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Chapter 5: Making Connections-Beyond the Path

Goal 3: Support walkable and bikeable communities to achieve sustainability, livability, health and economic benefits, including tourism opportunities.

Bicycle-Pedestrian (bike-ped) infrastructure is more than just a transportation investment. Bike-ped infrastructure replaces cars on the road and connects to various places of business, retail, recreation, and leisure. It also results in more people walking and biking to their destinations. The infrastructure becomes a significant healthy life investment. In addition, connecting bike-ped infrastructure to existing places of attraction enables more visitors to visit these locations. Capitalizing on the desire of people to frequent places of cultural and historic significance can lead to substantial economic growth. For Carroll County, this adds value to its unique assets.

Quality of Life

As the County grows and roads become more heavily used as a transportation option Carroll residents' quality of life becomes adversely affected. Adding pedestrian and bicycle opportunities within the transportation system is one way to prevent and improve heavy traffic conditions. The Centers for Disease Control (CDC) defines quality of life as "a broad multidimensional concept that usually includes subjective evaluations of both positive and negative aspects of life."ⁱ An article by the CDC discusses that there are various domains of quality of life including, but not limited to, health, culture, values, spirituality, jobs, housing, schools, and neighborhood.ⁱⁱ One domain not specifically mentioned in the article is transportation. Adding attractive, affordable, accessible amenities to Carroll County living promotes a positive quality of life for citizens of all ages, income levels, and abilities.

Health and Welfare

A vital way of improving the health and welfare of Carroll County residents is increasing their physical activity. Sedentary lifestyles add to the challenges faced when combating obesity. According to the CDC, obesity is linked to heart disease, diabetes other chronic health conditions.ⁱⁱⁱ The CDC also finds that the cost of chronic diseases such as heart disease and diabetes is extremely high.^{iv} Increasing physical activity is a major way of combating these health challenges. Solutions to this include more healthy community design and marketing the benefits of a more active lifestyle. Infrastructure improvements that support walking and biking lifestyles will encourage more physical activity. Even the Bicycle-Pedestrian Master Plan Interest Survey found that people would bike and walk more if the appropriate infrastructure were in place. Education about the benefits of physical activity also helps people make their own healthier choices.





Walking and biking are transportation choices that give community members an alternative to the automobile. Promoting these options could decrease the amount of cars on the street and have positive environmental impacts. This leads to less traffic congestion and decreases the amount of air pollution. Maryland's death rate from air pollution is 113 per 100,000 people per year, the highest in the Country.^v Less traffic congestion means residents are able to spend less time on the road and more time taking part in activities that will improve their quality of life.

The Partnership for a Healthier Carroll County, Inc.

(The Partnership) is a nonprofit affiliated with the Carroll County Health Department (CCHD) and Carroll Hospital. The Partnership is responsible for the Carroll County Community Health Needs

Assessment (CHNA) for the purpose of assessing and

gathering "current statistics and qualitative feedback on the key health issues facing county residents."^{vi} Following the publication of the CHNA report, The Partnership, its members and

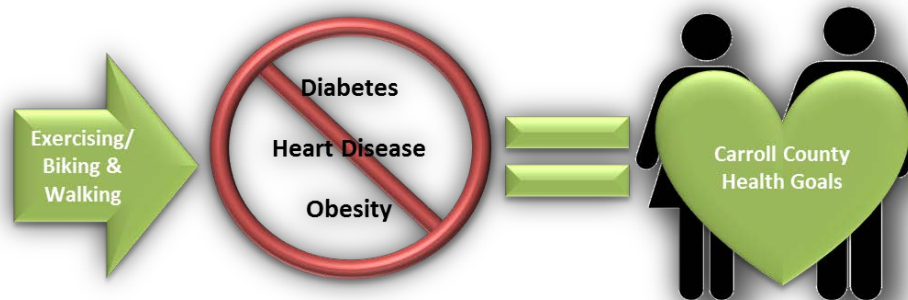
community leaders identify priority community health needs. The priorities identified through the most recent Carroll County CHNA process are:

- Diabetes
- Heart Health
- Obesity
- Cancer



The Partnership's Healthy Carroll Vital Signs tracks health indicators for the Carroll County community. According to a June 2017 data report, 2 out of 3 key health indicators are trending in the wrong direction, see Table 1.^{vii} About half of all Carroll residents exercise at the rate recommended by the CDC for physical activity. However, Carroll's rates of obesity and heart disease make supporting regular physical activity a very important public health goal.

Encouraging bicycling and walking as a mode of transportation will aid Carroll County in meeting its health goals.





Health & Wellness Indicators and Goals

INDICATOR + GOAL	PREVIOUS Data*	CURRENT Data**	Goal Status	Trend Status
% of adults in Carroll County who engage in regular physical activity (150 minute moderate or 75 minutes vigorous per week) GOAL: 47.9% or more	48% (2011)	48.7% (2013)	Goal met	Trending better than goal
% of adults who are obese or overweight GOAL: 64% or less	66.3% (2008)	68.3% (2015)	Goal not met	Trending away from goal
% of adults who have ever been told they have diabetes by a physician (excluding told during pregnancy) GOAL: 10.4% or less	4.8% (2011)	8.9% (2015)	Goal met	Trending away from goal

Table 1: Health and Wellness Indicators and Goals - The Partnership for a Healthier Carroll County - September 2017;

*PREVIOUS Data is earliest available, Up to 10 years old; **CURRENT Data is most recent available

The Partnership's public health goals of physical activity can be encouraged through convenient access to facilities. Carroll County's parks are recreational destinations and are frequented by residents. Carroll County's Department of Recreation and Parks have over 48 miles of paved and natural surface trails.^{viii} Some of the trails in its parks are mentioned in Table 2. Additional paths and trails should be built to connect neighborhoods to these community assets. As an alternative to driving, neighborhood residents should have the opportunity to walk or bike to the parks and other County recreational facilities near them.





