EAST COAST GREENWAY PLAN

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In Partnership with
New Castle County, Cecil County,
DelDOT & MDOT

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Introduction

Greenways are critical components of the transportation system. An inter-connected system of greenways can provide safe, convenient, and efficient travelways to activity centers. They can be used in urban areas and employment centers as an alternative form of commuting. Constructing trails off-road but within the transportation corridor allows people using the facility to reach important destinations and feel more secure.

From a regional perspective, The WILMAPCO East Coast Greenway Plan (The Plan) will assist in implementing each of the five strategies established in the 2025 Metropolitan Transportation Plan. The Plan will also provide more travel options to improve mobility and will support commerce by developing a route that connects tourists to major regional destinations.

From a national perspective, The Plan will provide a link in the larger scale East Coast Greenway (ECG). The East Coast Greenway will be the nation's first long distance, city-to-city, multimodal transportation corridor for cyclists, hikers, and other non-motorized users. The Greenway's goal is to connect existing and planned trails between Key West, Florida and Calais, Maine. The result will be a continuous safe, green route that will be easily identified through signage, maps and user guides.
This report is one of two components to the overall East Coast Greenway Plan. The second component is a fold-up graphic poster of the map along with photos, cross-sections and supporting graphics. This report will provide the background of the study, a history of both counties, a synopsis of how the route was selected, a maintenance and management plan for the greenway and a summary of the public involvement process.

Regional Context

WILMAPCO plays a pivotal role in guiding transportation planning throughout New Castle County, Delaware and Cecil County, Maryland. As the designated Metropolitan Planning Organization, WILMAPCO is responsible for prioritizing transportation investments in the region. The 2025 Metropolitan Transportation Plan (MTP) recognizes that communities can be strengthened through improved access to alternate modes of travel - transit, walking, and bicycling. The MTP envisions a transportation future where the scenic character outside our livable communities will be preserved and protected.

The Plan developed by WILMAPCO will create a link in the long distance trail through New Castle County, Delaware and Cecil County, Maryland. Through the WILMAPCO region, the path will provide safe walking and biking connections to shopping, schools, jobs and recreation for the community while showcasing our region's scenic, cultural and historic treasures to travelers.

The Plan will fulfill many of the Metropolitan Transportation Plan's strategies to the quality of life in the region. The Plan will help:

- **Link land use and transportation** by improving the quality of life in the communities.
- **Improve mobility** by giving people more transportation choices for traveling through and within the region.
- **Manage our transportation system** since it does not require building new roads but provides more choices for travel without impacting congestion.
- **Improve commerce** by developing a route that connects tourists to major regional destinations. It also supports existing businesses by developing a transportation facility that links town centers.
- **Protect our natural resources** by improving air quality, developing and linking walkways and bikeways throughout the region, and preserving and linking historic and scenic resources.

National Context

In June of 1999, the U.S. Department of Transportation and the White House Millennium Council announced that the National Millennium trails would create and improve more than 2,000 trails across the country. The East Coast Greenway (ECG) is one of sixteen National Millennium Trails and is scheduled to be completed by 2010. Currently, over 200 miles of the overall 2600 miles have been completed and designated. Reaching from Key West, Florida to Calais, Maine, the ECG will be the nation's first long-distance, city to city, multi-use trail. Linking together our cities, towns and villages, it will enhance opportunities for recreation, transportation, and exercise and provide residents and visitors with a new means of exploring the heritage of our nation's most historic region. The route will be at least 80% off-road using waterfront esplanades, park paths, abandoned railroads, canal towpaths and parkway corridors.

The ECG is being constructed by connecting existing trails (canal towpaths, rail-trails, park pathways, waterfront esplanades, bikeways) with new trail sections being developed to complete the linkages. When completed in 2010, it will join I-95, US Route 1 and Amtrak as an eastern seaboard transportation corridor. Like the Appalachian Trail, it will accommodate walkers, but it will also serve cyclists, those in wheelchairs, skaters, equestrians and skiers.

The ECG has a number of important goals: expanding transportation choices, improving air quality and reducing roadway congestion, and facilitating healthy activities like walking and cycling. As part of the growing network of multi-use trails that will be developed in our region, this spine route will allow people to travel short distances from their homes to nearby destinations, to explore adjacent regions, or to travel for days to more distant destinations.

This effort is being championed by the East Coast Greenway Alliance. The Alliance is not constructing and will not own or manage the trail, but it does play a crucial role in its establishment. The ECG Alliance is a non-profit organization that was established in 1991 to assist in developing a continuous spine route between cities along the East Coast. There is a 19-member board with representatives from all but two states between Maine and Florida. They work with state committees and local agencies to define the route and help move it onto the public agenda for funding, through TEA-21. Their role is to set the vision, define clear criteria for the type of trail, and provide the needed coordination among the many players who will develop, own and manage the trail. Delaware and Maryland each have a state committee set up as representatives for the ECG Alliance.

The Planning Process

Project Team

The Project team is made up of numerous agencies and individuals to help ensure that this project is a success. **WILMAPCO** is overseeing the project with **Urban Engineers, Inc.** and **Campbell-Thomas & Company** providing technical consulting support. There is also a steering committee and management committee working with the Project Team. The Management Committee is made up of mostly state and regional agencies, whereas the Steering Committee is made up of mostly local municipalities. The East Coast Greenway Alliance is represented through the two state committees and the Mid-Atlantic Coordinator for the ECG has been involved with the project on an on-going basis.

Project Approach

The approach to this project was comprehensive, with public involvement as the driving force in the process. The approach is rooted in developing realistic, workable solutions that address the project needs and incorporate local concerns. The Project Team worked in partnership with the key stakeholders to gain local and regional acceptance of the project. During the process the group strived to maintain the original principles created by the goals and objectives established at the onset of the project.

Seven goals and objectives were established at the beginning of the project that were the compass to ensure the project achieved what it set out to achieve. They were used as a checklist to ensure that the preferred route selected fulfills the goals identified for the project:

Goals and Objectives

- Identify a feasible East Coast Greenway route that meets the criteria established by the East Coast Greenway Alliance;
- Provide for safe pedestrian and bicycle travel and street crossings;
- Be 100% off-road -- 20% on-road in the short-term, if infeasible to be entirely off-road. Options should be identified for later implementation in this case;
- Provide non-motorized access to retail, jobs, recreation, transit stops and park & rides;
- Link residential, employment, historic, cultural, environmental, and commercial centers, and current and future train stations via the route;
- Link the identified greenway route to other existing and planned greenway facilities; and
- Serve as a spine that connects with other greenways in the region.

What will this project accomplish?

Link to towns: The Greenway, as a "trail linking cities," must penetrate cities and towns along the route from Pennsylvania to the Susquehanna River. The Greenway is not seeking to avoid settled areas in favor of more natural ones. Rather, it will create a continuous trail environment linking the urban and suburban areas with each other, as well as with open space.

Economic Revitalization: As the Greenway will inevitably pass through areas in need of reconstruction and/or reuse, the Greenway can serve as a catalyst for economic revitalization of former or underutilized industrial areas, including "brownfields." In fact, in several parts of the Trail Corridor, trail development is unlikely to occur without the attendant economic development. The Team will assure that neighboring commercial and industrial owners are included in the planning process as the route is developed.

Solving the Fragmentation of Open Space: Suburban sprawl has left much open space in northern Delaware and Maryland fragmented in a way that lessens the value of such greenspace. The East Coast Greenway can work to create "the psychology of continuous greenspace." For example, the average citizen perceives that Elk Neck State Forest cannot be reached from Elkton without walking along pedestrian-unfriendly highways —the East Coast Greenway can help change this so people see themselves much more connected to open space.

Market Street in Wilmington


Abandoned Right-of-Way in Wilmington


Elk Neck State Forest

Links to the Regional Trail and Transportation Network: The East Coast Greenway in this corridor will link to numerous stream valley trails as it passes through the Piedmont, as well as rail-trails, and the Delaware Coastal Heritage Greenway. Further, the network of trains and buses that serve the area can provide access to the East Coast Greenway at several points, making numerous trips possible.

Newark Train Station

Links to Historic and Cultural Resources: As a corridor that has existed since colonial times, there are numerous historic districts, museums, waterfront areas, nature and forest preserves which can be linked by the East Coast Greenway. It is important to make access on foot and bicycle both possible and pleasant.

Upper Bay Museum

The Creation of a "Continuously Interesting Environment": By linking together so many resources in New Castle and Cecil Counties, the East Coast Greenway has the ability to change the perception of the region by residents and visitors alike. What one sees driving today from one community to the next has in many cases turned into the continuous suburban sprawl or brownfields found throughout the country. The East Coast Greenway —whether someone uses it for an hour, an afternoon, or even a day or two— has the ability to show New Castle and Cecil Counties as they should be— with their unique local character flowing continuously from one community to the next. This will demonstrate the true value of a Greenway!

Service Road parallel to Amtrak line, Perryville

History of New Castle County

The first permanent settlement in New Castle County, as well as in Delaware, was the Swedish Fort Christina, resulting from Peter Minuet's 1638 expedition in the Kalmar Nyckel. The town was laid out where Wilmington presently exists, and was part of the land contracted with the Indians that consisted of Old Cape Henlopen north to Sankikans (Trenton Falls), and inland as far as they desired. However, a dispute ensued between the Swedes and the Dutch, who stated they had prior claim to that land. In 1640, New Sweden Governor Johan Printz moved his government and capital to Tinicum Island. In 1651, Peter Stuyvesant, Governor of New Netherland, sailed up the South River (Delaware River) and purchased land from the Indians that covered Minquas Kill (Christina River) to Bompties Hook (Bombay Hook). Part of this purchase had already been sold to the Swedes in 1638. Stuyvesant, unaware of any dishonesty, began to build Fort Casimir (contemporary New Castle).

In 1654, John Rising officially assumed Printz's duties, seized Fort Casimir and renamed it Fort Trinity. Having complete possession of the west side of the Delaware River, the Swedes met with the Indians to reaffirm their original purchase. In 1655, the Dutch recaptured Fort Casimir, conquered Fort Christina and made New Amstel the capital of the Dutch-controlled colony. As payment for regaining the territory, Dutch West India Company conveyed land from the south side of Christina River to Bombay Hook, and as far west as Minquas land. This land was known as the Colony of The City. In 1663, the Dutch transferred property rights to the territory along the Delaware River to England. In 1664, New Amstel was then renamed New Castle. In 1672, the town of New Castle was incorporated and in 1673 New Castle County was established as the first county in the first state, Delaware.

