New sidewalk			
8 a	Eastern Blvd.			0.09	New sidewalk	2		1
8 b	Eastern Blvd.			0.19	New sidewalk	1		1
8 c	Eastern Blvd.			0.17	New sidewalk	2		1
9	Ebenezer Rd.	Pulaski Highway	Eastern Ave.	3.93	New shared use			
9 a	Ebenezer Rd.			0.13	New sidewalk	2	C, F	3
9 b	Ebenezer Rd.			0.05	Sidewalk exists	0		0

NOTE: See pages 29-32 for an explanation of the table data.

Proj. No.	Road Name	From	To	Length (Mi.)	Project Description	Sides of Street	Funding Source	Phasing
9 c	Ebenezer Rd.			3.75	New shared use	2	C,F	3
10	Harford Road	Joppa Road	Northwind Road	1.12	New sidewalk (gaps), traffic calming, no right turn on red.			
10a	Harford Road			1.03	New sidewalk	2	C	2
10b	Harford Road			0.10	Sidewalk exists	0		0
11	Holabird Ave.	City line	Merritt Blvd.	1.45	New sidewalk	1	C	2
12	Honeygo Blvd.	Perry Hall Blvd.	Joppa Rd.	2.98	New sidewalk (esp. @ Joppa View ES), street trees		C	2
12a	Honeygo Blvd.			0.14	New sidewalk	2	C	2
12b	Honeygo Blvd.			0.21	New sidewalk	1	C	2
12c	Honeygo Blvd.			0.21	New sidewalk	2	C	2
12d	Honeygo Blvd.			0.09	New sidewalk	1	C	2
12e	Honeygo Blvd.			0.27	New sidewalk	2	C	2
12f	Honeygo Blvd.			0.17	Sidewalk exists	0		0
12g	Honeygo Blvd.			0.30	New sidewalk	1	C	2
12h	Honeygo Blvd.			0.12	New sidewalk	1	C	2
12i	Honeygo Blvd.			0.11	Sidewalk exists	0		0
12j	Honeygo Blvd.			0.09	New sidewalk	1	C	2
12k	Honeygo Blvd.			1.26	Sidewalk exists	0		0
14	Kenwood Avenue	Lillian Holt Dr.	Philadelphia Road	1.89	New sidewalk			
14a	Kenwood Avenue			0.30	New sidewalk	2	C	1
14b	Kenwood Avenue			0.10	New sidewalk	1	C	1
14c	Kenwood Avenue			0.46	New sidewalk	2	C	1
14d	Kenwood Avenue			0.18	New sidewalk	1	C	1
14e	Kenwood Avenue			0.65	New sidewalk	2	C	1
14f	Kenwood Avenue			0.03	New sidewalk	2	C	1
14g	Kenwood Avenue			0.11	New sidewalk	1	C	1
14h	Kenwood Avenue			0.07	New sidewalk	2	C	1
15	Loch Raven Blvd.	Joppa Rd.	Cromwell Bridge Rd.	0.43	New sidewalk on west side	1	C	2
16	Main St.	Dundalk Ave.	end		New sidewalk (gaps)	1	C	1
17	Martin Blvd.	Middle River Intersection			New sidewalk, drainage, crosswalk signals, no right turn on red		C	1
18	Merritt Blvd.	Northpoint Blvd.	Holabird Avenue	1.30	New sidewalk & curb ramps			
18a	Merritt Blvd.			0.05	New sidewalk	2	C	2
18b	Merritt Blvd.			0.10	New sidewalk	1	C	2
18c	Merritt Blvd.			0.13	New sidewalk	2	C	2
18d	Merritt Blvd.			0.04	Sidewalk exists	0		0
18e	Merritt Blvd.			0.23	New sidewalk	1	C	2
18f	Merritt Blvd.			0.54	Sidewalk exists	0		0
18g	Merritt Blvd.			0.09	New sidewalk	1	C	2
18h	Merritt Blvd.			0.13	New sidewalk	2	C	2

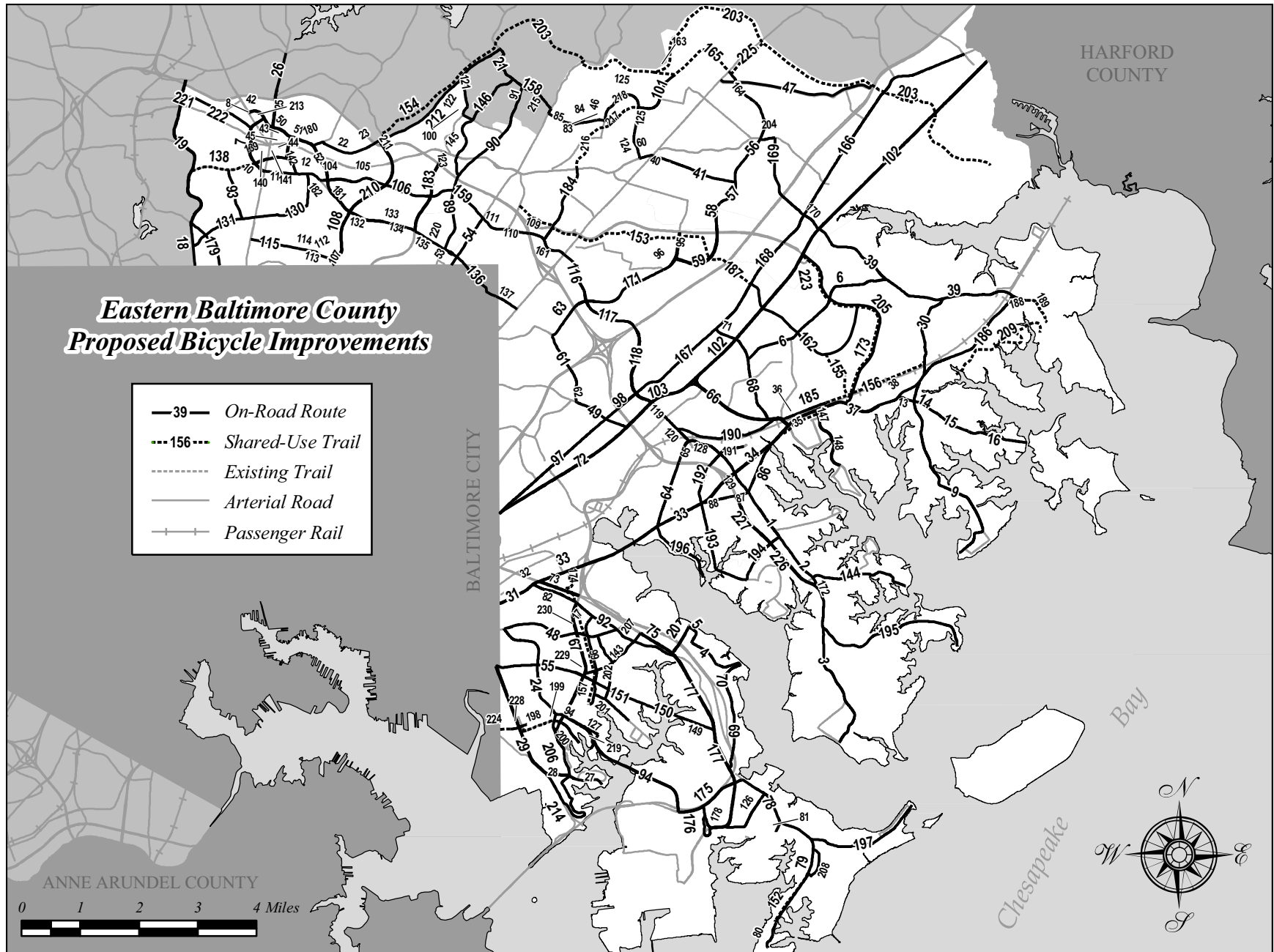
Proj. No.	Road Name	From	To	Length (Mi.)	Project Description	Sides of Street	Funding Source	Phasing
19	Northwind Road	Harford Road	Seven Courts Drive	1.01	New sidewalk near Harford			
19a	Northwind Road			0.34	New sidewalk	2	C	3
19b	Northwind Road			0.12	New sidewalk	1	C	3
19c	Northwind Road			0.19	New sidewalk	2	C	3
19d	Northwind Road			0.30	New sidewalk	1	C	3
19e	Northwind Road			0.06	Sidewalk exists	0		0
20	Pennsylvania Ave.	Fairmount Ave	Joppa Rd.	0.37	New sidewalk			
20a	Pennsylvania Ave.			0.19	New sidewalk	1	C	3
20b	Pennsylvania Ave.			0.18	Sidewalk exists	0		0
21	Perry Hall Blvd.	Rossville Blvd.	Silver Spring Road	2.80	New sidewalk, street trees	2	C	2
22	Putty Hill Ave.	Goucher Blvd.	Rossville Blvd.	4.09	New sidewalk (gaps)			
22a	Putty Hill Ave.			0.78	Sidewalk exists	0		0
22b	Putty Hill Ave.			0.25	New sidewalk	1	C	1
22c	Putty Hill Ave.			1.97	Sidewalk exists	0	C	1
22d	Putty Hill Ave.			0.46	New sidewalk	1	C	1
22e	Putty Hill Ave.			0.42	New sidewalk	2	C	1
22f	Putty Hill Ave.			0.03	New sidewalk	1	C	1
22g	Putty Hill Ave.			0.19	Sidewalk exists	0		0
23	Philadelphia Road	Forge Road	Campbell Blvd.	3.86	New sidewalk			
23a	Philadelphia Road			3.35	New sidewalk	2	C,MP	2
23b	Philadelphia Road			0.07	New sidewalk	1	C,MP	2
23c	Philadelphia Road			0.44	New sidewalk	2	C,MP	2
24	Proctor Lane	Satyr Hill Road	Old Harford Rd.	1.36	New sidewalk			
24a	Proctor Lane			0.19	New sidewalk	1	C	2
24b	Proctor Lane			0.59	Sidewalk exists	0	C	2
24c	Proctor Lane			0.06	New sidewalk	2	C	2
24d	Proctor Lane			0.28	New sidewalk	2	C	2
24e	Proctor Lane			0.17	New sidewalk	1	C	2
24f	Proctor Lane			0.07	New sidewalk	2	C	2
25	Register Avenue	Loch Raven Blvd	York Rd.	1.58	New sidewalk			
25a	Register Avenue			0.83	New sidewalk	2	C	2
25b	Register Avenue			0.38	New sidewalk	1	C	2
25c	Register Avenue			0.23	Sidewalk exists	2	C	2
25d	Register Avenue			0.14	New sidewalk	2	C	2
26	Rossville Blvd.	Belair Road	Essex Comm. College	2.35	New sidewalk			
26a	Rossville Blvd.			0.39	New sidewalk	1	MPC	2
26b	Rossville Blvd.			0.93	Sidewalk exists	0		0
26c	Rossville Blvd.			0.25	New sidewalk	2	MPC	2
26d	Rossville Blvd.			0.09	New sidewalk	1	MPC	2
26e	Rossville Blvd.			0.11	New sidewalk	2	MPC	2