Carroll County Parks with Trails

	Total Length of Trail (miles)	Surfacing	Allowed Activities	Link to Map
Cape Horn Park	1.2	paved	Hike, Bike, Skate, Ski	Map
Bennett Cerf/Hahn Rd	0.3	paved		
Carroll County Equestrian Center	4.06	compacted earth	Hike, Horse Riding	
Deer Park	0.7	paved	Hike, Bike, Skate, Ski	Map
Farm Museum/Landon C. Burns	0.75	paved	Hike, bike	
Freedom Park	2.0	Paved	Hike, Bike, Skate, Ski	Map
Gillis Falls Area	4.2	compacted earth	Hike, Bike, Ski, Horse Riding	Map
Hashawha and Bear Branch	13.5	compacted earth	Hike, Bike	Map
Krimgold Park	1.3	paved	Hike, Bike, Ski	Map
Leisters Park	1.6	paved		Map
Morgan Run	11	compacted earth	Hike, Bike, Horse Riding	Map
Piney Run Park	7.75	compacted earth	Hike, Bike, Ski, Horse Riding	Map
Sandymount Park	1.3	paved	Hike, Bike, Skate, Ski	Map
Sports Complex	0.6	compacted earth		
Union Mills	8.0	compacted earth	Hike, Bike, Ski, Horse Riding	Map
Westminster Community Pond and Trail	1.2	paved	Hike	

Table 2: Carroll County Parks with Trails

The Carroll County Health Department also has programs that address safety as a health and welfare issue. Safety in planning bicycle and pedestrian facilities will further be discussed in chapters seven and eight, Design Alternatives and Implementation. There are various existing initiatives in place to keep residents safe and healthy in Carroll County. Table 3 contains some health and welfare programs that are already in place and can be used in implementing a safety plan for the County.





Existing Safety and Health Programs

Program	Description	
Walk Carroll (The Partnership for a Healthier Carroll County)	Walk Carroll is a long-term walking and exercise program that provides regular, accessible physical activity opportunities for anyone who lives, works, or plays in Carroll County.” ^{ix}	
Walkable Carroll (The Partnership for a Healthier Carroll County)	This program promotes downtown walking by posting signs that highlight the distance in minutes to downtown destinations.	
TryVent (The Partnership for a Healthier Carroll County)	This program, encourages those community members age 60 and above to walk and exercise.	
Stay Strong (The Partnership for a Healthier Carroll County)	A video series that highlights exercise and nutrition for specific populations.	
Safe Kids Carroll County (Carroll County Health Department)	Safe Kids Worldwide is a nonprofit organization working to help families and communities keep kids safe from injuries. The initiatives in Carroll include Bike Rodeos, Health Fairs/Outreach, Bike Helmets, and School Bus Safety Day (includes bike-ped).	

Table 3: Existing Safety and Health Programs



Access

While pedestrian and bicyclists are the focus of this plan it is important to recognize they are diverse within themselves and may not be the only users of bicycle and pedestrian infrastructure. It should be clear what types of users can or cannot use a trail or path and what users can or cannot do while on the path. Planning and designing for everyone who will potentially use trails and paths will help to avoid user conflicts. Various types of users such as equestrians, off highway vehicles (OHV), skateboarders, joggers, motorized wheelchairs, and people with dogs will also want to participate. Within these groups there are varying degrees of expectations, experiences, and intensities of use. Conflicts arise when users' behaviors interfere with the experiences of others.^x The Federal Highway Administration addresses where conflicts will arise in its publication *Designing Sidewalks and Trails for Access*. Some of the issues and solutions are discussed in this subsection.



Users have different expectations, experience levels and abilities. Some move faster and have the ability to maneuver quickly while others move at a slower pace. Some will need more path width and height while others need minimal space. This may vary based on whether the user is on a motorized vehicle, wheelchair or a horse. An example of this is an elderly couple out for a stroll versus the experienced cyclist approaching at a rapid, startling pace. Those who move slower can be frightened by those able to move and maneuver quickly. Anticipating each user's preference will help prepare spaces for those who may want a more relaxing and tranquil environment and those who will be noisier and more energetic.^{xi}

People with disabilities will use trails and the Americans with Disabilities Act (ADA) requires this group to have the same access rights as other members of the community. It is important to consider the needs of this population, which may include veterans and seniors, when anticipating user conflicts. Steep slopes and gravel paving could create major difficulties or even accidents for those who are novices at riding a bike or have a disability. When reasonably possible, additional accommodations must be made for people with disabilities.



Sub-communities and neighborhoods with large low-income, senior, and minority populations should be able to access bike-ped facilities. The low-income population often cross high speed highways on foot to access jobs and services because they have no other transportation options. This is a dangerous situation and access to bike-ped facilities could help deter accidents and crashes.

Trail design and trends can also cause conflict with the type of user. The width of a trail or path limits the amount of users at one time. In addition, if the path leads to popular destinations or has a high use frequency the limited space could create conflict among all types of users. New technologies and newly popularized sports may unexpectedly change the way a particular path is used. Many trendy sports may include younger users who have the ability to move with speed and maneuver quickly. Groups that participate in trendy sports and activities that arise may need more space on the path and may create more noise. Policies and rules that regulate users may need to be considered on a trail-by-trail basis.

Changes in technology have led to the increasing popularity of e-bikes. Electronic bicycles (e-bikes) are expected to continue to become more popular. E-bikes are bicycles with partial electric-powered pedaling assistance.^{xii} In Maryland, e-bikes meet the legal definition of a bicycle because they are still human powered (see full legal definition of bicycles in Appendix). Many people use e-bikes for errands and commuting^{xiii}. A potential conflict may arise with increasing popularity as e-bikes have the ability to move faster than bicycles, up to the speed of cars. Policies regulating the use of paths, lanes and trails would need to be considered.

Solutions

Educating cyclists and pedestrians about healthy lifestyles and safe practices will aid in improving quality of life and minimize accidents and incidents. This includes how to behave and what to consider when using bike-ped facilities. The programs listed in Table 1 are good examples of existing programs that can be used to educate people about biking and walking as healthy lifestyle choices.