During the 18th and 19th centuries, New Castle County experienced more turmoil during the American Revolution and the Civil War, especially in the towns of New Castle and Wilmington. Their ports thrived with commercial trade and benefited from the transportation innovations of the 19th and 20th centuries. In 1832, the New Castle-Frenchtown Railroad provided improved passenger and freight travel connecting the Delaware Bay to the Chesapeake Bay. Five years later, the Philadelphia, Wilmington and Baltimore Railroad offered immense competition for the steamboat and canal boat lines and ultimately lead their demise.

Presently, Wilmington and New Castle still utilize their ports as an economic benefit focused on the tourism industry. Along with Newark and Claymont, these New Castle County communities all offer a wealth of interconnected historic resources and recreational activities to those who would use the proposed trail.

Claymont

During the 17th Century, the Swedes settled along the Delaware River. They beat paths through the woods to connect settlements by land, thus establishing the Philadelphia Pike through Claymont. With the English rule, the Philadelphia Pike became known as the King's Highway. The route was significant during the American Revolution, with George Washington staying in the Robinson House.

During the 19th Century, the Claymont area grew and was home to artists and writers including Felix Darley and F. Scott Fitzgerald. The biggest "boom time" for Claymont, however, came with General Chemical (1913) and Worth Steel (1917).

Today, the community is working towards a Claymont Renaissance, with plans for a mixed use "Claymont Center" and transportation improvements.

Wilmington

After periods of Swedish (1638), Dutch (1655), and British (1664) colonization, the area was brought under British rule (with Quaker influence) in 1739. At this time Willington (named after Thomas Willing, the first "developer" of the land) was renamed Wilmington, presumably after Spencer Compton, Earl of Wilmington, a favorite of the King. Up until the Revolution, the town developed into a prosperous business and residential community. During the Revolution, its milling industries, geographic location, key leaders and resources made Wilmington particularly strategic. In 1832, the borough of Wilmington officially became a city. Five years later the completion of the Philadelphia, Wilmington & Baltimore Railroad made the City accessible by water, road and rail on the main north-south transportation route. The area's economy flourished as shrewd businessmen and a skilled labor force provided the resources for the growing industries.

The Civil War contributed to the city's flourishing economy. Wilmington's strong industrial base met the great demands of the Civil War. Older establishments expanded, and many new industries were initiated. Their products included ships, railroad cars, gunpowder, shoes, tents, uniforms, blankets and other war-related goods. By 1868, Wilmington was producing more iron ships than the rest of the country combined and it rated first in the production of gunpowder and second in carriages and leather. The post-war prosperity allowed the construction of many elaborate new homes and businesses, which induced residential development to the west of the existing City, creating the beginning of "suburban development". In 1864, the first horsecar line was initiated, assisting development of residential areas outside the City boundaries. The first "suburban" area to be developed was centered around today's Delaware Avenue. Wealthy industrialists and businessmen built ornate mansions on this street making it the city's most fashionable address. The late nineteenth century saw the development of a comprehensive park system, "godfathered" by William Bancroft, a successful Wilmington businessman with a concern for the preservation of open parkland in Wilmington who was influenced by the work of Frederick Law Olmsted. Rockford Park and Brandywine Park owe their creation to his generous donation of land and efforts.

Both World Wars re-stimulated the City's industries. Industries vital to the war effort - shipyards, steel foundries, machinery and chemical producers - operated on a 24-hour basis. Other industries produced such goods as automobiles, leather products and clothing. After the decline of large-scale manufacturing in Wilmington, projects such as urban renewal in the 1960s and 70s, which cleared many blocks of housing, and the construction of 1-95 which cut through several of Wilmington's most stable neighborhoods, contributed to the City's decreased population. The 1980s put the City on an upswing again. After the Financial Center Development Act of 1981 substantially liberalized the laws governing banks operating within the state, numerous banks and financial institutions relocated to the area. In 1986, the state adopted legislation targeted at attracting international finance and insurance companies. Continuing this upswing, the recent "Back to the Cities" movement has provided Wilmington with multiple redevelopment projects. Some of these projects include a fine collection of extant buildings, displaying popular styles from the Revolution through late 20th century. It also includes the waterfront redevelopment, which is focusing on the economic benefits from the tourism industry.

New Castle

It is believed that the Swedes and Dutch in search of readily accessible farmland formed small colonies in the area as early as 1638. The Swedish settlements were under the rule of Swedish governor, Johan Printz, who had established his capital up river at Fort Christina (present day Wilmington). The Dutch, under Peter Stuyvesant's rule, were settling in the area as well. On July 19, 1651 Peter Stuyvesant purchased from the Indians approximately 30 miles of land along the west bank of the Delaware River and established Fort Casimir. In 1654 the Swedes captured the fort and renamed it Fort Trefalldigheet (Fort Trinity). Some 16 months later the Dutch retook the fort and renamed it New Amstel. In 1664 the English took control and renamed it New Castle. During the Revolutionary war the New Castle courthouse was the site of Delawareans declaring themselves free of English rule a month before her local citizens, Read, Ross and McKean signed the Declaration of Independence.

Church in New Castle

In the 19th century, New Castle took part in the transportation innovations that were happening nationally. Constructed in 1832 The New Castle-Frenchtown Railroad connected the Delaware Bay to the Chesapeake Bay transporting both passengers and freight. As a result, New Castle became a significant competitor to Elk Landing's previously established travel and trade economy.

New Castle's economy no longer thrives on the travel and trade industry but instead thrives on the history of its travel and trade industry. New Castle presently contains over fifty examples of early 1700 and 1800 architecture. The Strand, along the Delaware River, offers a collection of Dutch-English-early American architecture virtually unchanged. Its rich collection of historic private homes, public buildings, gardens and churches paint a living picture of historic New Castle.

Newark

The Newark settlement developed in the late 1680s around the New Worke Quaker meetinghouse, which served as an early crossroads meeting place for travelers. The community remained relatively undisturbed until the late 18th century. In 1777, the only significant battle of the American Revolution fought in Delaware was at nearby Cooch's Bridge on Christina Creek. Although Newark did not economically benefit from the Delaware River like its neighbors, Wilmington and New Castle, it did take advantage of its closest water source, the White Clay Creek. Just before 1798 a paper mill built on White Clay Creek established Newark's early industrial enterprise. In 1887 Newark was incorporated as a town and in 1951 as a city. Newark continues to survive upon various industries that manufacture vulcanized fiber, concrete products, and processed foods as well as the assembly of automobiles.

Newark Streetscape

Description of the Route

The route through New Castle County is divided into seven distinct sections, and has its own unique characteristics. The route will begin at the DE/PA state line in the historic area of Claymont. In Pennsylvania, there is currently a project in the planning stages for a side path along Route 13 that will ultimately tie directly into our route alignment. Maps 1 through 4 in Appendix A show the route through New Castle County. The seven sections of the route are discussed below:

PA Line to Cauffiel Connector: The route will begin on Route 13 at the DE/PA state line. It will continue as a separated side path along Route 13 until it reaches Governor Printz Boulevard. It will run along the north side of Governor Printz Boulevard and will connect into a separated pathway on the south side of Governor Printz Boulevard. The path will utilize the right-of-way between Governor Printz Boulevard and I-495. This section will terminate at the Cauffiel Connector. A crossing will be designed to create a link to the Cauffiel Connector. A connection to the Claymont Train Station is also important in providing linkages to the transit system. This will also create a convenient link to the Northern Delaware Greenway and Bellevue State Park through the Cauffiel Connector. This section of the Northern Delaware Greenway is partially built and funded.

Cauffiel Connector to Market Street Bridge: The route will continue as an off-road pathway on the north side of Governor Printz Boulevard and will connect with Northeast Boulevard to the Market Street Bridge. There is a need to develop an attractive landscaped pathway through this section of the route. This will provide a direct link into the City of Wilmington. The Northern Delaware Greenway provides a scenic, yet longer route into Wilmington.

Market Street Bridge to Wilmington Riverfront: This is the only section of the route that will completely use on-road facilities, traveling through the center of Wilmington's Central Business District. Outstanding architecture, cultural institutions, hotels, restaurants and major employers define the character of this section. There is no feasible option to develop an off-road facility through this corridor. On-road facilities are acceptable when they are in an inner-city environment. Market Street between 7th Street and 9th Street is closed to vehicular traffic midday, Monday through Friday.

Route 13, South of Claymont

Entering Wilmington on 12th Street

Wilmington Riverfront to New Castle: A pathway along the riverfront currently exists and will be a link in the route under development. This section has the potential to be the first section designated as the East Coast Greenway. This pathway provides links to the train station, commercial and historic areas. Delaware's minor league baseball stadium, outlet shopping, arts center, and numerous restaurants are located along this section. On the other side of the river, an abandoned rail right-of-way exists that will be used for the off-road facility into New Castle. It will be necessary to have a facility for crossing the river to link the riverfront pathway with the rail right-of-way. This right-of-way is state owned and is already designated for the East Coast Greenway.

New Castle to Churchman's Crossing: An off-road path will continue from the abandoned rail line up to Route 13. It will reach Route 13 either along Route 273 or School Lane as determined by the City of New Castle and will cross School Lane. It will run along the front of the Airport property until it connects to Route 58. The route will run along Route 58 and will alternate different sides of the roadway to minimize right-of-way impacts along this corridor. It will connect with the already planned bridge across I-95 in the Churchman's Crossing area. It will then utilize right-of-way in front of the Christina Hospital until it connects with the Route 4 Pathway.

Churchman's Crossing to Newark: A separated pathway already exists along Route 4 on alternating sides of the corridor. It is recommended that landscaping improvements and continued maintenance be applied to make this pathway more attractive and safer for the users. This pathway will link many commercial and residential areas throughout the corridor. At Newark, the main route will continue on Route 4. There will be an alternate route that will use Route 72 to connect to the Newark Amtrak pathway that will then connect to Elkton Road.

Wilmington Riverwalk

Newark to Elkton: The off-road pathway will continue from the intersection of Route 4 and Elkton Road/279 to the state line. The most feasible location for the off-road path is on the north side of the corridor. This will eliminate the need for a crossing when the route transitions from Route 4 onto Elkton Road. This location also provides the least right-of-way impacts. This will connect directly into the Town of Elkton.

Off-road Path along Route 4

The matrix on page 13 provides greater detail regarding each of the seven sections.

