



# 7 Programming for Health, Safety, & Active Living

*Adult cyclists learn proper signaling techniques*

## OVERVIEW

Charles Dickens got it right: “Walk to be healthy, walk to be happy.” Creating a safe and inviting bicycle and pedestrian transportation system requires attention to more than physical infrastructure; it requires a diverse toolkit of complementary programmatic recommendations that will enable people to walk and bicycle more, and lead healthier lives. Recent studies show that programming and promotion aspects are critically important for the success of bicycle and pedestrian projects.<sup>1</sup> Targeted education, encouragement, enforcement, and evaluation strategies that improve North Carolina residents' health, safety, and their ability to incorporate walking and bicycling into everyday life are important as strategies that support the development and success of physical infrastructure. Successful programs must reach users and motorists in all different sectors of the population in North Carolina. A program may be presented as a campaign, effort, on-going initiative or one-time event, depending on its purpose. Every initiative should have a well-defined purpose or focus, a clearly identified goal (or goals), a lead agency/organization, and a logical timeline or schedule. In essence, these different efforts market walking and bicycling to the general public and ensure the maximum “return on investment” in the form of increased mode shift to walking and bicycling. As John Fitzgerald Kennedy once said, “Nothing compares to the simple pleasure of a bicycle ride.”

This Statewide Pedestrian and Bicycle Plan establishes the following vision for the future of pedestrian and bicycle transportation in North Carolina:

*North Carolina is a place that incorporates walking and bicycling into daily life, promoting safe access to destinations, physical activity opportunities for improved health, increased mobility for better efficiency, retention and attraction of economic development, and resource conservation for better environmental stewardship of our state.*

## In this Chapter

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## THE ROLE OF ADVOCACY ORGANIZATIONS

State and local advocacy groups have the opportunity to support bicycle and pedestrian safety, education, and outreach programs and initiatives. These efforts work in parallel to the efforts of NCDOT and can help further the reach and impact of NCDOT's programmatic strategies. North Carolina Active Transportation Alliance (NCATA) seeks to promote non-motorized transportation choices in North Carolina. Through partnerships with shop owners, bicycling clubs, transportation professionals, local advocacy organizations, and elected officials, NCATA promotes infrastructure, planning and education programs that improve conditions for people-powered transportation. Their vision for North Carolina is a state "where anyone can choose to bicycle, skate, run, and walk as normal, practical, healthy, safe and active transportation."

NCATA and local advocacy organizations should promote policies at the state level that will fairly and equitably accommodate bicyclists, skaters, wheelchair users, pedestrians, and others using human-powered active transportation. These organizations should also take a lead role in advocating for statewide support of Complete Streets concepts and other laws that improve safety and establish dedicated funding sources for pedestrian and bicycle infrastructure in the state budget.

The first inaugural Bike Summit was held in 2012 in Raleigh and was well attended by public and private sector planners, cyclists, policy and decision makers and other related representatives in the transportation field. The NCATA, with the support of bicycle advocate volunteers and local government volunteers, should continue to host statewide bicycle summits each year. Statewide bicycle

summits are well-attended and can include focus areas such as "Bike to the Legislature" events. Additionally, the NCATA should seek partnerships with health organizations and volunteer advocates to host a companion Walk Summit on an annual basis. The Walk Summit could begin as a one-day workshop and expand into a multi-day summit as attendance and awareness increases.

Example responsibilities of NCATA and local advocacy organizations:

- Generate awareness and support through champions, volunteers and community members at the local level to stimulate a grassroots movement.
- Start with Governor and State Assembly and recruit elected officials to champion the Active Transportation Cause.
- Avoid turning Active Transportation issues into a partisan issue.
- Find legislative support from all political parties.
- Build diverse coalitions consisting of health groups, chambers of commerce, safety, environment, older adults, recreation, realtors and other appropriate partners.
- Build constructive relationships with NCDOT and set up recurring meetings with staff.
- Be a resource - volunteer on committees, review policies and documents, consult on bike/walk projects, run publicly funded bicycle and pedestrian education classes.
- Offer public recognition to decision makers who institutionalize best practices.

The support of NCATA and local advocacy organizations such as Bicycling in Greensboro, Charlotte Area Bicycle Alliance, Carrboro Bicycle Coalition, Durham Bicycle Coalition, Asheville on Bikes, Bicycle HaywoodNC, Connect





Gaston, and Walkable Hillsborough Coalition will contribute to the successful implementation of the programmatic recommendations presented in this chapter. Specific opportunities for these partnerships are identified throughout this chapter; however, advocacy organization support should not be limited to these specific partnerships. NCATA and local advocacy groups are identified as potential partners for the implementation of several programmatic recommendations presented in this chapter.

## BICYCLE- AND WALK-FRIENDLY COMMUNITIES

Recognizing the importance of targeted programmatic strategies, the national Bicycle Friendly Community program (administered by the League of American Bicyclists), and the Walk Friendly Communities program (administered by the Highway Safety Research Center's (HSRC) Pedestrian and Bicycle Information Center (PBIC)), recommend a multi-faceted approach based on five different "E" categories: Engineering, Education, Encouragement, Enforcement, and Evaluation. This

- ◀ Walking school buses are educational and build confidence in children to safely walk to school.

Plan has been developed using the "5 Es" approach with an intent to provide action steps in each category that the state can take towards becoming more bicycle and pedestrian-friendly. In addition to the action steps recommended in this chapter, NCDOT can support North Carolina municipalities who wish to achieve a Bicycle and/or Walk Friendly designation by encouraging communities and providing guidance during the development of a Bicycle Friendly or Walk Friendly application.

This chapter organizes the efforts the state of North Carolina has taken to promote bicycling and walking into three primary categories, Education, Encouragement and Enforcement. The additional efforts that would be included in the Evaluation and Engineering categories are included and reported on in other sections of this Plan. Recommendations presented in the following pages align with the vision and goals of this Plan and are approached in two ways: A) as recommendations to improve on existing efforts, and B) as recommendations for new targeted strategies. Partnership and facilitation support guidance is included with each recommendation. NCDOT should enlist the support and assistance from these partners and actively engage them throughout the development and implementation of each initiative.

## EDUCATION PROGRAMS, INITIATIVES, STRATEGIES

Providing bicycle and pedestrian educational opportunities is critical for bicycle and pedestrian safety. Education should span all age groups, cultures, abilities, and include motorists as well as current and potential cyclists and pedestrians. The focus of an educational campaign can range from information about the rights and responsibilities of road users, to tips for safe behavior; from awareness of the community-wide benefits of bicycling and walking, to technical trainings for agency staff.

## Purpose

One of the goals of this Plan is to develop and implement educational programs for all road users to increase safety, awareness, and understanding of pedestrian and bicycle rights, responsibilities, and benefits. Every year, on average, 168 pedestrians and 24 bicyclists are killed on North Carolina roadways. Through improvements to existing and past educational programs and development of new statewide education programs, NCDOT will increase safety and reduce the number of fatal pedestrian and bicycle crashes each year. Attention should be given to prioritizing educational campaigns in underserved communities, children, and among populations who are more likely to walk and bicycle for necessity.

Another goal of this Plan is to “coordinate transportation and land use planning to provide safe walking and bicycling connections between neighborhoods, employment centers, commercial centers, schools, parks, and other popular destinations and places that serve the community.” By providing educational programs for decision-makers, engineering and planning staff representatives, NCDOT is cultivating the expertise and skill sets needed to develop state of the art bikeways, walkways, and greenways for the short- and long-term future of North Carolina's bicycling and pedestrian environment.