Law enforcement officials and emergency management personnel will play a key role in education and enforcement policies. Therefore, their input is needed when creating and implementing policy. They should also take part in educating the community about common causes of accidents and prevention. For example, the

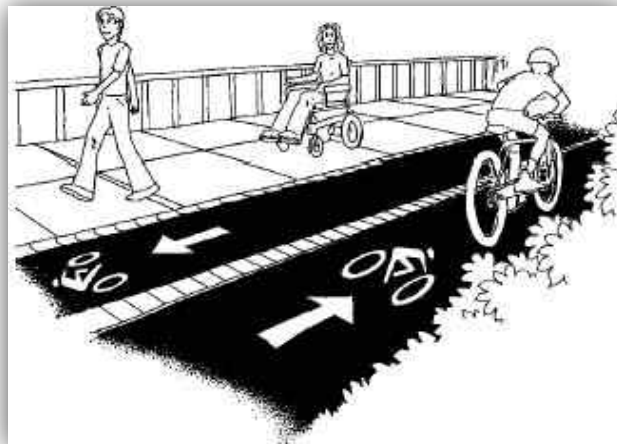


Figure 1: Separate paths for users; source - FHWA, *Designing Sidewalks and Trails for Access*



benefits of wearing helmets when biking and educating pedestrians and cyclists about light colored or reflective clothing when traveling at night. More about safety and education is discussed in Chapter 8, Implementation.

Communication and education about trail etiquette are major ways of combatting conflicts that may arise. The simplest solutions to user conflicts mostly involve communication with the public. Trail etiquette is a set of common courtesies that users convey on each other with the goal of sharing the trail without conflict. An example of educating through signage is shown in Figure 2 where users are given simple instructions on yielding. Another sign may also contain a list of rules and restrictions for each path. When people are taught how to behave they are equipped to make better trail use decisions in respect to one another. Helping people make behavioral choices allows everyone to enjoy the space. If the rules are displayed and it is known that they will be enforced people are more likely to follow them.

The following are potential solutions to user conflicts. Some of the solutions involve trail design which is discussed in more detail in a Chapter 7, Design Alternatives:

- Trail restrictions
- Separating user types
- Speed Limits
- Wider trails/paths (Figure 1)
 - Accommodate higher volumes
 - Accommodate multiple user types
- Clear, easy to understand signage (Figure 2) that displays:
 - Trail etiquette
 - Trail rules
 - Trail terrain
- Education
- Trail managers meeting with user groups, clubs, communities, etc.





Figure 2: Trail Etiquette Signs, www.sandiegotrailalliance.com, www.townofbethlehem.org

Heritage and Economic Development

Carroll County's unique character gives it opportunities to capitalize on its rural assets. There are heritage preservation and economic development opportunities that will help meet the *2014 Carroll County Master Plan* goals.

- Goal 10: "Preserve the County's historic, cultural, scenic, and architectural heritage."
- Goal 13: "To encourage land use practices that promote a healthy economy and develop employment opportunities."

Connections in the form of sidewalks, paths, bike lanes, and bridges should be available to sites that have tourist appeal. Tourism is a major part of the county's economic development; prioritizing connections will help to maximize bike-ped investments.

Tourism and Scenic Paths

Maintaining its rural character allows Carroll County to have many scenic areas. Scenic paths are designated routes that allow travel and observance of beautiful natural, cultural, historic and modern landscapes. Many visitors will seek out the scenic country for recreational purposes or to escape the hustle and bustle of urban life. Guided and strategic leveraging of the bike-ped consumers of this market will help the County and its towns utilize these assets.

Making routes bicycle and pedestrian friendly will help attract those who may be planning hiking or biking trips in neighboring counties or states. Support for these tourists should include anything cyclists may need for long trips such as maps with locations of bed &



breakfasts and hotels, public restrooms, restaurants, wineries, and other rural attractions that are near the routes. Restrooms could be provided through the development of County partnerships with public or private locations such as businesses, churches, or schools.

Carroll County Office of Tourism, within the Department of Economic Development, has put together 10 bike tours for the eight municipalities. These tours are comprised of over 150 miles of scenic stops, historic attractions and rural beauty. There are two trails within both Westminster and Taneytown, and one in each of the remaining six municipalities. These maps are available at www.CarrollBiking.com. The site works with the Google Maps app to allow you to follow along turn by turn.

Carroll County Tourism Bike Tours

	Municipality	Miles	Difficulty	Historic Sites/Stops
Tour #1	Taneytown	13.8	Medium/hard	Taneytown Memorial Park, Littlestown
Tour #2	Taneytown	30.5	Medium/hard	Taneytown Memorial Park
Tour #3	Westminster North	28.9	Medium/hard	Union Mills Homestead
Tour #4a	Manchester	9.11	Very hard	
Tour #4b	Manchester	18.23	Very hard	One of the highest points in Carroll County
Tour #5	Hampstead	13.9	Very hard	Small shops
Tour #6	Westminster South	15.1	Medium/hard	Carroll County Farm Museum
Tour #7	Union Bridge	15.8	Medium/hard	Western Maryland Railway Museum
Tour #8	New Windsor	8	Recreational	Robert Strawbridge's Home, Serrv
Tour #9	Sykesville	33.6	Very hard	Piney Run Park & Reservoir
Tour #10	Mt. Airy	11.1	Medium/hard	B&O Railroad & the Patapsco River

Table 4: Carroll County Tourism Bike Tours, carrollcountytourism.org



These bicycle tours are an example of how bike-ped planning can benefit the County's agritourism. Agritourism is the practice of attracting tourists and visitors to rural areas for economic benefit. The Governor's Intergovernmental Commission on Agriculture (GICA) has suggested a definition of agritourism (or agrotourism) for zoning and permitting purposes,

"Agritourism is a series of activities conducted on a farm and offered to the public or to invited groups for the purpose of education, recreation, or active involvement in the farm operation. These activities may include, but are not limited to, farm tours, hayrides, corn mazes, seasonal petting farms, farm museums, guest farm, pumpkin patches, "pick your own" or "cut your own" produce, classes related to agricultural products or skills, and picnic and party facilities offered in conjunction with the above."^{xiv}

Carroll County has various agritourism opportunities, e.g. wineries, corn mazes, pick-your-own produce. It may be beneficial to the County to consider marking tourist sights and landmarks with uniform signage to assist tourist, particularly those on bikes (see Figure 3), with finding their way to and identifying these routes and landmarks. Mapping these sights and routes and making them easily accessible to the public will also help attract tourists and assist in navigation.