New Castle County, Delaware

New Castle County, Delaware	PA Line to Cauffiel Connector	Cauffiel Connector to Market Street Bridge	Market Street Bridge to Wilmington Riverfront	Wilmington Riverfront to New Castle	New Castle to Churchman's Crossing	Churchman's Crossing to Newark	Newark to Elkton, MD
Description of Route	Side-path on Route 13 will connect to a separated pathway between Governor Printz Blvd. and I-495	Off-road pathway along Governor Printz will connect with Northeast Boulevard to the Market Street Bridge	Use city streets for bicycling and/or walking.	A pathway along the riverfront currently exists and will connect to a pathway along the abandoned rail line into New Castle	Off-road path will continue from the abandoned rail line up to Rte. 13, run along the front of the Airport property to Rte. 58 and connect with the Rte. 4 Pathway.	A separated pathway exists along Rte. 4 on the south side.	Continue the off-road pathway from Rte. 4 down Elkton Road/279 to the State Line
Towns it traverses	Claymont, Bellefonte	Bellefonte, Wilmington	Wilmington	Wilmington, New Castle	New Castle, NCC Suburbs	NCC Suburbs, Newark	Newark
Mileage	4 Miles	6 Miles	2 Miles	10 Miles	5 Miles	10 Miles	2 Miles
Type of Facility	Off-Road	Off-Road	On-Road	Off-Road	Off-Road	Off-Road	Off-Road
Link to Towns	Direct, but more as a bypass route. Further removed from town centers	Direct, but more as a bypass route. Further removed from town centers	Very direct	Very direct	Direct, through suburban areas	Direct, more access to businesses and residential subdivisions	Very direct
Proposed Typical Section	Sidewalk or sidepath with decorative paving; Independent off-road pathway	Sidepath with buffer	City, town or village street with parking	Esplanade, Rail-Trail	Sidepath with buffer	Sidepath w/decorative paving and landscaping	Sidepath with buffer
Est. Cost/Mileage	$400,000	$400,000	$40,000	$400,000	$250,000	$150,000	$250,000
Cost/Section	$1,600,000	$2,400,000	$80,000	$3,200,000 (8 miles)	$1,250,000	$1,500,000	$500,000
Maintenance Issues/ Requirements	Regular sweeping/ Landscape and Signage Maintenance/ No special patrol required	Regular sweeping/ Landscape and Signage Maintenance/ No special patrol required	Regular sweeping/ Landscape and Signage Maintenance/ No special patrol required	Regular sweeping/ Landscape and Signage Maintenance/Requires special patrolling of off-road access	Regular sweeping/ Landscape and Signage Maintenance/ No special patrol required	Regular sweeping/ Landscape and Signage Maintenance/ No special patrol required	Regular sweeping/ Landscape and Signage Maintenance/ No special patrol required
Implementation Issues	R/W acquisition to meet minimum required width (AASHTO Stds.) / Coord. with property owners	R/W acquisition to meet minimum required width (AASHTO Stds.)/ Coord. with property owners	Coordination with local authorities	Coord. with local authorities and adjacent owners/RR crossing/Bridge over the Christiana River	R/W acquisition to meet minimum required width (AASHTO Stds)/ Coordination with property owners	R/W acquisition to meet minimum required width (AASHTO Stds)/ Coordination with property owners	R/W acquisition to meet minimum required width (AASHTO Stds)/ Coordination with property owners

History of Cecil County

Formed in 1679, Cecil County began as an agrarian society utilizing the local rivers and bay area for power and transportation. During the 18th and 19th centuries, many of the towns in Cecil County directly experienced the social and economical changes that were occurring nationally as a result of the American Revolution, the War of 1812 and the Civil War. Prominent figures such as George Washington and Lafayette crossed through the County. British troops rampaged several towns within the County during both the Revolution and War of 1812, as the lower portion of the county provided passage to the conquering destinations of Philadelphia and Baltimore respectively. With the rise of industry, Principio Furnace utilized its land resources for the production of iron. In Perryville the shipping industry flourished thanks to transportation innovations utilizing the Susquehanna River, the Susquehanna Canal and, by 1837, the Philadelphia, Wilmington and Baltimore Railroad. Perryville's economy, like several other towns of Cecil County, thrived on its booming port and trade center. On the other hand, the extensive transportation networks of Maryland, which included areas of Cecil County, would fuel its involvement in the Civil War. It was understood that these lines would be necessary for a Union victory. The state, uniquely positioned politically, militarily, and geographically, sat between the Northern States and Washington D.C.; thus, its loyalty was divided between the Confederate and Union troops. Elkton, North East, Charlestown and Perryville were located on the Philadelphia Road that extended from Baltimore. Although all started as ports, the presence of Philadelphia Road and Baltimore Pike continued their importance as stage stops and places of commerce, food and rest.

During the late 19th and 20th centuries, the importance of the Chesapeake Bay and adjoining rivers and creeks would offer the water-bordering towns yet another rewarding economic base: fishing and hunting. In turn, this brought about the traditional art of decoy carving which, along with fishing and hunting, is still prominent today. After World War II, tourism helped revitalize the ailing economy that was formerly dependent on industries created from land resources. Currently tourism is a strong and growing industry. Cecil County offers many wonderful things to see and do, including water-related sports and activities in their 40 marinas, and plentiful historic resources, such as beautiful covered bridges, the Upper Bay Museum and Sinking Springs Herb Farm. The County's existing historical information on transportation and industrial prominence would be beneficial to this proposed trail and lead to a potential regional interconnection of adjacent historic towns south of the Susquehanna River and North of the Pennsylvania State Line.

Principio Iron Works along Route 7

Elkton

Prior to the arrival of Europeans, Native Americans who hunted and fished off the land and water, occupied the area. In 1655, the Minquas Native Americans presented Governor John Claudius Rising of New Sweden with land called Chakakitque at the fork of Elk River and the other lands in exchange for the Swedes to establish a trading post at what is today Elk Landing.

In 1690 Jon Hanson Steelman built such a trading post. During the Revolution, 15,000 to 18,000 British troops passed through Elkton on route to Philadelphia. General Sir William Howe eventually took Elkton and set up camp. After the Revolution in 1787, Elkton was incorporated. By 1800 Elkton became a principal port for moving flour, whiskey, lumber, and grain. During the War of 1812, Elkton managed to escape British attack, while the defense of Fort Hollingsworth at Elk Landing and nearby Fort Defiance held strong. In 1815, Elkton prospered from the national transportation innovation of steamboat service and continued to thrive on its passenger and trade economy.

This prosperity was short lived with the introduction of the New Castle & Frenchtown Turnpike in 1818, the Chesapeake & Delaware Canal in 1829 and the New Castle-Frenchtown Railroad in 1831. The Philadelphia, Wilmington & Baltimore Railroad passes through Elkton in 1837, putting the additional economic pressure on Elk Landing's water transportation. After a brief economic boost from Deibert's canal boat construction business in 1887, the silting of the Little Elk Creek forced Deibert to move his business to Chesapeake City in 1910.

Elkton was the "marriage capital" of the east during the first half of the 20th century, drawing movie stars, sports legends and thousands of others seeking no-wait weddings. Also during the 20th century, munitions factories drew thousands of new workers and residents during World War II, and several fireworks factories still operate. Today, many of the town's historic structures remain, yet they are surrounded by buildings that reflect an active business community. Offices, courthouses, Union Hospital, and retail establishments share space with history in Elkton, which has been the county seat since 1787.

Elkton has survived its economic slump and is the largest municipality in Cecil County and among 25 major towns in Maryland. With plans to enhance its tourist industry, the Town is restoring the 42 acres of Elk Landing and will create an 18th and 19th century living history site. Besides tourism, Elkton's parks and recreational facilities totaling better than 500 acres offer a variety of activities such as tennis, basketball, football, soccer, fishing, ice skating, playgrounds, picnic pavilions, and fish hatcheries.

Main Street in Elkton

North East

North East, nestled at the head of the Chesapeake Bay, was settled prior to 1700 and incorporated in 1850. Although smaller than its neighboring town, Elkton, North East's economy did survive from its active commercial port during the 18th and 19th centuries. Still dependent upon the North East River, North East presently promotes recreational fishing and hunting as a part of its new industry, tourism. This historic riverside town offers neighborly charm and a waterfront park. Elk Neck State Park, located just ten miles south of town, has over 2,100 acres of lush forests and sandy beaches offering abundant recreational activities. Historic Turkey Point Lighthouse, which continues to watch over the bay from its 100-foot perch, offers the best view of the Chesapeake Bay headwaters.

North East picnic area (above and below)

Charlestown

Charlestown is a small, incorporated municipality located where the North East River meets the Chesapeake Bay. Like North East, Europeans settled this area due to its proximity to the River and the Bay. This historic town was established in 1742 as a commissioner form of government. Until recently, municipal facilities consisted of a sewer system and a number of undeveloped, municipally owned parcels of land. Charlestown continues to rely on the River and Bay for its economy and has recently built a municipal boat ramp, enhanced a park on the town point that overlooks the Bay, and replaced the old town pier to allow for 36 boat slips. Other various recreational sites have been developed and two small town-owned parcels of land on the water have been cleaned up to use as beaches.

Public Dock in Charlestown

Perryville

The rich history of the town of Perryville began in 1608 when Captain John Smith became the first European explorer to navigate the Susquehanna River and visit the area. Perryville was first settled in 1622 when Edward Palmer was granted a patent for a settlement on what is now Garrett Island. In the 1600s Lord Baltimore granted George Talbot 31,000 acres of land that included the Perryville area. Before incorporation in 1882, Perryville was known as Lower Ferry, circa 1695, Susquehanna, circa 1700s, and finally Perryville, named after Mary Perry, the wife of John Bateman.

During the Revolutionary War, Perryville served as a staging area for the Continental Army. Colonel John Rodgers, who operated the ferry and tavern in Perryville, raised the 5th Company of the Maryland Militia. This company became part of the famous Flying Corps and was instrumental during the early stages of the Revolutionary War. Colonel Rodgers' son, John Rodgers, became Commodore of the American Navy. Commodore Rodgers served with distinction during the War of 1812 and is known as the "Father of the American Navy." George Washington, on his trips from Virginia to New York, frequently stopped at Rodgers Tavern.

Rodgers Tavern in Perryville

During the 1800s, Perryville was the central point for the Wilmington to Baltimore Rail Line. During the Civil War the rail line between Perryville and Baltimore was destroyed. Thus the Union Army again began the operation of the ferry across the Susquehanna to transport troops and munitions to Annapolis.

Throughout the 1900s, Perryville continued to serve as a railroad town. The arrival of the interstate highway system converted Perryville into a highway town, although the Regional MARC line does have a station stop within the town. Historic Perryville, at the southwest corner of Cecil County, offers many recreational activities within its historic surroundings and offers a wonderful view of its across-the-river neighbor, historic Havre de Grace.

