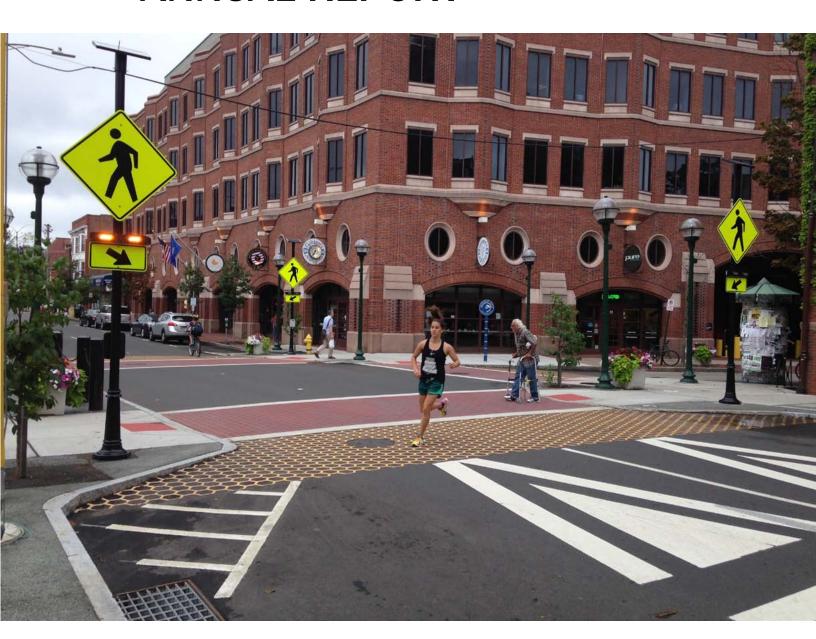
2015

ANNUAL REPORT



Connecticut Bicycle and Pedestrian Advisory Board

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Cover Photo Credit: Elm City Cycling, Complete Street on Whitney Avenue and Audubon Street.



Photo Credit: East Coast Greenway, Moosup State Park Trail in Plainfield, CT

Complete Streets and Connecticut

Streets are not purely functional, despite their necessity for moving people, goods and things, while serving as the backbone of our economy. Streets are also places of magic, where people interact and culture unfolds. Current street design standards uphold motor vehicles as the most important mode of transportation. They also tend to lack the character of streets that are designed for people who walk, bike, and ride the bus or train. These standards ignore or even minimize public space, amenities, and the potential for social interaction. Great streets are designed with all users in mind, balancing the needs of modes at various speeds.

In recognition of this, the Connecticut General Assembly enacted a Complete Streets Law in 2009 (CGS §13a-153f and §13b-13a). The law 'completes the streets' by requiring nearly all highway, road, and street programs and projects in Connecticut to accommodate pedestrians, bicyclists, and transit riders. The State took a further step toward complete streets in 2014 with the adoption of a Complete Streets Policy by the Department of Transportation.

With these actions, Connecticut has signaled its support for a transportation system that meaningfully includes and treats all users as equal. Over time, this support is translating into improved facilities and services for people who walk, bike, and take the bus or train, to the benefit of all residents and visitors of the state. This report examines the progress that has been made since the complete streets law was adopted and lays out recommendations for fully incorporating the needs of all residents and visitors of the state.



Photo Credit: The Bike Beat Blog, State Capitol in Hartford, CT

The Connecticut Bicycle and Pedestrian Advisory Board

CGS §13b-13a established a Connecticut Bicycle and Pedestrian Advisory Board (the Board) in the Connecticut Department of Transportation (CT-DOT) for administrative purposes. Per subsection (h), the Board must submit annually a report to the Governor, the Commissioner of CTDOT, and the Transportation Committee of the Connecticut General Assembly on:

- "(1) the progress made by State agencies in improving the environment for bicycling and walking in this State,"
- "(2) recommendations for improvements to State policies and procedures related to bicycling and walking, and"
- "(3) specific actions taken by the Department of Transportation in the preceding year that affect the pedestrian and cyclist environment."

Subsection (e) requires the Board to examine the need for pedestrian and bicycle transportation and to advise appropriate agencies of the State on policies, programs, and facilities for pedestrians and bicyclists.

Legal Requirements of the Complete Streets Law

The 2009 Complete Streets Law codified the following requirements into statute.

Section 13a-153f(b)

"Accommodations for all users shall be a routine part of the planning, design, construction and operating activities of all highways, as defined in section 14-1, in this State."

Section 13a-153f(c)

"From funds received by CTDOT or any municipality for the construction, restoration, rehabilitation or relocation of highways, roads or streets, a reasonable amount shall be expended to provide facilities for all users, including, but not limited to, bikeways and sidewalks with appropriate curb cuts and ramps. On and after October 1, 2010, not less than one per cent of the total amount of any such funds received in any fiscal year shall be so expended. CTDOT or municipality shall take future transit expansion plans into account where appropriate. Notwithstanding the provisions of this subsection, such provisions shall not apply in the event of a State or municipal transportation emergency."

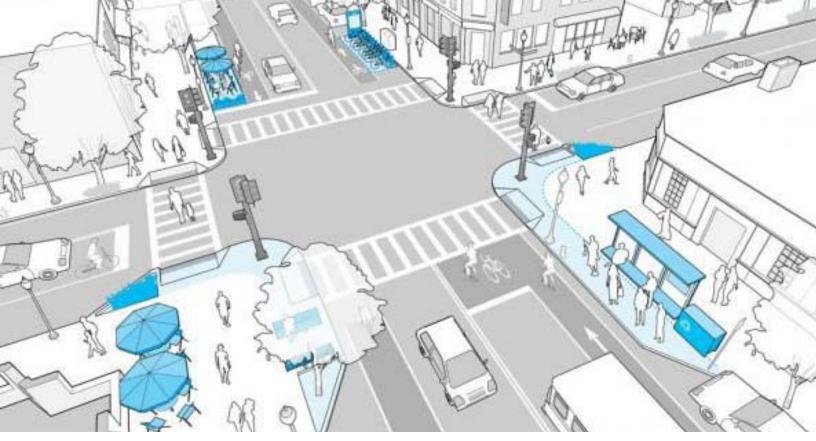


Photo Credit: Toole Design Group, Boston Complete Streets Guidelines

Progress and the Need for Continued Reform

Since the adoption of the Complete Streets Law in 2009, much progress has been made to institutionalize the accommodation of all transportation users. At the same time, there are some institutional factors hindering great progress.

