

EASTERN SHORE OF VIRGINIA BICYCLE PLAN

March 2004



Adopted by Accomack County June 16, 2004

Adopted by Northampton County June 14, 2004

Prepared by the Eastern Shore of Virginia Bicycle Committee

Technical Assistance provided by the
Accomack-Northampton Planning District Commission

Acknowledgement

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U.S. Department of Transportation, Federal Highway Administration
and the
Virginia Department of Transportation

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EASTERN SHORE OF VIRGINIA BICYCLE PLAN

1. INTRODUCTION

With low traffic volumes and flat terrain, bicycling is a popular mode of transportation and recreation on the Eastern Shore of Virginia. Bicyclists can be seen on a daily basis throughout the Shore riding to work, to school, and for exercise and recreation. STAR Transit buses have bicycle racks, enabling riders to pedal to and from bus stops and travel long distances by bus in between. A seasonal ferry carries passengers and bicycles from Onancock to Tangier Island, with connections to Reedville, VA and Crisfield, MD. Bicycling on Chincoteague and Assateague are very popular, and the Town of Chincoteague has adopted a bicycle plan and has been actively developing bicycle facilities.

Over the past ten years, the annual *Tour Between the Waters*, sponsored by the Citizens for a Better Eastern Shore, has grown from under 100 bicyclists to over 850. The annual *Chesapeake Bay Bridge Tunnel Bike Tour* was initiated in 1998, and attracts up to 5,000 bicyclists each year. Increasingly, tourists are seen bicycling throughout the Eastern Shore, with some bicyclists participating in organized tours and vacation packages offered by private businesses.

Purpose of Plan

While bicycles are considered vehicles and are allowed to use most of Virginia's roads, not all roads meet VDOT's minimum 24-foot pavement width standard for bicycle route designation. On the Eastern Shore of Virginia, few of our roads qualify for bicycle route designation. It is the purpose of this plan to identify and prioritize suitable Eastern Shore bicycle routes, so they can be improved as funding becomes available.

In order to be eligible for Virginia Department of Transportation (VDOT) funding for projects that involve bicycle facilities, a local government must have an adopted bicycle facilities plan. The Eastern Shore Bicycle Plan has been prepared at the request of the Accomack County and Northampton County Boards of Supervisors to enable the Eastern Shore of Virginia to qualify for these funds. The Town of Chincoteague has adopted a bicycle plan. Eastern Shore Towns interested in developing bicycle facilities need to prepare and adopt bicycle plans as well.

VDOT Bicycle Plan Requirements

The Eastern Shore Bicycle Plan is intended to meet VDOT's requirement for local governments to have an adopted bicycle facilities plan in order to receive project funding. *A Virginia Guide for Bicycle Facility Planning* outlines the following seven guidelines for an acceptable plan:

Eastern Shore of Virginia Bicycle Plan, March 2004

1. The plan must be approved by the local government.
2. The plan should have goals, objectives, and policies.
3. The plan should have a map of the major trip origins and destinations of bicycle riders.
4. The plan should have a map(s) of the existing and proposed bicycle facilities.
5. Along with the map(s), the plan needs to have a narrative about each of the proposed facilities which includes average annual daily traffic (AADT), posted speed, and road width for roads on which the selected routes have been placed.
6. A listing of the types of improvements and programs (e.g. on-road, off-road, encouraging commuting, etc.).
7. Proof of public involvement in the development and approval of the bicycle plan should be shown. A Citizen's Bicycle Advisory Committee is recommended that includes citizens, some of whom are bicyclists. A public hearing to review the plan should have been held.

Planning Process

The Eastern Shore of Virginia Bicycle Plan was developed by the Eastern Shore of Virginia Bicycle Committee, with technical assistance from the A-NPDC Transportation Technical Advisory Committee. Public involvement consisted of Bicycle Planning Workshops conducted by Accomack County on October 11, 2000 and by Northampton County on October 12, 2000. The draft Eastern Shore of Virginia Bicycle Plan was presented at public meetings in Accomack County on July 22, 2003 and in Northampton County on July 24, 2003.

The A-NPDC approved the plan on November 17, 2003 and has recommended the plan to the Accomack County and Northampton County Boards of Supervisors and Eastern Shore Town Councils. The local governments can then consider holding public hearings and adopting the plan. The adopted local government bicycle plans will be submitted to VDOT for review. After VDOT review and acceptance of the plans, Eastern Shore local governments will be eligible for VDOT funding for projects including bicycle facilities.

2. EASTERN SHORE OF VIRGINIA

The Eastern Shore of Virginia, located on the southern tip of the Delmarva Peninsula, is comprised of Accomack County, Northampton County, and 19 incorporated towns. The Eastern Shore is accessible from mainland Virginia via the Chesapeake Bay Bridge Tunnel and from the Eastern Shore of Maryland via U.S. Route 13. The Eastern Shore is approximately 70 miles long, averages 5 to 15 miles wide, and is approximately 800 square miles in area. The Eastern Shore's 2001 population is estimated to be approximately 50,000.

The Eastern Shore is well known for its fishing and farming heritage, and is a popular vacation destination for those seeking fishing, hunting, boating, natural areas, quaint villages, and quiet back roads for bicycling and driving. Chincoteague Island, home of the famous ponies, hosts visitors year-round who are attracted by Chincoteague National Wildlife Refuge and Assateague National Seashore. Other Eastern Shore towns, including Parksley, Onancock, Accomac, Wachapreague, Eastville, and Cape Charles, offer restaurants, lodging, museums, and historic districts to visitors exploring our region's natural and cultural heritage. Tangier Island, located in the middle of the Chesapeake Bay, is reached by tourists via a seasonal passenger/bicycle ferry.

3. BICYCLE FACILITY PLANNING AND DEVELOPMENT

Because bicycles are considered vehicles in Virginia, they are permitted on all roads except interstates and certain controlled access highways determined by resolution from the Commonwealth Transportation Board. Unfortunately, most roads were not designed to safely accommodate motor vehicles and bicycles at the same time. This can result in conflicts. As motor vehicles encounter bicycles on narrow roads, traffic slows down. Drivers move into the oncoming lane to pass bicycles, posing a threat to themselves and oncoming traffic. Many bicyclists feel unsafe under these conditions and avoid riding.

The planning and development of proper bicycle facilities allows for the free flow of motor vehicles and safe bicycling. The design standards for a "proper" bicycle facility depend on the type of bicyclist, width of road, traffic volume, and average vehicle speed. In order to plan proper bicycle facilities, standards have been developed to ensure the needs of the "design bicyclist" are met by the "facility design".