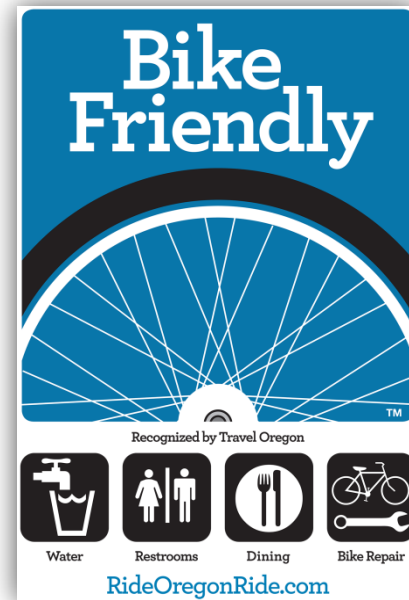


Figure 3: Bike-friendly sign from industry.traveloregon.com



Tourism and Historic Connections

Historic resources and natural attractions give a community its identity. Preserving and protecting these buildings and landscapes creates places that are visually and aesthetically pleasing to observe and visit. Carroll County has several attractive historic sites and districts including main streets, rural villages, and Civil War trails. The 2014 Master Plan recognized the value of these sites and the high rate of consumer spending compared to the amount invested.^{xv} Strengthening bike-ped facilities in these areas gives opportunity to further increase the return on investment.

Main Streets

Main Street Maryland is a comprehensive downtown revitalization program that was created in 1998 by the Maryland Department of Housing and Community Development, in partnership with the National Trust for Historic Preservation (NTHP).^{xvi} As of 2015 the new program brand for the nation's collection of Main Streets is Main Street America^{xvii}. Main Streets have vibrant shopping districts with bike-ped facilities. Well planned targeted approaches that meet the safety and mobility needs of residents and visitors will maximize the economic benefits of these areas.

The state is seeking to support bike-ped initiatives in Main Street areas. This is due to input from stakeholders, a high opportunity for bike-ped travel, and the high concentration of bike-ped crashes.^{xviii} "Longer distance road cycling and walking within historic town centers are the primary walking and biking activities in rural areas."^{xix} It is important to connect to and improve bike-ped facilities near Carroll's Main Streets, museums, historic sites, and other related places to further stimulate the County's economy.





Historic Sites

SNAPSHOT: Economic Benefits of Civil War History

A major tourist destination is just 20 miles north of Westminster in Gettysburg. In 2013, one out of every 260 United States citizens visited Gettysburg National Military Park. According to the National Park Service Report, in 2013, these 1.2 million tourists spent over 73 million dollars in surrounding communities including lodging 30.3%; food and beverages 27.3%; gas and oil 12.1%; admissions and fees 10.3%; souvenirs and other expenses 10.0%.

Lawhon, Katie. *Tourism to Gettysburg National Military Park creates \$73 million in Economic Benefit.*
National Park Service. July 18, 2014

Figure 4: Economic Benefits of Civil War History

Carroll County has a rich heritage with many opportunities to connect to historic sites. There are 60 sites that are on the National Register of Historic Places (see Table 6). There are also areas that are important to not just Carroll County but also American history.

The Heart of the Civil War Heritage Area (HCWHA) and Journey Through Hallowed Ground (JTHG) also should be considered when planning bike-ped facilities in Carroll County. The HCWHA is a region encompassing Carroll, Frederick and Washington Counties, with a concentration of important historic, cultural, natural, and recreational Civil War resources. HCWHA combines resource conservation and education with economic development in the form of heritage tourism.^{xx}

Journey Through Hallowed Ground (JTHG) is a scenic historic corridor encompassing sites of national significance associated with the Revolutionary War, the War of 1812, presidential history, the Civil War, as well as Native-American and African-American heritage. JTHG is made up of a 180-mile long, 75-mile wide area stretching into four states, Pennsylvania, Maryland, West Virginia and Virginia.

The JTHG Partnership is a non-profit dedicated to raising awareness of American heritage in a region that has more history than any other region in the nation.

"The Journey is a unique historic, natural and scenic region, with farms and orchards; woodlands and forests; rivers and streams; rolling hills and mountain views; and unspoiled landscapes that can be explored by car, bike, canoe or Kayak, on foot or on horseback The region is alive with vibrant historic downtowns, rich agriculture and an abundant bounty of wineries, inns and unique cultural events."^{xxi}

A large part of Carroll County is covered by JTHG. In Carroll, HCWHA includes areas of routes that were taken by troops (see Map 2 and Figure 5). Programs and funding opportunities associated with HCWHA and JTHG have sought to preserve the heritage of these areas. One way Carroll County could benefit is by connecting a bike-ped trail or route or a Civil War bike tour to Gettysburg that considers the County's attractions, scenic views, and businesses. An example of the benefits can be seen in Figure 4.

Additionally, the Maryland State Highway Administration has published a brochure highlighting African American Heritage Sites in Carroll County. The Carroll County African American



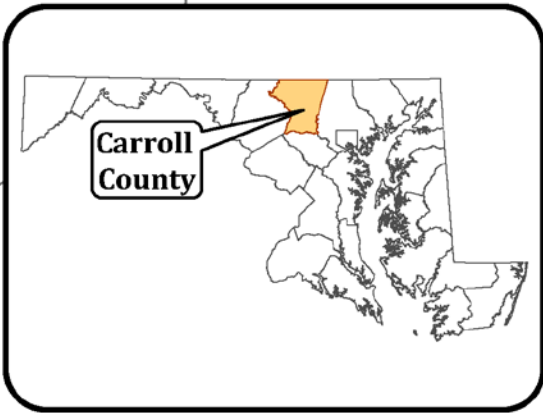
Heritage Guide contains 20 sites that are rich in African American history, Table 5. Four of these sites are on the NRHP. All but one of the sites are on the Maryland Inventory of Historic Properties (MIHP). According to SHA, most of the cemetery sites have “at least one headstone belonging to a soldier who fought in the United States Colored Troops during the Civil War”.^{xxii}