## Existing and Past Efforts

### *Bicycle Helmet Initiative*

**Introduction:** Since its inception in 1974, NCDOT's Division of Bicycle and Pedestrian Transportation has been committed to encouraging the use of bicycle helmets as an essential

means of reducing bicyclist injuries and fatalities. Over the last twenty years, the DBPT has undertaken a series of helmet promotions in collaboration with other organizations and agencies across North Carolina. The Bicycle Helmet Initiative is designed to reduce bicycle related injuries and fatalities of children, as well as encourage behaviors that will lead to bicycle helmet usage as an adult.

Today, communities conducting bicycle safety events for underprivileged children can request helmets through the DBPT's Bicycle Helmet Initiative. The program is funded through proceeds from “Share the Road” license plates. While the DBPT does not actively promote the initiative, most agencies and schools are aware of the program and regularly request helmets. A maximum of 24 helmets is available per year to each agency that requests helmets. Helmet availability is determined on a “first come first serve” basis.

**Type:** Ongoing

**Action Item/Recommendation:** Increase funding of the Bicycle Helmet Initiative program to increase the number of helmets available per agency each year and to broaden the number of agencies served each year. The increased funding can come from a diversified funding stream. In addition to using “Share the Road” license plate revenues, pursue public health funders in the private and public sectors.

**Lead Facilitator(s):** North Carolina Department of Transportation, in partnership with the Department of Public Instruction (DPI); the Department of Health and Human Services (DHHS); the Department of Insurance's NC Safe Kids; local health departments; hospitals; and advocacy groups



## Let's Go NC - Bicycle and Pedestrian Curriculum

**Introduction:** Let's Go NC is a bicycle and pedestrian safety skills program for children in North Carolina. The bicycle component of the curriculum is based on the 1990's Basics of Bicycling Curriculum, developed for fourth and fifth graders. The pedestrian component is based on the NHTSA pedestrian curriculum. Both components are modified for North Carolina and for use to instruct children in grades k-5. The program encourages children to be healthy and active by teaching the skills necessary for safely participating in bicycling and walking activities. The curriculum is available online and includes Safe Routes to School components, classroom curriculum materials, and videos and exercises. Let's Go NC is based on an earlier NCDOT program called "The Basics of Bicycling."

**Type:** Ongoing

**Action Item/Recommendation:** Establish a formal partnership with the Department of Public Instruction to implement Let's Go NC. The partnership agreement should include specific goals and a target timeline for increasing funding for the program, assigning one staff at each agency to serve as a point person for program implementation, and engaging North Carolina

*Parents gather with their kids to help children learn about riding bicycles safely to school in Southern Pines, NC ▼*



schools in the process. The partnership should establish a goal of every elementary school in North Carolina adopting the Let's Go NC curriculum. The curriculum includes encouragement for educators who are responsible for educating students on the program's curriculum. With the assistance and support of NCATA or local advocacy organizations, information should be available to schools and non-profits. These materials would be used to educate students on fun and safe ways to walk and bike to school.

**Lead Facilitator(s):** North Carolina Department of Transportation, in partnership with the DPI; NC Safe Kids; NCATA; and local advocacy organizations

## Safety Education Materials

**Introduction:** NCDOT's Division of Bicycle and Pedestrian Transportation offers safety and education materials on the agency website. The materials target specific age groups and are organized by the targeted age level. The program offers an assortment of pamphlets, handouts, tests, curricula, information sheets, posters and other items for each age level. This program is not actively marketed and is primarily distributed based on direct requests from schools. The program teaches children to become conscientious road users.

**Type:** Ongoing

**Action Item/Recommendation:** The development of Safety Education Materials is an important statewide education program, but need not be repeated as a unique effort. This Plan recommends focusing on furthering the development and statewide implementation of the Watch for Me NC program, including the development of appropriate digital materials for different age levels, all abilities, and cultures. Watch for Me NC is described later in this chapter, and is a safety awareness and education program that launched in 2012.

**Lead Facilitator(s):** N/A

### *Share the Road Posters*

**Introduction:** NCDOT continually reinforces the message that motorists and bicyclists must “Share the Road” responsibly. To promote this effort, three “Share the Road” posters are available online for order or download. The three posters reflect three distinct messages: “Be Responsible,” “Bicycle Safety Month,” and “Be Predictable.” The poster messages were designed to appeal to different audience ages and were last updated in 2009.

**Type:** Ongoing

**Action Item/Recommendation:** Update the existing “Share the Road” posters and incorporate them into a broader “Share the Road” campaign for the state. The broader program should include a video PSA distributed widely online (such as through YouTube and/or Vimeo), to local network TV stations, and to local government access cable channels. The statewide effort may also include print materials (such as a brochure or postcard-size handout) and printed versions of the posters. If printed materials are

developed, a marketing plan for distributing the materials in a targeted and timely manner is necessary. The plan would identify partner agencies and institutions that could actively distribute the materials to a target demographic group and at major events where NCDOT staff or partner groups are available to distribute materials to a broad audience of North Carolina bicyclists and motorists.

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with NCATA; and local advocacy groups

### *Safe Routes to School Community Workshop*

**Introduction:** NCDOT’s Safe Routes to School (SRTS) Program offers a customized version of the “Safe Routes to School National Course,” developed by the National Center for Safe Routes to School and the Pedestrian and Bicycle Information Center. Designed to help communities develop sound SRTS programs based on their unique local context, this one-day event provides information on best practices, useful strategies, and available resources. When offered, over 100 individuals participated.

**Type:** Episodic

**Action Item/Recommendation:** Establish a formal partnership with the Department of Public Instruction to host a SRTS Workshop in all communities of North Carolina within a specific timeframe (such as five years) and create a strategy for achieving that goal. Collaborate with the Department of Public Instruction to promote the workshop to schools and to schedule workshops for multiple communities within a region at the same time. This could come in the form of a “SRTS Workshop Week,” which would offer five workshops over five days in five communities of a



specific region, or a similar implementation strategy. Increase funding for the SRTS Community Workshop program to a level that provides sufficient staffing and resources to achieve the goal.

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with the DPI

### *Bicycle Planning and Design / Pedestrian Planning and Design Workshops*

**Introduction:** NCDOT's Division of Bicycle and Pedestrian Transportation hosts a one-day Bicycle Planning and Design Workshop providing comprehensive information on the latest in bicycle planning, design standards, and research. The workshop offers guidance on integrating bicycle transportation needs into roadways and shared-use paths to enhance the "bike-friendliness" of a community. The DBPT has offered the course multiple times since 2006 and has over 100 participants.

NCDOT's Division of Bicycle and Pedestrian Transportation hosts a one-day Pedestrian Planning and Design Workshop providing comprehensive information on the latest in pedestrian planning, design standards, and research. Instructors present best practices for enhancing pedestrian access, innovative pedestrian treatments, sidewalk design, signalization and signing, ADA considerations, street crossings, transit interface, and NCDOT policies, standards and guidelines. The DBPT last offered the course in 2005 and had over 100 participants.

**Type:** Episodic

**Action Item/Recommendation:** Bicycle Planning and Design Workshops are an important program, and should be continued as "Complete Streets Workshops". NCDOT recently launched its Complete Streets training program and "Complete Streets

Workshops" that combine bicycle and pedestrian planning and design concepts should be offered. They should be held after the initial round of training seminars to offer regional and local staff opportunities for continued education and training, especially as Complete Streets concepts continue to evolve.