The list below highlights progress to date.

- CTDOT regularly reviews every repaving project to determine if lanes can be narrowed and shoulders widened, providing more space for bicyclists.
- CTDOT uses a project checklist at the earliest stage of project development to determine the need for bicycle and pedestrian accommodations.
- CTDOT engineers have demonstrated a willingness to try new designs and technologies.
- CTDOT has adopted a Complete Streets Policy.
- Bicycle and pedestrian needs are being con-

sidered in some of the largest transportation projects in the state, for example, the I-84 viaduct replacement in Hartford and major transit investments.

- "Let's Go CT!," the 30 year transportation plan for the state specifically includes bike and pedestrian funding.
- More significantly, the 5-year ramp up program for "Let's Go CT! "includes \$100 million for bike and pedestrian projects.
- CTDOT has devoted considerable resources to the development of multi use trails.
- The DMV has invited input from the Board to update the State Driver's Manual to better address bike and pedestrian safety.
- Seven municipalities have been recognized as bicycle friendly communities.
- Numerous municipalities have adopted complete streets policies and the number is growing.



Photo Credit: People Friendly Stamford, Park(ing) Day

Even with this progress, however, bicycle and pedestrian issues are not yet fully integrated into transportation planning, engineering, and construction at state, regional and local levels. Bicycle, pedestrian and transit facilities accommodations are not being built as a part of all transportation projects, as intended by the complete streets law. Examples of impediments to progress are discussed below.

Outdated Highway Design Manual

Complete streets results are particularly hampered by CTDOT's slow progress in updating the Highway Design Manual. The lack of an updated design manual does not prevent all progress but prevents complete streets from being a standard and systematic part of CTDOT's work throughout the state. Further, use of a design manual that ignores modern street design for pedestrians, bicycles and transit should not be the State's standard. Additionally, many local engineers rely upon the design manual, and therefore they are unlikely to learn about innovative street designs for accommodating all users.

Funding Difficulties

On many projects, pedestrian and bicycle improvements are treated as extras rather than fundamental parts of the project, and so are easily discarded during project scoping if there is not an advocate who pushes for inclusion.

Looking specifically at safety funding, while bi-

cyclist and pedestrian injuries and fatalities have represented 14% of total traffic injuries and fatalities over the past decade, bicycle and pedestrian safety improvements and education efforts have never received a comparable percentage of safety funding.

Many types of federal transportation funding can, in fact, be used for bicycle and pedestrian projects. The Federal Highway administration keeps a summary of the funding sources here: http://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/funding_opportunities.cfm.

Complete Streets Demonstrations

Any new concept, such as complete streets, is best understood when on-the-ground examples can be experienced and tested. To date there are few Connecticut examples of streets that have been transformed to complete streets. In 2015, CTDOT began its first road diet on a state highway. Refer to page 27 for more information about the Route 44/Burnside Ave road diet. Additional examples on both state and local roads would help develop parameters to guide designers.

Access During Construction

It is common to find bike lanes or sidewalks closed during building or roadway construction projects. This lack of attention to all users during temporary construction leads to accessibility and safety issues for pedestrians, bicyclists and transit users.



Photo Credit: Westport Now, Streetscape Improvements



Photo Credit: Northeast Community Cycles, Volunteers

Municipal Progress on Complete Streets

Complete streets will not be fully realized in Connecticut until all levels of government become part of the transformation. In fact, of the 21,000 miles or roadway in Connecticut, 82% are maintained by local munipalities. Also, the majority of bicycle and pedestrian trips occur on local roads, so local action is essential.

Many of the larger municipalities, such as New Haven, Hartford, and Stamford, have sufficient staff capacity and resources to address the needs of all users in transportation projects. However, smaller towns may not have the capacity or resources to make progress on complete streets.

Future Challenges and the Shared Road Ahead

While Connecticut is a better place to walk and bike today than it was a decade ago, it has not yet become a leader in protecting and supporting pedestrians and bicyclists. Indeed, for all the progress the State has made, it runs the risk of falling behind if the reform process does not continue. Connecticut's slip over the last two years from #18 to #22 in the League of American Bicyclists' state rankings lends substance to this concern. For Connecticut to maintain and improve its position, further changes are needed.

Changes to something as large and complex as the transportation system take time; the full impact of past reforms likely has yet to be felt. Despite this, the need for action remains as real as ever. The next part of this report lays out a course for continued reform in 2016 in Connecticut.



Photo Credit: Rod Parlee, State Capitol in Hartford, CT



Photo Credit: City of Stamford Access4All Committee, Walkability Audit

Recommendations for 2016

To continue advancing the transformative power of complete streets at all levels of government, the Board has developed a set of recommended reforms. These follow over the next several pages and are grouped by implementing agency. Many fall under the purview of CTDOT, but this report also includes reforms for other agencies, state policymakers, regions and municipalities, and the Board itself. A tabular list of the recommendations can be found in the Appendix.

Recommendations to Legislators

Crosswalk Law Revision

In 2007, a little recognized change was made to state statute (CSG 14-300(C)) relating to cars yielding to pedestrians attempting to cross the street. Prior to the change, the law stated that at unsignalized crosswalks, motor vehicles should grant the right of way to pedestrians who are at the

curb at the entrance to the crosswalk. The change required that the pedestrian enter the crosswalk before a car must yield the right of way.

This change has never been reflected in the State Driver's Manual. Particularly for vulnerable users such as children, the elderly and the physically impaired, the old statute, requiring motor vehicle operators to yield to a person at the crosswalk, results in greater safety.

The Board recommends that the language of the statute be restored to require motor vehicles to grant the right of way to a pedestrian who steps to the curb at the entrance to a crosswalk.

Electric-Assist Bicycles

Electric-assist bicycles are becoming more common in the marketplace and on our roads and bike paths. Electric-assist bicycles are bikes that have a helper motor. They are not mopeds or scooters. They enable riders to travel longer distances with



Photo Credit: People Friendly Stamford, E-bike Demo

less exertion than a conventional bicycle.

In general, there are currently three common types of electric-assist bicycles on the market: 1) pedalassist, which requires pedaling to begin motion, with a maximum speed of 20 mph; 2) throttle-assist, which provides the power to begin motion without pedaling, with a maximum speed of 20 mph; and 3) pedal-assist with a maximum speed of 28 mph.

Electric-assist bicycles allow access to bicycling by individuals who have needs that can be overcome by the electric-assist. They also allow some of our growing active aging population to continue bicycling, and they can extend the range of distance for all bicyclists. For stronger bicyclists, they do not help to achieve faster speeds since the electric assist cuts out at a particular speed.