Design Bicyclist

Transportation engineers use the concept of a Design Bicyclist to determine the type of bicycle facility design needed. There are three types of bicyclists: Advanced, Basic, and Children, as follows:

Eastern Shore of Virginia Bicycle Plan, March 2004

Group A - Advanced Bicyclists: These are experienced riders who can operate under most traffic conditions and prefer direct access to destinations via the existing street and highway system. They should have enough road width to reduce the need for motor vehicles or bicycles to change position when passing.

Group B - Basic Bicyclist: These are casual or new adult and teenage riders who are less confident of their ability to operate in traffic without special provisions for bicycles, such as marked lanes. They need either low-speed, low-traffic streets or designated bicycle facilities.

Group C - Children: These are pre-teen riders whose roadway use is initially monitored by parents. Eventually they ride on their own to schools, parks, stores, and other neighborhoods. They need to ride on residential streets with low motor vehicle speeds and volumes; roads with well-defined separation of bicycles and motor vehicles; or on separate bike paths.

Because Group B and Group C have similar needs, engineers combine these in a design bicyclist model with two broad classes of bicyclists: Group A (Advanced) and Group B/C (Basic/Children).

Bicycle facilities should be designed to meet the needs of the least skilled bicyclist expected to use the facility. Long-distance Eastern Shore bicycle facilities should be designed for the Group A bicyclist. Bicycle facilities in and around Towns and recreation facilities should be designed for the Group B/C bicyclist, who typically ride no more than 3-5 miles.

Bicycle Facility Design

The American Association of State Highway and Transportation Officials (AASHTO) develops guidelines for bicycle facility design that are reviewed and adapted by the federal and state governments. VDOT has adopted standards for bicycle facilities based on AASHTO recommendations.

The following quote from the AASHTO Guide for Developing Bicycle Facilities illustrates the need to build bicycle facilities:

To varying extents bicycles will be ridden on all roads where they are permitted. All new highways, except those where bicyclists will be legally prohibited, should be designed and constructed under the assumption that they will be used by bicyclists. Bicycle safe design practices should be followed to avoid the necessity for costly subsequent improvements.

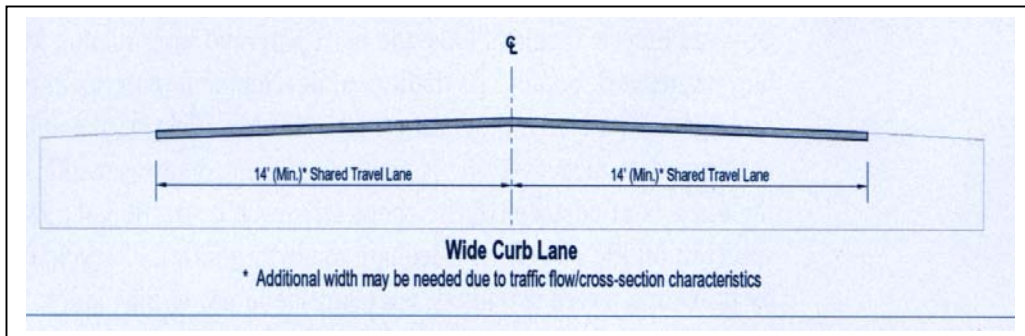
Several types of bicycle facilities can be developed on existing and new roads, depending on the situation. These facilities include shared lanes, wide outside lanes, paved shoulders, designated bicycle lanes, and separate shared use paths. If a designated bicycle facility cannot be developed due to lack of space, limited widening of the road will improve conditions for bicyclists. When there

Eastern Shore of Virginia Bicycle Plan, March 2004

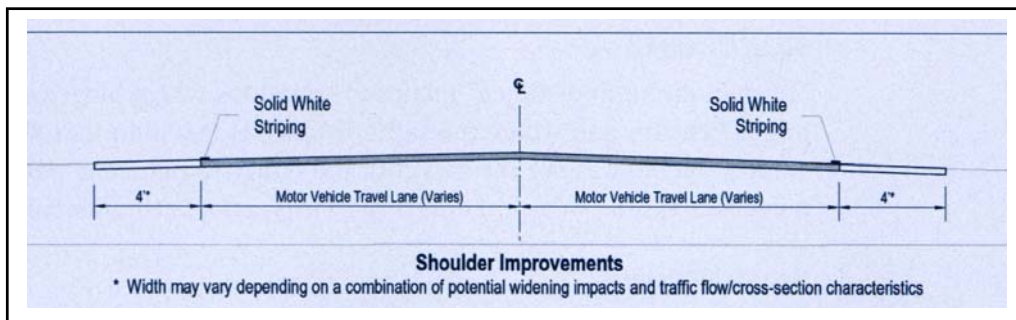
is no other option, any improvement of road width will be of benefit to bicyclists and motorists. The following standards are from the Virginia Bicycle Facility Resource Guide.

Shared Lanes Shared lanes are streets and highways with no special provision for bicyclists. Shared lanes usually are 12 feet wide with no shoulders. Cars can only pass bicyclists safely by crossing the centerline. In areas with low traffic volumes and average speeds less than 30 MPH, shared lanes are adequate for Group A riders, and will normally be adequate for Group B/C riders if the lanes are at least 12 feet wide.

Wide Outside Lanes Wide outside lanes are simply lanes that are wider than 12 feet. A wide outside lane of 14 feet is needed to prevent the bicyclist and motorist from coming into conflict or change lanes. Wide outside lanes are favored by Group A riders, but are only suitable for Group B/C riders on residential or low volume streets. Lane widths much greater than 14 feet may encourage the undesirable operation of two motor vehicles in one lane, especially in urban areas, and are not recommended. In situations where more than 15 feet of lane width exists, consideration should be given to striping bike lanes or shoulders.