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with regional planning organizations (MPOs, RPOs, COGs); and local municipalities

### *Designing Pedestrian Facilities for Accessibility*

**Introduction:** NCDOT's Division of Bicycle and Pedestrian Transportation hosts a day-and-a-half workshop, developed by the Federal Highway Administration and the Association of Pedestrian and Bicycle Professionals (APBP). The program provides an overview of the Americans with Disabilities Act (ADA) and provides detailed information on policies and design guidance related to accessibility. The Division last offered the course in 2006.

**Type:** Episodic

**Action Item/Recommendation:** Training related to designing pedestrian facilities for accessibility is an important programmatic element, but need not be repeated in this format. This Plan recommends that NCDOT focus on providing pedestrian accessibility planning and design training as part of the Complete Streets training program offered throughout 2013.

**Lead Facilitator(s):** N/A



## Streetwise Cycling - Guide to Safe Bicycling in North Carolina

**Introduction:** The purpose of NCDOT's Streetwise Cycling Guide is to explain the rights and duties of bicyclists as vehicle operators on North Carolina's roads. The guide also includes information on riding with traffic, handling skills, and equipment. The material is not actively marketed by NCDOT, but is available online.

**Type:** Ongoing

**Action Item/Recommendation:** Update the Streetwise Cycling – Guide to Safe Bicycling North Carolina. The guide is targeted to adult bicyclists and provides an important complement to the age-specific educational materials provided for children and youth. The material should be updated bi-annually, in conjunction with updates to the Guide to NC Bicycle and Pedestrian Laws (description on page 7-24) and should be made available online, along with other materials. NCDOT should assign the role of updating the manual to a specific staff person within the agency to ensure the information is updated every two years. That staff person should also establish opportunities for promoting the manual and any associated online resources within existing NCDOT programs, such as the Complete Streets training program and the Planning Grant Initiative.

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with NC Safe Kids

## Pedestrian Safety Roadshow

**Introduction:** In 1998, NCDOT's Division of Bicycle and Pedestrian Transportation trained facilitators to lead

Pedestrian Safety Roadshows across the state. The objectives of the program were to increase awareness of pedestrian safety and walkability concerns, provide participants with information about the elements that make a community safe and walkable, and channel community concerns into a plan of action for addressing pedestrian issues. The trainings focused on ways to get communities involved in developing and promoting bicycle and pedestrian safety and improving the walking and biking environments in their neighborhoods. Training was setup as a "train the trainer" program to train planning, transportation, health, architecture, community development, and other interested professionals on how to conduct a Pedestrian Safety Roadshow in their community. 15 trainers participated in two 3-day course sessions, held in 4 locations each time. Training included two days of training for a Roadshow, with visuals, handouts and field observations at several locations to demonstrate design concepts. On the third day of training, trainees conducted mini Roadshows under observation and evaluation. The Pedestrian Safety Roadshow, was developed by the Federal Highway Administration (FHWA) in conjunction with the National Highway Traffic Safety Administration (NHTSA).

**Type:** Episodic (Discontinued)

**Action Item/Recommendation:** The Pedestrian Safety Roadshow training and events were a success, but need not be repeated. This Plan recommends focusing on other tools (such as the Complete Streets Workshops previously described in this chapter) for educating community leadership about strategies for creating bicycle and walk friendly environments.

**Lead Facilitator(s):** N/A





*Bicycle skills for the road are learned through training and riding in groups, as seen here. ▲*

### Walkable Communities Conferences

**Introduction:** In 1997, NCDOT's Division of Bicycle and Pedestrian Transportation sponsored a series of regional Walkable Communities Conferences. The conferences explored the concept that walking is part of every trip and is the most accessible form of transportation for people of all ages. Well-known national speakers shared their experiences and ideas with more than 1,000 people across the state and developed strategies for applying the concepts in their communities.

**Type:** Episodic (Discontinued)

**Recommendation:** The Walkable Communities Conferences were a success, but need not be repeated. This Plan recommends focusing on other tools (such as merging efforts with the NC Bicycle Summit and the Complete Streets Workshops previously described in this chapter) for educating community leadership about benefits and strategies for creating bicycle and walk friendly environments.

**Lead Facilitator(s):** N/A

### Workshops and Webinars

**Introduction:** The Institute for Transportation Research and Education (ITRE) at North Carolina State University provides training specifically for employees of NCDOT. The two training programs currently available are: Fundamental Engineering Principles (FEP) and Highway Engineering Concepts (HEC). In the past, NCDOT contracted with ITRE to provide up to seven day-long workshops on topics including bicycle facility design, liability in design, traffic calming, planning and design for pedestrians, and designing pedestrian facilities for accessibility (compliance with American with Disabilities Act). When offered, over 100 NCDOT staff members participated in the program. Through a contract with the Highway Safety Research Center, these workshops will be held as part of the Complete Streets training program.

**Type:** Episodic

**Action Item/Recommendation:** Partner with the Office of State Personnel to ensure that all relevant agency staff are included

in the Complete Streets training program. Beyond NCDOT, relevant agencies may include the Department of Crime Control and Public Safety, the Department of Environment and Natural Resources, the Department of Health and Human Services, and the Department of Public Instruction.

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with the Office of State Personnel

### *Bicycle Rodeo Kit*

**Introduction:** Bicycle rodeos are a hands-on educational tool for training youth in on-bike skills and safety through a fun and interactive event. Most rodeos are conducted by police officers or others not trained for best-practice bicycle handling in traffic. Similar to the community guide for bicycle events, NCDOT created the Bicycle Rodeo Kit to provide guidance and encouragement for communities seeking to host youth bicycle safety events. The kit includes a bicycle rodeo manual and is based on materials developed for a similar program in Colorado. The Kit is available online only and has not been updated.

**Type:** Ongoing

**Action Item/Recommendation:** Allocate funding to revamp the existing Bicycle Rodeo Kit with the specific goal of updating the entire document to: 1) be specific to North Carolina; 2) reflect current trends and attitudes among North Carolina youth; 3) reflect current best practices in bicycle safety curriculum; and 4) shift focus from balance/control skills to in-traffic knowledge at age-appropriate levels. This Plan recommends that NCDOT promote the updated Bicycle Rodeo Kit as part of its statewide Safe Routes to School efforts and through the Planning Grant Initiative (specifically incorporating the kit into bicycle plans developed with Planning Grant Initiative funds). Revamped Kits could be shared between NCDOT Division Offices until each office has their own Kit. Additional, mini-grants

could be available to each Division Office to purchase the materials needed to update or revamp their original Kit.

**Lead Facilitator(s):** North Carolina Department of Transportation

## **New Program Recommendations**

### *Bicycle Law Enforcement Education for Police*

**Introduction:** Most law enforcement professionals do not receive training specific to bicycle laws, handling, or safety. Police education courses or training can help officers improve public safety and enforce existing laws more effectively by providing them with the training they need.

**Action Item/Recommendation:** Comprehensive trainings should be offered to municipal police department, county sheriff departments and the State Highway Patrol. These trainings should include comprehensive information about laws and statutes pertaining to bicycling; information about common crash types and causes, and how to prevent and enforce against the most serious offenses; knowing options for enforcement and education (e.g. when a citation vs. warning should be issued, diversion class options, and safety materials that can be handed out during a traffic stop or public event). The program will also be useful to police departments who wish to do educational outreach to the bicycle community and relevant organizations. Incorporating skills training and certification to officers who wish to patrol on bicycle could also be included in these courses. The presence of police officers on bicycles will discourage bike lane incursions by motor vehicles, and will assist the officers with enforcing traffic violations by bicyclists. More information on the Chicago Bikes program for police education can be found online at: [http://www.chicagobikes.org/video/index.php?loadVideo=police\\_training\\_2009](http://www.chicagobikes.org/video/index.php?loadVideo=police_training_2009).