African American Historic Sites

Label#	CARR#	Site	Location
1	CARR-92	St. Luke's (Winters) Lutheran Church Gravestones	New Windsor
2	CARR-1390	Yost Greenwood Farm	New Windsor
3	CARR-14	*Pipe Creek Friends Meeting House	Union Bridge
4	CARR-1092	Bowen Chapel	Union Bridge
5	CARR-221 and CARR-226 thru 230	*East Uniontown	Uniontown
6	CARR-352	*Mt. Joy Methodist Episcopal Church and Cemetery	Uniontown
7	CARR-1716	Simon Murdock House	New Windsor
8	CARR-1020	Strawbridge United Methodist Church	New Windsor
9	CARR-57	Fairview Methodist Episcopal Church and Cemetery	Taylorville
10	CARR-656	Elizabeth Lowry House	Westminster
11	CARR-393	Thomas Jones Log House	Westminster
12	CARR-501, -502, and -506	*Union Street District	Westminster
13	CARR-503	* Union Street Methodist Episcopal Church	Westminster
14	CARR-767	Ellsworth Cemetery	Westminster
15	CARR-516	Western Chapel and Cemetery	New Windsor
16	CARR-1011	White Rock Church and Cemetery	Eldersburg
17	CARR-616	Reuben and Laura Thomas House	Eldersburg
18	CARR-1487	Sykesville Colored Schoolhouse	Sykesville
19	n/a	Robert Moton School	Westminster
20	CARR-1616	Henryton State Hospital (demolished)	Marriottsville
		<i>*on the National Register of Historic Places</i>	
		See Error! Reference source not found.: Carroll County Historic Sites & Districts	

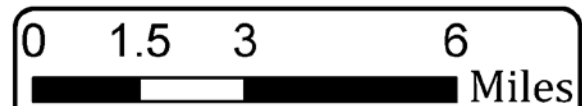
Table 5: Carroll County, African American Heritage Sites, from SHA's Carroll County African American Heritage Guide

Carroll County Historic Sites & Districts

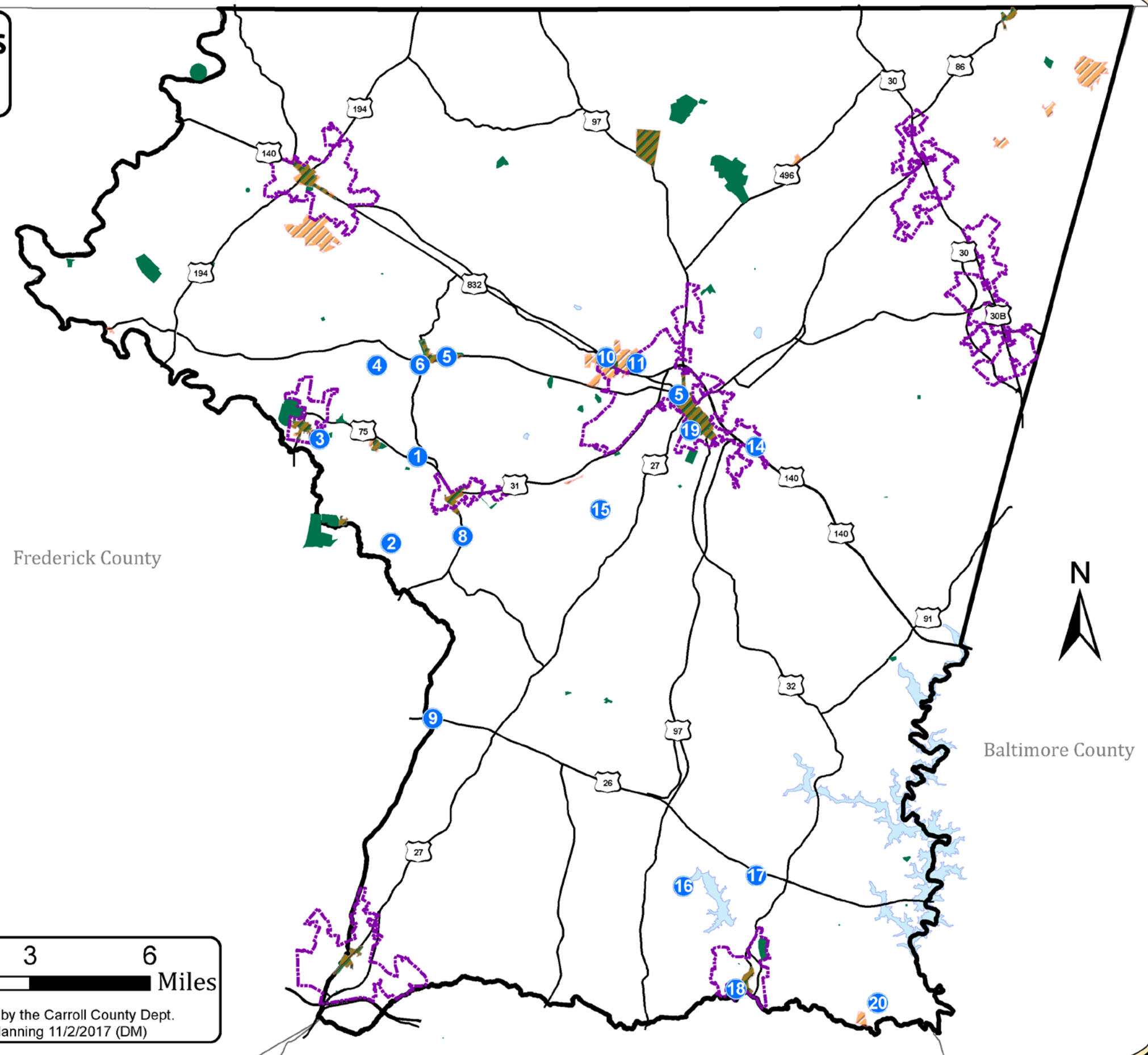


Legend

-  African American Heriatge Sites
-  National Register of Historic Places
-  Historic Districts
-  Ponds and Reservoirs
-  Corporate Limits
-  County Border



Created by the Carroll County Dept.
of Planning 11/2/2017 (DM)



Carroll County Historic Sites on the National Register of Historic Places^{xxiii} by Area