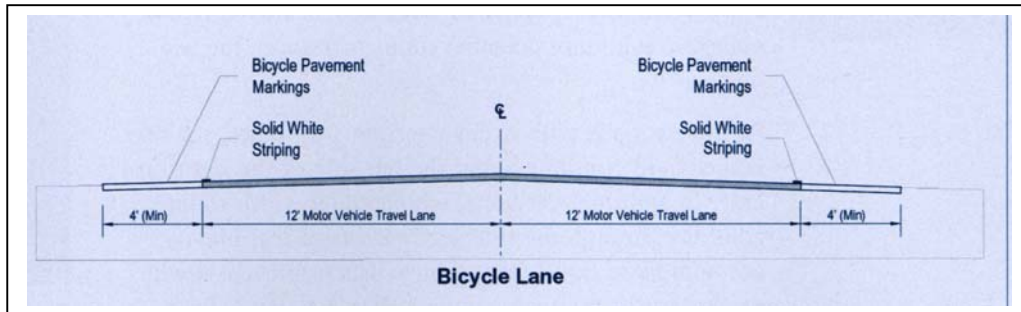


Paved Shoulders Paved shoulders are often the best way to accommodate bicyclists, especially in rural areas. Shoulders should have a minimum width of 4 feet. With average vehicle speeds exceeding 40 MPH and traffic volume greater than 2,000/day, the shoulder should be 6 feet wide.

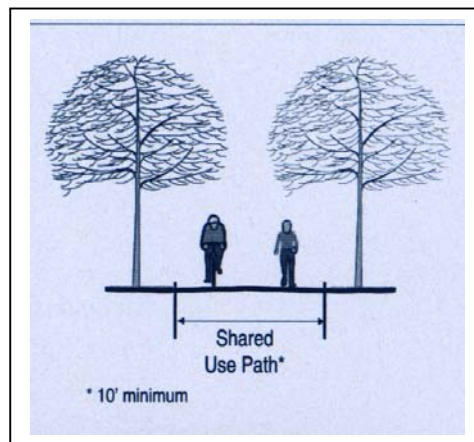


Eastern Shore of Virginia Bicycle Plan, March 2004

Bicycle Lanes Bicycle lanes are a part of the roadway that has been designated for bicycles by striping, signing, and pavement markings. The recommended width of bicycle lanes is 4 feet with gutter pan and curb, 5 feet with adjacent on-street parking, and 6 feet where substantial truck traffic is present or vehicle speeds exceed 50 MPH. Bicycle lanes are best for Group B/C riders, especially when average speed exceeds 40 MPH and traffic volumes are high.



Shared Use Path Shared use paths are separated from the roadway and/or right-of-way by open space or other barriers. They are best suited for Group B/C riders. Two-way bicycle paths should be at least 10 feet wide. One-way bicycle paths are impractical, since they will be used by two-way traffic. If used, they should be at least 5 feet wide.



Other Bicycle Facilities Other bicycle facilities can include bicycle racks and lockers, as well as safety, directional, and informational signs. Bicycle racks on buses are also considered bicycle facilities.

Eastern Shore of Virginia Bicycle Plan, March 2004

Bicycle Facility Development

Bicycle facilities can be developed through several methods, including VDOT road improvements, local government capital improvements, and private development. Rights-of-way for bicycle facilities can be secured through purchase, donation, and dedication through land development ordinances.

Education and Safety

Education is essential to bicycle safety. Bicycle maps with bicycle regulations, safety tips, school bicycle safety programs, and public bicycle events are effective ways to promote bicycle safety.

Public Health

The growing national concern about obesity and fitness is an important consideration when planning bicycle facilities. The Virginia Department of Health recognizes the value of safe bicycle facilities for recreation and transportation and their potential role in improving physical fitness.

Law Enforcement

Law enforcement is needed to ensure the safety of pedestrians, bicyclists, and motorists. Police should be trained in bicycle law enforcement and, if possible, should have a bicycle patrol program. Prosecutors and judges should be informed about bicycle law enforcement, so the efforts of the police are not wasted.

4. BICYCLE FACILITY VISION

In order to encourage public involvement in developing the plan, facilitated Bicycle Planning Workshops were held for the Eastern Shore of Virginia Bicycle Committee and for residents of Accomack County and Northampton County.

During the Bicycle Committee Workshop, participants were asked to develop a vision for Eastern Shore bicycle facilities and identify actions to achieve the vision. At the county workshops, participants were asked to develop a vision for Eastern Shore bicycle facilities and identify what places should be connected with bicycle facilities. The following Vision Statement is based on the workshop results. A complete summary of all the workshop results is located in Appendix A.

Eastern Shore Bicycle Facility Vision

Eastern Shore bicyclists envision a safe, designated bicycle route with, at a minimum, paved shoulders, from Maryland to Kiptopeke. The bicycle route will showcase the Eastern Shore's scenic beauty and rich history, and connect towns and communities with schools, businesses, and recreation facilities.

There will be designated bicycle routes on the Bayside and Seaside, paved shoulders on the Chincoteague Causeway, improved access along and across U.S. Route 13, and a separate bicycle trail from Cape Charles to the Eastern Shore National Wildlife Refuge.

If the Eastern Shore Railroad right-of-way ever becomes available, there will be a rail trail from Maryland to Cape Charles. Access across the Chesapeake Bay Bridge Tunnel, via shuttle buses, will be available. Bicycle maps and safety education will be provided, as well as bicycle safety signs and bicycle racks.

Eastern Shore of Virginia Bicycle Plan, March 2004

5. EXISTING CONDITIONS

Trip Origins and Destinations

Identifying the locations of bicycle trip origins and destinations provides the basis for determining logical bicycle routes on the Eastern Shore. Trips originate where people live or visit, and are concentrated in and around towns, communities, motels and inns, campgrounds, and bicycle rental shops. Trip destinations include places of work, stores, post offices, government offices, schools, churches, libraries, parks, harbors and wharves, and museums. Major Eastern Shore trip origins and destinations include the following locations:

ACCOMACK COUNTY

Origin/Destination

Reason/Activity

Maryland Route 12	Connects to Maryland bicycle facility
Captain's Cove/Greenbackville	Retirement community/scenic views
Town of Chincoteague	Harbor, lodging, campgrounds, schools, services
Chincoteague National Wildlife Refuge	Bicycle and nature trails
NASA Wallops Island	Major employer
Assateague National Seashore	Bicycle trail to ocean beach
Town of Saxis	Harbor, scenic views, wildlife area
Tyson Foods	Food processing plant
Town of Hallwood	Services
Guard Shore Wildlife Management Area	Scenic views, wildlife
Town of Bloxom	Services, campground
Town of Parksley	Services, railroad museum, schools
Town of Accomac	Historic district, services, library food processing plant
Town of Onancock	Historic district, harbor, lodging, services, museum, Tangier tour boat
Town of Tangier	Harbor, scenic views, tour boat to Reedville, VA and Crisfield, MD
Town of Onley	Services, lodging, YMCA, school
Town of Melfa	Services, community college, Industrial park
Harborton	Scenic views
Town of Wachapreague	Harbor, lodging, services
Quinby	Services, scenic views
Town of Belle Haven	Services, scenic views