**Type:** Ongoing

**Lead Facilitator(s):** North Carolina State Highway Patrol in partnership with municipal and county police departments

### *Statewide Bicycle Skills Training for Adults*

**Action Item/Recommendation:** Bicycle Skills Training Courses should be developed and offered to adult cyclists of all levels who wish to learn bicycling technique, how to navigate busy roads and complex junctions, and how to teach their children the proper and safe way to ride a bicycle. Courses that are taught as a regional series of 3-hour, on-bike classes on the weekends would most likely be convenient for the majority of adults. The League of American Bicyclists (LAB) offer excellent resources on proper bicycling practices and have League Cycling Instructors (LCIs) that teach courses to suit the needs of any cyclist. There are 52 LCIs in North Carolina, More information can be found online: <http://findit.bikeleague.org/search/>.

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with the LAB; and local municipalities

### *"Train the Trainers" - Bicycle Skills Training for Child Care Personnel*

**Action Item/Recommendation:** Bicycle Skills Training Courses to "train the trainers" should be developed and offered to program managers and other personnel who will be incorporating bicycle skill training elements into child care program curriculums such as after school programs and summer camps. The 2012 Bicycle and Pedestrian Curriculum includes care giver instruction and should be accepted as the state standard for child care agencies. Curriculums should include training for

safe bicycling technique, and how to navigate busy roads and complex junctions for all experience levels. These could range from one-time, three-hour intensive trainings, to a week-long series of daily two-hour trainings as part of child care programs, to full-week bike adventure camps. The skills training could also be incorporated into the physical education curriculum in elementary schools and middle schools.

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with DHHS, Department of Public Instruction, local municipalities and school districts

### *Drivers Education Training*

**Action Item/Recommendation:** Driver's education directed toward all motorists, whether as part of a driver's education course in school or a driving safety course for adults, and including applicable laws, roadway positioning of cyclists, traffic and hand signals, principles of right-of-way and left and right turn problems should be taught to increase the safety of the motorist as well as cyclists and pedestrians. The training should cover rules of the road for motorists, cyclists and pedestrians. All Drivers Education tests should include at least three questions related to bicycles. NCATA should assist the efforts of NCDOT and lobby to improve the state driver's license test to include testing driver's knowledge of motorist responsibilities to cyclists.

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with the DPI; local municipalities; school districts; NCATA; and local advocacy organizations

### *Bicycle and Pedestrian Facility Design Seminars*

**Action Item/Recommendation:** The state should continue to provide training to NCDOT Design staff, NCDOT Engineering staff and NCDOT Maintenance staff for state-of-the-art bicycle facility design and engineering techniques. The seminars should be facilitated in collaboration with the University of North Carolina and other educational institutions. Seminars should include discussion of different available design manuals (AASHTO, NACTO, Complete Streets, etc.) and seminar agendas should be continually updated based on current adopted/accepted design standards.

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with the University of North Carolina campuses

level encouragement directed first at US Marine Corps soldiers, but ultimately inspired the Nation. Encouragement programs can range from national challenges like the 50-mile hike, to work-place commuter incentives, to a “walking school bus” at an elementary school; and from bicycle- and walk-friendly route maps, to the creation of a bicycle co-op.

### **Purpose**

According to a 2008 survey by The National Highway Traffic Safety Administration, “71% of Americans said they would like to bicycle more than they do now.” As bicycle and pedestrian infrastructure improvements are made, NCDOT must simultaneously develop targeted strategies for encouraging North Carolinians to engage in bicycling and walking activities and communicate information about safe and inviting places for bicycling and walking. Improving upon existing encouragement programs and developing new encouragement programs that promote transportation and recreation choices and healthy, active lifestyles are important steps toward meeting the goal to “integrate pedestrian and bicycle facilities with all other travel modes (personal vehicle, bus, train, airplane, etc.) to form an interconnected transportation network with efficient and convenient connections between modes.”

## ENCOURAGEMENT PROGRAMS, INITIATIVES, STRATEGIES

Encouragement programs are critical for promoting and increasing walking and bicycling. These programs should address all ages, abilities, and user groups from school children, to working adults, to the elderly and also address recreation and transportation users. The goal of encouragement programs is to increase the amount of bicycling and walking that occurs in a community. Through history, all levels of leadership from neighborhood leaders to Presidents of the United States of America have encouraged Americans to increase their physical activity, and walking more or bicycling more is a simple way to do so. President Kennedy's 50-mile hike is an example of national



## Existing & Past Efforts

### *Bicycle/Pedestrian Commuter Incentive Programs*

**Introduction:** The SmartCommute Challenge is an annual campaign coordinated by GoTriangle and SmartCommute@rtp. From September 1 to October 15, Triangle commuters are encouraged to try an alternative commute (not driving alone) to work or campus such as riding the bus, carpooling, vanpooling, teleworking, biking, or walking. These free ride-matching services are provided by the “GoTriangle” agencies and participating statewide agencies. Participation in any of the offered services is voluntary. Every Monday starts a new work week and a new challenge. Winners of the weekly challenge are announced on the website the following week. Private sponsorships provide funding for the prizes and Transportation Demand Management staff in the Triangle region dedicate time to administering the program annually.

In the past, pledge cards were used and a follow up survey was sent out to gather information to report on the success of the program and total Vehicle Miles Traveled (VMT) and emissions reductions. The program has been a great success for many years, however, recently there has been a decline in participation. This program is no longer new and exciting so the program is being reinvented as an ongoing tracking and incentive program called GoPoints to attract new commuters and get them to form the habit of sustainable commuting. A loyalty program called GoPerks for existing SmartCommuters is also under development. Short-term challenges will be released throughout the year to continue to grow excitement and get people to join the program.



#### ▲ The NC State Cycling Team

**Type:** Ongoing

**Action Item/Recommendation:** NCDOT should follow the model provided by Triangle Transit's Smart Commute Challenge. Using a local or regional pilot program as a basis for building a statewide program is a cost-effective means of capitalizing on the state's existing resources. Allocate funding to work with Triangle Transit to customize Smart Commute Challenge materials for other regions of the state. Promote the program as a new strategy that local and regional transit agencies can employ to encourage multimodal travel. NCDOT should act as a program promoter, provide seed funding for agencies beginning a program, and provide technical assistance for communities interested in replicating the Triangle Transit Smart Commute Challenge model. Local or regional transit agencies would act as program administrators.



▲ *Bicycle parking provides encouragement and convenience for bicyclists.*

**Lead Facilitator(s):** Local/regional transit agencies in partnership with the North Carolina Department of Transportation; and Triangle Transit

### *Safe Routes to School Program*

**Introduction:** North Carolina's Safe Routes to School (SRTS) programming is a statewide infrastructure tool that can be used to transform communities and develop inter-agency cooperation for mutually reinforcing investments, such as in the case of school siting, comprehensive planning, etc. Since 2007, NCDOT has awarded 95 SRTS projects impacting 154 school areas across the state. These projects improve infrastructure within two miles of select schools through building sidewalk, marking crosswalks, installing pedestrian

signal heads, constructing shared-use paths, striping bike lanes and more. Other communities have pursued non-infrastructure projects enabling them to offer bicycle and pedestrian safety skills trainings; launch walking school bus or bicycle train programs; establish safety patrol or crossing guard programs; or other similar education, enforcement, and encouragement activities. A key outcome of the SRTS program is making it safe for kids to walk and bike to school in their communities. Another is the 2013 partnership with DHHS to create ten SRTS regional coordinator positions.