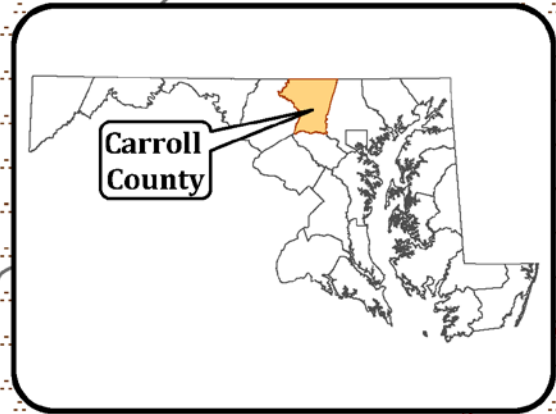
City	Count
Detour	1
Eldersburg	2
Finksburg	2
Hampstead	1
Houcksbille	1
Keysville	1
Lineboro	1
Linewood	1
Millers	1
Mount Airy	1
New Windsor	3
Silver Run	1
Sykesville	5
Taneytown	6
Union Bridge	9
Union Mills	2
Uniontown	4
Westminster	18
Total	60

Table 6: Historic Sites on the National Register of Historic Places by Area



Figure 5: Bank Building in Historic Uniontown (NRHP) along Civil War route, photo from from HCWHA's *Bugle Call* June 2015

Carroll County Heritage and Tourism



Legend

- Farm Alcohol Producers
- Ponds and Reservoirs
- Recreation Facilities
- County Tourism Routes
- Gettysburg Civil War Trails
- JTHG Heritage Area
- HCWHA
- Corporate Limits
- County Border

0 1.5 3 6 Miles

Created by the Carroll County Dept. of Planning 11/2/2017 (DM)

Frederick County

Baltimore County

Howard County





Economic Development

Bicycle and pedestrian investments can improve economic development and benefit the County and businesses if the proper connections are made. Bike-ped planning will aid in expanding existing businesses and promote new development opportunities. The less money is spent on automotive travel the more money can be spent toward other areas that will stimulate the economy.

Connecting to Businesses

Businesses play an important role in planning for bicyclists and pedestrians. The investments made are not just good for the County but also for businesses. Businesses that are located within half a mile of a greenway are likely to see a 30-80% increase in commerce, according to the U.S. Department of Transportation. Bikers and walkers need services and goods, including food, lodging and supplies while traveling. This includes hard and soft goods. Soft goods encompass textiles, clothing and bedding, and hard goods cover just about all other retail items, e.g. tools, sporting equipment, electronics. For a bicyclist, hard goods could include a watch, any kind of bike equipment, a water bottle etc. Soft goods purchases would consist of hats, shoes, clothing etc.^{xxiv}

Paths can be used to connect residential developments to employment campuses and business centers, such as main streets, grocery stores, and business parks (see Map 3). It is important to make adequate bike and pedestrian accommodations to encourage transportation alternatives; for example, encouraging business owners to install bike racks at retail destinations. By working with the existing market to support the existing demand for bike-ped facilities the County can enhance its economic development activities. This enhancement would mean developing transportation connection solutions that promote environmental conservation and environmental quality.

Connections to businesses could also be made through incentive programs and on site bike-ped facilities. This would encourage people to walk or bike to a business destination rather than drive. Business owners could be linked to financial resources that help them make improvements where necessary. These updates could include bike racks, curb cuts or paving.

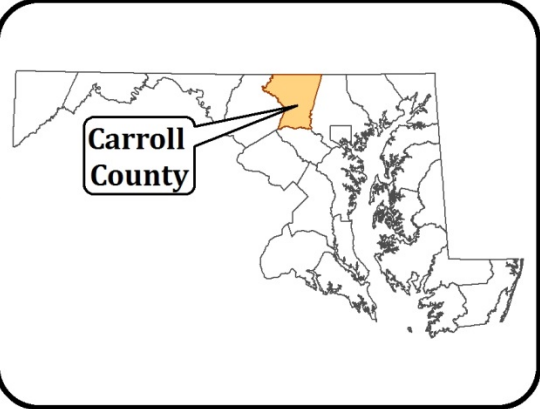
SNAPSHOT: Economic Benefits of Biking and Walking

A bicycle trail economic impact analysis was performed in North Carolina on the Northern Outer Banks. The findings showed that \$60 million in tourist spending (on food, entertainment and lodging) supported 1,400 jobs. The annual approximation of tourists that traveled to this area for the sole and part reasoning of cycling was 68,000.

Garrett-Peltier, Heidi. Political Economy Research Institute. *Pedestrian and Bicycle Infrastructure: A National Study of Employment Impacts*. June 2011. P.2.

Figure 6: Economic Benefits of Biking and Walking

Carroll County Grocery Service Destinations



Legend

- ★ Main Street
- 🏠 Grocery Stores
- 💧 Ponds and Reservoirs
- 🔲 Corporate Limits
- ⬛ County Border
- ★ Pedestrian