A 2008 statutory amendment to Chapter 248, Section 14-286, changing "use of bicycles and bicycles with helper motors" to "use of bicycles, motor-driven cycles and high-mileage vehicles" has confused this issue because it does not distinguish electric-assist bikes from other motorized cycles. This change has created confusion in interpretation of the laws that relate to electric-assist bicycles and may place unintended and unnecessary restrictions on them. On the other hand, it is important that electric-assist bicycles be defined in such a way that they are more similar to bicycles than to motorcycles. The definition of an electric-assist bicycle has not been standardized.

Other states have recently enacted effective legislation to ensure that riders of electric-assist bicycles have the same rights and protections as regular bicyclists as they relate to the motor vehicle codes. European standards, where electric-assist bikes have operated longer than the US, would also be useful references.

The Board recommends that the Office of Legislative Research examine the issues related to electric-assist bicycles to determine what type of legislative changes could clarify their use on roads. The Board also recommends that electric-assist bicycles be defined adequately so that they are compatible in operation with bicycles and can be classified as bicycles.



Photo Credit: Don Hyman, Fairfield Bicycle and Pedestrian Committee Shoreline Bike Ride



Photo Credit: Blke Walk Alliance, 15th Street Cycletrack in Washington DC

Recommendations to all State Agencies

The vision of the Complete Streets Law will not be fully implemented until it is integrated into the work of all state agencies.

Integrate Walking and Biking with Transit

Transit and transit-oriented development (TOD) require several factors to succeed. One of these is adequate facilities for pedestrians and bicyclists. If one cannot access a stop or station, then one cannot ride a bus or a train. Responsibility for transit-oriented development is spread across several agencies, including the Department of Economic and Community Development, the Office of Policy and Management, and CTDOT, with collaboration among other agencies.

The Board recommends that state agencies continue to collaborate regarding TOD and that all state agencies integrate facilities for biking, walking and all transit projects.

Achieve Bicycle Friendly Status

Additionally, the Board encourages state agencies to follow the lead of the Department of Energy and Environmental Protections (CTDEEP) which has been recognized as a bronze level Bicycle Friendly Business by the League of American Bicyclists.

The Board recommends that state agencies apply to the League of American Bicyclists for bicycle-friendly business designation.



Photo Credit: Federal Highway Administration, Pedestrian Safety Guide and Countermeasure Selection System

Recommendations to CTDOT

CTDOT has made progress in advancing walking and biking as viable means of transportation. The following recommendations are intended to assist CTDOT in building on this progress in a systematic and comprehensive way.

Ramp-Up Program

The State of Connecticut made a huge commitment to transportation in 2015 with the development of a 30 year plan, Lets Go CT!, for transportation investment and a 5-year ramp-up plan to kick-start implementation. The ramp-up program includes \$100 million for bike and pedestrian projects, which compares very favorably with the \$612 million designated for highways. These funds are to be split between two programs – trail construction and a community connectivity program.

The connectivity program is intended to enable municipalities to improve bicycle and pedestrian safety. In the first year of the program, CTDOT expects to assist municipalities with identifying needs by making a program of road safety audits avail-

able through the community connectivity program. Process and criteria for selection of projects to be funded in both the trails and connectivity programs are currently being developed. CTDOT has invited Board input to this process.

We recommend that an open and transparent process be developed for the selection of projects in the ramp-up program. CT-DOT should seek input from the Board for the development of any competitive bicycle and pedestrian funding programs and to identify critical needs.

Coordinate Maintenance Programs with Municipalities

Likely the most effective method to implement the complete streets law to date has been via regular maintenance programs. All repaving and reconstruction projects have been examined to determine whether lanes can be narrowed to 11 feet to allow for wider shoulders.



Photo Credit: Bicycle Advocacy of Greater Danbury, Bike Ride

Despite some glitches since the Complete Streets Law was passed in 2008, this has been applied systematically on state highways throughout the state. There have been some instances where repaving has resulted in narrower shoulders, even on a route that is identified as a part of cross state bike route (see CT Bike Pedestrian Plan) The problem seems to be multi-faceted: 1) CTDOT staff does not review local, regional or state bike plans when making paving decisions; and 2) municipalities are not always informed in a timely manner that a road is slated for repaving and 3) municipalities may not be sufficiently proactive to coordinate the needs of bike, pedestrian and transit users.

The program could be improved if towns were informed in advance to know which roads are going to be included on the Vendor In Place (VIP) list prior to the list being finalized. Once the VIP list is finalized, there is no possibility to expand the project scope to include bicycle and pedestrian considerations. By knowing which projects are coming up, better decisions can be made with local needs in mind. If a town, however, requests that bike lane markings or sharrows be included, this is considered an "enhancement" and the town must go through a lengthy process for approval. As a result, no sharrows or bike lanes have been installed as part of CTDOT repaving.

The Board recommends that CTDOT consider bicycle lanes and sharrows a regular part of the repaving program. The Board also recommends that CTDOT notify municipalities in advance of local roads inclu-

sion on the VIP list for repaving, and allow time for local input for the implementation of complete streets.

Open Up the Manual Revision Process

The Connecticut Highway Design Manual provides engineers (state, municipal, and consulting) with official guidance on the proper design of roads and streets, including accommodations for pedestrians and bicyclists. CTDOT has begun a revision process to bring the manual into line with the Department's Complete Streets Policy, which it predates. The revised manual will integrate complete streets into every aspect of design and is expected by 2017.

While the CTDOT indicates that it is still on track to meet the 2017 completion goal, there has been no evidence of progress to date. An internal CTDOT Complete Streets Standing Committee, which will be part of the process, has not yet convened. There has been no indication of how parties outside the DOT will be included in the process.

The Board strongly recommends that the revision process be open, transparent, and inclusive, with the involvement of the Board, pedestrian and bicyclist groups, and municipal engineers. The Board also recommends that CTDOT beat their target date of 2017 for completion.



Photo Credit: Fleet Feet Stamford, Community Pub Run



Photo Credit: Rod Parlee, CTtransit Bike Rack Demo

Give a Fair Share of Safety Funds

Federal funding is provided to the State for safety improvements on streets and roadways. The current development of the State's Strategic Highway Safety Plan provides an opportunity for the following recommendations to be put into place.