**Type:** Ongoing

**Action Item/Recommendation:** Establish a North Carolina Safe Routes to School program "learning network", with a website and online digital materials to communicate current and future initiatives, provide direct access to educational materials and technical assistance, and encourage community participation in Safe Routes to School efforts. Mentorship opportunities between communities that have successfully implemented SRTS initiatives and communities who wish to implement SRTS initiatives should be encouraged and nurtured by NCDOT and/or NCATA. NCDOT should secure a unique URL for the website that will be marketable and memorable for North Carolina citizens (the website could exist as a webpage of [www.ncdot.gov](http://www.ncdot.gov) while seamlessly redirecting visitors by way of the chosen URL). Increase funding and personnel for the Safe Routes to School program so that sufficient staff time is available to promote the program statewide, maintain the website content and SRTS materials, and handle administrative duties related to processing and evaluating SRTS grants. The added personnel could come in the form of allocating a set amount of time of an existing staff member towards SRTS and continue to support the regional Active Routes to School coordinator positions.

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with NCATA; and local advocacy groups

### *Bicycle Events - A Community Guide*

**Introduction:** NCDOT offers a community guide to hosting bicycle events. The 32-page booklet outlines suggested bicycle events and promotions. It includes information on how to mobilize community resources and how to work with the media. The guide is available online only and has not been updated.

**Type:** Ongoing

**Action Item/Recommendation:** Local bicycling events are an important component of creating or supporting a bicycle friendly environment, however NCDOT's community guide has had a limited role in increasing the number of events or improving the quality of events hosted in the state. This Plan recommends allocating funding to enhance and re-release the community guide with updated guidance and fresh ideas to inspire communities who are planning bicycle events and promotions.

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with existing established Bicycle and Pedestrian Advisory Commissions (BPACs)

## **New Program Recommendations**

### *Bicycle Parking Installation*

**Action Item/Recommendation:** The state should encourage local municipalities to update local zoning, licensing, and permit processes that designate the types and numbers of bicycle parking required at private employment and retail facilities. These facilities should offer bicycle parking in safe, well illuminated areas, and near entrances. Providing secure bicycle parking is a key ingredient in efforts to encourage bicycling as a form of transportation. Placing long-term bicycle parking at transit stations provides opportunities for multi-modal travel and supports alternative transportation choices. The state should offer training for local municipalities to understand the benefits of offering bicycle parking, and provide sample/template municipal and/or zoning code language that could be used to implement this program at the local level.

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with municipalities; and regional planning organizations (MPOs/RPOs/COGs)

### *Safe Routes to School (Regional Plans)*

Safe Routes to School Programs are bolstered by the development of a collaborative approach to the program, rather than separate efforts led by individual schools. Encouraging the development of regional Safe Routes to School Plans allows communities to set a benchmark that all elementary schools in the area take part in the program over a specified period of time. The state's Safe Routes to School



Coordinator should work with different regions to leverage resources as they develop plans for implementation of this program. This program expands on the state's existing, successful SRTS program.

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation's SRTS Project Manager and the SRTS Regional Coordinators

## Walking Programs

**Action Item/Recommendation:** Walking programs such as a "Weekend Walkabout" are regularly occurring events that promote walking while also bringing attention to pedestrian infrastructure. "Weekend Walkabouts" could be scheduled and held in each region of the state in conjunction with the statewide Walk to School Day that takes place each fall. The events' walking routes should highlight safe and inviting places to walk in the public realm (rather than private or enclosed facilities such as walking tracks) and should be three miles or less in length. These events are ideal for families and seniors.



◀ National Walk to School Day is a positive way to encourage walking. Here in Holly Springs, NC.



Different walking programs may be organized based on themes for each event, such as an architectural tour, a “Steeple Chase” tour (visiting historic churches), a tour of parks, neighborhood strolls, etc. To generate added marketing potential, the state should engage local celebrities to lead a walk and help raise awareness for the event.

The state should partner and coordinate with municipalities who have adopted pedestrian plans that were developed as part of the NCDOT Bicycle and Pedestrian Planning Grant initiative to host and showcase local walking programs. The state should support the community by providing ideas, materials, and helping the community communicate with local contacts who could assist with the event.

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with local municipalities

## Open Street Events

**Introduction:** Open (or “Car-free”) Streets events have many names: Sunday Parkways, Ciclovias, Summer Streets, and Sunday Streets. The events are periodic street “openings” (i.e., “open” to users besides just cars; usually on Sundays) that create a temporary park open to the public for walking, bicycling, dancing, hula hooping, roller-skating, etc. They have been very successful internationally and are rapidly becoming popular in the United States. Open street events promote health by creating a safe and attractive space for physical activity and social contact, and are cost-effective compared to the cost of building new parks for the same purpose. Events can be weekly events or one-time occasions, and are generally very popular and well attended.

**Action Item/Recommendation:** Open street events attract a local audience and should be hosted by a municipality, with the support of NCDOT.

For future expansion of the program, organizers should consider lessons learned and best practices from other communities. Some recommendations include:

- Make sure that there are programmed, family-friendly activities along the route; an “open street” alone is not sufficient to draw participants (and especially not on a repeat basis).
- These events lend themselves to innovative partnerships and public/private funding. Health care providers whose mission includes facilitating physical activity are often major sponsors. Businesses may also support the event if it brings customers to their location.
- The cost of organizing the event can be mitigated through volunteer participation, as this type of event lends itself to enthusiastic volunteer support. However, this will require a high level and quality of volunteer recruitment and management to be sustainable in the long run.
- Police costs to manage the road closure will be one of the largest costs. Work with the police to develop a long-term traffic closure management strategy that uses police resources where needed but also allows well-trained volunteers to participate in managing road closures.
- The greatest value to the community comes when an event happens on a regular basis (e.g. monthly during pleasant weather months). For this to be successful, different routes and/or different activities should be considered.

### Program Resources:

- Open Streets Guide (includes networking opportunities and organizers guide): <http://openstreetsproject.org/>
- Videos of Open Streets events: <http://www.streetfilms.com/>

org/tag/ciclovias/

### Sample Programs:

- Atlanta Streets Alive (GA): <http://www.atlantabike.org/atlantastreetsalive>
- Bull City Open Streets (NC): <http://bullcityopenstreets.com/>
- 2nd Sunday on King Street (SC): <http://susanlucas.typepad.com/secondsundayonkingstreet/>

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with the Department of Commerce; Department of Crime Control and Public Safety; North Carolina State Highway Patrol; municipal and county police departments; local political jurisdictions; and local municipalities

## Campus Commuter Program

**Introduction:** College and university students, faculty, and staff are a sector of the population with commute patterns to and from and around campuses that are conducive to active transportation. Many institutions of higher education are realizing the benefits that active transportation programs offer towards campus-wide transportation demand management and parking services. By encouraging students and faculty to commute to school by an alternative to an automobile, there will be a reduction in automobile emissions, a reduction in Average Daily Traffic (ADT) on roadways that connect to campuses, and there will be a reduction in the need for additional on-campus parking spaces.

There are colleges and universities in North Carolina that are either already designated Bicycle Friendly Universities, or are working toward designation. There are opportunities to build upon existing momentum and support for travel by bicycle.