Proj. No.	Road Name	From	To	Length (Mi.)	Project Description	Sides of Street	Funding Source	Phasing
26f	Rossville Blvd.			0.15	New sidewalk	1	MPC	2
26g	Rossville Blvd.			0.44	New sidewalk	2	MPC	2
27	Seven Courts Drive	Fondulac Road	Ebenezer Rd.	1.61	New sidewalk (gaps, powerline)			
27a	Seven Courts Drive			0.58	Sidewalk exists	0		0
27b	Seven Courts Drive			0.89	Sidewalk exists	0		0
27c	Seven Courts Drive			0.03	New sidewalk	1	C	3
27d	Seven Courts Drive			0.10	Sidewalk exists	0		0
28	Seminary Avenue	Thornton Road	York Road	1.76	New sidewalk	2	0	0
29	Southeast Boulevard	Old Eastern Avenue	Homberg Avenue	0.26	New sidewalk	2	C	2
30	Towsontown Blvd.	Charles Street	Bosley Avenue	1.10	New sidewalk			
30a	Towsontown Blvd.			0.64	New sidewalk and shared use	2	C,PF	1
30b	Towsontown Blvd.			0.46	New sidewalk	1	C	3
32	Alleghany Avenue	Charles Street Ave	Bosley Avenue	0.44	Repair sidewalks	2	C	2
35	Harford Rd.	Joppa Intersection			Longer crosswalk signals, improve crosswalks		C	1
36	Belair Road	Joppa Rd. Intersection			Longer crosswalk signals		C	1
37	Harford Road	Taylor Intersection			Better crosswalk signals		C	1
38	Compass Road	Merritt Intersection			Crosswalk signals		C	1
39	Martin Blvd.	Amtrak Tunnel			Walkway, drainage, lighting improvements		C	1
40	Belair Road	Fullerton Ave Intersection			Crosswalk signals		C	1
41	Philadelphia Road	Chesaco	Golden Ring Road	1.29	Wider walk, curb ramps			
41a	Philadelphia Road			0.84	New sidewalk	1	S,C	1
41b	Philadelphia Road			0.06	New sidewalk	2	S,C	1
41c	Philadelphia Road			0.16	Existing sidewalk	0		0
41d	Philadelphia Road			0.15	New sidewalk	1	S,C	1
41e	Philadelphia Road			0.08	New sidewalk	2	S,C	1
43	Dundalk Avenue	City line	Sollers Point Rd.	2.42	New sidewalk (gaps)			
43a	Dundalk Avenue			0.73	Sidewalk exists	0		0
43b	Dundalk Avenue			0.75	New sidewalk	1	C	1
43c	Dundalk Avenue			0.43	New sidewalk	1	C	1
43d	Dundalk Avenue			0.11	Sidewalk exists	0		0
43e	Dundalk Avenue			0.16	Sidewalk exists	0		0
43f	Dundalk Avenue			0.25	New sidewalk	1	C	1
45	Back River Neck	Rt. 702	Riverview Road	2.88	New sidewalk/shared use	2	C,F	2
46	Barrison Point Road	Back River Neck	Rocky Point	0.42	New sidewalk/shared use	2	C,F	2
47	Bowleys Quarters	Eastern Ave.	end	3.65	New sidewalk			
47a	Bowleys Quarters			0.35	New sidewalk	2	C,F	2
47b	Bowleys Quarters			0.27	New sidewalk	2	C,F	2
47c	Bowleys Quarters			0.23	New sidewalk	1	C,F	2

Proj. No.	Road Name	From	To	Length (Mi.)	Project Description	Sides of Street	Funding Source	Phasing
47d	Bowleys Quarters			0.23	New sidewalk	2	C,F	2
47e	Bowleys Quarters			0.12	New sidewalk	1	C,F	2
47f	Bowleys Quarters			2.45	New sidewalk	2	C,F	2
48	Charles Street	Bridge over I-695		0.18	New sidewalk	2	C,F	2
49	Cidermill Rd.	Waltham Woods	Proctor Lane	0.53	New sidewalk			
49a	Cidermill Rd.			0.07	New sidewalk	1	C	2
49b	Cidermill Rd.			0.46	Sidewalk exists	0		
50	Compass Road	Martin Blvd.			Bus Shelter		P	1
51	Delvale Ave.	Jackson Road	Sollers Point Rd.	0.31	New sidewalk	1	C	2
52	Dunmanway	Merritt Blvd.	Merritt Point Park	0.69	Shared use	1	C,F	3
52a	Dunmanway			0.23	Sidewalk exists	0		0
52b	Dunmanway			0.47	New sidewalk	2	C	2
53	East Towson				Better lighting, sidewalks		C	2
54	Eastern Ave.	Bowleys Quarters	Graces Quarters	2.25	New sidewalk			
54a	Eastern Ave.			0.18	New sidewalk	1	C,S	3
54b	Eastern Ave.			0.18	New sidewalk	2	C,S	3
54c	Eastern Ave.			0.11	New sidewalk	1	C,S	3
54d	Eastern Ave.			0.94	New sidewalk	2	C,S	3
54e	Eastern Ave.			0.15	New sidewalk	1	C,S	3
54f	Eastern Ave.			0.69	New sidewalk	2	C,S	3
55	Eastern Ave.	Bridge over Middle River		0.40	Shared use	1	C,S	2
56	Eastern Ave.	Eastpoint Mall	Diamond Pt. Mall	0.98	Shared use	2	C,S	2
58	Eastern Blvd.	Kingston Road			Bus Shelter		P	1
59	Ebenezer Rd.	Philadelphia Road	Pulaski Hwy.	0.36	New sidewalk			
59a	Ebenezer Rd.			0.10	Sidewalk exists	0		0
59b	Ebenezer Rd.			0.26	New sidewalk	2	C	2
60	Ferguson	Northwind Road	Fondulac Road	0.25	New sidewalk (gaps)			
60a	Ferguson Road			0.06	New sidewalk	2	C	3
60b	Ferguson Road			0.03	Sidewalk exists	0		0
60c	Ferguson Road			0.03	New sidewalk	1	C	3
60d	Ferguson Road			0.13	New sidewalk	1	C	3
61	Fitch Ave.	Belair Road	Ridge Road	0.83	New sidewalk, storm drains			
61a	Fitch Ave.			0.34	Sidewalk exists	0		0
61b	Fitch Ave.			0.17	New sidewalk	1	C	3
61c	Fitch Ave.			0.11	New sidewalk	2	C	3
61d	Fitch Ave.			0.05	New sidewalk	1	C	3
61e	Fitch Ave.			0.07	New sidewalk	2	C	3
61f	Fitch Ave.			0.04	Sidewalk exists	0		0
61g	Fitch Ave.			0.06	New sidewalk	1	C	3
62	Compass Road	Orems Road	Martin Boulevard	0.67	New sidewalk			

Proj. No.	Road Name	From	To	Length (Mi.)	Project Description	Sides of Street	Funding Source	Phasing
62a	Compass Road			0.45	New sidewalk	1	C	1
62b	Compass Road			0.05	Sidewalk exists	0		0
62c	Compass Road			0.16	New sidewalk	1	C	1
63	Graces Quarters Rd.	Eastern Avenue	Gunpwdr Falls St. Pk	1.16	New sidewalk	2	C	2
64	Harford Rd.	Putty Hill Intersection			Better crosswalk signals		C	1
65	Harford Road				Crosswalks to Carney ES		C	1
67	Holiday Manor Rd.	Klausmier	Gunview Elem. School	0.24	New sidewalk			
67a	Holiday Manor Rd.			0.03	New sidewalk	1	C	1
67b	Holiday Manor Rd.			0.20	Sidewalk exists	0		0
68	Honeygo Blvd.	Redwing Dr.			Curb ramps		C	1
69	Jackson Road	Sollers Point Road	Delvale Avenue	0.23	New sidewalk			
69a	Jackson Road			0.09	Sidewalk exists	0		0
69b	Jackson Road			0.14	New sidewalk	2	C	1
70	Joppa Road	Belair Road	Snyder Lane	0.79	New sidewalk			
70a	Joppa Road			0.05	New sidewalk	2	C,S	2
70b	Joppa Road			0.10	New sidewalk	1	C,S	2
70c	Joppa Road			0.42	New sidewalk	2	C,S	2
70d	Joppa Road			0.22	New sidewalk	2	C,S	2
71	Klausmier Rd.	Gunview Rd.	Holiday Manor Rd.	0.41	New sidewalk			
71a	Klausmier Rd.			0.11	Sidewalk exists	0		0
71b	Klausmier Rd.			0.05	New sidewalk	1	C	2
71c	Klausmier Rd.			0.25	New sidewalk	2	C	2
72	Lillian Holt Dr.	Perry Hall Blvd.	Kenwood Ave.	0.86	New sidewalk, storm drains			
72a	Lillian Holt Dr.			0.02	New sidewalk	2	C	2
72b	Lillian Holt Dr.			0.16	New sidewalk	2	C	2
72c	Lillian Holt Dr.			0.67	New sidewalk	2	C	2
73	Marshy Point Road				Shared use	1	C	2
74	Meadow Lane	Robinwood Road	Merritt Blvd.	0.19	New sidewalk			
74a	Meadow Lane			0.09	New sidewalk	1	C	3
74b	Meadow Lane			0.10	New sidewalk	2	C	3
75	Merritt Blvd.	Ped connections between shopping areas			New sidewalk		P	2
76	Midland Road	Meadow Lane	Sollers Point Rd.	0.34	New sidewalk	2	C	3
77	Old Eastern Ave	Eastern Boulevard	Southeast Blvd.	0.55	New sidewalk/shared use			
77a	Old Eastern Ave			0.10	New sidewalk	1	C	1
77b	Old Eastern Ave			0.36	New sidewalk	1	C	1
77c	Old Eastern Ave			0.10	Sidewalk exists	0		0
78	Old Harford Road				New sidewalk (gaps)		C	2
79	Oriole Ave.	End of Cul-de-sac	Eastern Blvd	0.23	New sidewalk	2	C	2
80	Osler Drive	Stevenson Lane	Towsontown Blvd	0.88	New sidewalks (gaps)			
80a	Osler Drive			0.37	New sidewalk	2	C	2