Perryville Train Station

Description of the Route

The approach to developing the route through Cecil County was a more intensive process than developing it through New Castle County. The New Castle County route had an initial alignment identified before this project was started. Therefore, a feasibility analysis was used to modify and enhance the already selected alignment. In Cecil County, there was no preconceived route. The Project Team had to approach the development of a route from a clean slate. Several alignments were examined to determine the most feasible route that met the goals and objectives of the study. Six different corridors were looked at as potential alignments. These alignments were subjectively ranked based on the goals and objectives of the study. Page 19 shows the six alignments and the parameters which they were measured against. Maps 5 through 7 in Appendix B show the route through Cecil County. The three sections of the route are discussed below, and in more detail in the matrix on page 20:

Head of the Elk River

Elkton to North East: Using MD 279 as a link from Newark, the route will connect to Main Street in Elkton. If the section of MD 279 that crosses the I-95 ramps is deemed unsafe for bicycling and pedestrian facilities, using Fletchwood and Appleton Roads offers a safer, yet less direct alternative, and could link directly with the Big Elk Creek portion of the trail.

The route will wind around Big Elk Creek, linking many of Elkton's parks, and continue through Elk Neck State Forest along forest roads where it will link up to Elk Landing. The route will continue through Elk Neck State Forest to Irishtown Road, where it will connect to North East.

North East to Charlestown: The route will continue along Irishtown Road, turning right onto Main Street in North East, known for antique shopping, boutiques and seafood restaurants. There is a spur that will link to the Upper Bay Museum. Once on Main Street, the Route then turns left to follow Route 7.

Route 7 at Mill Creek looking east

Route 267 in Charlestown

Charlestown to Perryville: The route will continue on Route 7 until it reaches Charlestown. It will use locally owned roadways until it reaches Market Street, where it will then turn left onto Baltimore Street (Route 267). This section showcases two of the region's prime historic sites: Rodgers Tavern and the Principio Furnace. The Route will end at the southern end of the Lower Susquehanna Heritage Greenway at Route 7.

Examination of Potential Corridors in Cecil County

	MD 7 PREFERRED ROUTE	CSX	Amtrak	Mason-Dixon Trail	US 40	Telephone Line
Topography	Flat or gentle hills	Since trail would be within ROW, but not on railbed, topography is very hilly	Since trail would be within ROW, but not on railbed, topography is hilly	Very hilly	Long hills	Very hilly
Traffic / Noise	Moderate traffic and reasonably quiet	Quiet except for trains Traffic only at intersections	Quiet except for trains Traffic only at intersections	Quiet Traffic only at intersections	Noisy, heavy traffic, numerous turning vehicles and driveways	Quiet Traffic only at intersection
Link to Towns	Direct link to towns	Bypasses town centers via inland route	Direct link to towns	Direct link to towns, except for Charlestown	Bypasses town centers via inland route	Bypasses town centers via inland route
Character	Historic rural road passing through town centers – discontinuities where crossing Route 40	Since trail would be within ROW, but not on railbed, topography is very hilly. Largely forested	Since trail would be within ROW, but not on railbed, topography is very hilly. Forested, with some views of Chesapeake Bay	Hilly, often remote footpath not suitable for bicycles	Heavily traveled divided highway with strip commercial development in most sections	Hilly footpath used by MDT
ROW Availability	May require additional R/W width to accommodate separate sidepath	Some is now used by MDT, but CSX will likely oppose more "rail-with-trail" owing to heavy rail traffic	Amtrak will likely oppose "rail-with-trail" owing to high-speed operations	Easements would not likely be expanded to allow for multi-use trail	May require additional ROW width to accommodate separate sidepath	Where used by MDT, easement would not likely be expanded to allow for multi-use trail
Directness	Very direct	With little connection to town centers, this is "direct" only as a bypass route	Very direct	Indirect – trail meanders to reach scenic areas	Direct, but largely as a bypass route	Direct, but largely as a bypass route

Cecil County, Maryland

	Perryville to Charlestown	Charlestown to North East	North East to Elkton	Elkton to MD/DE State Line
Description of Route	Route 7 from Perryville, connect to Route 40 and then back onto Route 7. The route will run into town on Route 267 and through Charlestown on local streets and back out to Route 7. Provides direct access to and through Charlestown.	Follows Route 7 into the town of North East. Travels down Main Street to Irishtown Road	I Irishtown Road into Elk Neck State Forest to Old Elk Neck Road, along Elk Creek to Elk Landing. Continues along the creek to Route 279.	Route 279 to Route 2 connecting to the Route 4 Pathway.
Towns it traverses	Perryville, Principio Furnace	North East	North East, Elkton	Elkton, Newark
Mileage	6 Miles	3 Miles	7 Miles	7 Miles
Type of Facility	Off-road	Off-road	Off-road	Off-road
Character	Historic rural route	Historic route, quaint town center	Elk Neck State Forest, along creek into town center	Path alongside major roadway
Links to Towns	Very direct	Very direct	Very direct	Very direct
Proposed Typical Section	Town or village street w/parking, country road with double sidepath, sidepath with buffer	Town or village street w/parking, country road with double sidepath	Sidepath w/buffer, Forestry road w/soft improved surface, Independent off-road pathway	Sidepath with buffer along roadway
Est Cost/Mi	$250,000	$250,000	$250,000	$250,000
Cost/Section	$1,500,000	$750,000	$1,750,000	$1,750,000
Maintenance Issues / Requirements	Regular Sweeping / Landscape and Signage Maintenance/ No special patrol req'd	Regular Sweeping / Landscape and Signage Maintenance / No special patrol req'd	Regular Sweeping / Landscape and Signage Maintenance / No special patrol req'd	Regular Sweeping / Landscape and Signage Maintenance / No special patrol req'd
Implementation Issues	R/W Acqusition to meet minimum req'd width (AASHTO Stds) / Coordination with Property Owners	R/W Acqusition to meet minimum req'd width (AASHTO Stds) / Coordination with Property Owners	R/W Acqusition to meet minimum req'd width (AASHTO Stds) / Coordination with Property Owners	R/W Acqusition to meet minimum req'd width (AASHTO Stds) / Coordination with Property Owners

The Public Involvement Process

The Project Team had an extensive public involvement process including meetings with a steering committee, public agencies and public workshops in both Cecil County and New Castle County. The first round of workshops enabled the public to work directly with the consulting team to identify the route through their area. Participants gathered around maps to identify issues, concerns and make recommendations on route alignment. The second round of workshops enabled the public to review the route that had been developed over the course of a year and to fill out a survey to give comments on The Plan. Over 100 people participated in these workshops to assist in identifying a feasible route through both counties. The approach was such that it created a continual exchange of information and feedback among the stakeholders so that everyone had the same basis in which to understand the issues and be part of the decision-making process.

The second round of public workshops included a survey that was given to participants. The survey results overwhelmingly showed support for development of a continuous greenway route through Cecil and New Castle Counties. One hundred percent of respondents supported the development of the greenway. During the second round of workshops, display boards of the proposed route were available for the public to review. Cross-sections, photos and matrices were presented to explain how the route was developed. Project Team members were available to answer any questions from the public. Participants then gathered around maps to assist the Project Team in refining the selected corridors.

Maintenance and Management Plan

A public agency should own and operate the trail. This should be a partnership between the DOTs, state natural resource agencies, municipalities, WILMAPCO, the state East Coast Greenway Committees and the counties. In order for this to occur, the state East Coast Greenway Committees need to coordinate with the project partners to insure that all planning and development meets County requirements. Special consideration needs to be taken to address the issues of concern to the Counties and communities, including such special issues as funding considerations for additional labor requirements and equipment costs associated with managing the trail.

Staffing

Ideally, someone should function as trail coordinator to oversee all functions related to the trail. The continuity and dedication that a staff person can provide on a daily basis will result in good trail management, increased public support, and attention to ongoing funding needs.

East Coast Greenway Advisory Committee

Until such an arrangement can be worked out, the DOT's and Counties should draw on the resources of the East Coast Greenway Alliance to assist in the long term management and preservation of the trail. This Committee should be composed of representatives of all groups interested in the trail or with a vested interest in it such as the Counties and communities along the Greenway. These include the bicyclists, walkers, runners, horseback riders, bird-watcher, cross-country skiers, Parks and Recreation Departments, and Planning Commissions, immediate neighbors, adjacent owners, and civic associations of the communities through which the trail passes. The role of this Advisory Committee will be to:

- Define the mission and goals of the trail, and how to reach the goals of the mission statement;
- Monitor the condition of the trail to insure that it remains safe and attractive for the users;
- Create and sustain partnerships with local officials in the trail; and to encourage volunteer-minded civic associations and clubs to become involved in trail management and activities;
- Develop short term and long term strategies for managing and preserving the trail as an outstanding recreation resource;·
- Oversee trail maintenance;·
- Conduct fundraising programs;·
- Promote public awareness about the trail and its benefits, and
- Evaluate the trail and associated programs annually to determine if they are fulfilling the mission and goals.

Members of the Advisory Committee should have designated responsibilities for monitoring specific functions of trail management. These should include maintenance, marketing, fundraising, and safety. Unless individuals are delegated specific responsibility, these responsibilities will become so diffused that no one will be accountable. Each of these areas ideally needs to have a management plan with associated tasks and a time schedule to insure that necessary actions are accomplished. The Advisory committee would be responsible for monitoring the overall efforts of these functional areas. The following sections deal with these four areas.

Overview and Description

The East Coast Greenway, when completed, will consist of 64 miles of trail, several major bridges, numerous smaller bridges and culverts, and trail amenities such as signage and access control devices.

The successful operation of the East Coast Greenway will rely on a continued and regular program of maintenance of the trail and support facilities. A Maintenance and Management Program will not only ensure a quality recreational or travel experience for the trail user but is also an essential ingredient of a risk management plan for the trail operator. Sufficient manpower and resources must be devoted to a regular maintenance schedule in order to meet these goals.

Maintenance requirements are directly linked to the nature and quality of capital improvements. The maintenance guidelines that follow are necessarily somewhat generalized, and will need to be re-evaluated at such a time when a detailed capital improvement program has been defined. The maintenance implications of trail improvements should be reviewed carefully when considering capital improvements. Money saved during the trail development process may be spent many times over if inadequate design and development creates a greater than normal maintenance burden.