A campus commuter program should provide resources and information for commuting to campus by biking, walking, or transit and offers incentives to students, faculty and staff that commute by means other than a car.

**Action Item/Recommendation:** The University of North Carolina should implement campus commuter programs and lead the way for other institutions in North Carolina. The NCATA should support this program to raise awareness about motor vehicle, pedestrian and bicyclist fatalities. The NCATA should develop and provide presentations and materials for distribution to incoming college students during Fall orientation.

### Example “starter” programs that could lead to the development of a campus commuter program:

- University of South Carolina's “Travel Lightly Day” <http://www.dailygamecock.com/index.php/multimedia-11/item/4217-usc-community-travels-lightly-to-promote-health-sustainability>
- Ripon College Freshmen Receive Free Bicycle in Exchange for a “No-Car Pledge” <http://www.jsonline.com/news/education/32585109.html>
- Yay Bikes! / Ohio DOT “This is How We Roll” <http://howwerollosu.com/about-hwr.htm>

### Other example bicycle commuter programs:

- [http://transportation.stanford.edu/alt\\_transportation/Commute\\_Club.shtml](http://transportation.stanford.edu/alt_transportation/Commute_Club.shtml)
- <http://www.washington.edu/facilities/transportation/commuterservices/about>
- <http://www.activateomaha.org/igsbase/igstemplate.cfm?SRC=DB&SRCN&GnavID=11&SnavID=27>



More information on the Bicycle-Friendly University Program by the League of American Bicyclists:

The Bicycle Friendly University (BFU) program recognizes institutions of higher education for promoting and providing a more bicycle-friendly campus for students, staff and visitors. The BFU program provides the roadmap and technical assistance to create great campuses for cycling.

College and university campuses are unique environments for their high density, stimulating atmosphere and defined boundaries. These factors make them ideal environments to incorporate bikes. Many colleges and universities have built upon these good conditions and embraced the enthusiasm for more bicycle-friendly campuses by incorporating bike share programs, bike co-ops, clubs, bicycling education classes

▼ *Bicycle enforcement provides encouragement and enforcement.*



and policies to promote bicycling as a preferred means of transportation. With the goal to build on this momentum and inspire more action to build healthy, sustainable and livable institutions of higher education, the League created the Bicycle Friendly University program.

The Bicycle Friendly University program evaluates applicants' efforts to promote bicycling in five primary areas: engineering, encouragement, education, enforcement and evaluation/planning. Applications must be submitted online. ([http://www.bikeleague.org/programs/bicyclefriendlyamerica/bicyclefriendlyuniversity/bfu\\_about.php](http://www.bikeleague.org/programs/bicyclefriendlyamerica/bicyclefriendlyuniversity/bfu_about.php))

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with University of North Carolina campuses; NCATA; League of American Bicyclists; and local advocacy organizations

### *National Bike Month and Walk to School Day Support/Participation*

**Introduction:** National Bike Month is an opportunity to celebrate the unique power of the bicycle and the many reasons people choose bicycles as their mode of transportation or for recreation. National Walk to School Day is an opportunity to make walking to school a fun event, encouraging walking for both parents and children.

**Action Item/Recommendation:** All state departments and agencies should support and encourage staff to participate in National Bike Month and Walk to School Day activities that are hosted by local groups across the state. In addition to attending and participating in local events, the NCDOT should develop an interactive website for participants to share their

experiences as they shift their mode of transportation. This would be similar to the WalkBikeNC Challenge that took place during the development of this Plan.

The state should encourage employers and school systems to offer incentives to employees and students who participate in National Bike Month activities and Walk to School Day events to promote initiative and reward their participation. For example, the state should encourage school districts to partner with parents to organize bicycling trains and walking school buses for the children who will participate. Each group of students should be led safely to school by a parent or teacher volunteer. Additionally, the state should also encourage employers to allow flexible work days to employees participating in National Bike Month.

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with the DPI; local municipalities; school districts; and private employers

### *Bicycle Commuter Services*

**Introduction:** This program is modeled on Bicycle Colorado's Bicycle Commuter Services (BCS) webpage. Bicycle Colorado offers a "program designed to educate entire workplaces about bicycling to work. BCS is aimed at employers who want to demonstrate good corporate citizenship while simultaneously maximizing cost savings and productivity in supporting healthier, happier and more productive employees. Through our program, employees will learn everything they need to know in order to commute to work comfortably, safely and efficiently. This is done through a combination of classroom and on-bike training.

We have found that combining education sessions with on-the-road skills demonstrations is most effective at turning employees into confident bicycle commuters."

**Action Item/Recommendation:** The state of North Carolina should partner with local bicycling advocacy groups to develop a program similar to Bicycle Colorado's Bicycle Commuter Services and offer the program to state departments and agencies, regional and local government agencies, private employers and retailers.

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with the Department of Commerce; and DHHS

### *Walking or Bicycling Youth Engagement Contest*

**Introduction:** Fun and interactive statewide competitions educate and engage students about the benefits of bicycling and walking. Each year the state should coordinate with the school districts to schedule a poster, Photovoice, YouTube, and other audio/visual media contest and develop the "scoring" criteria for the audio/visual media. Students in grade four, five, or six would be the best age group for this contest, and the state and school districts should determine which grade (or grades) should participate. Once the details of the contest have been clearly defined, the students should be tasked with creating media that highlights the benefits and value of walking and/or bicycling. Students could be asked to include their favorite place to bicycle or walk to in their town, or where they have enjoyed bicycling or walking in another town in North Carolina. A selection panel made up of representatives from NCDOT, other state departments,





- ▲ In Jacksonville, NC, crossing guard training provides guidance to communities interested in employing crossing guards at schools.

and the participating school districts will choose the winner of the contest. The Engagement Contest could be launched during a “Take A Child Outside” week, or as part of the Walk to School Day event. Each of these initiatives helps educate and encourage children to learn about environmental stewardship while connecting with nature during a walk or outdoor activity.

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with the DPI

### *Bike-Repair Programs*

**Introduction:** By providing well-maintained bicycles to members of the program, bicycle-repair programs encourage use and empower people to make more trips by bicycle. Many programs have also served to teach bike safety, maintenance, and on-road skills and have encouraged more people to bicycle for exercise, transportation, and leisure. In addition, these programs have increased the visibility of bicycling in communities. Community bike-repair programs take different forms, but typically are run by local community groups. These groups acquire and are donated used bicycles that are then repaired by and for lower-income residents, who are offered training for the repairs and an option to volunteer for earn-a-bike programs. Example programs such as “bicycle recycler”, or “earn a bike” already exist as potential models that extend bike ridership and ownership to lower income populations.

**Action Item/Recommendation:** The state should develop a tool-kit of model programs for different size municipalities and offer training workshops to local municipal officials and staff who wish to use the state’s model to develop a local program. One successful example of a bike-repair program is the Carrboro Recyclery.

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with local municipalities; and Bicycle and Pedestrian Advisory Committees (BPACs)

### *Communicate Maintenance Schedules*

**Action Item/Recommendation:** NCDOT Division Offices should provide early notification to regional planning organizations (MPOs, RPOs, COGs) and municipalities of maintenance/restriping schedules. Annual meetings should be held when updated maintenance/restriping schedules are released to allow for face to face conversation between local staff and NCDOT Division staff. This information would allow the local governments an opportunity to provide input regarding their needs and support for accommodation measures such as restriping to include bicycle lanes and other relevant markings.