Proj. No.	Road Name	From	To	Length (Mi.)	Project Description	Sides of Street	Funding Source	Phasing
80b	Osler Drive			0.08	Sidewalk exists	0		0
80c	Osler Drive			0.34	New sidewalk	1	C	2
80d	Osler Drive			0.10	Sidewalk exists	0		0
81	Pinedale Drive	Belair Road	Dawn Drive	0.17	New sidewalk	2	C	3
82	Promenade along Bay North Point State Park				Shared use		C,F	2
83	Promenade along Middle River				Shared use		C,F	2
84	Ridge Road	Belair Road	Fitch Ave.	0.83	New sidewalk, storm drains			
84a	Ridge Road			0.04	New sidewalk	1	C,MP	2
84b	Ridge Road			0.79	New sidewalk	2	C,MP	2
85	Robinwood Rd.	Meadow Lane	Sollers Point Rd.	0.30	New sidewalk	2	C	3
86	Rodgers Forge				Better lighting		C	3
87	Rossville Blvd.	Yellow Brick Rd.			Bus shelter		P	1
90	Southeast Blvd.	Hyde Park Intersection			Traffic light or roundabout		C,S	2
91	Stevenson Lane	York Road	Hillen Road	1.47	New sidewalk			
91a	Stevenson Lane			0.16	Sidewalk exists	0		
91b	Stevenson Lane			0.87	New sidewalk	2	C	3
91c	Stevenson Lane			0.13	Sidewalk exists	1	C	3
91d	Stevenson Lane			0.22	New sidewalk	1	C	3
91e	Stevenson Lane			0.09	New sidewalk	1	C	3
92	Sunberry Rd.	Meadow Lane	Sollers Point Rd.	0.31	Repair sidewalk	1	C	3
94	Walther Boulevard	Rossville Blvd.	end	1.11	New sidewalk			
94a	Walther Boulevard			0.18	Sidewalk exists	0		0
94b	Walther Boulevard			0.24	New sidewalk	1	C,MP	2
94c	Walther Boulevard			0.50	Sidewalk exists	0	C,MP	2
94d	Walther Boulevard			0.20	New sidewalk	1	C,MP	2
95	White Marsh Blvd.	Walther Blvd.	Philadelphia Rd.	4.11	New sidewalk/shared use	2	S,C	3/1



BICYCLE IMPROVEMENT PROJECT LIST

Proj. No.	Road Name	From	To	Length (Mi)	Exist. BLOC	Prop. BLOC	Improvement	Fund. Source	Phase
1	Back River Neck Rd	Old Eastern Ave	Hydes Park Road	1.20	F	C	5		0
2	Back River Neck Rd	Hydes Park Road	Route 702	0.84	D	C	5		0
3	Back River Neck Rd	Route 702	Riverview Road (end)	2.71	D	B	5		1
4	Beachwood Road	Near Faust Lane	Bletzer Road	0.61	B	B	1		0
5	Bletzer Rd./Edgewater Pl.	Beachwood Road	Cove Road	0.36	A	A	1		0
6	Bird River Road	Ebenezer Road	Middle River Road	2.92	F	B	5		3
7	Bosley Avenue	York Road	Towsontown Boulevard	0.74	E	C	3b		1
8	Bosley Avenue	Fairmount Avenue	York Road	0.18	D	B	3b		1
9	Bowleys Quarters Rd	Eastern Avenue	End	3.65	F	C	5		1
10	Burke Ave.	Towsontown Blvd.	York Rd.	0.22	D	C	3b		1
11	Burke Ave.	York Rd.	Hillen Road	0.55	E	C	3b		1
12	Hillen Road	Burke Ave.	Putty Hill Rd.	0.35	C	B	3a	C	1
13	Carroll Island Road	Eastern Avenue	Bowleys Qtrs Rd	0.28	E	C	3b		2
14	Carroll Island Road	Bowleys Qtrs Rd	Keeners Rd	0.47	E	C	5		3
15	Carroll Island Road	Keeners Rd	Luthardt Rd	0.60	C	C	3a	O	3
16	Carroll Island Road	Luthardt Rd	APG	1.05	F	B	1	O	3
17	Cedar Road	North Point Road	Willow Road	0.15	A	A	1		0
18	Charles St.	Balt. City line	Bellona Ave.	0.73	F	C	3b		1
19	Charles St.	Bellona Ave.	Circle	2.81	A	A	3a	S	1
20	Cove Road	Edgewater Place	North Point Road	0.57	D	C	3b		0
21	Cub Hill Road	Cromwell Bridge Road	Waltham Woods Rd.	0.66	D	B	5		2
22	Cromwell Bridge Rd.	Providence Rd.	Gleneagles Court	0.76	D	C	3b	S	1
23	Cromwell Bridge Rd.	Gleneagles Court	Loch Raven Blvd.	0.31	E	C	3b	S	1
24	Delvale Rd.	Sollers Point Road	German Hill Rd.	2.09	C	B	3a		1
25	Dulaney Valley Road	Fairmount Avenue	Charmuth Road	0.68	C	C	3a	S	1
26	Dulaney Valley Road	Charmuth Road	Seminary Road	0.62	F	D	3b	S	1
27	Dundalk Avenue	Sollers Point Road	end	0.62	C	C	1		0
28	Dundalk Avenue	McShane Way	Sollers Point Road	0.46	D	C	3b	C, S	1
29	Dundalk Ave.	Holabird Ave.	McShane Way	2.00	C	A	3b	C, S	1
30	Earls Road	Ebenezer Road	Eastern Ave.	1.47	D	C	5		1
31	Eastern Blvd.	Balt. City line	North Point Rd.	0.64	E	E	0	S	0
32	Eastern Blvd.	North Point Rd.	North Point Blvd.	0.20	E	D	0	S	0
33	Eastern Blvd.	North Point Blvd.	Southeast Blvd.	3.68	D	C	3a	S	1
34	Eastern Blvd.	Southeast Blvd.	Volz Ave.	1.23	F	E	3a	S	1
35	Eastern Blvd.	Volz Ave.	Wilson Point Rd.	0.70	N	N	6b	S	2
36	Eastern Blvd.	Volz Ave.	Wilson Point Rd.	0.73	E	C	4a	S, MP	0

NOTE: See pages 29-32 for an explanation of the table data.

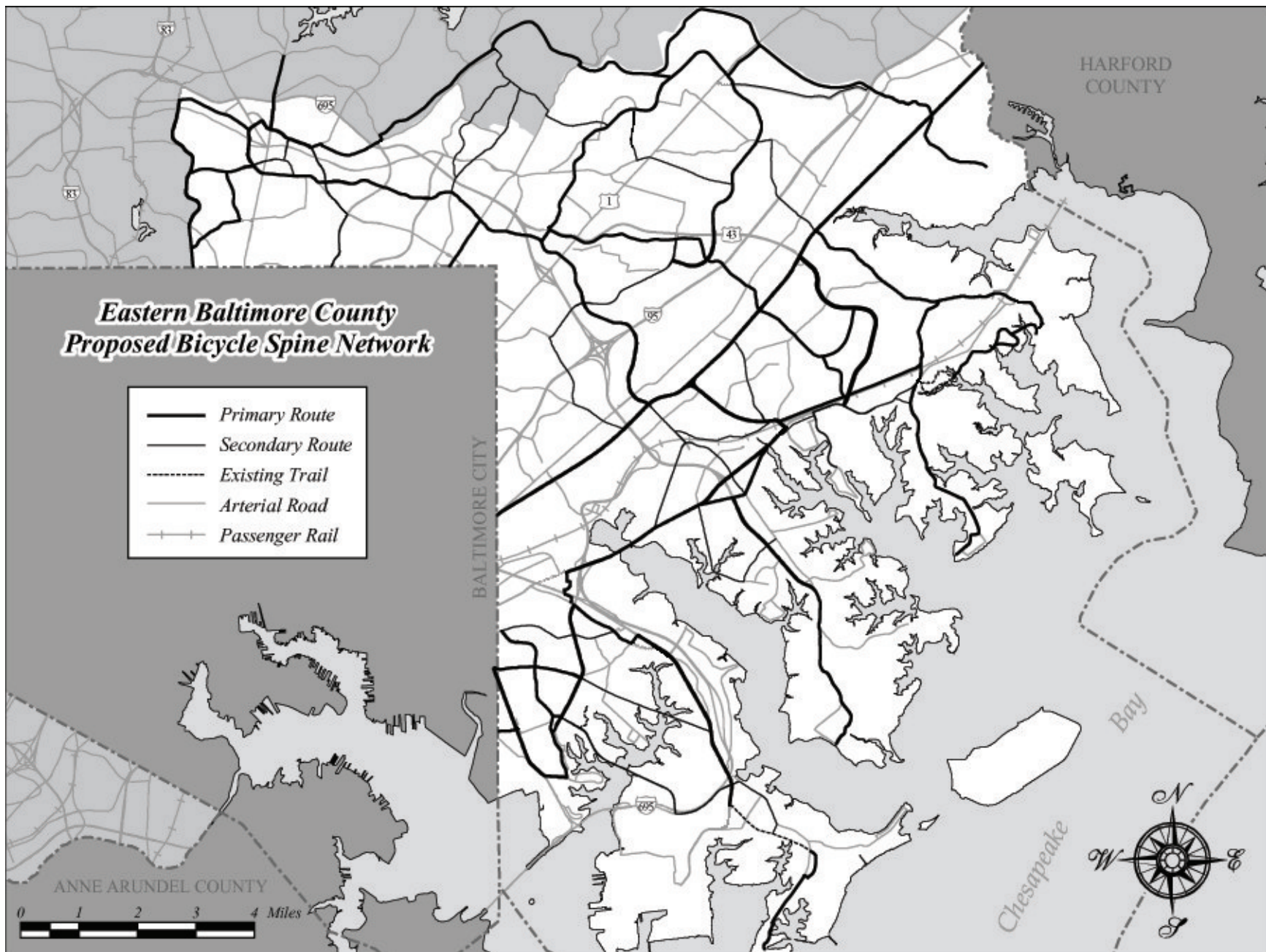
Proj. No.	Road Name	From	To	Length (Mi)	Exist. BLOC	Prop. BLOC	Improvement	Fund. Source	Phase
37	Eastern Blvd.	Wilson Point Rd.	Stevens Road	1.17	C	C	3a	S, MP	2
38	Eastern Blvd.	Stevens Road	Carroll Island Rd.	0.80	F	C	5	S, MP	2
39	Ebenezer Road	Pulaski Highway	Graces Qtrs Road	3.94	E	C	5	C	1
40	Ebenezer Road	Belair Road	Perry Hall MS	0.31	D	C	3a		2
41	Ebenezer Road	Perry Hall MS	Honeygo Boulevard	1.18	C	A	3a		2
42	Fairmount Ave.	Bosley Ave.	York Rd.	0.33	D	A	3b		0
43	Fairmount Ave.	Goucher Blvd.	Joppa Road	0.14	D	C	3b		1
44	Fairmount Ave.	Towsontown Blvd.	Pennsylvania Avenue	0.11	D	B	3b		1
45	Fairmount Ave.	Pennsylvania Avenue	Joppa Road	0.14	E	C	4a		1
46	Ferguson Ave.	Fondulac Ct.	North Wind Rd.	0.25	E	C	5		0
47	Forge Road	Belair Road	Gunpowder State Park	2.70	E	C	5	MP, C	2
48	German Hill Rd.	North Point Rd.	Delvale Rd.	2.03	D	C	3a		2
49	Golden Ring Road	Pulaski Highway	Kenwood Avenue	0.97	F	C	5	S	2
50	Goucher Blvd./Fairmount Ave.	Dulaney Valley Rd.	Epsom Rd.	0.36	F	C	4a		1
51	Goucher Boulevard	Epsom Rd.	Providence Rd.	0.34	D	C	3b	O '04	1
52	Goucher Boulevard	Providence Rd.	Putty Hill Ave.	0.65	E	C	3b		2
53	Harford Road	Hillcrest Avenue (city line	Taylor Avenue	0.17	F	E	3a	S	1
54	Harford Road	Taylor Avenue	Putty Hill Ave.	0.80	F	F	3a	S	1
55	Holabird Ave.	Balt. City line/Dundalk Ave.	Merritt Blvd.	1.53	E	B	3a		1
56	Honeygo Boulevard	Cross Road	Ebenezer Rd.	1.57	D	C	5		1
57	Honeygo Boulevard	Ebenezer Rd.	Magnolia Ave	0.48	E	C	3b		1
58	Honeygo Boulevard	Magnolia Ave	White Marsh Blvd.	0.52	F	D	3b		1
59	Honeygo Boulevard	White Marsh Blvd.	Perry Hall Blvd.	1.11	F	C	4a		1
60	Joppa Road	Seven Courts Dr.	Belair Road	0.23	F	C	5		2
61	Kenwood Avenue	Lillian Holt Drive	Hazelwood Ave.	1.04	A	A	3a	S, O	2
62	Kenwood Avenue	Hazelwood Ave.	Golden Ring Road	0.20	D	C	3a	S, O	2
63	Lillian Holt Dr.	Rossville Blvd.	Kenwood Ave.	0.86	B	B	3a		2
64	Mace Avenue	Eastern Boulevard	702 Crossing	1.15	D	C	3a	O	2
65	Mace Avenue	702 Crossing	Stemmers Run Road	0.41	D	B	3a		2
66	Martin Blvd.	Eastern Blvd.	Pulaski Highway	1.98	C	C	3a	S	1
67	Merritt Blvd.	North Point Rd.	Sollers Point Road	2.35	C	B	3a		1
68	Middle River Road	Pulaski Highway	Martin Boulevard	1.36	F	C	3a	MP	2
69	Morse Lane	North Point Blvd.	Private Driveway near Lynhurst	1.23	B	B	0		0
70	Lynhurst Road/Beachwood Rd.	Private Drive near Lynhurst	Beachwood Rd. near Faust Lane	1.16	A	A	1		0
71	Middle River Road	Philadelphia Road	Pulaski Highway	0.39	F	C	3b	O '04	3
72	Pulaski Highway	I-695	Balto. City Line	2.73	C	C	3a	S	1
73	North Point Blvd.	Eastern Blvd.	Merritt Blvd.	0.73	C	C	0	S	0
75	North Point Blvd.	Trappe Road	Cove Rd.	0.65	A	A	3a	S	1
77	North Point Blvd.	Cove Road	Wise Ave.	1.50	A	A	3a	S	1