Status

- Existing
- ▲ Bike-Ped

Status

- Existing
- Bicycle

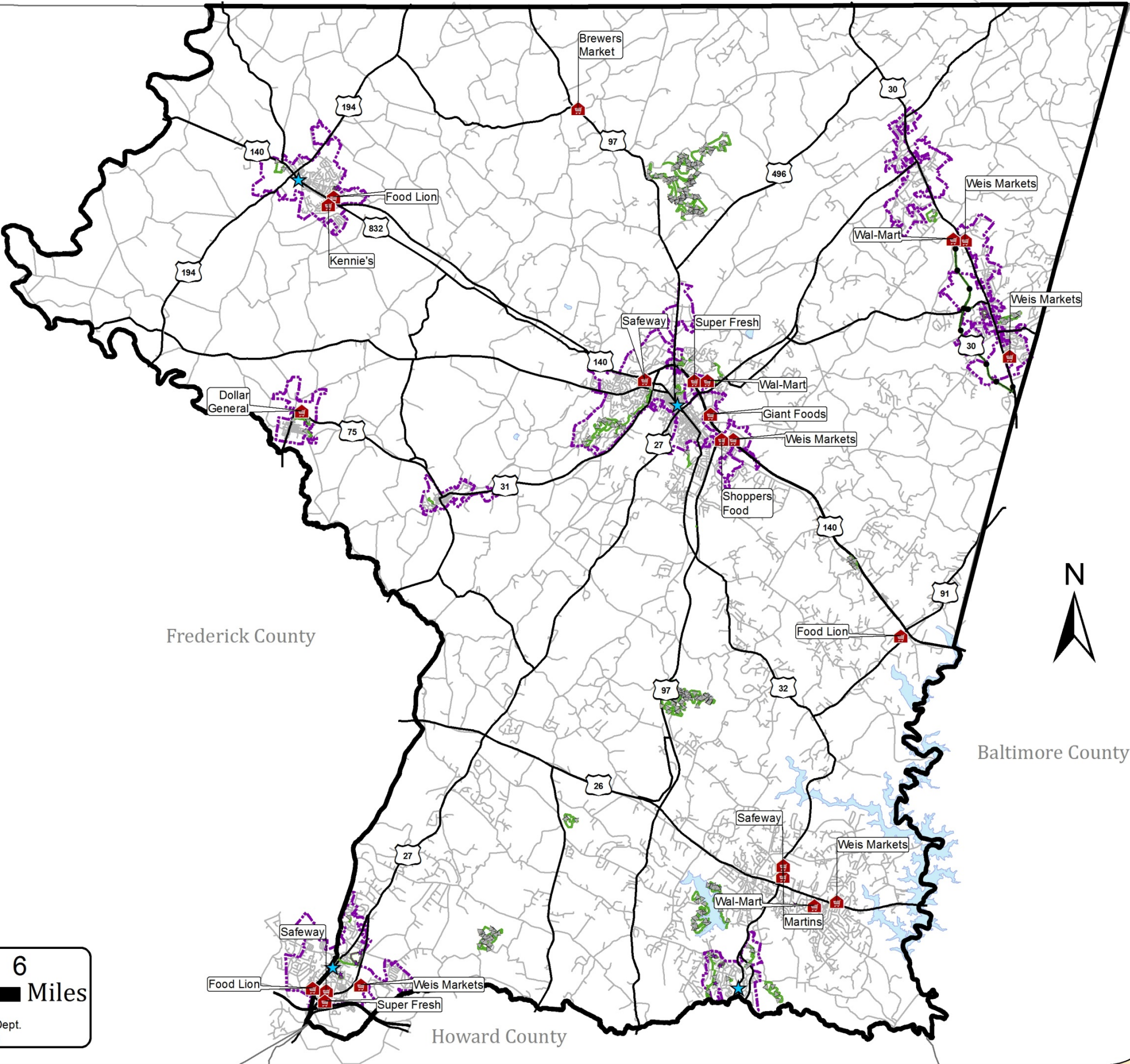
Status

- Existing

01.536

Miles

Created by the Carroll County Dept. of Planning 11/2/2017 (DM)



Map 3: Grocery Service Destinations



Educating businesses on the bike-ped market can assist them in making these connections so that each business can benefit individually and capitalize on this market. A bottom-up approach to working with businesses would allow each owner to make the best decision about what specific investments need to be made.

Job Creation

According to the Maryland Twenty-Year Bicycle & Pedestrian Master Plan, the cost of bicycle and pedestrian infrastructure is fairly low compared to the estimated return of “higher job creation per dollar spent when compared to traditional highway projects.”^{xxv} There is an opportunity to partner with businesses to further increase the benefits.

In 2011, the Political Economy Research Institute performed a National Study of Employment Impacts derived from Pedestrian and Bicycle Infrastructure. For this report, data was collected from 58 projects in 11 cities across the United States. The purpose of this study was to “estimate the employment impacts of building and refurbishing transportation and infrastructure for cyclists and pedestrians.”^{xxvi} This included jobs created from the construction of walking and cycling infrastructure. Types of jobs include manufacturing, design, construction and installation. This study did not evaluate the economic impact relating to the use of walking and cycling infrastructure, rather the impact of construction.

The overall findings concluded that construction of bicycle specific or pedestrian specific infrastructure created the greatest amount of jobs; while construction of road-only infrastructure supported the lowest amount of job creation. The table below shows the type of infrastructure constructed and the number of jobs created from one million dollars of spending.^{xxvii}



National Average Employment Impacts by Project Type

Infrastructure	Money Spent	Total Jobs Created
Bicycling-only	\$1 million of spending	11.41
Pedestrian-only	\$1 million of spending	9.91
Multi-use Trails	\$1 million of spending	9.57
Road Construction & Bike-Ped Facilities	\$1 million of spending	8.53
Road-only	\$1 million of spending	7.75
Average	\$1 million of spending	8.96

Table 7: PERI study July 2011 Pedestrian and Bicycle Infrastructure: A National Study of Employment Impacts

** "Total jobs created" include direct, indirect and induced jobs, and are within the State where the project is located.**

Real Estate

Bike-ped infrastructure is also beneficial to real estate. Property values increase as distance to sidewalks, bike paths, and walking trails decrease. Prospective homeowners are, in some cases, likely to increase their budget or reprioritize their home needs when recreation and transportation facilities are close. A Grant Supporting the Indianapolis Cultural Trail, an eight-mile bicycle and pedestrian trail, has led to a \$140 million increase in adjacent property value says the U.S Department of Transportation.^{xxviii} This shows that an increased economic wealth in bike-ped communities is aided not only through business transactions of goods, but also through real-estate transactions. Additionally, Darren Flusche, Policy Director of the league of American Bicyclists, found that in Delaware, properties within 50 miles of a bicycle path sell for \$8,800 more compared to other similar homes.^{xxix}



New research performed by the University of Cincinnati finds a large benefit to homeowners located close to nature trails. The Little Miami Scenic Trail stretches across 12 miles of urban and suburban Cincinnati. "The scenic, multipurpose trail beckons walkers, hikers, skaters and



bicycle enthusiasts and also has horseback riding paths.” Research concluded that housing prices rose nine dollars for every foot closer to the trail and homeowners were willing to pay and extra \$9,000 premium in return for 1,000 feet closer to the trail.^{xxx}

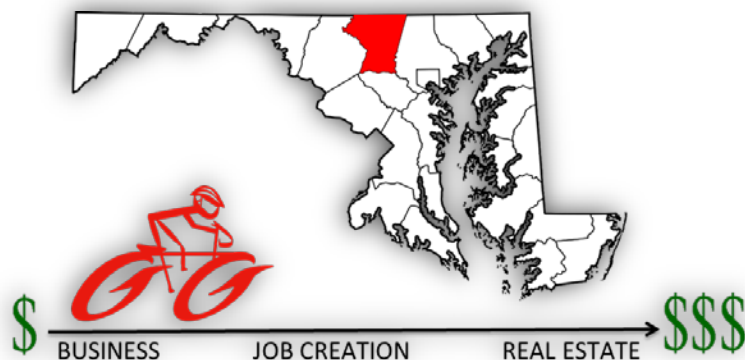
Partnerships

Partnerships exist between public and private entities to promote economic development that will benefit multiple parties. Bike-ped activities support successful partnerships in rural areas. Two of these examples are the Canal Towns Partnership for the Great Allegheny Passage (GAP) and the C&O Canal Towns Partnership.