The Highway Safety Improvement Program (HSIP) funding is available on a competitive basis, but the criteria CTDOT uses to allocate federal safety funds to construction projects makes it difficult for projects that primarily improve safety for people who walk, bike and take transit to be funded. As a consequence, fewer dollars are spent on improving safety for these users than one would expect given the proportion of total fatalities they represent.

Providing a set-aside of HSIP funding can ensure that pedestrian and bicycle projects get a fair share of the funding. The Board suggests that a fair share would be 14% as it represents the fraction of pedestrians and bicyclists among all traffic deaths in the state. Similar proportional set-asides are used in other states.

Section 402 safety funds are federal funds made available through CTDOT for education, enforcement and research activities related to highway safety. Bicycle and pedestrian safety is one of the national focus areas eligible for Section 402 funding, however, CTDOT has rarely funded such programs. Other states (including Arizona, Florida,

Illinois, and New Jersey) have awarded Section 402 funding to bike and pedestrian advocacy organizations for education programs. The only non-profit allowed to apply for these funds in Connecticut has been Mothers Against Drunk Driving.

The Board recommends CTDOT follow the lead of other states and allow non-profits that work on pedestrian and bicycle safety to apply for Section 402 funds competitively.

Launch Collaborative Share-the-Road Campaign

Lack of understanding of the rules of the road leads to conflicts between road users, and in those conflicts, the pedestrians and bicyclists are most at risk for injury or worse. Continuing education of drivers, cyclists, and pedestrians about their rights and responsibilities therefore is key to improving road safety. The state already has similar safety campaigns in place- construction work zone and distracted driving- which may serve as models.

The Board recommends that CTDOT, the Department of Motor Vehicles, and the Department of Emergency Services and Public Protection launch a collaborative share-the-road campaign, with participation from pedestrian and cyclist groups.



Photo Credit: Simsbury Safe Routes to School



Photo Credit: People Friendly Stamford, Bike rack on Metro-North Train

Allow Bikes on Trains

Bicycles expand the reach of a rail network and, thus, its usefulness and ridership, by enabling riders to access places that are beyond walking distance from a station. However, for bikes and trains to benefit from each other, the ability to park bikes at stations and take them on trains is crucial. That being said, bike racks on trains should be designed in such a way that they do not compete for space or facilities of other patrons. On Metro-North trains, for example, the current design of bike racks competes for space with ADA accessible seating. In future designs, bikes should be accommodated on trains without the need to compete with this seating.

Acting on the Board's recommendation for 2015, CTDOT has been working to install bicycle parking and to allow bicycles on all trains. To make further progress, the Board would like to see peak hour access for bicycles allowed on Metro North. However, we recognize the volume of passengers on the peak trains is currently at capacity and would not be compatible with on-board bicycles.

The Board recommends that when Metro North service is enhanced to provide greater peak hour capacity, peak hour bicycle access be provided without eliminating ADA accessibility seating on trains. The Hartford Line, which is expected to open in 2018, affords new opportunities for bicycle use.

The Board recommends that Hartford Line plans and operating agreements provide for bicycle storage at all stations and carriage on all trains.

To date, CTDOT has taken the position that bicycle lockers are not appropriate for deployment at transit stations due to public safety and security reasons. However, the need for longer-term and safer storage desired by bicyclists has led transit agencies in many major cities to a very different conclusion—that bike lockers are an essential part of the bicycle parking facilities at stations.

The Board recommends that CTDOT pilot the deployment of bike lockers at a single rail station so that this concept can be tested.

Create District Points of Contact

While some transportation functions are handled centrally at CTDOT headquarters, others fall to the Department's districts. The districts hold key responsibilities for construction and maintenance. They also interact with municipalities, frequently serving as the 'local face' of CTDOT.

Like headquarters, the districts employ specialists, such as scientists or engineers, to carry out a range of duties. Unlike headquarters, however, no person has been given responsibility for non-motorized affairs. The lack of a formal assignment of responsibility in district programs may hamper



Photo Credit: People Friendly Stamford, Mayor Martin installing the last parking meter bike hitch



Photo Credit: Simsbury Bicycle and Pedestrian Advisory Committee

coordination and slow reform. It also eliminates a valuable point of contact communities may need for guidance on pedestrians and bicyclists.

To ensure that pedestrians and bicyclists enjoy the same procedural consideration in the districts as in CTDOT headquarters, the Board recommends that each district designate one of its employees as a district nonmotorized point of contact and that this individual receive training in complete streets principles.

Provide Critical Links

There are several locations in the state where limited access roadways restrict bicyclists from traveling and there are no alternate bicycle routes. Examples include Route 2 from Glastonbury to Marlborough, Routes 187/189 merge area in Bloomfield, Route 384 to Route 6 in Bolton, and Route 7 between Ridgefield to Danbury.

The Board recommends that the CTDOT develop bicycle routes for connectivity in these limited access locations.

Include Complete Streets in Safety Circuit Rider Program

CTDOT has effectively provided roadway safety training and assistance to municipalities through the Safety Circuit Rider (SCR) program, managed by the Technology Transfer Center at UConn. The

SCR program is designed to provide safety-related information, training, and direct technical assistance to agencies responsible for local roadway safety.

The Board recommends that CTDOT expand funding for the circuit rider program to enable it to provide complete streets technical assistance to municipalities.

Complete Streets Demonstrations

Proactive efforts to get more complete streets projects on the ground in a variety of settings will help planners, engineers, public officials and the public to understand what a complete street is and how it can benefit a community.

The Board recommends that CTDOT build demonstration complete streets projects to expand the State's knowledge base and to develop criteria for future use.



Photo Credit: People Friendly Stamford, Temporary parklet in front of Lorca Coffeehouse



Photo Credit: People Friendly Stamford, Monday Night Bike Ride

Recommendations to Department of Motor Vehicles

Launch Collaborative Share-the-Road Campaign

Refer to page 11 for discussion.

The Board recommends that CTDOT, the DMV, and the Department of Emergency Services and Public Protection (DESPP) launch a collaborative share-the-road campaign, with participation from pedestrian and bicyclist groups.

Enhance Driver Education

The Board recommends that DMV work with agencies that oversee driver education to verify that all programs include correct information on properly sharing the road with pedestrians and bicyclists.

Keep the Drivers Manual Up to Date
The DMV annually invites the Board to
provide input on updating the CT Drivers
Manual. The Board appreciates this opportunity and recommends that it continue.



Photo Credit: Simsbury Safe Routes to School Program

Recommendations to Department of Emergency Services and Public Protection

Launch Collaborative Share-the-Road Campaign

Refer to page 11 for discussion.