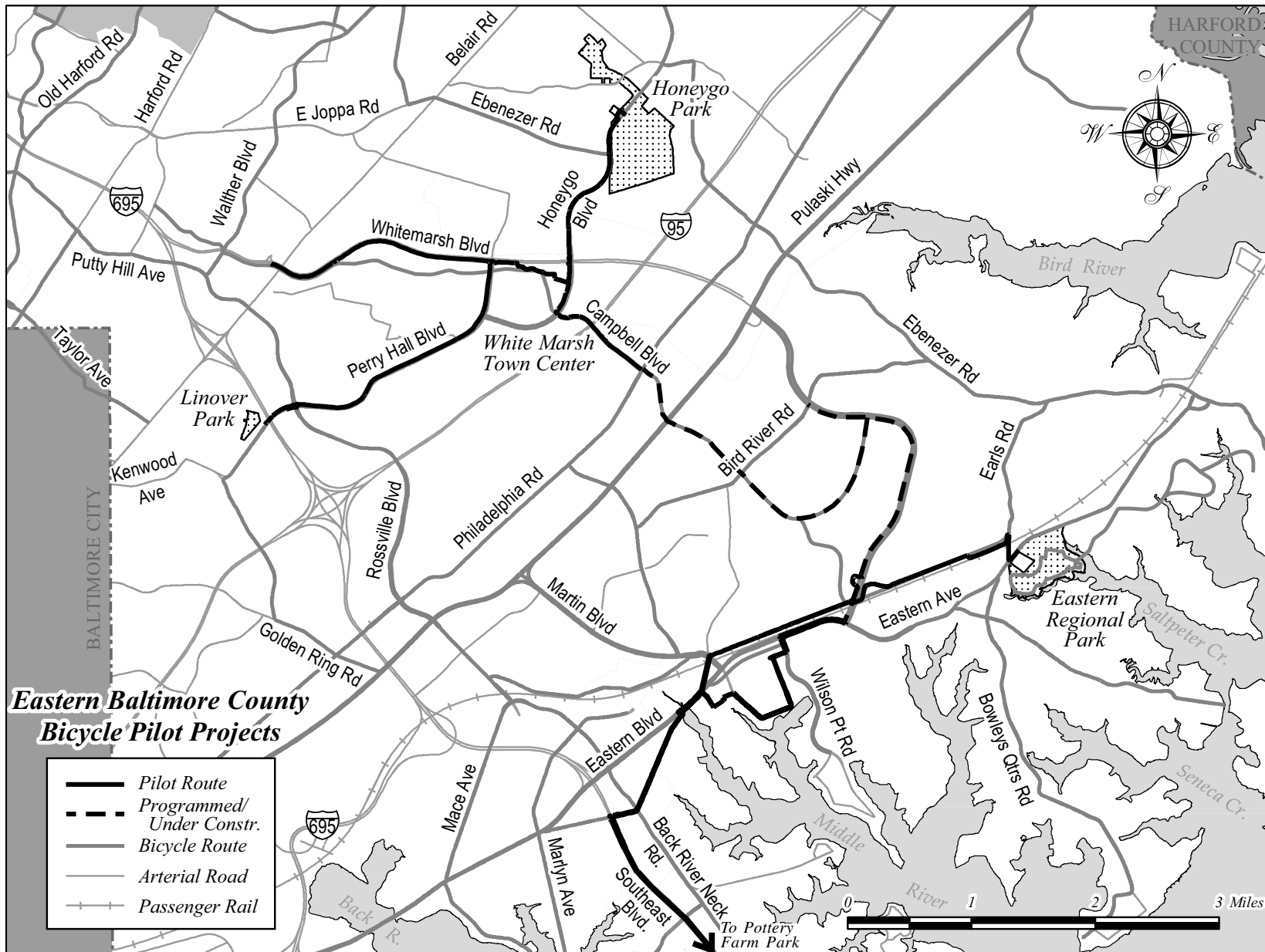
Proj. No.	Road Name	From	To	Length (Mi)	Exist. BLOC	Prop. BLOC	Improvement	Fund. Source	Phase
78	North Point Rd.	Bethlehem Blvd	Lodge Forest Dr.	1.03	D	C	3a	S	2
79	North Point Rd.	Lodge Forest	Old Bay Rd.	2.21	D	D	0		0
80	North Point Rd.	Old Bay Rd.	Fort Howard Park Drive	0.48	D	D	1	S	1
81	Lodge Forest Dr.	North Point Rd.	Old Haul Rd.	0.18	D	D	1		2
82	North Point Rd.	Eastern Ave.	Merritt Blvd.	0.82	D	C	5		0
83	North Wind Rd.	Ferguson Ave.	Fontaine Dr.	0.26	C	B	3a		2
84	North Wind Rd.	Fontaine Dr.	Jennifer Run	0.31	D	B	5		2
85	North Wind Rd.	Jennifer Run	Harford Rd.	0.56	D	B	5		2
86	Old Eastern Avenue	Eastern Ave.	Stemmers Run Road	0.89	C	A	3b	C	1
87	Old Eastern Avenue	Stemmers Run Road	Essex Avenue	0.34	D	C	3b		1
88	Old Eastern Avenue	Essex Avenue	Eastern Blvd.	0.42	C	A	3b		1
89	Old Harford Road	Putty Hill Ave.	Alden Rd.	0.83	D	B	3a		3
90	Old Harford Road	Placid Ave.	Putty Hill Ave.	1.74	D	B	3a	C	2
91	Old Harford Road	Placid Ave.	Cub Hill Road	0.47	D	C	5	C	2
92	North Point Rd.	Merritt Blvd.	North Point Blvd.	1.94	B	B	3a	S	1
93	Osler Drive	Towsontown Blvd.	Stevenson Lane	0.88	E	C	3b		1
94	Peninsula Expressway	Merritt Blvd.	Bethlehem Blvd.	2.73	D	B	3a	S	1
95	Perry Hall Blvd.	White Marsh Blvd.	Honeygo Blvd.	0.46	F	C	4a		2
96	Perry Hall Blvd.	Honeygo Blvd.	Bucks School House Rd.	0.29	C	B	3a		2
97	Philadelphia Rd.	Pulaski Highway	Golden Ring Rd.	2.38	F	C	3a	S, C, O	3
98	Philadelphia Rd.	Golden Ring Rd.	Rossville Blvd.	0.69	F	C	4a	S	3
99	Plainfield Road	Willow Road	Trappe Road	0.83	D	B	3a	O	0
100	Proctor Lane	Satyr Hill Rd.	Waltham Woods Rd.	0.19	C	C	1		3
101	Proctor Lane/Gunview Rd.	Sandstone Ct.	Foxfarm Rd.	0.96	A	A	3a		1
102	Pulaski Highway	Martin Blvd.	Harford Co. line	7.43	A	A	3a	S, O	1
103	Pulaski Highway	Martin Blvd.	1-695	1.32	F	C	4a	S	1
104	Putty Hill Ave.	Hillen Rd.	LaSalle Road	0.46	D	C	3b		1
105	Putty Hill Ave.	LaSalle Rd.	Loch Raven Blvd.	0.69	C	A	3a		1
106	Putty Hill Ave.	Loch Raven Blvd.	Perring Pkwy.	0.81	E	C	5		1
107	Loch Raven Blvd.	Balt. City Line	Loch Hill Road	0.20	F	C	4a	S	2
108	Loch Raven Blvd.	Loch Hill Road	Taylor Avenue	0.80	F	C	4a	S	2
109	Putty Hill Ave.	Walther Blvd.	695 Bridge	0.27	E	C	3b		1
110	Putty Hill Ave.	695 Bridge	Avondale Road	0.37	F	C	5		1
111	Putty Hill Ave.	Avondale Road	Harford Road	0.51	F	C	5		1
112	Regester Ave.	Loch Raven Blvd.	Loch Hill Road	0.23	C	C	1		0
113	Regester Ave.	Loch Hill Road	Overbrook Road	0.17	C	C	1		0
114	Regester Ave.	Overbrook Road	Beverly Avenue	0.38	C	C	1		0
115	Regester Ave.	Beverly Avenue	York Road	0.82	E	C	5		0
116	Rossville Blvd.	Belair Rd.	Lillian Holt Dr.	0.93	F	C	3b	O	1