Eastern Shore of Virginia Bicycle Plan, March 2004

NORTHAMPTON COUNTY

Origin/Destination

Reason/Activity

Town of Exmore	Lodging, services, railroad museum
Willis Wharf	Harbor, services, scenic views
Silver Beach	Summer community, YMCA Camp
Nassawadox	Services, lodging
Machipongo	Museum, school
Eastville	Historic district, services, county park
Smith Beach	Summer community
Cheriton	Services, campground
Oyster	Harbor, scenic views, county park
Cape Charles	Historic district, harbor, trail, museum, lodging, services, industrial park
Kiptopeke State Park	Beach, trails, scenic views, camping
Eastern Shore National Wildlife Refuge	Trails, scenic views
Chesapeake Bay Bridge Tunnel	Parking area with restrooms Potential passenger/bicycle transit service to Virginia Beach

Existing Bicycle Facilities

The existing bicycle facilities on the Eastern Shore of Virginia consist of the bicycle paths at Chincoteague National Wildlife Refuge and Assateague National Seashore, and some segments of the State highway system. Due to the narrow pavement width and high posted speeds, most of the roads on the Eastern Shore do not meet VDOT design standards for accommodating bicycles. The following facilities do meet basic standards and could be designated as bicycle routes:

Accomack Existing Facilities

Facility Type

1.	Route 175 from Route 679 to Chincoteague Causeway AADT: 6,500 Posted Speed: 45/55 Road Width: 34	Paved Shoulders
2.	Route 316 from Route 176, Parksley to Business Route 13, Tasley AADT: 4,000 Posted Speed: 25/55 Road Width: 34	Paved Shoulders
3.	Business Route 13 from Accomack to Onley AADT: 3,600 Posted Speed: 35/55 Road Width: 30	Wide Lanes

Eastern Shore of Virginia Bicycle Plan, March 2004

Northampton Existing Facilities

Facility Type

- | | | |
|----|---|---------------|
| 1. | Business Route 13 in Exmore
AADT: 2,300 Posted Speed: 25/55 Road Width: 30 | Wide Lanes |
| 2. | Business Route 13 in Eastville
AADT: 2,000 Posted Speed: 25/55 Road Width: 30 | Wide Lanes |
| 3. | Business Route 13 in Cheriton
AADT: 2,600 Posted Speed: 25/55 Road Width: 30 | Wide Lanes |
| 4. | Route 184 from Cape Charles to Business Route 13 North
AADT: 3,400 Average Speed: 25/55 Road Width: 30 | Wide Lanes |
| 5. | Route 704, Kiptopeke State Park Entrance Road
AADT: 120 Average Speed: 25 Road Width: 48 | Bicycle Lanes |

Needs Assessment

An analysis of Trip Origin/Destination, Existing Facilities, and Bicycle Planning Workshop results shows the following needs for Eastern Shore bicycle facilities:

1. Safely accommodate children riding to and from schools, parks, and other facilities located near residential areas.
2. Safely accommodate adults riding to and from towns, places of work, and recreational facilities within three to five miles.
3. Safely accommodate adults and children riding recreationally for longer distances on shared use paths.
4. Safely accommodate long-distance cyclists riding throughout the Eastern Shore of Virginia, and provide safe connections to Maryland and other parts of Virginia.
5. Designate bicycle facilities with signs and provide bicycle maps, safety information, and bicycle safety education.

6. GOALS AND OBJECTIVES

The following Goals and Objectives have been outlined to guide the development of bicycle facilities and programs for the Eastern Shore of Virginia:

1. GOAL: Improve bicycling access on the Eastern Shore of Virginia.

OBJECTIVES:

- A. Develop a comprehensive, Eastern Shore system of bicycle routes.
- B. Improve the marking, signage, and mapping of existing and future bicycle facilities.

2. GOAL: Enhance bicycle safety.

OBJECTIVES:

- A. Decrease hazards confronting bicyclists and increase roadway capacity for motor vehicles.
- B. Develop an Eastern Shore Bicycle Map with traffic laws and safety guidelines.
- C. Implement a program of bicycle safety and enforcement.

3. GOAL: Encourage bicycle facility development.

OBJECTIVES:

- A. Expand the Eastern Shore bicycle system as state road improvement project budgets allow.
- B. Incorporate the implementation and maintenance of the Eastern Shore's bicycle system into the VDOT six-year plan.
- C. Implement a minimum of one bicycle facility development project each year.

4. GOAL: Improve and diversify the Eastern Shore's tourism economy.

OBJECTIVES:

- A. Promote tourism by enhancing the awareness of bicycle accessibility to the Eastern Shore's natural and historic points of interest.

Eastern Shore of Virginia Bicycle Plan, March 2004

B. Promote at least one bicycle special event each year.

7. PROPOSED BICYCLE FACILITIES

The following bicycle facilities were identified based on the needs analysis, data from the 2001 VDOT Daily Traffic Volume Report, and other VDOT data. These data include average annual daily traffic (AADT), vehicles per day (VPD), posted speed, and road width. The proposed bicycle facilities are listed geographically from north to south and are not prioritized. Priorities for the development of bicycle facilities on the Eastern Shore of Virginia, based on public participation, are in the next section, *Bicycle Facility Development Recommendations*.

ACCOMACK COUNTY	<u>Proposed Facility</u>
1. Route 679 from the MD State Line to U.S. Route 13 near Parksley AADT: 5,000 Posted Speed: 25/55 Road Width: 16-40	Paved Shoulders
2. Route 175 from Route 13, T's Corner, to Chincoteague Island AADT: 6,200-7,100 Posted Speed: 25/55 Road Width: 18-36	Paved Shoulders
3. Route 709 from Route 705 to Route 679, Horntown AADT: 990 Posted Speed: 55 Road Width: 16-36	Wide Lanes
4. Route 705 from MD State Line to Route 706 AADT: 350 Posted Speed: 55 Road Width: 16-20	Paved Shoulders
5. Route 706 from Route 705 to Route 693 AADT: 180 Posted Speed: 55 Road Width: 18	Paved Shoulders
6. Route 702 from Route 693 to Route 679, Atlantic AADT: 1,600 Posted Speed: 55 Road Width: 22-40	Paved Shoulders
7. Route 693 from Route 706, Withams to Route 692, Hallwood AADT: 790 Posted Speed: 55 Road Width: 16-20	Paved Shoulders
8. Route 695 from Saxis to Temperanceville to Route 679 AADT: 1,200 Posted Speed: 35/55 Road Width: 20-22	Paved Shoulders
9. Route 779 from Route 692, Hallwood, to Route 187, Bloxom AADT: 2,400 Posted Speed: 35/55 Road Width: 18-20	Paved Shoulders
10. Route 701 from 695 to 692, Hallwood AADT: 150 Posted Speed: 55 Road Width: 16	Paved Shoulders