Organizational Requirements

The managing agency needs to develop a planned maintenance management system for the trail. The elements of this system should include:

- Inventory of the trail and its related facilities
- Setting of maintenance goals and standards for the quality of maintenance
- Developing the tasks necessary to achieve maintenance quality levels
- Assigning the maintenance tasks to designated groups or individuals
- Monitoring the quality of the work
- Implementing a control system for tracking accomplishments and relevant costs, and
- Evaluating the maintenance management program.

Effective trail maintenance requires that an individual be delegated responsibility for this function. Because maintenance is a major program that is related to trail safety, attractiveness, and image as well as in affecting potential liability for trail accidents, it should be a function of a paid staff person. If the managing agency decides to hire a trail coordinator, maintenance should be a major responsibility. This person would oversee maintenance management operations, coordinate volunteerism, work with the employees and volunteers who do trail maintenance, develop a maintenance program, track costs, and project future requirements.

The most practical thing to do to get started on trail maintenance is to enter into agreements with clubs and organizations to adopt segments of the trail. These should be formal cooperative agreements that clearly define roles and responsibilities of each party.

Developing an effective maintenance management system is an on-going process. As the Township works with these groups, new and more effective maintenance methods and techniques can be developed. It will be important for people to recognize that creativity and experimentation with different approaches will help to improve maintenance operations.

Maintenance Goals

The maintenance program for the East Coast Greenway should provide for a safe, clean, attractive trail for use by cyclists, hikers, roller bladers, horseback riders, and other recreational users of the trail.

Maintenance Requirements

The following table identifies major maintenance tasks required for the operation of the trail facility.

A description, frequency and general comments for each activity are outlined. Both short term periodic maintenance tasks such as mowing and long term tasks such as trail resurfacing are provided. A discussion of key maintenance tasks relevant to the East Coast Greenway follows.

Maintenance Tasks

Trail Surface Type	Typical Location	Annual Maintenance Required	Approx. Life Expectancy w/ Maintenance
Asphalt	Multi use main path: This is the path type most sought by the East Coast Greenway	Sweeping/patching/plowing	10-15 years
Portland Cement Concrete	Sidewalk multi-use path, such as along Route 4	Sweeping/patching/plowing	25+ years
Special Paving, i.e. brick and tile	Historic areas and town centers such as New Castle	Sweeping/patching/plowing/ replacement of unit masonry	Indefinite with annual maintenance
Granular Stone (Crusher Fines)	Rural multi use path, such as in Elk Neck State Forest	Patching/selective grading and restoning	Indefinite with annual maintenance
Wood Chips/Other Natural Surfaces	Pedestrian path (where bicycles are on-road or in bicycle lanes)	Selective grading and rechipping	Indefinite with annual maintenance

Vegetation Management

The principal purpose of a vegetation management program is to keep the trail clear of vegetation, both horizontally and vertically, to permit the safe passage of trail users. Control of vegetation is also required to help keep swales and drainage structures clear of debris, and to minimize mechanical damage by tree roots to trail structures such as walls and bridges.

In addition to these basic functional criteria, vegetation management can also address the following objectives:

- Enhance the aesthetic quality of the trail;
- Maintain or enhance desirable views from the trail;
- Minimize long term maintenance, and
- Encourage diverse native plant communities.

The following vegetation management practices should be employed on the East Coast Greenway:

Mowing: - Herbaceous material should be mown three to four times a year, a minimum of four feet from the trail edge. A flail type mower is recommended as rotary types blow the screenings off the trail.

Herbicide use: - Herbicides may be used selectively to remove vegetation from the trail surface on an annual basis, as required. Sunny areas are the most susceptible to weed growth. Weeds should be treated promptly, before the integrity of the trail is affected.

Woody vegetation control: - Trees and shrubs should be controlled by an annual mowing of the entire width of graded rail-bed. Removal of woody vegetation to this width should minimize the need for frequent mechanical or hand pruning to maintain adequate horizontal and vertical clearances. Selective removal or "limbing up" of trees should also be scheduled to maintain or create desirable views from trail. Trees and shrubs should also be kept clear of all drainage structures, bridges and walls which may be subject to mechanical damage by tree roots.

Invasive Vines: Moreover, vegetation control should include removal of invasive vines, such as poison ivy. A continuing effort to remove poison ivy, whose growth often increases after clearing, from the trail area will make the trail and its immediate environment more "user-friendly."

These recommendations are guidelines. Site specific conditions as well as aesthetic issues must also be considered. For example it may be desirable to leave trees in certain areas within the graded rail bed to provide shade or reduce the linear monotony of the trail corridor. The shade provided by a dense overhead canopy might be well worth the additional maintenance activity created by leaves and branches on the trail.

Bridges

The respective state DOTs already inspect the bridges along state maintained roads on an annual basis. We recommend this responsibility continue. Bridges along off-road sections of the route should be inspected by municipalities, the counties or natural resource agencies.

Maintenance Costs

Information regarding maintenance costs for trails is difficult to come by. Generally, maintenance cost tracking for trails is not done either because the trail is too new or because it is maintained as part of a larger facility, such as a park. For trails where costs can be estimated, these costs generally range between $3,000 to $5,000 per mile ($1,800 to $3,600 per kilometer) per year for trails similar to the East Coast Greenway.

If there are special maintenance considerations such as bridges or tunnels that are in need of repair, this cost can be doubled. Once the trail is developed, the managing agency will have to develop a tracking system to document maintenance costs.

We recommend that the responsible agency use a figure of $3,500 per mile ($2,500 per km) to estimate maintenance costs during the first year after development. This figure can be evaluated at the end of the first year (particularly in light of the bridges along the trail) to determine its accuracy and can be adjusted accordingly. This cost can be used for fundraising purposes as well as to solicit volunteer help for maintenance.

Litter and Trash

Litter is not reported to be a significant problem along similar trails, that is to say litter generated by trail users. Litter problems do occur at access points which are accessible by vehicles. These areas are more intensively used, and are often used by individuals who are not trail users. Providing trash receptacles offers only a partial solution to this problem and in fact creates a new one. Mr. Ed Olinger, Regional Landscape Architect for NYSDOT Region 5, who has been responsible for the design, operations and maintenance of numerous trails including the Barge Canal Trail, recommends that trash receptacles not be provided because in their experience it tends to generate non-trail user trash.

This problem would appear to be on the increase as trash pickup fees continue to rise. Several managers reported that as a group, trail users seem to be willing and accustomed to 'packing out' their trash, reducing the need for trashcans at access points. Costs for such receptacles are shown, however, in our cost estimate. The design of bollards and gates at trail access points will help to limit dumping from vehicles while retaining access for trail users.

Vandalism

Vandalism tends to be concentrated at the most accessible part of a trail, specifically access points. The Delaware and Raritan Canal State Park staff anticipates a yearly replacement cycle of about 10% of the total number of access control gates along that trail. These gates, as well as other custom fabricated items subject to vandalism and wear, are purchased in quantity to reduce costs.

Graffiti

Past experience shows bridge overpasses often attract graffiti, and some repainting of the bridges should be included in a yearly maintenance program. Painting of the overpasses, as has been done in some locations in the past, is a good way to denote the trail, and make these structures less attractive to vandals. Alternatively, initial application of an anti-graffiti coating will make cleaning easier.

Trail Surface Maintenance

The Delaware and Raritan Canal State Park Staff reports that maintenance of the limestone screenings surface on the former PRR railbed has been limited to weed control with herbicide. Rolling has not been required, even though patrol and maintenance vehicles drive the trail daily. This surface is very similar to one

alternative ("loose paving") recommended for the railbed section of the East Coast Greenway.

Asphalt is most often used on multi-use trails because of its long-term cost effectiveness, and desirable appearance. Special paving, crushed stone and natural surfaces will require much more maintenance.

Drainage structures

If structures such as pipes inlets and swales are not properly restored during the construction phase, increased maintenance costs will result from continuous periodic maintenance of the structures and possible damage to the trail due to poor drainage or erosion. This problem continues to plague the managers of the Delaware and Raritan Canal Trail in New Jersey.

Security and Risk Management Plan

Safety and Risk Management

Experience at other trails shows that trail owners have not experienced significant safety, crime or liability problems. Research suggests that when a trail is more used, there will be fewer problems regarding safety and risk. However, in a litigious society, the DOTs and the Counties must take the necessary steps to provide both a safe trail for the users and to protect themselves from liability claims wherever possible.

Safety in Design and Development

The East Coast Greenway must be designed and developed in accordance with federal and state standards for trails. As noted earlier, these include the standards of AASHTO (American Association of State Highway and Transportation Officials), and of the DOTs.

All hazardous conditions and attractive nuisances should be identified and removed where possible during the original construction of the trail. Those that cannot be removed should have warning signs posted.

Existing structures with safety devices that are in poor condition should be a top priority. For example, loose bridge railings need to be repaired expediently. They are more dangerous than no railing at all, as they create the perception of safety. As entrances are developed with signage, and when pamphlets and guidebooks are published, clear mention should be made that the trail or portions thereof, while open to the public, are not yet fully developed, and that users must exercise necessary care when using the trail.

Tree Trimming for Sight Lines and Safety

Most vehicular collisions occur at intersections, often because one or both parties did not see the other. Trees and brush should be cut back as necessary at this and other intersections where sight lines are impaired. Special attention should be paid at points where the links join roads at grade at a sharp angle.

In addition, trees adjacent to the trail should be evaluated annually for the removal of unhealthy, dead and hazardous limbs, or entire trees.

Maintenance

One of the most effective ways that the managing agency can provide safe trail conditions and protection from liability is through a conscientious maintenance management system. An on-going maintenance program will help to remove trail hazards with the potential for causing accidents and injuries. The maintenance management program should include regular inspections for trail safety.

In addition to reducing trail hazards, documentation of trail maintenance activities is essential in combating possible liability claims. Through written records of good maintenance practices, the managing agency will be able to build a case against negligence accusations.

Trail managers report that professional, well-trained staff are key in keeping the trail safe and secure. Well-trained people are in the best position during the course of their normal work functions to identify and report hazards.

Liability

All states except Alaska have laws which limit the liability of property owners who make their land available to the public for recreational use. Although this law does protect the managing agencies to a large extent, they still need to be concerned with this issue.

A recent case in Philadelphia challenged this law with the courts finding in favor of the plaintiff and holding the City of Philadelphia responsible for the injury. However, the decision was based upon the view that the injury resulted from a poorly maintained element of a developed recreational facility. Because this is a recent case, the impact of the case on the limitation of liability act is not known. Thus, a good risk management plan, including maintenance needs, is imperative for the trail operating agency.

Public/private partnerships regarding trail ownership and management are common. A public agency owns the trail while local and/or private organizations manage and maintain it.