Proj. No.	Road Name	From	To	Length (Mi)	Exist. BLOC	Prop. BLOC	Improvement	Fund. Source	Phase
117	Rossville Blvd.	Lillian Holt Drive	Ridge Road	1.17	B	A	3a	C	1
118	Rossville Blvd.	Ridge Road	Pulaski Highway	1.32	F	C	3b		1
119	Rossville Blvd.	Pulaski Highway	Orems Road	0.65	F	C	5		2
120	Rossville Blvd.	Orems Road	Mace Ave.	0.27	F	C	4a		2
121	Satyr Hill Road	Cromwell Bridge Road	Sylwood Dr.	0.47	C	B	5		3
122	Satyr Hill Road	Sylwood Dr.	Proctor Lane	0.17	D	C	5		3
123	Satyr Hill Road	Joppa Road	Old Harford Road	0.34	D	C	3a		2
124	Seven Courts Drive	Joppa Road	Plantagenet Cir.	0.43	D	B	3b		2
125	Seven Courts Drive	Plantagenet Cir.	Fondulac Ct.	1.18	B	B	3a		0
126	Sparrows Point Rd.	North Point Rd.	North Point Blvd.	0.99	E	C	5	S	3
127	Stansbury Road/Chesterwood Rd.	Denbury Drive	Chesterwood Park	0.29	B	B	1		3
128	Stemmers Run Road	Rossville Blvd.	Eastern Blvd.	1.03	D	C	3b		2
129	Stemmers Run Road	Eastern Blvd.	Old Eastern Ave.	0.40	C	A	3a		2
130	Stevenson Lane	Hillen Road	York Road	1.47	D	C	5		3
131	Stevenson Lane	York Road	Charles St.	1.22	C	A	3a		1
132	Taylor Avenue	Loch Raven Blvd.	Hillendale Road	0.62	F	C	4a		3
133	Taylor Avenue	Hillendale Road	Oakleigh Road	0.39	F	C	3a	O	3
134	Taylor Avenue	Oakleigh Road	Perring Pkwy.	0.15	F	E	3a	O	3
135	Taylor Avenue	Perring Pkwy.	Elmhurst Road	0.55	F	C	5		3
136	Taylor Avenue	Elmhurst Road	Windy Ridge Rd.	1.29	D	C	3a		0
137	Taylor Avenue	Windy Ridge Rd.	Belair Rd.	0.42	F	C	5		0
138	Towsontown Blvd.	Charles St.	Burke Ave.	1.12	F	N	6b		1
139	Towsontown Blvd.	Burke Ave.	York Road	0.22	E	C	4a		2
140	Towsontown Blvd.	Virginia Ave.	York Road	0.15	D	C	3b		2
141	Towsontown Blvd.	Fairmount Ave.	Virginia Ave.	0.18	D	C	3b		2
142	Hillen Road	Burke Ave.	Fairmount Ave.	0.34	C	C	3a	C	1
143	Trappe Road	North Point Rd.	Plainfield Road	0.83	C	C	1	C	0
144	Turkey Point Road	Back River Neck Rd	End	1.75	D	B	5		3
145	Waltham Woods Rd.	Joppa Road	Cidermill Rd.	0.39	B	B	3b		2
146	Waltham Woods Rd.	Cidermill Rd.	Cub Hill Road	1.43	D	A	3b		2
147	Wilson Point Rd.	Eastern Blvd.	Dark Head Cove Rd	0.47	F	C	4a	S	2
148	Wilson Point Road	Dark Head Cove Rd	Dogwood Dr.	0.68	B	A	3b	S, O	2
149	Wise Ave.	North Point Rd.	Pin Oak Ave.	0.47	C	B	3a		2
150	Wise Ave.	Pin Oak Ave.	Pinewood Dr.	0.79	D	C	5	C (bridge)	2
151	Wise Ave.	Pinewood Dr.	Merritt Blvd.	1.17	F	C	3b		2
152	Old Trolley R/W	Wood Ave.	Old Bay Rd.	1.01	N	N	6b		1
153	White Marsh Run Trail	Avondale Road	Honeygo Blvd. @ Campbell Blvd.	3.70	N	N	6a	MP	1
154	Minebank Run Trail	Cowpens Rd.	Gunpowder State Park	2.13	N	N	6b	MP	1
155	Bengies Area Trail	Campbell Blvd.	Marc Station	0.89	N	N	6b	MP	1
156	Leland Avenue Ext. Trail	Leland Ave.	Earls Road	1.82	N	N	6b		1

Proj. No.	Road Name	From	To	Length (Mi)	Exist. BLOC	Prop. BLOC	Improvement	Fund. Source	Phase
157	Church Road	Trappe Road	Willis Street	0.62	B	B	1		0
158	Cub Hill Road	Waltham Woods Rd.	Harford Road	0.85	D	C	5		2
159	Putty Hill Ave.	Perring Pkwy.	Harford Road	1.12	E	C	3b		1
161	Rossville Blvd.	Walther Blvd	Belair Road	0.47	F	C	3b		1
162	Campbell Boulevard (Proposed)	Philadelphia Road	MD 43 Extended	2.96	C	C	5	MP, C	1
163	Trail connector	Gunview/Walther Trail	Gunpowder State Park Trail	0.36	N	N	6b		1
164	Honeygo Boulevard	Cross Road	Belair Road	0.70	D	C	4a	C	1
165	Gunview Road	Foxfarm Road	Belair Road	1.25	N	N	6b	C	1
166	Philadelphia Rd.	White Marsh Blvd.	Bradshaw Road	4.68	F	C	5	S	3
167	Philadelphia Rd.	Rossville Blvd.	Campbell Blvd.	2.76	F	C	5	S, C	3
168	Philadelphia Rd.	Campbell Blvd.	White Marsh Blvd	0.88	E	C	3b	S	3
169	Cowenton Avenue (Proposed)	Joppa Road	Philadelphia Road	1.52	C	C	5	C, MP	2
170	Ebenezer Road	Philadelphia Road	Pulaski Highway	0.35	C	C	5	MP	2
171	Perry Hall Blvd.	Bucks School House Rd.	Rossville Blvd.	1.48	D	B	3a	MP	2
172	Back River Neck Road	702	Pottery Farm Road	0.20	A	A	3a		1
173	MD 43 Extended	Bird River Rd.	Eastern Blvd.	2.52	N	N	6b	C, S	1
174	Path through EP Mall	Eastern Blvd.	North Point Road	0.72	N	N	6b	P, C, F	1
175	Bethlehem Blvd	Peninsula Expy	North Point Road	1.26	A	A	3a	S	1
176	Wharf Road	Bethlehem Blvd	Sparrows Point Rd.	0.77	A	A	3a		1
177	North Point Blvd.	Wise Ave.	Bethlehem Blvd.	0.99	A	A	3a	S	1
178	North Point Blvd.	Bethlehem Blvd.	Sparrows Point Rd.	1.02	A	A	3a	S	1
179	Bellona Avenue	City Line (Midhurst Rd.)	Charles St.	0.91	E	B	3a	S, O	3
180	Providence Road	Goucher Blvd.	Cromwell Bridge Rd	0.20	E	C	3b	O	1
181	Taylor Avenue	Loch Raven Blvd.	Goucher Blvd.	0.22	E	C	4a		3
182	Goucher Boulevard	Putty Hill Ave.	Taylor Avenue	0.49	F	C	4a		2
183	Perring Parkway	Taylor Avenue	Joppa Rd.	1.47	D	C	0	S	0
184	Walther Boulevard	Joppa Road	Rossville Blvd.	1.37	E	C	3b		1
185	Leland Avenue	Martin Blvd.	end	0.90	A	A	1	P, F	1
186	Eastern Ave.	Carroll Island Road	Graces Quarters Rd.	2.25	D	C	3b	S	3
187	Campbell Boulevard	Honeygo Blvd.	Philadelphia Road	0.93	N	N	6b	P, C, F	1
188	Graces Qtrs Road	Eastern Ave.	Cunninghill Cove Rd	0.33	A	A	1		3
189	Graces Qtrs Road	Cunninghill Cove Rd	End (Park)	0.56	D	N	6a		1
190	Orems Road	Rossville/Golden Ring Road	Martin Boulevard	1.85	C	B	3a		2
191	Marlyn Avenue	Fenway	Stemmers Run Rd	0.45	E	C	3a	O	0
192	Marlyn Avenue	Stemmers Run Road	Eastern Blvd.	0.96	C	A	3a		3
193	Marlyn Avenue	Eastern Blvd.	Middleborough Rd	1.71	C	B	3a		2
194	Middleborough Road	Marlyn Avenue	Back River Neck Rd.	0.95	C	B	3a		2
195	Holly Neck Road	Back River Neck Rd	end	2.82	E	C	5		3
196	Riverside Drive	Eastern Blvd.	Coxs Point Park	1.28	C	C	1		3
197	Millers Island Road	North Point Rd.	end	2.04	C	C	1		3