The Board recommends that CTDOT, the DMV, and the Department of Emergency Services and Public Protection (DESPP) launch a collaborative share-the-road campaign, with participation from pedestrian and bicyclist groups.

Increase Traffic Enforcement in Areas with a High Volume of Nonmotorized Users

Stricter enforcement of traffic law may bolster the Share-the-Road campaign's effectiveness and should be considered for inclusion. surrounding

schools and other places with a potentially high volume pedestrian and bicycle, such as a Library or YMCA.

The Board recommends that places with high concentrations of pedestrians or bicyclists, such as around schools, be target areas for enforcement.

Training

All police academies in the state and officer/patrol trainings should include information on the legal rights and responsibilities of pedestrians and bicyclists. The Board is available to assist in the development and delivery of curricula.



Photo Credit: Elm City Cycling, Children's Bike Safety Training

Recommendations to Department of Education

School Siting

In the past 50 years, the number of children who regularly walk and bike to school has dropped from just under 50% to under 15%. The major cause for this change has been the location of schools where very few residences are close enough to allow walking and biking to school. There are many resources available from the national Safe Routes Clearinghouse that can assist schools in encouraging more children to walk and bicycle to school.

The Board recommends that the Department of Education take into consideration walking and biking potential when it approves locations of new schools.

Promote Safe Routes to Schools Program

While federal transportation funding for construction of new Safe Routes to Schools projects may not be readily available in 2016, CTDOT does have funding for soft costs related to safe routes, including walkability assessments. This program is only

available for K-8 schools, and is most successful when coordinated with the support of the school administration and parent-teacher organization. Only a very small fraction of schools statewide have participated in this program to date.

The Board recommends that the Department of Education coordinate with CTDOT to promote this program to K-8 schools statewide. Further, the Board recommends that the Department of Education promotes safe routes to schools as part of school wellness programs.

Statewide Bike Safety Training for Elementary School Students

Riding a bicycle is a fun and independent activity for children, but they must learn to be safe when sharing the road or multi-use trail such as how to read signs, be visible on a bike, signal turns and ride safely. Bike Safety Training courses have been successfully implemented at Elementary Schools in South Windsor and Simsbury.

The Board recommends that the Department of Education implement Bike Safety Training as a mandatory part of the Elementary school education.



Photo Credit: CTDOT, Route 44/Burnside Avenue Road Diet Project

Recommendations to Municipalities

To assist towns and cities in moving forward, we have identified primary recommendations below and provide a checklist on the following page to assist communities in identifying additional steps that can be taken to implement complete streets.

Adopt and Implement Complete Streets

The adoption of complete streets policies at the municipal level enable towns and cities around the state to understand what complete streets mean to them, to take ownership of the design of their streets, and to formulate plans to improve them.

The Board recommends that cities and towns adopt complete streets policies and integrate complete streets principles into plans, ordinances, and practices.

Remove Snow and Ice

If not properly cleared, snow and ice can make even the best pedestrian, bicyclist and transit facilities dangerous or unusable. The Board recommends that municipalities evaluate their policies on removing snow and ice in and around facilities for pedestrians, bicyclists and transit users, and give attention to winter maintenance on multi-use trails and to compliance with and enforcement of existing policies.

Take Advantage of Training Opportunities

More and more resources are being made available to municipalities each year. Of particular interest to municipalities are the Technology Transfer Center (T2 Center, housed at UConn) programs on complete streets which are offered to municipal officials as part of the Road Scholar program. Additionally, the CT Conference of Municipalities, the CT Main Street Center, and Bike Walk CT have offered training on Complete Streets concepts.

The Board recommends that municipal staff working on nonmotorized transporta-



Photo Credit: Simsbury Safe Routes to School Program

tion projects attend statewide training opportunities to develop knowledge of complete streets best practices.

Coordinate State Maintenance Programs with Local Complete Streets Interests

Municipalities should be proactive and coordinate locally identified needs of bike, pedestrian and transit users for specific routes to the CTDOT prior to their inclusion in the Vendor in Place (VIP) program. See discussion on Pages 11-12.

The Board recommends that municipalities identify state roads greater than 10 years in age and coordinate with specific complete streets interests with CTDOT in advance of a roads inclusion in the VIP program.



Photo Credit: City of New Haven, Two-Way Conversion Final Report

Complete Streets Checklist for Municipalities

Meet or exceed the requirements of the Complete Streets law. Connecticut's complete streets law (Conn. Gen. Stat. §13a-153f, effective in 2009), requires municipalities to spend at least one percent of road funding on facilities that serve all users, such as bikeways and sidewalks with appropriate curb cuts and ramps.
Adopt a Complete Streets policy. For a template and best practices adopted in other municipalities across the country, ultilize the resources available on the National Complete Streets Coalition website.
Anticipate repaving needs. Identify roads that have not been repaved in 10 year and be proactive in planning for bike, pedestrian and transit projects on these roads.
Work with your residents. Convene a bicycling pedestrian, and transit task force or work with your local advocacy groups. Your residents who are interested in biking and walking will have the best perspectives on how your town can become more friendly to all users.
Stay current. Encourage, if not require, appropriate town staff to be trained in contemporary bicycling and pedestrian design and draw from the myriad planning tools and educational resources that are available. See recommended resources at the bottom of this section.
Incorporate small changes to make a big difference. Providing space for active travel doesn't have to be expensive. For example, whenever you repave or restripe a road, paint the line with bike transportation in mind—give bicyclists at least a four-foot shoulder where possible. Motor vehicle lanes rarely need to be more than ten or eleven feet wide.
Adopt a bicycling and pedestrian and transit transportation plan. A collaboration of residents, businesses, town leaders, and municipal staff (engineering, planning, transportation, public works, public safety, local traffic authorities, economic development, and recreation) can produce a facilities improvements for users of all modes of transportation. Develop an intra-town pedestrian network. It may include trails, sidewalks, transit nodes, lowuse roads and transit facilities. Include bicycle parking, pedestrian infrastructure, and bus stop area enhancements where needed. Include active transportation in your Plan of Conservation & Development.
Provide Safe Routes to Schools. Make sure your schools participate in Bike to School Day (in May) and Walk to School Day (in October). But there's no need to limit it to two days.
Work with adjacent communities to develop best inter-town routes for bicyclists and pedestrians.
Share the Road. Know and enforce traffic laws for drivers, bicyclists and pedestrians. Consider local "Quick Fix" investigations and remediation for all bicycle and pedestrian crashes.
Request a Road Safety Audit from CTDOT through its new Community Connectivity program (contact Patrick.