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation Division Offices in partnership with regional planning organizations (MPOs/RPOs/COGs); and local municipalities

## **ENFORCEMENT PROGRAMS, INITIATIVES, STRATEGIES**

Enforcement is critical to ensure that motorists, bicyclists, and pedestrians are obeying common laws. It serves as a means to educate and protect all users. The goal of enforcement is for bicyclists, pedestrians, and motorists to recognize and respect each other's rights on the roadway. In many cases, officers and citizens do not fully understand state and local laws for motorists, bicyclists, and pedestrians, making targeted education an important component of every enforcement effort.

### **Purpose**

According to the Alliance for Biking and Walking, North Carolina ranks 41st out of the U.S.'s 50 states for pedestrian safety and 44th for bicycling safety. Enforcement programs are a key tool in improving bicyclist and pedestrian safety, as well as improving perceptions of safety. As one of its goals, this Plan seeks to "create and maintain safe, efficient, and accessible pedestrian and bicycle accommodations as fundamental elements of North Carolina's transportation network to provide mobility, recreation, and physical activity opportunities to all North Carolinians." Meeting that goal requires a commitment to inter-agency cooperation in enforcing the state's laws as they relate to bicyclists and pedestrians, educating all road users about state and local laws, and monitoring trends in roadway safety for bicyclists and pedestrians.



## Existing & Past Efforts

### Crash Data Tool

**Introduction:** Through a contractual partnership with NCDOT, the Highway Safety Research Center (HSRC) administers the NC Crash Data Tool. This involves yearly updating, geocoding, analyzing, and maintaining roughly 900 bicycle collision reports and 2,600 pedestrian collision reports. Agencies around the state are routinely using the crash data tool for information.

**Type:** Ongoing

**Action Item/Recommendation:** This Plan recommends continuing the Crash Data Tool program and expanding promotion of the tool as a resource for agencies and organizations around the state. Expanded promotion will add to the value of the program and also reduce any redundancy created by local agencies establishing their own means of crash data analysis. NCDOT should ensure that an explanation of the tool and its uses and availability is included in all Safe Routes to School activities, Complete Streets Workshops (or other design workshops), safety related manuals and guidebooks, and is incorporated into planning efforts funded by the Planning Grant Initiative.

**Lead Facilitator(s):** North Carolina Department of Transportation; Highway Safety Research Center

### Bicycle and Pedestrian Law Manuals and Guidebooks

**Introduction:** In addition encouragement and education focused manuals (discussed previously in this Chapter); NCDOT's Division of Bicycle and Pedestrian Transportation has developed two informative guidebooks focused on legal matters related to bicyclists and pedestrians:

- *Guide to NC Bicycle & Pedestrian Laws*
- *NC Bicycle Helmet Campaign Guide*

The guides have not been updated in recent years. The materials are not actively marketed, but are available online. When first published, NCDOT provided copies of the Guide to NC Bicycle and Pedestrian Laws to law enforcement agencies around the state.

**Type:** Ongoing

- ▼ *With safe pedestrian and bicycle facilities in place, children and parents can feel confident about walking and biking more often.*





**Action Item/Recommendation:** The *Guide to NC Bicycle and Pedestrian Laws* is a particularly important and popular item and should receive an update bi-annually to ensure consistency with current laws. NCDOT should assign the role of updating the manual to a specific staff person within the agency to ensure the information is updated every two years. The designated staff person should also establish opportunities for promoting the manual within existing NCDOT programs, such as Safe Routes to School and the Planning Grant Initiative.

Recognizing the passage of the mandatory helmet law for youth in NC (2001), this Plan recommends that NCDOT discontinue the NC Bicycle Helmet Campaign Guide.

**Lead Facilitator(s):** North Carolina Department of Transportation

### *School Crossing Guard Training Manual*

**Introduction:** The School Crossing Guard Training Manual is a tool for crossing guard trainers to lead instruction workshops for crossing guards. Elements covered in this manual include crossing procedures, characteristics of children in traffic, responsibilities of the crossing guard, emergency procedures, signalization and traffic signs, professional guidelines, and legal issues. The manual has not received an update since 2001, with the exception of adding changes to the MUTCD component of the manual.

**Type:** Ongoing

**Action Item/Recommendation:** The *School Crossing Guard Training Manual* serves an important role for law enforcement agencies responsible for training crossing guards. The Manual will be updated by NCDOT. Before

updating the training manual, this Plan recommends that NCDOT conduct a brief survey of agencies responsible for crossing guard training and identify preferred training methods and current needs related to crossing guard training. The surveying process can include targeted interviews, as well. Currently in North Carolina, local communities choose what agency is responsible for training the guards. Conducting the survey will allow NCDOT to better respond to the differences in approaches to training throughout the state. Based on the survey's results, NCDOT will update the manual and establish bi-annual targeted workshops to "train the trainers" of crossing guards.

**Lead Facilitator(s):** North Carolina Department of Transportation; Local law enforcement



### *"Watch For Me NC" Pedestrian Campaign*

**Introduction:** The "Watch For Me NC" campaign is intended to improve pedestrian safety by influencing the behaviors of drivers and pedestrians through safety messaging and enforcement. The program is currently targeted to the Triangle region of North Carolina. The effort was launched in 2012 through Transportation Enhancement funding provided by NCDOT and federal funds provided by the National Highway Traffic Safety Administration. The four municipalities of the Triangle region have provided



substantial support for and participation in the campaign. The four major universities and their campus police departments have also been very supportive of this effort. Funding and expansion for the bicycle component will be launched in 2013.

**Fall 2012 Update:** The Bike30 Unit along with the Traffic Unit conducted a Pedestrian Operation at the intersection of Gregson St and Lamond Ave. They conducted the operation at the same place and same time as they conducted the informational checkpoint the day before. They cited 13 drivers with “Failure to Yield to Pedestrian in a crosswalk”, 1 driver was charged with Driving with license revoked, 1 driver was charged with Driving with no license, and 1 driver was arrested and charged with two FTA’s (Failure to Appear). The unit was approached and thanked by several pedestrians, and citizens of the area. (Sergeant B. M. Massengill, Durham Police Department)

**Type:** Ongoing

**Action Item/Recommendation:** The Triangle region “Watch for Me NC” pedestrian campaign has been well-supported and successful. This Plan recommends that NCDOT fund the Triangle region “Watch For Me NC” campaign for the 2013 year and establish a strategic plan for expanding the program to all regions of the state. Based on the Triangle region’s successful program model, create a “toolkit” for implementing the program in other regions and use localized versions of the materials created for the Triangle region. When expanding the program to other regions, provide one year of funding for program development and provide guidance on utilizing local staff and resources to bolster the program, as was done in the Triangle region. Pedestrian and bicyclist safety, rights and etiquette, along with street crossing rules,

traffic signal messages and meanings, and how to follow and obey pavement markings should be taught to children and adolescents to increase their safety and reduce automobile-pedestrian crashes in North Carolina. Courses should be developed and incorporated into the physical education curriculum in elementary schools and middle schools.

As part of the strategic expansion plan the state should consider increasing funding for this program and expand its reach in three distinct ways:

- 1) Develop a communications strategy with specific goals for increasing the number of children exposed to the program through active promotion to schools and teachers;
- 2) Expand the program to include bicycle-related information and materials; and
- 3) Create an online interactive version of the bicycle and pedestrian safety materials that will be attractive to each of the targeted age groups.