Proj. No.	Road Name	From	To	Length (Mi)	Exist. BLOC	Prop. BLOC	Improvement	Fund. Source	Phase
198	Dunmanway	Center Place	Sollers Point Road	0.75	D	N	6b		3
199	Dunmanway	Sollers Point Road	Merritt Blvd.	0.10	C	C	1		3
200	Dunmanway	Merritt Blvd	Merritt Point Park	0.49	B	B	1		1
201	Kentley & Lynch Rd.	Church Rd.	Jasmine Rd.	0.75	D	D	1		0
202	Lynch Road	Kentley Road	German Hill Road	1.17	D	D	1		0
203	Gunpowder Falls Trail	Minebank Run Trail	Days Cove	11.73	N	N	6a		1
204	Joppa Road	Cowenton Avenue	Honeygo Blvd.	0.26	D	C	3a	C	2
205	MD 43 Extended	Pulaski Highway	Eastern Blvd.	3.52	E	E	1	C,S	1
206	Sollers Point Road	Merritt Ave.	Dundalk Ave.	1.13	D	B	3b		1
207	Trappe Road (Proposed)	North Point Road	North Point Blvd.	0.18	C	C	5		1
208	North Point State Park Rd.	North Point Rd. @Haul Rd.	Bay Shore Rd./North Point Rd.	0.62	A	A	1	S	1
209	Eastern Regional Greenway			2.09	N	N	6a	C	1
210	Loch Raven Blvd. (east side)	Taylor Ave.	Joppa Rd.	1.20	E	C	3b	S	3
211	Loch Raven Blvd.	Joppa Rd.	Cromwell Bridge Rd.	0.43	F	F	0	S	0
212	Cromwell Bridge Rd.	Loch Raven Blvd.	Glen Arm Rd.	2.63	F	F	1	S	0
213	Fairmount Ave.	Dulaney Valley Rd.	Bosley Ave.	0.21	D	A	3b		1
214	Turner Sta. Loop	Dundalk Ave.		2.03	D	C	1		0
215	Harford Road	Cub Hill Road	Northwind Road	0.09	E	E	1	S	2
216	Walther Blvd. R/W	Joppa Road	Bretton Reef Rd.	1.04	N	N	6b		1
217	Walther Blvd. (partially built)	Bretton Reef Rd.	Unnamed Ct.	0.22	A	A	1		1
218	Walther Blvd. R/W	Unnamed Ct.	Proctor Lane Terminus	0.39	N	N	6b		1
219	Chesterwood Road	Stansbury Road	Chesterwood Park	0.30	A	A	1		0
220	Old Harford Rd.	Taylor Ave.	Alden Rd.	0.23	E	E	0		0
221	Kenilworth Ave.	Charles Street	Marleigh Cir.	0.46	B	B	1		1
222	Kenilworth Ave.	Marleigh Cir.	Bosley Ave.	0.88	D	D	3a		1
223	MD 43 Extended	Bird River Rd.	Pulaski Hwy.	0.94	N	N	6b		1
224	Dundalk Heritage Trail	Baltimore City Line	Willow Spring Road	0.17	N	N	6b	C	1
225	Belair Road Connection	Honeygo Boulevard	Gunpowder Falls State Park Trail	0.77	N	N	6b		1
226	Southeast Boulevard	Middleborough Road	Back River Neck Road	1.16	A	A	3a		1
227	Southeast Boulevard	Old Eastern Avenue	Middleborough Road	1.03	F	B	3a		1
228	Center Place	Willow Spring Road	Trading Place	0.30	N	N	3b	C	1
229	Trappe Road	Plainfield Road	Merritt Blvd	0.21	C	C	1		1
230	BGE RW Esmnt	North Point Rd	Chesterwood Park	1.82	N	N	6b		3





Appendices

- A. Sample Questionnaire**
- B. Encourage/Discourage Factors**
- C. Amendment to the Baltimore
County Code**
- D. Existing Funding Sources**

A. Community Workshop Sample Questionnaire

Name _____
Street Address _____
Zip Code _____ Email _____

Please complete the following questions individually. Once completed, you will be asked to participate in a small discussion group, and your answers will be recorded on a map and flipchart.

Walking

1. DESTINATION A

Think of a place that you walk to, or would like to walk to. This should be a place where the pedestrian route is in need of some improvement. You can also consider trips made by other family members.

DESTINATION A _____

2. PROBLEMS

Provide a description of the problems in walking to reach these destinations. For example, how adequate is the sidewalk? Are there gaps? Is the paving in good condition? Is there a need for curb ramps? Are there streets that are difficult to cross?

DESTINATION A _____

3. IMPROVEMENTS

What kinds of improvements are needed? Does sidewalk need to be constructed or widened? Are improvements such as better lighting, pedestrian signals, crosswalks, benches or shelters at bus stops needed? Would street trees or decorative pavement create an environment more attractive for walking?

DESTINATION A _____

Bicycling

4. DESTINATION B

Think of a place that you bicycle to, or would like to bicycle to. This should be a place where the bicycle route is in need of some improvement. You can also consider trips made by other family members.

DESTINATION B _____

5. PROBLEMS

Provide a description of the problems in bicycling to reach this destination. For example, is the roadway or path adequate to reach these locations? Are there barriers such as narrow bridges? Is the paving in good condition? Is bicycle parking adequate?

DESTINATION B _____

6. IMPROVEMENTS

What kinds of bikeway improvements are needed, such as marked bicycle lanes, share the road signs, an off-road path, or bicycle parking facilities? Are there wide roadways with lower traffic volumes that might present opportunities for the addition of bicycle lanes?

DESTINATION B

B. Factors that Encourage/Discourage Walking and Bicycling

The following lists are compiled from all of the responses given by workshop participants.

Encourage

- Marked bike lanes on roads
- Signage for bikes on roads
- Off-road bike routes
- Snow removal of sidewalks enforced
- Cross walk signals
- All right-turning traffic to yield to pedestrians and bicyclists
- Bicycle racks at destinations and in safe locations
- Bicycle crossing push signals

Discourage

- Pot holes on roadways
- Debris on road shoulders
- Old storm drains that catch bicycle tires
- Dogs roaming free - fear of attack
- Unsafe road crossings
- Ditches next to road
- High traffic volume
- High traffic speed
- Lack of shoulders on roads
- Lack of sidewalk on most roads
- Sidewalks poorly maintained
- Median lacking in wide roads
- Lack of enforcement of traffic/pedestrian/bicycle laws
- Lack of connectivity between communities
- Lack of lighting
- Lack of bicycle racks
- Lack of signage to make drivers aware of bikes and pedestrians
- Lack of pedestrian ramps
- Obstacles in sidewalks making it hard to pass - utility poles, mailboxes, etc

Appendix C:

Suggested Amendment to the Baltimore County Code

Concomitant with the adoption of this plan by the Baltimore County Planning Board and the Baltimore County Council, a resolution by the County Council to adopt the following amendment to the Baltimore County Code is recommended.

Addition to the following Section:

18-2-102. AUTHORITY OF THE DIRECTOR OF PUBLIC WORKS.

(a) *In general.* In order to provide for the safe and expeditious movement of traffic in the county and to protect the safety of citizens using the public or private roads, streets, alleys, and highways in the county, the Director of Public Works may:

...

(10). Designate certain sidewalks for shared pedestrian and bicycle use.

D. Existing Funding Sources

Funding sources for bicycle and pedestrian facilities and programs can be found at all levels of government as well as in the private sector. The sources can change from year to year, so it is important to reassess potential funding sources periodically.

Some of the following information is derived from the 2001 Baltimore regional bicycle, pedestrian and greenways transportation plan entitled “Action Plan 2001, A Plan for Walking and Bicycling in the Baltimore Region” prepared for the Baltimore Regional Transportation Board by Sprinkle Consulting, and the Rails-to-Trails Conservancy’s Trails and Greenways Funding Guide at <http://www.enhancements.org/rtcddata/trailfunding.htm>.

GOVERNMENT FUNDING SOURCES

Baltimore County Government

The Baltimore County Capital Improvement Program is the county’s plan to receive and expend funds for capital projects during a six-year period. It consists of the capital budget for the current fiscal year plus the plan for funding county capital projects during the next five years. The planned or programmed years are adjusted each year with projects being moved forward or back as priorities change. New projects are introduced for consideration only during even-numbered years. The fiscal year runs from July 1 through June 30.

Pedestrian and bicycle improvement projects can be funded in Baltimore County’s capital budget under a number of categories:

1. Improvements administered through the Department of Public Works:
 - Individually identified road construction projects or widenings.
 - Street rehabilitation in conjunction with: a) county building projects; b) resident petitions for widening, sidewalks, curbs and gutters; c) major utility work; and d) miscellaneous services.
 - Improvement projects to supplement those made by the developer as part of a development project, or to complete the gaps between developed properties.
 - Roadway resurfacing
 - Intersection improvements
 - Traffic calming—Residents concerned by traffic speed and safety on their neighborhood roads can request traffic calming measures from the Baltimore County Bureau of Traffic Engineering. County traffic engineers will review applications, and analyze the speeds and vehicle volumes in these neighborhoods. Where needed, they will recommend traffic calming measures based on each site’s characteristics and identified problems. Traffic calming options could include traffic circles, speed humps and pedestrian refuge islands, narrowing driving lanes with curb extensions to discourage speeders while allowing for safer pedestrian crossings.

- Traffic signals
 - Sidewalk (curb) ramps—Handicapped persons must make a formal request to the Commission on Disabilities for specific areas where they need curb ramps. Reasonable requests are then reviewed by the Department of Public Works. Individual requests are grouped together for construction.
 - Bridge, culvert and overpass improvements
 - Curbs, gutters and sidewalks—Citizens can petition the county to construct sidewalk and/or curb and gutter for their property. If 70% of the owners along a particular street sign the petition, the project is placed on a list for construction. A portion of the cost is paid by each property owner through their property tax bill.
 - Alignment studies/site acquisition funds
 - Road projects to implement community conservation efforts.
2. Trails through the Department of Recreation and Parks:
 - Community/neighborhood park development
 - Regional park development
 - Park and recreation facility acquisition
 - Park and recreation center accessibility
 - Greenways/stream valley/trail development
 - Waterfront enhancement
 3. Streetscape improvement through the Department of Economic Development:
 - Countywide revitalization
 4. Community improvement projects through the Office of Community Conservation

Operating Budget: Adjustments will be needed to the operating budget to cover maintenance costs including street sweeping to clear debris on bikeways and pavement marking refurbishing.

Creative Funding: There are examples in other jurisdictions of revenue streams created specifically for bicycling and walking improvements. For example:

- San Diego County residents voted to impose a ½-cent sales tax for transportation purposes. Out of those funds (\$171 million in year 2000), \$1 million is set aside for bicycle projects. The tax is administered by the San Diego Association of Governments and is scheduled to expire in 2008.
- The City of Albuquerque and Bernalillo County, New Mexico, both have a 5% set-aside of street bond funds for trails and bikeways. This has amounted to approximately \$1.2 million every two years for these facilities. The city voters last year passed a ¼ cent gross receipts tax for transportation, which includes approximately \$1 million per year for the next ten years for trail development. In addition, many of the on-street facilities are being developed as a part of other road projects and are incorporating the bike facilities in the roadway budget for new roads, or when a resurfacing project is planned.
- Pinellas County, Florida built much of the Pinellas Trail system with a portion of a one-cent sales tax increase voted for by county residents.
- Seattle, Washington, and King County voters approved a \$100 million bond issue to protect open space in the urban area; \$33 million was set aside for trail development. The Seattle

Department of Public Works used about \$6 million per annum for the City's bike program.