Zapatka@ct.org). The Connecticut Technology Transfer Center at UConn also offers technical assistance for audits. The "T2 Center" provides education and technical assistance on transportation matters to Connecticut's Transportation and Public Safety Community

	Transportation and Public Safety Community.	
	Remove ice and snow from pedestrian, bicycle and transit facilities.	
	Become a Bike Friendly Community, accredited by the League of American Bicyclists bikeleague.org/com- munity). Connecticut's bike-friendly communities include Simsbury, South Windsor, Farmington, West Hartford, New Britain, New Haven, and Glastonbury.	
	Participate in Bike Walk Connecticut's Bike-Friendly, Walk-Friendly Community Surveys, when conducted	
Rec	commended Resources	
American Association of State and Highway Transportation Officials www.transportation.org		
	erican Planning Assiociation w.planning.org	
CTDOT Bike and Pedestrian Page www.ct.gov/dot/cwp/view.asp?a=3531&q=259658&dotPNav tr=%7C#40030		
CT Bicycle and Pedestrian Advisory Board www.ctbikepedboard.org		
Connecticut Safe Routes to Schools Program www.walkitbikeitct.org		
Connecticut Technology Transfer Center at UConn www.t2center.uconn.edu		
	e Walk CT w.bikewalkct.org	
	League of American Bicyclists w.bikeleague.org	
	ional Association of City Transportation Officials w.nacto.org	
	ional Center for Safe Routes to School w.saferoutesinfo.org	
	ional Complete Streets Coalition ://www.smartgrowthamerica.org/complete-streets	
	lestrian and Bicycle Information Center w.pedbikeinfo.org	
	OOT Pedestrian and Bicycle Program w.fhwa.dot.gov/environment/bicycle_pedestrian	



Photo Credit: Elm City Cycling, Farmington Canal Heritage Trail Ride

Recommendations to Regions

Adopt Complete Streets Policies

The State's regions play a key role in the development of its transportation system through planning and project selection. Complete street policies may be used as a lever to encourage the development of such policies for constituent towns.

Echoing the recent complete streets policy document from CTDOT, each Regional Council of Governments should develop a similar policy for their region.

Coordinate State Maintenance
Programs with Local Complete Streets
Interests

Regions must be sufficiently proactive and aware of projects within their jurisdiction occurring within the Vendor in Place (VIP) program. Regions should routinely distribute the VIP selected projects list to their members. Where practical

Regions can prompt coordination of the needs of bike, pedestrian and transit users for specific routes prior to their inclusion in the VIP program. See discussion on Page 11-12.

The Board recommends that Regions notify municipalities and coordinate their interest with CTDOT of specific complete streets interests in advance of a roads inclusion in the VIP program.

Develop Bicycle and Pedestrian Plans

Some of the smaller and less dense suburbs and towns will not have the expertise and experience to handle this task; therefore regions can ensure that all towns have the tools needed to gain understanding and experience. Regions should encourage the use of available design tools, such as bicycle and pedestrian level of service calculators, walkability scores and the AASHTO and NACTO guides.



Photo Credit: Sound Cyclists Bicycle Club, Bike Ride

If not already in place, the Board recommends that each region develop a standalone Bicycle and Pedestrian Plan, or as a part of either the Plan of Conservation and Development or the Long Range Transportation Plan.

Tap Into Local Stakeholder Expertise

Local stakeholders may have the expertise to review, modify or extend existing bicycle and pedestrian plans. One of the highest priorities should be to provide local and regional connectivity as well as connections to the State bicycle network.

The Board recommends that regions develop regional bicycle and pedestrian committees from the pool of existing advocates, perhaps by encouraging towns to nominate members to these committees.

Consider a Rapid Response Capability

Complete streets solutions to crashes can be strategized quickly and collaboratively. Rapid response teams, consisting of higher-level regional staff and city officials who can make decisions that will resolve the crash causes, if identifiable, and implement solutions, would speed up the process of transforming streets. Outside stakeholders, including members of the bicycle and pedestrian committees should be included.

The Board recommends that regions develop "quick fix" teams to investigate and

recommend solutions for identified bicycle or pedestrian safety issues.

Update Regional Bike Routes

The Statewide Bicycle and Pedestrian Transportation Plan lists cross-state bike routes. In focusing on State highways, this network leaves out quieter local roads that bicyclists may prefer. Designation of bicycle routes that follow local roads will direct bicyclists away from hazardous or difficult areas and contribute to a safer and more comfortable experience, especially for those who are new to biking or to the area.

The Board recommends that well-designed regional bike routes be adopted or updated to supplement the state route network.

Develop Staff Expertise

Regions have varying levels of expertise with respect to bicycle and pedestrian design and planning.

The Board recommends that each region designate one or two of its employees as the region's nonmotorized expert and that this individual(s) receive training in complete streets principles.



Photo Credit: Simsbury Free Bikes, Bike Ride



Photo Credit: People Friendly Stamford, Bike to Work Day

Recommendations to the Board for 2016

The Board plans to take several steps over the next year as part of its mission.

Monitor Action on Complete Streets

The Board will review the implementation of CT-DOT's Complete Streets Policy.

Monitor E-Bike Trends

Electric-assist bicycles ("e-bikes") are a rapidly growing market. E-bikes could dramatically broaden the appeal of cycling, attracting older adults, disabled and less fit persons, longer distance commuters, and those who must cycle in hot weather or hilly terrain. On the other hand, they may also raise a number of issues. The Board will monitor national trends relative to e-bikes, including design, regulation, use, and legislation.

Examine Vulnerable User Protections

The Board is concerned that this law has not been utilized in a successful way since it was passed in

2014. There have likely been cases in which this law would apply and provide additional protection to vulnerable users, however, the law has not yet been applied. The Board is concerned with the effectiveness of the vulnerable user law and will review the law in the context of similar laws enacted in other jurisdictions, and discuss the law with legal and public safety experts in Connecticut to measure its effectiveness.

Support Bike Share

The Board supports bike share and will seek to facilitate its realization in the state. The City of New Haven is likely to be the first municipality in Connecticut to launch a bike share program. Several institutions, including Yale have bike share in place. The Board will monitor these programs and work to identify challenges, lessons learned and best practices to promote bike share throughout the state.