The managing agency should develop an incident reporting system to document injuries and accidents on the trail. In addition, the managing agency should develop a complaint management system. Both systems will help the trail in terms of safety management as well as public relations if the staff deals courteously and swiftly with the people involved.

Law Enforcement

The managing agency should work out cooperative agreements regarding police protection for the trail. The local police department should determine how the trail should be patrolled within their own jurisdiction.

Telephone numbers for police and emergency personnel should be posted at major access points. Alternatively, "911 Call Boxes" could be installed in a future phase of work at road crossings where telephone lines are likely to exist.

The recommended trail design includes easily operable gates for access by emergency and law enforcement vehicles. These gates should be lockable in either the open or closed position.

Funding

East Coast Greenway projects may be submitted directly to WILMAPCO for planning through the Unified Planning Work Program, or design and construction through the Transportation Improvement Program. In addition, a number of State and Federal programs can provide technical and financial support for developing the greenway.

Federal Transportation Enhancement (TE) Program

The basic Federal eligibility requirements for TE projects are that they be one of the 12 defined activities, and be related to surface transportation. States can have additional eligibility requirements. Each state must set aside at least ten percent of its Surface Transportation Program funds for use on TE activities. Eligible categories include:

- Provision of facilities for pedestrians and bicycles;
- Provision of safety and educational activities for pedestrians and bicyclists;
- Acquisition of scenic easements and scenic or historic sites;
- Scenic or historic highway programs (including the provision of tourist and welcome center facilities);
- Landscaping and beautification;
- Historic preservation;
- Rehabilitation and operation of historic transportation buildings, structures or facilities, and
- Preservation of abandoned railway corridors (including conversion for use as trails).

In Maryland, the project sponsor must provide a minimum of 50 percent of the funding.

Contact Dennis N. Simpson, Maryland State Highway Administration, (888) 204-4828 for further information.

In Delaware, the match requirement is on a sliding scale from 2 percent to 20 percent. Contact David Petrosky, Delaware Department of Transportation, for further information at (302) 760-2128.

National Recreational Trails Program

The Recreational Trails Program provides funds to the States to develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, and equestrian use.

Funds may be used for:

- maintenance and restoration of existing trails;
- development and rehabilitation of trailside and trailhead facilities and trail linkages;
- purchase and lease of trail construction and maintenance equipment;
- construction of new trails (with restrictions for new trails on Federal lands);
- acquisition of easements or property for trails, and
- operation of educational programs to promote safety and environmental protection related to trails.

For further information contact:

- In Maryland, the Recreational Trails Coordinator at (800)-446-5962.
- In Delaware, Division of Parks and Recreation, (302) 739-5285.

Rivers, Trails and Conservation Assistance Program

The Rivers, Trails and Conservation Assistance Program works with community groups and local and State governments to conserve rivers, preserve open space, and develop trails and greenways. The program has a national network of 90 conservation and recreation-planning professionals based around the country. For more information contact Robert Potter at (215) 597-1787.

Maryland

Retrofit Sidewalk Program

This program is aimed at providing or improving safe pedestrian access along state routes in existing communities, especially in the vicinity of schools. The guidelines used in the selection of projects include the following:

- Sidewalks must be along a State Highway;
- The project should demonstrate safety benefits to pedestrians;
- It should provide or improve mobility for the general and disabled populace;
- Priority is given to projects that demonstrate that the addition of sidewalks will benefit revitalization by providing access to business, commercial and/or recreational areas that does not currently exist. Projects that are within Smart Growth Areas designated by local governments according to State criteria can be funded totally through this program. Projects not within these designated areas are only funded for 50% of the cost;
- The local jurisdiction should show evidence that they are in support of pedestrian facilities;
- It should be evident there is either existing or projected pedestrian traffic, and
- The project should have the support of the adjacent local community that will be the potential users of the community.

For further information regarding this program please contact Dennis German at (410) 545-8900.

Neighborhood Conservation Program

The Neighborhood Conservation Program funds roadway improvements on state highways located in State Designated Neighborhoods, where the improvement will promote economic revitalization and neighborhood conservation and where these improvements will contribute to other revitalization activities. The Urban Reconstruction program, actually the predecessor to the Neighborhood Conservation Program, funds the same types of projects as the Neighborhood Conservation Program but can be applied to all urban state highways.

The programs pay 100% of eligible project activities. Projects eligible for these programs must improve structural or functional elements of the roadway, usually without adding capacity. Sidewalks, landscaping and signage are eligible for funding. Contact the Maryland State Highway Administration at (888) 228-5092 for further information.

Program Open Space

Program Open Space provides dedicated funds for state and local parks and conservation areas. For further information, contact Chip Price, Director Program Open Space, Department of Natural Resources, (410) 260-8426.

Delaware

Land and Water Conservation Trust Fund

The Delaware Land and Water Conservation Trust Fund is a matching outdoor recreation grant program which was created in June 1986. The fund is administered under the jurisdiction of the Delaware Department of Natural Resources and Environmental Control, Division of Parks and Recreation. Fifty percent of the annually earned Trust Fund interest is available for grants to support new and existing greenway projects.

All state, county, and municipal governments and local park districts are eligible to receive financial assistance. Projects sponsored by State agencies may receive up to 100 percent funding when no other sources of matching funds or in-kind contributions are available while park districts are eligible to receive up to 75 percent funding. All other applicants are eligible for funding on a matching 50 percent basis. Partnerships between governmental agencies, non-profit organization, and other non-traditional recreation providers are welcomed and encouraged.

Funds are available for greenway acquisition, development and planning activities including; acquisition of property for greenway related recreational activities, openspace and corridor preservation, construction of new trails, trail expansion, development of trailheads and associated facilities and infrastructure, road crossing improvements, bridges, facilities for persons with disabilities, development and installation of trail markers and directional signs, as well as greenway planning activities.

For information, contact the Grants and Community Assistance Administrator, at (302) 739-5285.

Community Transportation Fund

The Community Transportation Fund is funding designated by individual legislators for specific transportation-related projects. This fund permits individual legislators to address small transportation projects that may not meet department priorities. Legislators working with community groups on greenway segment planning can designate funds for the East Coast Greenway. For further information, contact your state legislator.

Summary & Next Steps

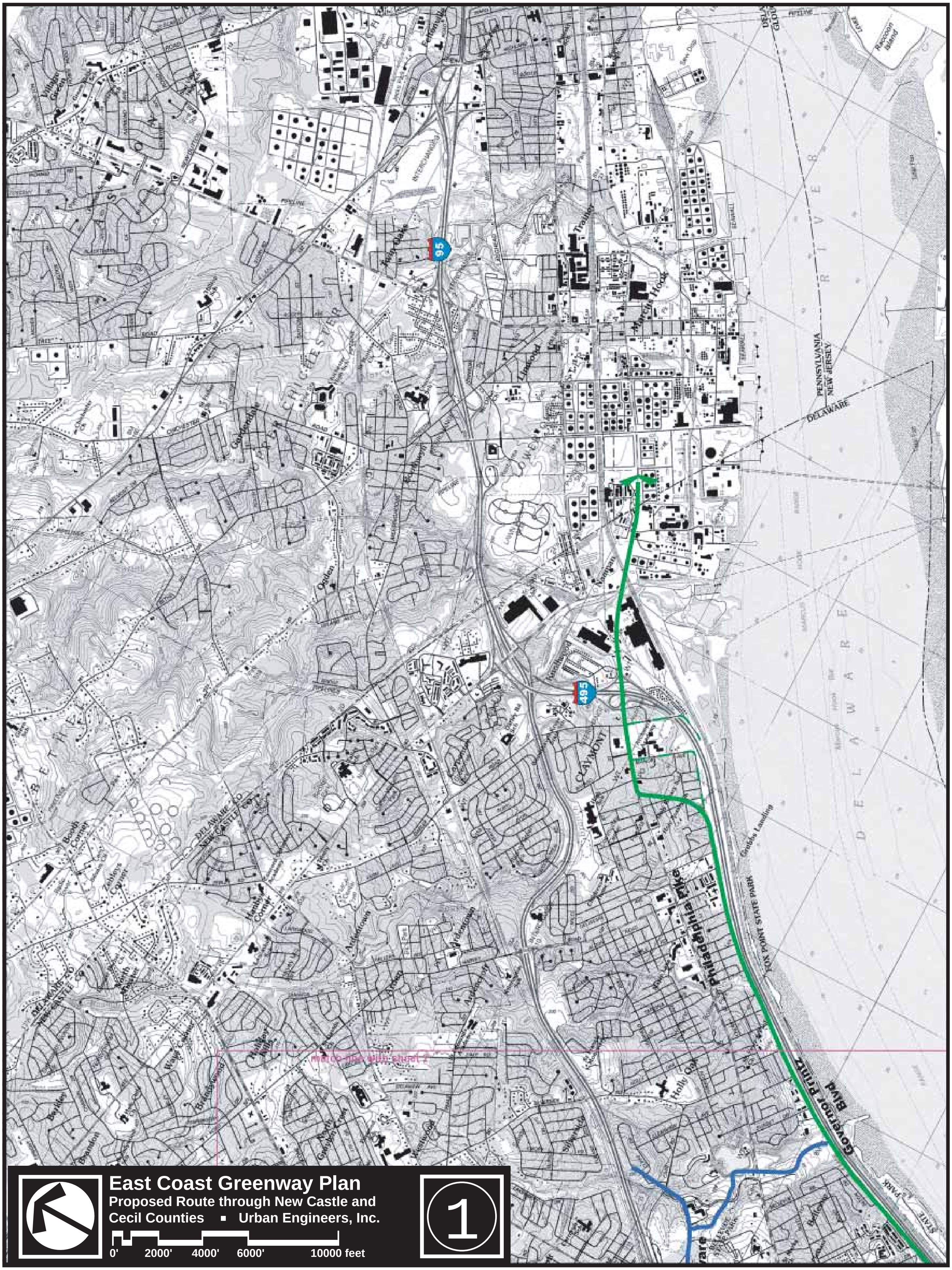
The WILMAPCO East Coast Greenway Plan will not only support the regional goals and strategies on the 2025 MTP, but will support the national goal of creating a greenway link between Maine and Florida.

The East Coast Greenway will be the nation's first long-distance, city-to-city, multi-modal transportation corridor for bicyclists, hikers, and other non-motorized users. WILMAPCO's Plan will help in making the East Coast Greenway a reality by providing the linkages through New Castle and Cecil Counties.