- Denver, Colorado also invested \$5 million in its emerging trail network with a bond issue, which also funded the city's bike planner for a number of years.
- Eagle County, Colorado (which includes Vail) voters passed a transportation tax that earmarks 10% for trails, about \$300,000 a year.
- In Colorado Springs, Colorado, 20% of the new open space sales tax is designated for trail acquisition and development; about \$5-6 million per year.

State Government Funding Sources

Community Safety and Enhancement Program began in 1996 as the Neighborhood Conservation/Urban Reconstruction Program to assist in the revitalization of neighborhoods through roadway improvements to state highways and urban state highways. Three phases of funding are available: 1) concept development, 2) design, and 3) construction. Some of the eligible projects funded by this program include: adding or upgrading drainage, curb and gutter construction/reconstruction, conventional sidewalks, bus shelters and transit station access improvements, landscaping and specialized signage. Funding for this program has varied over the years, with a period between 2002 and 2004 when the program was placed on hold due to budget constraints. Many projects have been identified and are

at various stages of development. Funding for FY 2007 is about \$27 million, with about \$165 million anticipated for the next 6-year period. About \$300 million is needed to complete the projects already initiated. Projects in the pipeline for Baltimore County include MD 7 (Philadelphia Road) from Rt. 40 to I-695, US 1 (Belair Road) from the city line to I-695; MD 147 (Harford Road) from the city line to Joppa Road; MD 139 (Charles Street) from the city line to Bellona Ave.; MD 144 (Frederick Road) from the city line to I-695; and portions of MD 150 and MD 587 (Eastern Boulevard and Wilson Point Road).

Funding Cycle: Year Round

Contact: Dennis German, SHA Program Coordinator, 410-545-8900

The **Sidewalk Retrofit Program** was established in 1995 to provide funding for the construction of new and the reconstruction of existing sidewalks and pathways. The program receives the funding annually and allocates it to the counties based on a distribution formula. Sidewalk construction or reconstruction projects on state roads in State Designated Neighborhoods are eligible for 100% funding by SHA, anything outside these neighborhoods are eligible for 50% SHA funding and 50% by the local jurisdiction. It is anticipated that \$2.1 will be available statewide in FY 2007. Local jurisdictions should discuss and prepare potential project proposals with the SHA District Engineer. The projects are constructed by the state under an area-wide contract. Proposals are accepted on an ongoing basis. The Chief Engineer's Office will review and select projects.

Funding Cycle: Year Round

Contact: Dennis German, SHA Program Coordinator, 410-545-8900 or Ed Bockman, SHA Fourth District Office, 410-321-2853

The **Bicycle Retrofit Program** was established in 2000 to provide funding for the construction of bicycle facilities. The program receives the funding annually, and it is anticipated that \$1.3 will be available statewide in FY 2007. Proposals are considered on an ongoing basis by the SHA Bicycle and Pedestrian Coordinator and if acceptable are programmed for the next fiscal year.

Funding Cycle: Annual

Contact: Harvey Muller, SHA Bicycle and Pedestrian Coordinator, 410-545-5656

Federal Funds

Prior to the 1990's, only a few million dollars a year of federal funds were being invested in bicycle or pedestrian facilities. The passage of ISTEA (Intermodal Surface Transportation Efficiency Act) designated Federal gas-tax revenue and other federal funds for the period from 1992-1997 for all modes of surface transportation, including highways, bus and rail transit, bicycling and walking.

The Transportation Equity Act for the 21st Century, or "TEA-21," was the successor to ISTEA, and authorized \$217 billion for the six-year period of 1998 - 2003. The newest federal transportation funding authorization is called the Safe, Accountable, Flexible and

Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). This law, signed by President George W. Bush on August 10, 2005 will provide \$286.4 billion in guaranteed spending for highways, rail and transit programs over six years, a 38% increase over the previous legislation. Maryland's share of the surface transportation funds are administered by the Maryland Department of Transportation. Funding for a specific pedestrian or bicycle project can be authorized directly by the enactment of the bill, or can be provided through one or more of the following programs authorized by the bill:

The Transportation Enhancement (TE) Program requires every state to reserve at least 10 percent of their federal surface transportation funds for designated Transportation Enhancements activities, such as pedestrian and bicycle facilities, pedestrian and bicycle safety and education and the conversion of abandoned railway corridors to trails. SAFETEA-LU has authorized \$4.4 billion, with states receiving approximately \$893 million. About 55% of the funds are anticipated to be used for bicycle and pedestrian facilities and education programs. The TE program is administered by Maryland State Highway Administration (SHA). Up to 50% of each project's cost is eligible for funding; the other 50% must be matched by the project sponsor. Funds are awarded to new projects semi-annually, in the summer and fall. The average award is between \$350,000 – \$400,000; however, it varies depending on the project.

Contact: Dennis Simpson, Enhancement Program Manager, 410-545-5675

Safe Routes to School Program, authorized by Congress to receive \$612 million, with each state receiving at least \$1 million, to make it safer for children to walk and bicycle to school. A portion of the funds must be used for “soft” projects such as safety education, but the majority is available for the construction of physical improvements. The funds do not require any match, and are distributed by the state program coordinator.

Contact: To Be Determined

The National Recreational Trails Program, administered by SHA, matches federal funds up to 80% with local funds to implement trail projects. Eligible activities include trail construction, reconstruction, maintenance, restoration, interpretive facilities and easement or property acquisition. SAFETEA-LU authorized \$370 million nationwide for this program. SHA receives its share of the funds from the Federal Highway Administration (FHWA); the amount of money varies each year. Historically, the average project cost is around \$30,000. Projects are proposed by local governments, other state agencies, counties or municipal governments.

Applications should be submitted to SHA’s Office of Environmental Design. In order for non-governmental agencies such as a non-profit agency, a community group, or individual to apply for program funds, co-sponsorship from an appropriate local governmental agency is required. Applications are distributed in September for a mid-November deadline. Typically, funds are awarded in January or February of each year.

Funding Cycle: July 1 Deadline

Contact: Terry Maxwell, Recreational Trails Coordinator, 410-545-8637

National Scenic Byways Program: For roads that have been designated as state scenic byways, and have an adopted corridor management plan (CMP), the program may provide funding for the construction of pedestrian and bicycle facilities or traffic safety improvements in accordance with the CMP. County and municipal governments, private non-profit agencies, or community groups with appropriate governmental agency co-sponsorship can apply for grants. Project sponsors are required to provide a 20% match. The deadline for applying for Scenic Byways funds is June 1. Applications are available online at www.byways.org and are submitted to the State Scenic Byways Coordinator. The State Scenic Byways Advisory Committee reviews and approves potential projects.

Funding Cycle: June 1 Deadline

Contact: Terry Maxwell, Scenic Byways Coordinator, 410-545-8637

Congestion Mitigation and Air Quality Improvement Program (CMAQ): This program provides over \$10 billion dollars in funds to state Departments of Transportation, Metropolitan Planning Organizations and transit agencies to invest in projects that reduce transportation-related emissions. Each state is qualified for an apportioned amount of funding each year based on county populations residing within ozone and carbon monoxide (CO) non-attainment and maintenance areas and the severity of the areas air quality problems. Departments of Transportation or Metropoli-

tan Planning Agencies must submit projects to FHWA for approval before funds are actually received. SHA selects approximately 80% of all projects for submission at one time; the other 20% of potential projects are reviewed continually throughout the Fiscal Year. Once projects have been identified, SHA applies for the funding directly to FHWA. SHA typically seeks CMAQ funding for HOV lanes; however, it is possible to submit an application for a bicycle and pedestrian project.

Funding Cycle: On-Going

Contact: Howard Simons, 410-865-1296

The Transportation and Community and System Preservation Pilot Program is a comprehensive initiative of research and grants to investigate the relationship between transportation and land use, in partnership with private sector-based initiatives. SAFTEA-LU authorized \$270 million for the TCSP Program through FY 2009. The Federal share payable on account of any TCSP project or activity is 80% or subject to the sliding scale rate. States, local governments, and metropolitan planning organizations are eligible for discretionary grants to plan and implement strategies that improve the efficiency of the transportation system; reduce environmental impacts of transportation; reduce the need for costly future public infrastructure investments; ensure efficient access to jobs, services, and centers of trade. The TCSP Program is a Federal Highway Administration program jointly developed with the Federal Transit Administration, the Federal Rail Administration, the Office of the Secretary, and the Research and Special Programs/Volpe Center within the US Department of

Transportation, and the US Environmental Protection Agency. State agencies, MPOs, tribal governments, and units of local governments recognized by a State are eligible recipients of TCSP grant funds. This includes towns, cities, public transit agencies, air resources boards, school boards, and park districts, but not neighborhood groups or developers. While non-governmental organizations are not eligible to receive TCSP funds, these organizations are encouraged to form partnerships with an eligible recipient as the project sponsor.

The Federal Highway Administration has solicited applications in FY 2005 for the TCSP Program. Only for projects specified by Congress in the Conference Reports accompanying the Omnibus Appropriations Act. However, additional projects should become eligible in 2006.

The **Federal Highway Safety (Section 402) Grant Program** is administered by the Maryland Highway Safety Office (MHSO), a division of SHA. Federal 402 funds are used for pedestrian and bicycle public information and education programs. Funds are distributed to states annually from the National Highway Traffic Safety Administration (NHTSA) according to a formula based on population and road mileage. Maryland receives 402 funds each year. Local jurisdictions submit Expression's of Interest (EOI) to the MHSO in March and commitment letters announcing the approval of the proposed projects are distributed in June. Funds are generally awarded sometime after October 1st each year. Government agencies or government-sponsored

entities are eligible to apply for 402 Grant funds. Every county in the state and the City of Baltimore is assigned a Community Traffic Safety Program Coordinator who organizes local Task Forces to identify and prioritize traffic safety issues and develop appropriate countermeasures. Agencies are encouraged to work with their local Task Force to determine the feasibility and eligibility of proposed projects prior to submitting a 402 Grant.

Funding Cycle: EOI (March), Commitment Letters (June), Award (October)

Contact: Maryland Highway Safety Office, 410-787-4050

Economic Development Grants for Public Works and Development of Facilities are provided by the U. S. Department of Commerce, Economic Development Administration (EDA), to states, counties and cities designated as redevelopment areas. The grants can be used for public works projects including developing trails and greenway facilities. There is a 30 percent local match required, except in severely distressed areas where federal contribution can reach 80 percent.