Eastern Shore of Virginia Bicycle Plan, March 2004

<i>Accomack County (continued)</i>	<i>Proposed Facility</i>
11. Route 690 from 692 to 658 AADT: 130 Posted Speed: 55 Road Width: 16-18	Paved Shoulders
12. Route 658 from 690 to Route 179, Onancock AADT: 2,400 Posted Speed: 55 Road Width: 16-30	Paved Shoulders
13. Route 692 from Route 701 through Hallwood to Route 13 VPD: 1,200 Posted Speed: 55 Road Width: 16-40	Paved Shoulders
14. Route 684 from Guard Shore Wildlife Area to Route 658 VPD: 140 Posted Speed: 55 Road Width: 16	Paved Shoulders
15. Route 187 from Route 658, Bloxom, to Route 679, Modest Town AADT: 910-2,600 Posted Speed: 35/55 Road Width: 18-20	Paved Shoulders
16. Route 316 from Route 187, Bloxom to Business Route 13, Tasley AADT: 1,100-4,000 Posted Speed: 25/55 Road Width: 20-32	Paved Shoulders
17. Route 176 from Parksley to Route 13, Fisher's Corner AADT: 3,300-3,900 Posted Speed: 25/55 Road Width: 22	Paved Shoulders
18. Route 666 from Route 679 to Route 661 AADT: 180 Posted Speed: 55 Road Width: 16	Paved Shoulders
19. Route 661 from Route 666 to Route 667 AADT: 230 Posted Speed: 55 Road Width: 16	Paved Shoulders
20. Route 667 from Route 176 to Route 661 AADT: 170 Posted Speed: 55 Road Width: 16	Paved Shoulders
21. Route 13 from Route 661 to N. Business 13, Accomac AADT: 19,000 Posted Speed: 55 Road Width: 60	Multiple Use Path
22. Route 662 from Perdue Farms to N. Business 13, Accomac AADT: 570 Posted Speed: 55 Road Width: 20	Wide Lanes
23. Route 764 from Greenbush to Accomac VPD: 2,100 Posted Speed: 25/55 Road Width: 18-20	Paved Shoulders

Eastern Shore of Virginia Bicycle Plan, March 2004

<i>Accomack County (continued)</i>	<i>Proposed Facility</i>
24. Business Route 13 from Route 13, Accomac, to Route 13, Onley AADT: 2,800-3,600 Posted Speed: 35/55 Road Width: 28-32	Paved Shoulders
25. Route 609 from Business Route 13, Accomac, to Route 626 AADT: 2,200 Posted Speed: 55 Road Width: 16-18	Paved Shoulders
26. Route 605 from Accomac to Quinby AADT: 1,500 Posted Speed: 25/55 Road Width: 18-22	Paved Shoulders
27. Route 126 from Route 179, Onancock, to Business Route 13, Tasley AADT: 3,800 Posted Speed: 35/55 Road Width: 22	Paved Shoulders
28. Route 179 from Route 718, Onancock to Business Route 13, Onley AADT: 7,700 Posted Speed: 35/55 Road Width: 48	Multiple Use Path
29. Route 653 from Route 777, Poplar Cove, to Route 658, Onancock AADT: 530 Posted Speed: 55 Road Width: 16-18	Wide Lanes
30. Route 767 from East Point to Route 641 AADT: 270 Posted Speed: 55 Road Width: 16-18	Wide Lanes
31. Route 641 from 767 to Route 638 AADT: 680 Posted Speed: 55 Road Width: 16	Wide Lanes
32. Route 638 from Route 641 to Route 718, Onancock AADT: 4,900 Posted Speed: 55 Road Width: 20-24	Paved Shoulders
33. Route 638 from Route 718, Onancock, to Route 609, Onley AADT: 4,400 Posted Speed: 55 Road Width: 20-24	Paved Shoulders
34. Route 716 from Route 609 to Route 13, Nandua High School AADT: 300 Posted Speed: 55 Road Width: 20	Paved Shoulders
35. Route 789 from Onley to Locustville AADT: 1,700 Posted Speed: 35/55 Road Width: 18	Paved Shoulders
36. Route 718 from Route 179, Onancock to Route 620 AADT: 3,800 Posted Speed: 35/55 Road Width: 22-24	Paved Shoulders

Eastern Shore of Virginia Bicycle Plan, March 2004

<i>Accomack County (continued)</i>	<i>Proposed Facility</i>
37. Route 178 from Route 620 to Route 13, Belle Haven AADT: 3,000 Posted Speed: 35/55 Road Width: 22-28	Paved Shoulders
38. Route 615 from Route 178 to Davis Wharf AADT: 460 Posted Speed: 35/55 Road Width: 16-18	Wide Lanes
39. Route 626 from Route 718 to Route 13, Melfa AADT: 1,200 Posted Speed: 35/55 Road Width: 22-40	Paved Shoulders
40. Route 818 from Route 626 to Eastern Shore Farmers Market AADT: 90 Posted Speed: 35/55 Road Width: 20-50	Wide Lanes
41. From Route 818 to Community College/Industrial Park AADT: N/A Posted Speed: N/A Road Width: N/A	Multiple Use Path
42. Route 624 from Melfa to Route 605 AADT: 240 Posted Speed: 35/55 Road Width: 16-20	Wide Lanes
43. Route 620 from Route 718 to Route 13, Keller AADT: 390 Posted Speed: 35/55 Road Width: 18-20	Paved Shoulders
44. Route 623 from Route 620 to Route 13, Keller AADT: 240 Posted Speed: 55 Road Width: 16	Paved Shoulders
45. Route 696 from Route 13 to Route 180, Keller AADT: 120 Posted Speed: 35/55 Road Width: 18	Paved Shoulders
46. Route 180 from Harborton to Wachapreague AADT:1,200 Posted Speed: 35/55 Road Width: 18-24	Paved Shoulders
47. Route 609 from Route 178, Pungoteague, to Route 178, Belle Haven AADT:1,500 Posted Speed: 35/55 Road Width: 18-24	Paved Shoulders
48. Route 600 from Route 605 to Route 182 AADT: 470 Posted Speed: 55 Road Width: 16-20	Wide Lanes
49. Route 614 from Route 609 to Route 13, Painter AADT:1,700 Posted Speed: 35/55 Road Width: 16-18	Paved Shoulders