*Example: Existing program in Oregon*

*Bicycle Transportation Alliance’s Pedestrian Safety Enforcement Mini-Grants program:*

*ODOT funds enable enforcement agencies throughout the state to stage crosswalk enforcement actions educating motorists, cyclists, and pedestrians on crosswalk laws. In these operations, a decoy police officer attempts to cross a street at an intersection or marked crosswalk. (Crosswalk laws apply to unmarked crosswalks as well.) If passing motorists fail to stop and yield for the pedestrian they are issued either a warning or a citation. The operations include a media outreach component, with the purpose of raising awareness around motorist, cyclist, and pedestrian responsibilities.*

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with DHHS; the DPI; Department of Crime Control and Public Safety; North Carolina State Highway Patrol; municipal and county police departments; local political jurisdictions; local municipalities; and school districts

## New Program Recommendations

### *Installation of Cameras*

**Action Item/Recommendation:** Local law enforcement units should play a key role in vehicle/driver controls and enforcement such as cameras. Cameras should be installed at high traffic volume intersections and at historically unsafe intersections where vehicular-pedestrian and vehicular-bicyclist crashes have occurred. A camera may be connected to the traffic signal and to sensors at the intersection stop line that monitor traffic flow. The camera is triggered by any vehicle entering the intersection above a preset minimum speed and following a “grace period” of time after the signal has turned red. The state should determine the appropriate “grace period” for cars to pass through the intersection after the light has turned red. Violations are mailed to the person listed on the vehicle registration.

NCDOT should install cameras on state routes and highways and should encourage local municipalities to consider the installation of cameras on priority local roads. Camera violation fees are utilized in many different ways in different states. For example, violation fees in Florida are used to fund research to cure paralysis. NCDOT should consider collecting violation fees in a designated multi-modal traffic safety fund and the funds should be used to create safer

corridors for all roadway users.

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with the State Highway Patrol

### *Automated Speed Enforcement Devices & Systems*

**Introduction:** Automated speed enforcement devices and systems can be an effective tool for managing speed and reducing speed related crashes. Some devices record and visibly display vehicle speed, and other devices capture a real-time photo of traffic as well as devices record and visibly display vehicle speed. Most devices use radar and motorists with a radar detector in their vehicle will be alerted of the presence of the radar. This program would change motorists behavior and encourage safe driving, responsible driving, staying alert, and obeying the posted speed limit.

**Action Item/Recommendation:** NCDOT should install permanent, fixed photo speed enforcement devices. If permanent, fixed photo speed enforcement devices are too expensive to consider at the statewide level, mobile photo speed units may be a more affordable option for North Carolina.

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with the State Highway Patrol



## Bicycle and Pedestrian Needs Checklist

**Action Item/Recommendation:** The state should create a Bicycle and Pedestrian Needs Checklist as an additional phase in the project design process. A Bicycle and Pedestrian Needs Checklist would ensure the full participation and timely review of the NCDOT Bicycle and Pedestrian Transportation staff in the development of new projects which have the potential to benefit cyclists and pedestrians. One component of the checklist would be to increase bicycle and pedestrian related amenities at intermodal facilities and any existing or future Park & Ride facilities. Adding amenities such as bicycle parking racks can make multimodal travel easier and more seamless. There are many examples of Checklists available online in the form of Complete Streets checklists. Elements from the example Checklists below should be considered for inclusion by the NCDOT. Below are a few example resources:

- [http://www.seattle.gov/transportation/compSt\\_how.htm](http://www.seattle.gov/transportation/compSt_how.htm)
- [http://www.mtc.ca.gov/planning/bicyclespedestrians/routine\\_accommodations.htm](http://www.mtc.ca.gov/planning/bicyclespedestrians/routine_accommodations.htm)
- [www.state.nj.us/transportation/capital/pd/documents/CompleteStreetsChecklist.doc](http://www.state.nj.us/transportation/capital/pd/documents/CompleteStreetsChecklist.doc)

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation Division Offices in partnership with regional planning organizations (MPOs, RPOs, COGs), county planning departments; and municipal planning departments

## Facility Inspection and Maintenance

**Action Item/Recommendation:** The state should set minimum standards for acceptable sidewalk and bicycle facility conditions. Setting and maintaining minimum condition standards will enable all users to use facilities safely. Establish standards for maintenance of bikeways including replacement of worn pavement markings and damaged signs, sweeping away debris, repaving streets and repairing potholes. The state should encourage municipalities to require sidewalk inspection when properties are sold to reduce liability for property owners, who can be held liable if someone is injured on the sidewalk in front of their property. The state should set-up a hotline to effectively and efficiently collect information regarding problematic facilities.

**Type:** Ongoing

**Lead Facilitator(s):** North Carolina Department of Transportation in partnership with municipalities

## PROGRAMMATIC RECOMMENDATION REVIEW TABLE

The table that begins on page 7-29 illustrates how each recommendation in this Chapter serves a specific function or role in the diverse toolkit of programmatic efforts that NCDOT should pursue to enable people to walk and bicycle more, and lead healthier lives. Each of the five pillars (Mobility, Safety, Health, Economics, Environment) that guide this Plan are shown in the table, along with the programmatic recommendations associated with it.

Program Name	Mobility	Safety	Health	Economics*	Environment*
Bicycle Helmet Initiative					
Let's Go NC - Bicycle and Pedestrian Curriculum					
Safety Education Materials					
Share the Road Posters					
Safe Routes to School Community Workshop					
Bicycle Planning and Design / Pedestrian Planning and Design Workshops					
Designing Pedestrian Facilities for Accessibility					
Streetwise Cycling - Guide to Safe Bicycling in North Carolina					
Pedestrian Safety Roadshow					
Walkable Communities Conferences					
Workshops and Webinars					
Bicycle Law Enforcement Education for Police					
Statewide Bicycle Skills Training for Adults					
"Train the Trainers" - Bicycle Skills Training for Child Care Personnel					
Bicycle Rodeo Kit					
Drivers Education Training					
Bicycle and Pedestrian Facility Design Seminars					

ONGOING












EDUCATION

NEW



Program Name		Mobility	Safety	Health	Economics*	Environment*	
ONGOING	Bicycle/Pedestrian Commuter Incentive Programs						
	Safe Routes to School Program						
	Bicycle Events - A Community Guide						
ENCOURAGEMENT	Bicycle Parking Installation						
	Safe Routes to School (Regional Plans)						
	Weekend Walkabouts						
	Campus Commuter Program						
	NEW	National Bike Month and Walk to School Day Support/Participation					
		Bicycle Commuter Services					
	Walking or Bicycling Poster Contest						
	Bike-Repair Programs						
	Communicate Maintenance Schedules						

\*Traditionally, bicycle and pedestrian programs do not directly impact economic and environmental initiatives, although the indirect impact can still be significant. See appendices on Environmental Stewardship and Economy for more information about programs specifically related to these pillar topics.

	Program Name	Mobility	Safety	Health	Economics*	Environment*
ENFORCEMENT	Bicycle Helmet Initiative					
	ONGOING	Let's Go NC - Bicycle and Pedestrian Curriculum				
	Safety Education Materials					
	Share the Road Posters					
	Safe Routes to School Community Workshop					
	NEW	Bicycle Planning and Design / Pedestrian Planning and Design Workshops				
	Designing Pedestrian Facilities for Accessibility					
	Streetwise Cycling - Guide to Safe Bicycling in North Carolina					



## ENDNOTES

1. Pucher, J., Dill, J., & Handy, S. (2010). Infrastructure, programs, and policies to increase bicycling: An international review. *Prev Med*, 50, S106-S125.