The Canal Towns Partnership for the Great Allegheny Passage is an example of a partnership with the community stakeholders to best leverage resources for businesses and provide a bike-ped friendly environment, see Figure 7. The towns coincide through the program to focus on “community and economic development around trail tourism and outdoor recreation.”^{xxxi} Economic opportunities are viable through this program as town businesses are encouraged to contact the program for resources on trail tips, marketing and financing. The program has learning opportunities through webinars, pamphlets/brochures and maps that shine light on regional events in the towns.

The historic Chesapeake and Ohio Canal (C&O Canal) is followed by 184 miles of scenic towpath, creating one of the largest bikeways in the U.S. The path winds its way from Washington D.C. to Cumberland, MD. The Canal Towns Partnership was created to heighten those opportunities and to generate more wealth for the towns and communities. The partnership, managed by the partner program C&O Canal Trust, is made up of nine towns, “who generate mutually beneficial economic activities by providing amenities and services to visitors.”^{xxxii} These towns work together through the partnership to build awareness of amenities that are available for tourists.

As with these partnership examples there is the potential to capitalize on bicyclists and hikers who venture out these multiple mile trails. There will be a need for restaurants, lodging and camping accommodations, visitor services, and businesses that sell hard and soft goods. With strong partnerships and the proper plan for marketing Carroll County could have significant economic growth from investments in a multi-mile trail that connect to tourist destinations.





SNAPSHOT: Canal Towns and Trail Towns Partnerships

Towns along the C&O Canal and the Great Allegheny Passage (GAP) have joined the Canal Towns and Trail Towns partnerships. These partnerships provide tools to help towns along the trails leverage their proximity to the trail to realize economic development and community revitalization benefits associated with trailbased tourism.

The Trail Towns Program® is a project of The Progress Fund developed in conjunction with the Allegheny Trail Alliance (ATA). Participating towns, including Cumberland and Frostburg, have pages on the ATA website, www.ATATrail.org, featuring easily accessible maps, directions, and lists of lodging, restaurants, and other amenities. The Trail Towns Program advertises the following key actions for becoming a successful Trail Town:

- Enticing trail users to get off the trail and into your town.
- Welcoming trail users to your town by making
- Information about the community readily available at the trail.
- Making a strong and safe connection between your town and the trail.
- Educating local businesses on the economic benefits of meeting trail tourists' needs.
- Recruiting new businesses or expanding existing ones to
- fill gaps in the goods or services that trail users need.
- Promoting the "trail-friendly" character of the town.
- Working with neighboring communities to promote the entire trail corridor as a tourist destination.

In addition, another website, trailtowns.org, has information for business owners and entrepreneurs along the GAP Trail. Targeted uses include restaurants, hostels, campgrounds, outfitters, and bike shops.

The site has information about business planning, available properties, market, and socio-demographic data about trail users, and information about financing opportunities through the program. Since the program's beginning in 2007, The Progress Fund has made 23 loans to Trail Town businesses, leveraging \$6.7 million in total investment.

The Canal Towns Partnership (CTP) was formed by a group of volunteers in 2009 with similar goals. The CTP seeks to assist the communities along the C&O Canal towpath in reaping the multiple benefits of trail-based tourism and recreation. The CTP focuses on economic development strategies and supporting communities that connect to the C&O Canal in becoming more bikeable and walkable.

Representatives of the eight participating towns meet monthly to discuss visitor attraction strategies and collaborative marketing efforts and to explore ways to improve visitor services and amenities in their communities. Accomplishments of CTP to date include:

- A successful application for assistance from the
- National Park Service through the Rivers, Trails, and
- Conservation Association.
- Design and development of business directories
- in each community at the trail access point with
- business listings of services, a town map and historical information. Bike lanes developed, directional signage and bike
- racks installed in the towns. Coordinated wayfinding signage with the C & O Canal
- National Historical Park.
- Successful funding of a Canal Towns web site and
- Canal Towns brochures offering visitor services.

Figure 7: Canal Towns and Trail Towns Partnerships, *Maryland 20-Year Bicycle Pedestrian Master Plan*



Recommendations

- Quality of Life Initiatives
 - Partner with The Partnership for a Healthier Carroll County and the Health Department to incorporate existing relevant programs that help prevent injuries while biking and walking and promote a healthy, active lifestyle.
 - Connect nearby neighborhoods to existing parks.
 - Work toward senior, disabled, low-income, and minority populations having access to sidewalks, trails and paths that connect to jobs and services.
 - Communicate with and educate users about trail etiquette with appropriate signage.
- Tourism and Scenic Paths and Historic Connections
 - Consider uniform wayfinding and landmark signage where appropriate. This will assist tourists in navigating tourism and scenic routes.
 - Consider creating additional connections to historic places that have significant tourist appeal such as NRHP sites, main streets, rural villages, and Civil War trails
 - Provide maps of trails with historic and archeological sites, cultural sites, wineries, bed and breakfast, campgrounds, and other amenities.
 - Create a website of available resources including directions, lists of lodging, restaurants, outfitters, and bike shops and other amenities.
 - Work with GIS data to create an app with bike routes and Carroll County cultural, heritage, and historic site locations.
 - Consider a trail connection to Gettysburg National Military Park that will benefit Carroll County businesses.
 - Consider establishing partnerships with businesses, churches, schools and other entities to provide restrooms for bicycle tourists.
- Economic Development
 - Consider creating a Partnership for any greenway or trail that spans a significant portion of the County. The Partnership should include citizens, business owners, towns, and interest groups.
 - Consider determining a location and connections for a multi-mile trail that highlights Carroll County's unique heritage that incorporates lodging, restaurants and other bicycle services.





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