Eastern Shore of Virginia Bicycle Plan, March 2004

	<i>Accomack County (continued)</i>	<i>Proposed Facility</i>
50.	Route 182 from Mappsburg to Quinby AADT: 1,100 Posted Speed: 55 Road Width: 20	Paved Shoulders
51.	Route 600 from Route 182 to Northampton County Line AADT: 670 Posted Speed: 55 Road Width: 20	Paved Shoulders
52.	Route 602 from Route 178 to Northampton County Line AADT: 820 Posted Speed: 55 Road Width: 16-18	Paved Shoulders

Eastern Shore of Virginia Bicycle Plan, March 2004

NORTHAMPTON COUNTY

Proposed Facility

- | | | |
|-----|--|-----------------|
| 1. | Route 600 from Accomack County Line to Kiptopeke
AADT: 960 Posted Speed: 35/55 Road Width: 18-20 | Paved Shoulders |
| 2. | Route 602 from Route 183 to Accomack County Line
AADT: 570 Posted Speed: 25/55 Road Width: 18 | Paved Shoulders |
| 3. | Route 183 from Silver Beach to Exmore
AADT: 1,900 Posted Speed: 25/55 Road Width: 20 | Paved Shoulders |
| 4. | Route 606 from Morley's Wharf to Route 600, Nassawadox
AADT: 1,600 Posted Speed: 35/55 Road Width: 18-20 | Paved Shoulders |
| 5. | Route 608 from Route 600 to Brownsville
AADT: 90 Posted Speed: 55 Road Width: 16 | Wide Lanes |
| 6. | Route 603 from Exmore to Willis Wharf
AADT: 1,200 Posted Speed: 25/55 Road Width: 22-40 | Paved Shoulders |
| 7. | Business Route 13 from Exmore to U.S. Route 13 South
AADT: 2,300 Posted Speed: 35/55 Road Width: 33 | Paved Shoulders |
| 8. | Route 604 from Route 13 to Route 600
AADT: 1,100 Posted Speed: 25/55 Road Width: 22 | Paved Shoulders |
| 9. | Route 618 from Route 13 Exmore, to Route 627, Machipongo
AADT: 1,700 Posted Speed: 35/55 Road Width: 16-22 | Paved Shoulders |
| 10. | Route 605 from Route 606 to Route 13
AADT: 270 Posted Speed: 35/55 Road Width: 16-18 | Paved Shoulders |
| 11. | Route 627 from Route 618 to Route 600
AADT: 430 Posted Speed: 25/55 Road Width: 16-20 | Paved Shoulders |
| 12. | Business Route 13 in Eastville
AADT: 2,000 Posted Speed: 35/55 Road Width: 33 | Paved Shoulders |
| 13. | Route 631 from Business Route 13, Eastville, to Indiantown Park
AADT: 1,400 Posted Speed: 25/55 Road Width: 16-32 | Paved Shoulders |

Eastern Shore of Virginia Bicycle Plan, March 2004

<i>Northampton County (continued)</i>	<i>Proposed Facility</i>
14. Route 634 from Route 666, Smith Beach, to Business Route 13 AADT: 920 Posted Speed: 55 Road Width: 18-20	Paved Shoulders
15. Route 680 from Cherrystone to Business 13 Route, Cheriton AADT: 980 Posted Speed: 35/55 Road Width: 18-32	Paved Shoulders
16. Route 639 from Cheriton to Oyster AADT: 2,200 Posted Speed: 35/55 Road Width: 18-40	Paved Shoulder
17. N. Business Route 13 in Cheriton to U.S. Route 13 South AADT: 2,600 Posted Speed: 35/55 Road Width: 32	Paved Shoulders
18. Route 184 from Cape Charles to Route 13 AADT: 4,100 Posted Speed: 25/55 Road Width: 32	Paved Shoulders
19. Route 684 from Business Route 13 to Route 13 AADT: 70 Posted Speed: 25/55 Road Width: 18	Paved Shoulders
20. Route 642 from Cape Charles to Route 600 AADT: 1,100 Posted Speed: 25/55 Road Width: 16-22	Paved Shoulder
21. From Cape Charles to Eastern Shore National Wildlife Refuge AADT: N/A Posted Speed: N/A Road Width: 10	Shared Use Path
22. Route 644 from Custis Tomb to Route 645 AADT: 80 Posted Speed: 25/55 Road Width: 18-20	Paved Shoulder
23. Route 645 from Route 644 to Route 600 AADT: 460 Posted Speed: 55 Road Width: 20-22	Paved Shoulder
24. Route 600 to CBBT Parking Lot	Shared Use Path

8. BICYCLE FACILITY DEVELOPMENT RECOMMENDATIONS

The following Bicycle Facility Development Recommendations were developed based on the work of the Eastern Shore of Virginia Bicycle Committee, the A-NPDC Transportation Technical Advisory Committee, and Eastern Shore residents who attended planning workshops and public meetings. Detailed information from the bicycle planning workshops and public meetings is located in Appendix A and Appendix B.

BICYCLE FACILITY DEVELOPMENT RECOMMENDATIONS

1. *Develop and Adopt County and Town Bicycle Facility Plans*

In order to qualify for VDOT bicycle facility funding, Eastern Shore local governments need to develop and adopt Bicycle Facility Plans. Support for the development of bicycle facilities should also be included in County and Town comprehensive plans.

2. *Develop and Adopt Bicycle Facility Development Policies*

The following policies should be included in County and Town bicycle plans to guide the implementation of bicycle facility development on the Eastern Shore of Virginia:

1. ADMINISTRATION of the Eastern Shore bicycle program, including distribution of information and planning of special events, shall be under the direction of the County Administrators or Town Managers.
2. COORDINATION of street/highway improvements and planned bicycle facilities with VDOT and other state and federal agencies shall be the responsibility of the County Administrators or Town Managers.
3. MAINTENANCE of the Eastern Shore bicycle system shall be the responsibility of VDOT or the bicycle facility owner.
4. FINANCING of bicycle facilities shall be provided through VDOT's statewide transportation improvement program, transportation enhancement grant program, and other available sources.
5. SAFETY EDUCATION AND LAW ENFORCEMENT for the Eastern Shore bicycling program shall be the responsibility of the County sheriffs and Town police chiefs.