The Plan is the culmination of a partnership effort between WILMAPCO and its Nonmotorized Transportation Working Group (which includes New Castle and Cecil Counties), DelDOT, MD DOT, Delaware Parks and Recreation, an bicycling and greenway advocates. Local agencies, municipalities, the public and the consultant team were all active partners.

The next step in the process will be the design and construction of individual sections. Additional public outreach is recommended, to design each section to best serve local needs. Once completed, the East Coast Greenway Committee can nominate specific sections of the route for designation. The Alliance then ratifies the nomination of a trail segment to become part of the East Coast Greenway long distance trail system.

Appendix A: Maps of the Route through Delaware

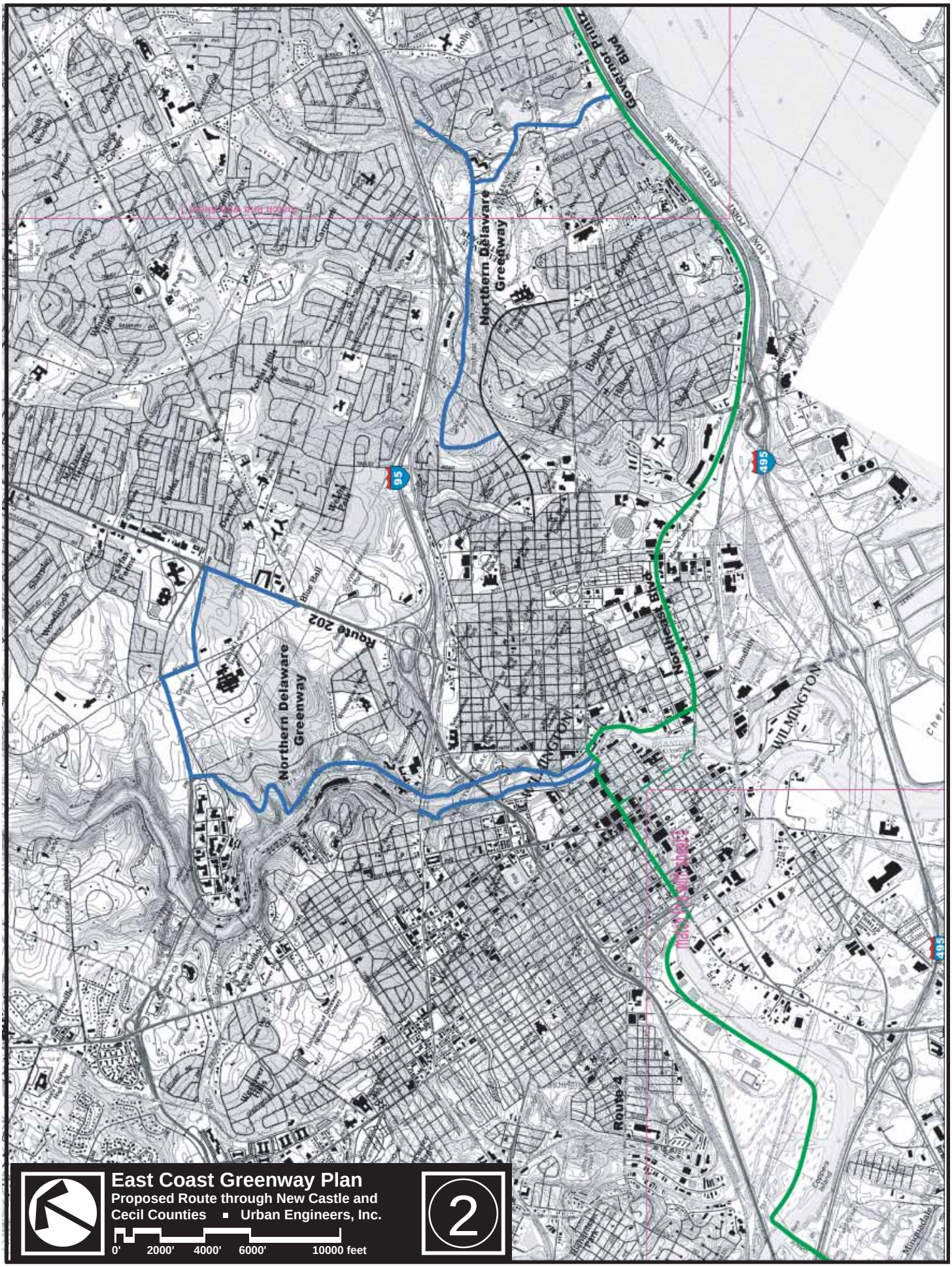


East Coast Greenway Plan

Proposed Route through New Castle and Cecil Counties ▪ Urban Engineers, Inc.

0' 2000' 4000' 6000' 10000 feet

1



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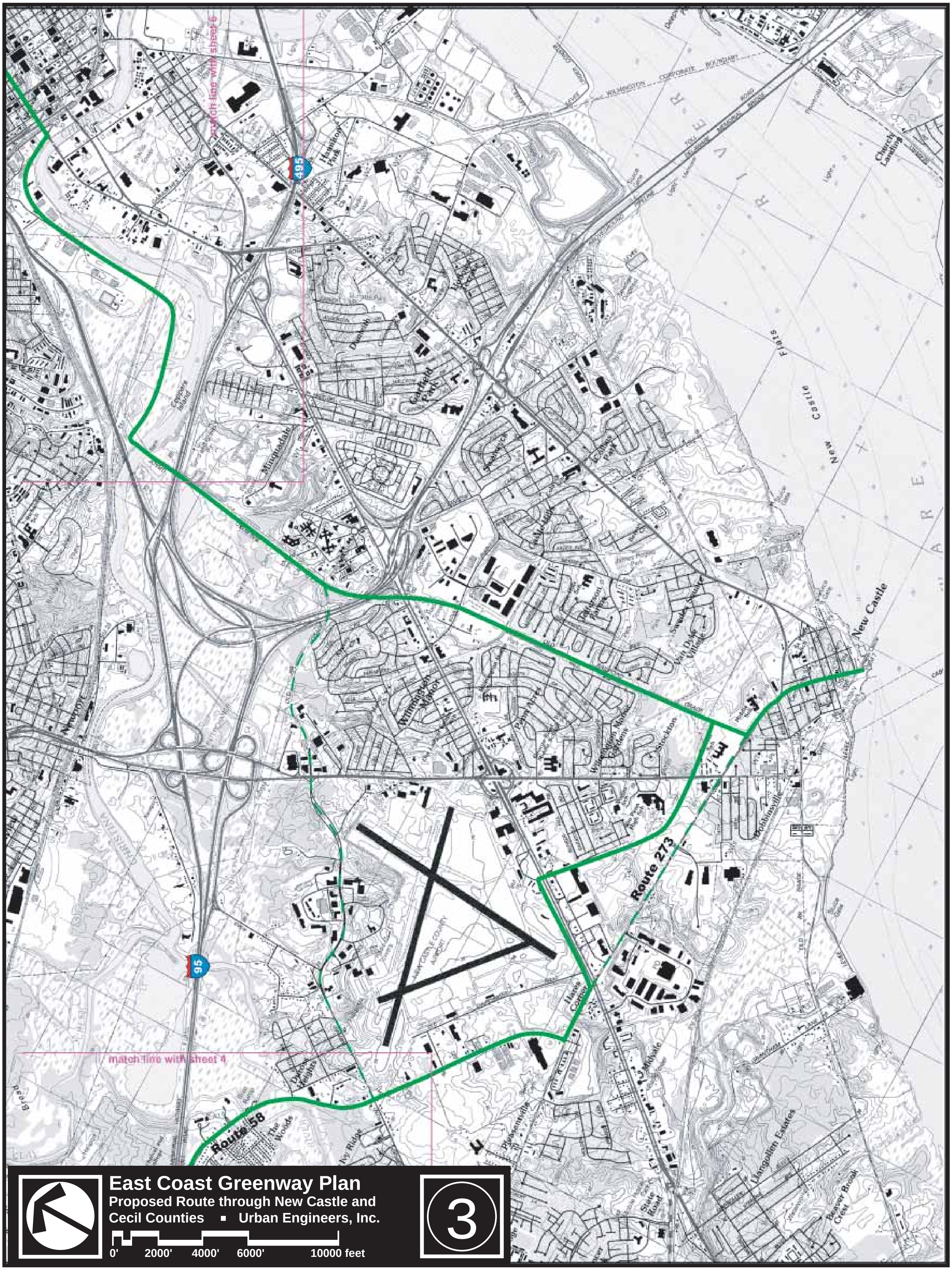
0' 2000' 4000' 6000' 10000 feet