Contact: David L. McIlwain, Director, Public Works Division, EDA, Herbert Hoover Bldg., Dept. of Commerce, Rm. H7326, Washington, DC20230; Phone: (202) 482-5265

Web site: <http://www.cfda.gov/public/viewprog.asp?progid=167>

Land and Water Conservation Fund (LWCF) Grants program was established in 1965 to provide “close-to-home” park and recreation opportunities to residents throughout the United States.

Money for the fund comes from the sale or lease of nonrenewable resources, primarily federal offshore oil and gas leases and surplus federal land sales. LWCF grants can be used by communities to build a variety of parks and recreation facilities, including trails and greenways. LWCF funds are distributed by the National Park Service to the states annually. Communities must match LWCF grants with 50 percent of the local project costs through in-kind services or cash. All projects funded by LWCF grants must be used exclusively for recreation purposes, in perpetuity. Projects must be in accordance with each State’s Comprehensive Outdoor Recreation Plan. \$140 million dollars was available to states through this program in Fiscal Year 2002. Through the life of this program, \$3.2 billion dollars has been allocated, nearly 2.5 million acres have been acquired and 38,000 land and water projects have been funded. Contact: William Sharp; Phone (215) 597-1655 or email william_sharp@nps.gov
Web site: <http://www.nps.gov/phso/sp/lwcf.htm>

The Chesapeake Bay Gateways Network Program was authorized by the Chesapeake Bay Initiative Act of 1998 and is coordinated by the National Park Service in partnership with the US Environmental Protection Agency’s Chesapeake Bay Program and a 16 member Chesapeake Bay Gateways Network Working Group. Included in the Chesapeake Bay Gateways Network are over 120 parks, wildlife refuges, museums, historic communities and trails located in the Chesapeake Bay watershed. The Gunpowder Falls State Park and the North Point State Park are among the designated gateways.

The National Park Service provides matching grants of \$5,000 to \$100,000 to designated Chesapeake Bay Gateways for high-quality interpretation, access, or conservation and restoration projects. Requested funds must be matched by an equal (1:1) amount of non-federal support. The matching share may include in-kind contributions of services or materials, cash or revenue sources dedicated to the same project.

Web site: <http://www.baygateways.net>

AmeriCorps National Civilian Community Corps (NCCC) is a 10-month residential national service program for young women and men between the ages of 18 - 24. Teams work in cooperation with non-profit programs, state and local agencies, and other community groups on environmental projects, education, public safety, disaster relief, and other community needs across the country. One project that NCCC members work on is the building or improving of trails. AmeriCorps' NCCC members created or improved more than 200 miles of hiking trails in 25 states nationwide. Teams cleared trees and brush, leveled trails to comply with federal guidelines on handicapped access, implemented erosion control techniques, and created and updated signs. AmeriCorps teams have partnered with the county's Department of Environmental Protection and Resource Management to build trails at the Eastern Regional Park. Contact: anccc@cns.gov

Web site: <http://www.americorps.org/nccc/>

Private Sector Funds

Private sector funding has become more plentiful since the early 1990s. For example, the environmental land trust movement has mushroomed and many of these organizations have raised funds for purchase of land where trails are built, especially rail-trails. In recent years, local corporations, and businesses from the bicycling and outdoor recreation industry have joined in financial support of local projects and programs. Additionally, bicycle and pedestrian improvements can be included in local development projects, often as a condition of approval for the projects.

The Kodak American Greenways Awards program provides small grants as seed money to stimulate the planning and design of greenways in communities throughout America. Grants may be used for activities such as: mapping, ecological assessments, surveying, conferences, and design activities; developing brochures, interpretative displays, audio-visual productions or public opinion surveys; hiring consultants, incorporating land trusts, building a foot bridge, planning a bike path, or other creative projects. In general, grants can be used for all appropriate expenses needed to complete a greenway project including planning, technical assistance, legal and other costs. Grants may not be used for academic research, general institutional support, lobbying, or political activities. The maximum grant is \$2,500. However, most grants range from \$500 to \$1,000. Applications may be submitted to American Greenways, The Conservation Fund from March 1 to June 1 each year. Announcement of awards

will be made in early fall. Applications are available on-line at: www.conservationfund.org/conservation/amgreen/index.html.
Contact: Wendy Mullen, Conservation Fund, 703-525-6300

PowerBar's Direct Impact on Rivers and Trails Program

(D.I.R.T.) Program, offered by Powerfood, Inc., can include trails provides grants ranging from \$2,000 - \$5,000 in support of efforts to protect, preserve and restore recreational lands and waterways. Contact : Attn: DIRT Program, 2150 Shattuck Avenue, Berkeley, CA 94710

Web site: <http://www.powerbar.com/whoWeAre/dirt/index.asp>

Bikes Belong Coalition is sponsored by member companies of the American bicycle industry. The Coalition's stated goal is to put more people on bikes more often, through advocacy, marketing, lobbying and funding. For FY 2006, the Coalition expects to award \$160,000 in cash grants for grassroots efforts focussing on projects that leverage federal funding. Grants are awarded for up to \$10,000 on a rolling basis. Local agencies and organizations may apply. Organizations that are directly involved in advocacy or building coalitions for bicycling by collaborating with the bicycle industry receive priority. Information about the Coalition, including grant applications and related information, is on the web at: www.bikesbelong.org

Other examples of Corporate and Business Community Funding:

- In Evansville, Indiana, a boardwalk is being built with corporate

donations from Indiana Power and Light Co. and the Wal-Mart Foundation.

- In Arizona, trail directional and interpretive signs are being provided by the Salt River Project a local utility. Other corporate sponsors of the Arizona Trail are the Hughes Missile Systems, BHP Cooper and Pace American, Inc.
- Recreational Equipment, Inc. has long been a financial supporter of local trail and conservation projects.

Other Private Foundations

A wide range of foundations have provided funding for bicycling and walking. A few national and large regional foundations have supported the national organizations involved in bicycle and pedestrian policy advocacy. However, it is usually regional and local foundations that get involved in funding particular bicycle, pedestrian or trail projects. These same foundations may also fund statewide and local advocacy efforts as well. The best way to find such foundations is through the research and information services provided by the national Foundation Center. They maintain a huge store of information including the guidelines and application procedures for most foundations, and their past funding records. They can be reached on the world wide web at: www.fdncenter.org

Community Fundraising And Creative Partnerships

Listed below are a few examples of community fundraising and creative partnerships:

- In Prince George’s County, local funds were used for the development, construction, and maintenance of the WB&A Trail. The trail project was primarily funded by the Maryland National Capital Park and Planning Commission (MNCPPC). Additional funding was provided by the Maryland’s Program Open Space and ISTEA dollars. While the MNCPPC continues to support the trail financially, trail advocates are in the process of establishing a citizen based organization, similar to the existing group called the Friends of the B&A Trail, that will organize fundraising events and partake in trail beautification and enhancement projects.
- In Ashtabula, Ohio, the local trail organization raised one-third of the money they needed to buy the land for the trail, by forming a “300 Club.” Three hundred acres were needed for the trail and they set a goal of finding 300 folks who would finance one acre each. The land price was \$400 an acre and they found just over 100 people to buy an honorary acre, raising over \$40,000.
- In Jackson County, Oregon, they had a “Yard Sale.” The Bear Creek Greenway Foundation sold symbolic “yards” of the trail and placed donor’s names on permanent markers that are located at each trailhead. At \$40 a yard, they raised enough in private cash donations to help match their \$690,000 Transportation Enhancements program award for the 18-mile Bear Creek trail linking Medford, Talent, Phoenix and Ashland.
- Selling bricks for local sidewalk projects, especially those in historic areas or on downtown Main Streets, is increasingly common. Donor names are engraved in each brick, and a tremendous amount of publicity and community support is purchased along with basic construction materials. Portland, Oregon’s downtown Pioneer Square is a good example of such a project.
- In Colorado Springs, the Rock Island Rail-Trail is being partly funded by the Rustic Hills Improvement Association, a group of local homeowners living adjacent to the trail. Also, ten miles of the trail was cleared of railroad ties by a local Boy Scout troop.
- A pivotal 40-acre section of the Ice Age Trail between the cities of Madison and Verona, Wisconsin, was acquired with the help of the Madison Area Youth Soccer Association. The soccer association agreed to a fifty-year lease of 30 acres of the parcel for a soccer complex, providing a substantial part of the \$600,000 acquisition price.

For more information about bicycle and pedestrian planning activities in the region, please see the following:

The Baltimore Region Bicycle, Pedestrian and Greenways Plan

Adopted by the Baltimore Regional Transportation Board, 2001.

Contact: Jamie Bridges, Baltimore Metropolitan Council, 410-732-0500

Website: www.baltometro.org/BRTP2001/BikePedPlan.html

Twenty Year Bicycle and Pedestrian Access Plan

Maryland Department of Transportation, 2002.

Contact: Michael E. Jackson, Bicycle/Pedestrian Access Director, Maryland Department of Transportation, 410-865-1237

Website: <http://www.e-mdot.com/bin/o/s/FINALB.PDF>

East Coast Greenway

Contact: Greg Hinchliffe, (410) 558-2358

Website: www.greenway.org

Photographs and maps in this document were produced by county staff, or are courtesy of the Maryland State Highway Administration, the East Coast Greenway Alliance, Anne Arundel Department of Recreation and Parks, or Dan Burden, Walkable Communities, Inc.

Eastern Baltimore County Pedestrian and Bicycle Action Committee

Randy Cogar, Planning Board, representing the Fifth District
Dennis P. Hoover, Planning Board, representing the Fifth District
Dorothy Foos, Planning Board, representing the Sixth District
H. Edward Parker, Planning Board, representing the Seventh District
Bob Mowry, representing Senator Redmer
Susan Kahle, representing Senator Klausmeier
Tom Rose, representing Councilman Gardina
Shawn Meyer, representing Councilmen Bartenfelder and Olszewski
Michael Vivirito, President, Bowley's Quarters Improvement Association, Inc.
Ray Reiner, Oliver Beach Community Association
Jack Wright, Dundalk Bike Club
Norman MacNeal, Dundalk Bike Club
John Bowers, Jr., Nottingham Properties
Michael Jackson, Director, Bicycle/Pedestrian Access, Maryland Department of Transportation
Harvey Muller, Bicycle and Pedestrian Coordinator, Maryland State Highway Administration

Phil Humbertson, Assistant District Engineer, Maryland State Highway Administration
Wendy Wolcott, Chief, Engineering Systems Design Team, Maryland State Highway Administration

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