Eastern Shore of Virginia Bicycle Plan, March 2004

3. *Recommended Bicycle Facilities*

It is recommended that all of the Proposed Bicycle Facilities in the previous section be considered by local governments when developing their bicycle facility plans. However, the following facilities were identified as priorities during bicycle planning workshops and public meetings:

1. Pave the shoulders on the Route 175 Chincoteague Causeway.
2. Develop a designated Seaside Bicycle Route with paved shoulders from Maryland Route 12 to the Chesapeake Bay Bridge Tunnel Parking Lot, utilizing Routes 679, 175, 798, 666, 661, a Shared Use Path along U.S. 13, Business 13, 605, 182, and 600.
3. Develop a Shared Use Path from Onancock to Onley.
4. Develop a Shared Use Path from Cape Charles to Cheriton.
5. Develop a Shared Use Path from Cape Charles to the Eastern Shore of Virginia National Wildlife Refuge that is not on the old railroad right-of-way.
6. Pave the shoulders on Route 695 from Route 679 to Saxis.
7. Develop a designated Bayside Bicycle Route with paved shoulders from Route 695 in Makemie Park south to Machipongo using Routes 693, 779, 316, 126, 179, 718, 178, 602, 183, 606, 618, and 627.
8. Develop a Shared Use Path to connect Accomack County Industrial Park, Eastern Shore Community College, and the Eastern Shore Farmer's Market with Route 818.
9. Improve bicycle access along and across U.S. Route 13.
10. Promote the Tangier Islands tour boats from Onancock, Reedville, and Crisfield as bicycle facilities.
11. Work with STAR Transit to establish a shuttle bus across the Chesapeake Bay Bridge Tunnel that can carry bicycles.
12. Meet with the Eastern Shore Railroad to discuss the possibility of developing a railtrail along the railroad access road.

Appendix A

Bicycle Planning Committee Vision and Actions

Vision: *What Eastern Shore bicycle facilities do you envision by 2010?*

- All STAR Transit buses carrying bicycles.
- Bicycle facilities on Seaside and Bayside with STAR Transit connections.
- Bicycle facilities that preserve scenic character, not make roads into speedways.
- Bicycle trailhead facilities with parking, lockers, phones, vending machines.
- A designated bicycle route from Maryland to Kiptopeke (at least paved shoulders with signs directing people to towns, businesses, campgrounds, etc.)
- Bicycle access to schools, Eastern Shore Community College, and industrial parks (there are no shoulders on U.S. Route 13 in Melfa and two bicyclists have been injured there).
- A rails-to-trails project along the Eastern Shore Railroad right-of-way.
- Bicycle facility requirements in site plan review for commercial development and subdivisions.
- An Eastern Shore Bicycle Plan that is consistent with the Hampton Roads District and State Bicycle Plans.
- Bicycle facilities linking adjacent towns (e.g. Accomac, Onley, Onancock).
- Kiptopeke State Park and Eastern Shore National Wildlife Refuge connected with a bicycle facility.
- Kids receiving bicycle safety education in schools.
- Motorists being more courteous to bicyclists due to bicycle education.
- Increased individual mobility through bicycling.
- Increased awareness of how bicycle facilities can develop a sense of community.
- Clearly identified heritage tourism destinations.
- Old carriage roads preserved for bicycling.
- Bicycle facilities are connected to Eastern Shore Heritage Trail.
- Straighter roads for bicycling.

Appendix A
(continued)

Bicycle Committee Planning Vision and Actions

Actions: *What actions do we need to take to achieve our vision for Eastern Shore bicycle facilities in 2010?*

- Develop the Eastern Shore Bicycle Plan.
- Inventory potential bicycle routes and destinations.
- Grade existing roads (width, traffic) to identify improvements.
- Identify different types of bicycle users in different areas.
- Identify corridors to connect, and prioritize.
- Check comprehensive plans for planned development, schools, and conflicts.
- Ask tourism commission what people want to do when they visit Shore.
- Identify bicycle facility improvements.
- Identify bicycle corridor scenic/historic preservation needs.
- Let elected officials and community leaders know that we're developing a plan so they understand and support the Bicycle Plan when it is completed.
- Have comprehensive plans support/incorporate bicycle plan.
- Educate the public about bicycle facilities.
- Get public support for bicycle facilities.
- Hold "leadership rides" with elected officials and community leaders to develop understanding and support for bicycle facilities.
- Conduct highest-and-best-use analysis of proposed bicycle facilities to maximize use of grant money.

Appendix A
(continued)

County Bicycle Planning Workshops

Accomack Workshop 10/11/00

Vision: *What Eastern Shore bicycle facilities do you envision by 2010?*

- Connections between:
 - Onancock, Tasley and Accomac
 - Onancock, 4 Corners, Onley
 - Onancock and YMCA
 - Onancock and ESCC/Industrial Park (Farmers Market)
 - Onley and Accomac
 - Belle Haven and Exmore
- Paved shoulders on Chincoteague Causeway (175)
- Paved shoulders on U.S. Route 13
- Safe bicycle access across U.S. Route 13
- Bicycle facilities on Seaside and Bayside Roads
- A bicycle facility from Maryland State Line to Kiptopeke
- Safety for kids on bikes
- Bike safety education (AAA, Bike Rodeo, Safe Kids Coalition)
- Bike safety signs
- Connecting paths in trouble spots
- Bike facilities that showcase Eastern Shore assets (historic, scenic, towns)
- Bike facilities coordinated with Heritage Trail
- Update State Bicycle Guide with new map

Appendix A
(continued)

Accomack Workshop 10/11/00

Origins/Destinations: *What Eastern Shore places should be linked by bicycle facilities?*

- Onancock-Onley-Accomac-Tasley
- Maryland and Kiptopeke
- Campsites:
 - Sanford (Saxis Road)
 - Sandpiper Cove
 - Guard Shore
 - Virginia Landing
- Roads 24' and greater
 - U.S. Route 13 and Business Route 13
 - Route 175
 - Route 180
 - Route 184
 - Route 179
- Heritage Trail destinations
- Bike Ferry
- YMCA w/o crossing Route 13
- Eastern Shore Community College
- Harborton-Wachapreague-Quinby
- Chincoteague
- Saxis Wildlife Management Area
- Stores
- Schools
- Parks, refuges, state park
- Major employers (Tyson, Perdue, NASA)
- Virginia Welcome Center
- Rest areas, bathrooms