2


East Coast Greenway Plan
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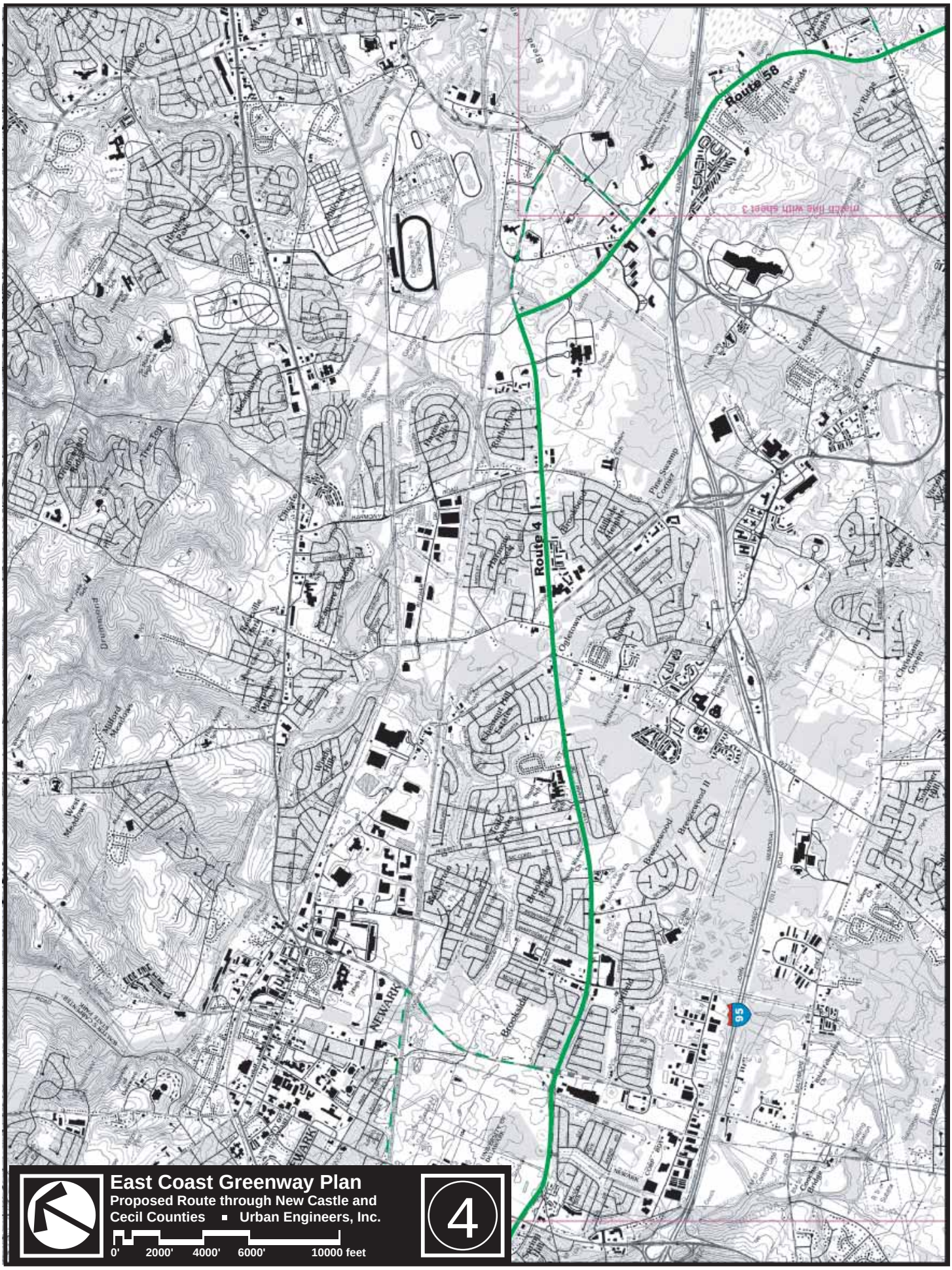
0' 2000' 4000' 6000' 10000 feet
3
match line with sheet 6
match line with sheet 4
495
95
Route 273
Route 58
New Castle
Hamilton Park
Garfield Park
Minquadale
Wilmington Manor
New Castle Flats
Hampton Estates
The Woods
Ivy Ridge
State Road
Beaver Brook Crest
Church Landing



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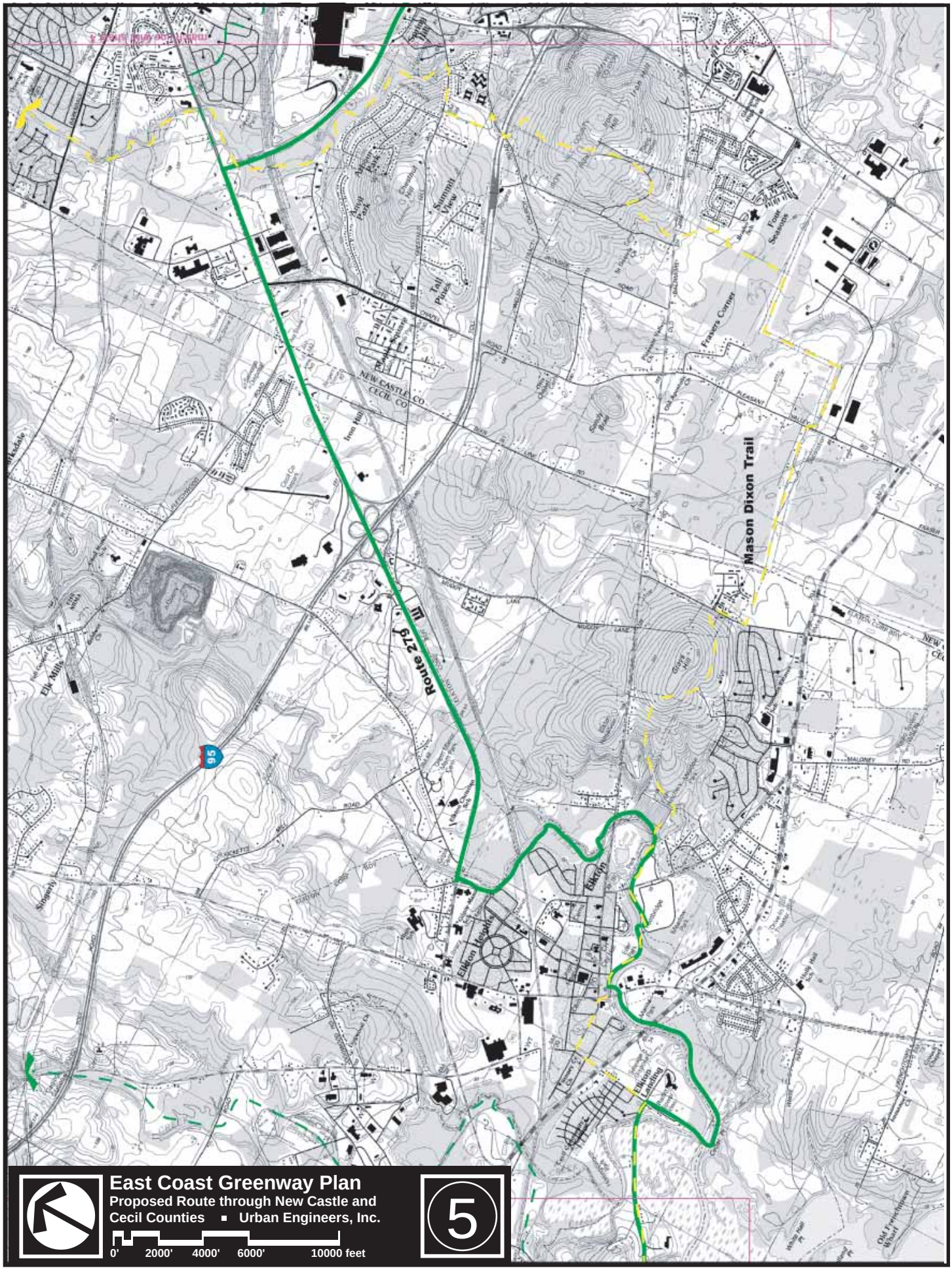
0' 2000' 4000' 6000' 10000 feet

4

Appendix B: Maps of the Route through Maryland



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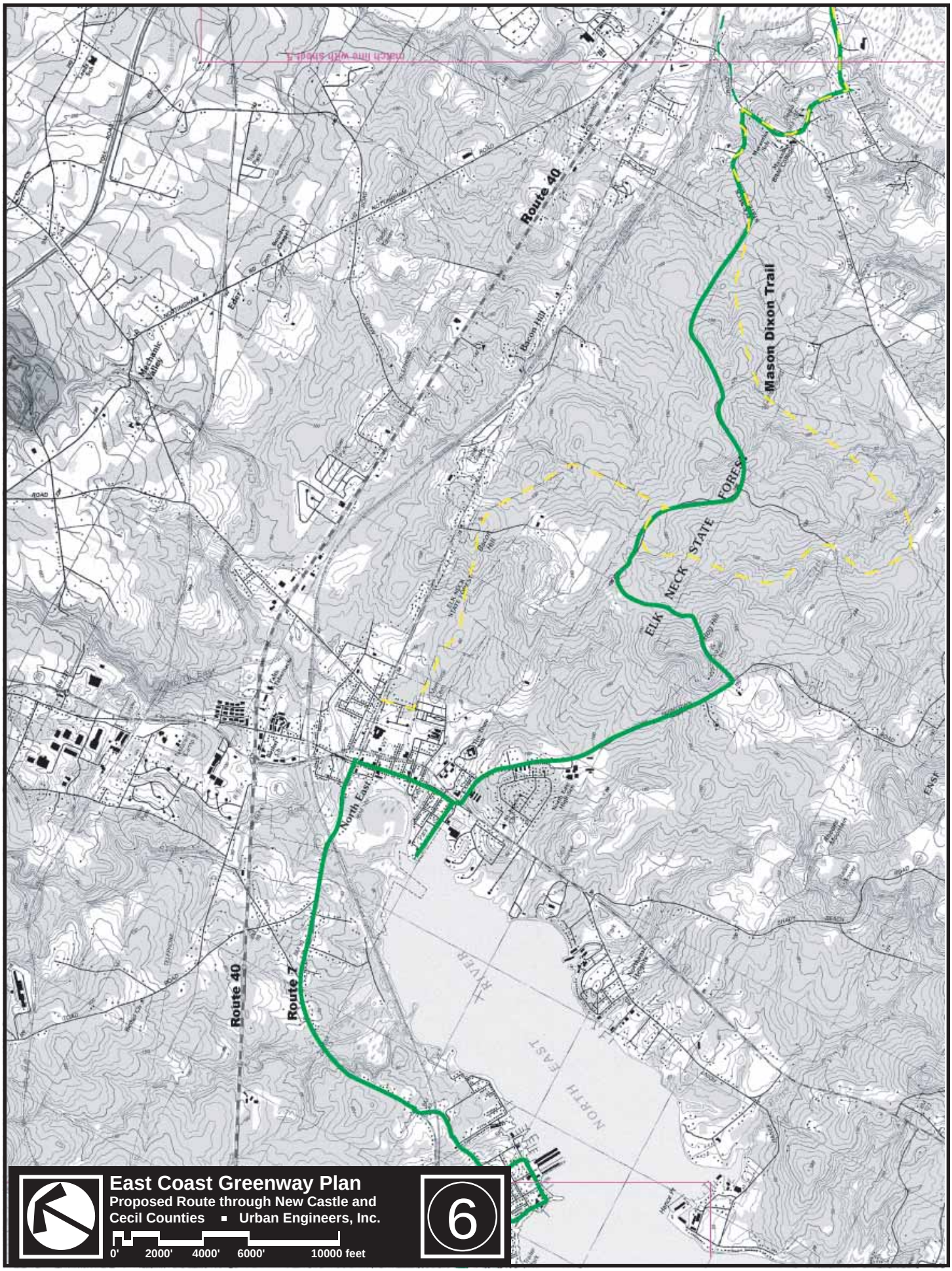
0' 2000' 4000' 6000' 10000 feet

5


Route 40
Mason Dixon Trail
ELK NECK STATE FOREST
North East
Route 7
Route 40
NORTH EAST RIVER
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0' 2000' 4000' 6000' 10000 feet
6

East Coast Greenway Plan

Proposed Route through New Castle and Cecil Counties ▪ Urban Engineers, Inc.

0' 1000' 2000' 3000' 5000 feet

1

Lower Susquehanna Heritage Greenway

match line with sheet 1

match line with sheet 2