Photo Credit: Elm City Cycling, Bike Ride

Monitor Proposed Legislation

The Board will monitor and review relevant legislative bills that impact bicycling and complete streets in Connecticut, should they arise during the session. We will also monitor and review national trends that relate to complete streets and may require future legislative initiatives.

Examine Office of the State Traffic Administration (OSTA) Process

The Board will monitor and review the OSTA process to determine if the needs of all traffic users are considered in Major Traffic Generator reviews in the same way that accommodations are made for motor vehicle traffic. The Board is especially interested in permits for developments near transit nodes.

Educate the Public About Our Work

The Board will work to keep the public informed of our work so we can benefit from public input and so that we can disseminate information on the how s and whys of complete streets. The Board presented a complete streets workshop in October 2015 on behalf of the CT Conference of Municipalities and is willing to provide similar outreach.



Photo Credit: Simsbury Safe Routes to School Program

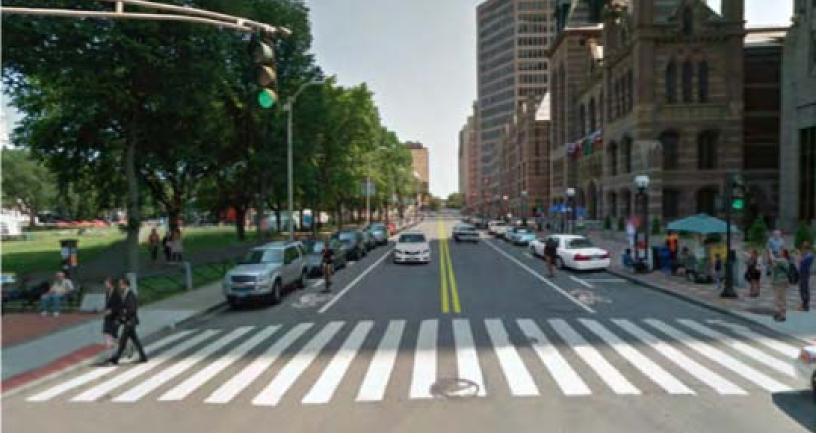


Photo Credit: City of New Haven, Two-Way Conversion Final Report

2015 in Review

Steady progress defined 2015 for people who walk, bike and take public transit in Connecticut. While few new initiatives were announced, many projects that had begun in prior years reached important milestones. Selected achievements are presented in this section.

Laws and Regulations

Passage of Bicycle Safety Law

The most significant advance in 2015 is new legislation, Senate Bill 502 or the "Bike Bill", that allows the construction of modern bicycle facilities, promotes the use of modern design guidelines by the CTDOT, clarifies rules for passing bicyclists, and improves share the road language. This legislation was supported by the Board and satisfied many of the recommendations the Board made last year including:

- Allow cars to cross the yellow line when passing slow moving vehicles, including bicycles
- Reword the statute that describes bicyclist positioning on roads to clarify that a bicyclist may

move to the center of a lane when the lane is too narrow for a bicycle and car to share sideby-side safely.

- Clarify that bicyclist positioning is based upon what the bicyclist determines to be safe.
- Allow contra flow bicycle lanes to be built in the state.

Complete Streets Policies

Numerous towns have adopted Complete Streets Policies to guide all transportation projects. In 2015, West Hartford, Bridgeport and Stamford joined Glastonbury, New Haven, Stonington and Torrington in adopting such a policy.

Revised Driver's Manual

The DMV again accepted input from the Board in 2015 to improve the Connecticut Driver's Manual to reflect the new bicycle and pedestrian legislation adopted in the previous session. The new manual will be available in 2016. The Board looks forward to continued collaboration with the DMV.



Photo Credit: Simsbury Safe Routes to School Program

Facilities and Services

Strategic Highway Safety Plan

The Connecticut Strategic Highway Safety Plan (SHSP) is the comprehensive framework that coordinates statewide safety initiatives and provides specific goals and objectives to reduce highway fatalities and serious injuries on all public roads. This document is maintained by CTDOT and acts as the blueprint for bringing together the individual safety agendas of the Highway Safety Improvement Program (HSIP), the Highway Safety Plan (HSP), and the Commercial Vehicle Safety Plan.

Connecticut's SHSP, first adopted in 2010 and last revised in 2013, is no longer compliant with federal transportation law. CTDOT has hired a consultant to assist with the development of the plan and a Safety summit was held in October 2015 to kick off the effort. A Non Motorized Subcommittee will meet quarterly to oversee the bike pedestrian area.

Crash Data on Nonmotorized Use

In 2015 the new crash reporting form, the PR-1 went into effect. The form enhances crash reporting, including for pedestrians and bicyclists, enabling improvements to be better targeted to safety problems. Geocoded crash data are now available via the UConn hosted crash data repository, making it easy for researchers, planners, and engineers to locate bike and pedestrian crash hot spots.

New Bicycle-Friendly Cities and Businesses

Over the last few years, several cities and towns have worked diligently to improve conditions for bicyclists. In recognition of these efforts, the League of American Bicyclists bestowed its bronze Bicycle-Friendly Community (BFC) status on Glaston-bury in 2015. This brings the number of BFCs in Connecticut to seven, with Farmington, New Britain, New Haven, South Windsor and West Hartford at the bronze level and Simsbury with silver status.

The Travelers Corporation was recognized as a bronze bike friendly business, Bicycles East achieved Silver status and Suburban Sports, gold. It is hoped that additional municipalities and businesses will enter the program, and that those already recognized will continue to strive to improve their bike friendliness.

Progress on Transit Capital Projects

The CTfastrak bus rapid transit line was opened in March 2015. The project has improved the ability to get around by foot and bicycle in and west of Hartford by dramatically speeding up and broadening the reach of the region's buses. The project also includes a multi-use trail between downtown New Britain and Newington Junction. All buses on CTfastrak are equipped to carry two bicycles.



Photo Credit: City of New Haven, Two-Way Conversion Final Report



Photo Credit: People Friendly Stamford, Monday Night Bike Rides

Road Diets for Pedestrian and Bicyclist Safety

The DOT has designed, and in 2016 will implement the first "road diet" on a State road, on Burnside Avenue (Route 44) in East Hartford. A road diet reduces pavement that is devoted to traffic lanes in order to provide improved facilities for non motorized users. In the case of Burnside Avenue, the project will reduce the four lane roadway to two lanes with two 5-foot bike lanes and two 7-foot shoulders. The shoulders will allow parking. The improvement will cover 2.67 miles. This project was designed to improve safety on a stretch of highway that has seen six fatal bicycle or pedestrian crashes since the complete streets law was passed.