Appendix A
(continued)

Northampton Workshop 10/12/00

Vision: *What Eastern Shore bicycle facilities do you envision by 2010?*

- Bicycle facilities on Seaside and Bayside Roads
- Separate, paved bicycle path on Seaside and Bayside Roads
- Separate, paved bike path along railroad right-of-way
- Tie to Heritage Trail and Birding Trail
- Rail trail between Cape Charles-Kiptopeke-Eastern Shore NWR
- Strategically placed bicycle racks at towns, beaches, and parks
- Well designed bicycle route signs including Heritage Trail and Birding Trail
- Bicycle brochure/map with repair information
- Lighting for night use
- Bicycle safety education
- Law enforcement
- Driver education about bicycles
- Safer bicycle access on U.S. Route 13
- Dog-free bicycling
- Recreational bicycle track
- Promote existing bicycle trails

Origins/Destinations: *What Eastern Shore places should be linked by bicycle facilities?*

- Kiptopeke and Chincoteague
- Connect into towns
- Link natural resource and historic sites
- Link recreation sites, beaches and parks
- Link bay and ocean
- Campgrounds

Appendix B

DRAFT BICYCLE PLAN PUBLIC MEETING RESULTS

Presentations on the draft Eastern Shore of Virginia Bicycle Plan were given at public meetings in Accomack County and Northampton County during July 2003. Participants were asked if they had comments about the draft plan. They were then asked to identify on a map the most desirable projects for bicycle facility improvements on the Eastern Shore of Virginia. Participants were then asked to identify a preferred bicycle route from Maryland to Kiptopeke. The following comments and results were received at the meetings.

Accomack County Public Meeting, July 22, 2003

Public Comments (Accomack):

- Need a mapped bicycle route like the View Trail 100 in Maryland.
- Go to the railroad now and discuss paving the “coal road” as a bicycle facility.
- Find out how much bicyclists spend per day. In the 1970’s and 1980’s, it was 25 cents per mile. CBES estimates that bicyclists spend \$60 per day.
- The annual Seagull Century (100 mile) ride around Salisbury, MD attracts 7,000 riders.
- Need more bicycling events to attract more riders. More riders equal more money.
- The plan should recognize and plan for different groups of bicyclists, including long-distance riders, bicycle clubs (from Baltimore, Washington and Norfolk), local riders, families, and workers.
- The Eastern Shore’s flat land and scenic beauty make for excellent bicycling.
- Need options for commuters. If proposed routes developed, there would be good options.
- There is nowhere else on the East Coast with such good bicycling.

Appendix B
(continued)

Eastern Shore Bicycle Facility Priorities (Accomack):

1. Route 175 Chincoteague Causeway, Paved Shoulders (6)
2. Cape Charles to ESV National Wildlife Refuge, Shared Use Path (5)
3. Onancock to Onley, Shared Use Path (4)
4. Routes 798 and 679 from Rt. 175 to Rt. 13, Paved Shoulders (3)
5. Route 695 from Sanford to Saxis, Paved Shoulders (2)*
6. Route 789 from Bus. Rt. 13/Onley to Rt. 605/Locustville, Paved Shoulders (2)*
7. Rts. 718 & 178 from Rt. 179/Onancock to Rt. 13/Belle Haven, Paved Shoulders (2)*
8. Route 600 in Northampton County, Paved Shoulders (2)*
9. Route 679 from MD Route 12 to Rt. 175, Paved Shoulders (1)*
10. Route 695 from Rt. 13 to Rt. 679, Paved Shoulders (1)*
11. U.S. Route 13 from Rt. 661 to Bus. Rt. 13, Shared Use Path (1)*
12. Route 609 from Bus. Rt. 13/Accomac to Rt. 789/Onley, Paved Shoulders (1)*
13. Route 653 from Rt. 658/Onancock to Poplar Cove, Wide Lanes (1)*
14. Route 605 from Bus.13/Accomac to Rt. 182/Quinby, Paved Shoulders (1)*
15. Route 618 from Rt. 13/Hadlock to Rt. 13/Machipongo, Paved Shoulders (1)*

(1) Indicates number of votes. * Indicates tie with same number of votes.

**Appendix B
(continued)**

Northampton County Public Meeting, July 24, 2003

Public Comments (Northampton):

- Need a rail trail from Cape Charles to Kiptopeke.
- Need a Shared Use Path from Cape Charles to Cheriton.
- Need a designated bicycle route from Eastville to ESV National Wildlife Refuge.
- Need a safe U.S. Route 13 crossing at Kiptopeke State Park.

Eastern Shore Bicycle Facility Priorities (Northampton):

1. Route 600 from Route 601 to U.S. Route 13, Paved Shoulders (17)
2. Cape Charles to Cheriton, Shared Use Path (9)
3. Route 175 Chincoteague Causeway, Paved Shoulders (5)
4. Cape Charles to ESV National Wildlife Refuge, Shared Use Path (4)
5. Onancock to Onley, Shared Use Path (3)
6. U.S. Route 13 from Route 661 to Business Route 13, Shared Use Path (2)
7. Accomack Industrial Park/ESCC to Route 818, Shared Use Path (1)*
8. Route 180 from Route 178 to Harborton (1)*
9. Route 178 from U.S. Route 13 to Route 615 (1)*
10. Route 600 from Route 182 to Northampton County Line, Paved Shoulders (1)*
11. Business Route 13 in Eastville, Paved Shoulders (1)*
12. Route 634 from Business Route 13 to Smith Beach (1)*
13. Chesapeake Bay Bridge Tunnel Shuttle Bus (1)*

(1) Indicates number of votes.

* Indicates tie with same number of votes.

Appendix B
(continued)

Preferred Eastern Shore of Virginia Bicycle Route (Accomack and Northampton):

- Route 679 from Maryland Route 12 to Route 175
- Route 175 to Route 798
- Route 798 to Route 679
- Route 679 to Route 666
- Route 666 to Route 661
- U.S. Route 13 Shared Use Path from Route 661 to Business Route 13
- Business Route 13 to Route 605
- Route 605 to Route 182
- Route 182 to Route 600
- Route 600 to U.S. Route 13