While road diets have been constructed on local roads in many municipalities in the state, this will be the first example on a State road. It is expected that other State roads will be considered candidates for similar treatments after Burnside Avenue is complete.

New Multi-Use Trails

In 2015, the CTDOT again took the lead in bringing trails projects closer to completion.

The following projects were completed:

 Windham, link between Airline Trail and Hop River Trail (1.4 miles) Cheshire, part of the Farmington Canal Heritage Trail (1.5 miles)

These projects went into construction or to bid in 2015:

- Airline Trail North in Windham, Chaplin Hampton, Pomfret, Putnam and Thompson (20 miles)
- Cheshire, part of the Farmington Canal Heritage Trail (2.5 miles)
- East Hartford, Charter Oak Greenway gaps (1.77 miles)
- Manchester, Charter Oak Greenway extension (2.75 miles)
- Norwalk River Valley Trail, stone dust (1.5 miles)
- Several other trail projects are in design

Best Practices

The Board has identified several practices that it deems exemplary and would like to see more widely adopted in the state.

AVL on CTtransit

CT*transit* is rolling out automatic vehicle location technology on its buses in Stamford, Hartford, and New Haven. This will allow transit patrons to learn when their bus will arrive, eliminating the need to stand at a bus stop any longer than necessary.



Photo Credit: Rod Parlee, Bike to Work Day



Photo Credit: Northeast Community Cycles, Haitian American Catholic Center Bike Donation

Collection of Data on Nonmotorized Use

The Capitol Region Council of Governments (CRCOG) completed a sixth year of pedestrian and bicycle counts, with over 80 locations measured. The data gathered will quantify walking and biking rates and how they change over time. More such counts are needed throughout the state, and counting of pedestrians and bicyclists should become a routine part of the planning, development and maintenance of the state's transportation system.

Public Workshops for Local Officials

In 2015 Bike Walk CT hosted a well-attended workshop on the National Association of City Transportation Officials (NACTO) Bicycle Design Guide. The Technology Transfer Center (housed at UConn) hosted 2 Complete Streets workshops. Each of these sessions attracted DOT and local engineers and planners.

Town Innovations

Several towns are trying a variety of techniques to improve conditions for bicyclists and pedestrians. Some notable examples are listed below:

 New Haven began work to tear down Route 34, an underutilized stub highway and replace it with local streets and rebuild walkable neighborhoods that were severed by the highway. The first phase of deconstruction was paid for by a TIGER II grant.

- New Haven has implemented the Go New Haven project, a collaborative effort that encourages organizations and individuals to use active transportation options.
- South Windsor and Simsbury continue to offer on bicycle safety education to every fourth grader in their elementary schools.
- Simsbury will no longer chip seal roads that are designated as on road bicycle routes.
- Several communities, including Stamford, Bridgeport and Hartford have joined in the USDOT's Mayors Challenge for Safer People, Safer Streets.
- Stamford has reorganized its staff to have a Transportation bureau (following New Haven's long time departmental set up.)
- Stamford has begun work on its first Bicycle and Pedestrian Plan.
- Two residents of Weston, including one of our Board members, are walking all the streets in town to find and demonstrate that there are safe and enjoyable places to walk in town.
- The Town of Portland has issued a request for a consultant to develop a complete streets plan for the entire town.



Photo Credit: People Friendly Stamford, Interfaith Walk



Photo Credit: Bicycle Advocay of Greater Danbury, Annual Santa Ride

ctbikepedboard.org

December 2015

Appendix

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Disclaimer

The views expressed in this report are those of the Connecticut Bicycle and Pedestrian Advisory Board and do not necessarily reflect the official position of the State of Connecticut, including the Department of Transportation.

For more information about the Board, including meeting agendas and minutes, please see www.ctbikepedboard.org.

For CTDOT bicycle and pedestrian information, go to www.ct.gov/dot and click on the Bikes and Pedestrians button.

For other bicycle and pedestrian information, visit www.dot.gov/dashboard.

Board Members

Member	Appointed by	Represents	Position
Joseph Balskus	House Minority Leader	At large	Secretary
Kelly Kennedy	Governor	Cycling organization	
Debra Dauphinais	House Majority Leader	Bicycle industry	
Sandy Fry	Senate Majority Leader	Pedestrians (and bicyclists)	Vice Chair
Emily Provonsha	Governor	Cycling organization	
Neil S. Pade	Governor	At large	Chair
Rod Parlee	Senate President	Transit workers	
Francis R. Pickering	Speaker of the House	At large	
Ray Rauth	Senate Minority Leader	Cycling organization	

List of Recommendations

Addressee	Recommendation
Legislature	OLR review of e-bike issues
Legislature	Crosswalk law revision
All State Agencies	Integrate walking and biking with transit
All State agencies	Apply for bike friendly business status
CTDOT	Open and transparent project selection for Ramp-up Program
CTDOT	Bike lanes and sharrows as part of repaving
CTDOT	Open up design manual revision process
CTDOT	Set aside HSIP funds for bicycle and pedestrian projects
CTDOT	Make safety funding available to non profits
CTDOT	Launch coordinated share the road campaign
CTDOT	Allow bikes on trains
CTDOT	Create district points of contact
CTDOT	Provide critical links
CTDOT	Complete streets circuit rider
CTDOT	Complete streets demonstrations
DMV	Launch a coordinated share-the-road campaign
DMV	Enhance driver education
DMV	Keep drivers manual up to date
DESPP	Launch a coordinated share-the-road campaign
DESPP	Increase traffic enforcement in areas with high volume of nonmotorists
DESPP	Regular training for officers in bike/ped law
Department of Ed.	Consider walkability of site when approving new schools
Department of Ed.	Participate in Safe Routes to Schools Program
Department of Ed.	Promote statewide bike safety education program
Municipalities	Adopt and implement complete streets
Municipalities	Evaluate snow and ice removal policies
Municipalities	Take advantage of training opportunities
Municipalities	Coordinate state maintenance with local complete streets interests
Regions	Adopt complete streets policies
Regions	Coordinate state maintenance with local complete streets interests
Regions	Develop bicycle and pedestrian plans
Regions	Tap into local stakeholder expertise
Regions	Create a rapid response capability
Regions	Update regional bike routes
Regions	Develop staff expertise
The Board	Monitor action on complete streets
The Board	Examine vulnerable user protections
The Board	Support bike share
The Board	Monitor proposed legislation
The Board	Monitor OSTA process
The Board	Educate the public about our work