VI. Bicycle and Pedestrian Facilities

Existing and Programmed Bicycle and Pedestrian Facilities

Since the passage of the Intermodal Surface Transportation Efficiency Act in 1991 there has been an increase statewide in the percentage of funding that is allocated to bicycle and pedestrian facilities. This priority has continued with the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) in 2005, This increase in funding is described further in Chapter VIII. This new national focus, combined with a strong local constituency, has put what were previously merely ideas for facilities, on the ground. Such facilities include the Farmington Canal Heritage Trail , the Airline Trail in the Windham area, the statewide East Coast Greenway, and more recently the Shoreline East Greenway. Like most bicycle and pedestrian facilities nationwide, Connecticut's facilities are often constructed in phases and only partially complete, with the completion of the facility dependent upon availability of funding. The DEP's CT Recreational Trails Plan includes information on the trail system, priority projects, and an overall listing of the available greenway and trails maps.

The chief parameters which determine the significance of a bicycle facility to the state's overall non-motorized infrastructure network are length and accessibility. The bicycle and pedestrian facilities that are considered to have statewide significance are displayed in Figure 6.

The State Transportation Improvement Program (STIP) is a five-year program that lists the transportation-related projects that are expected receive all federal and state transportation funds in Connecticut. There are also a number of projects that are included for funding in the 2007 STIP. The list is updated on a monthly basis and can be accessed at http://www.ct.gov/dot/lib/dot/documents/dpolicy/stip/2007stipprojects.pdf.

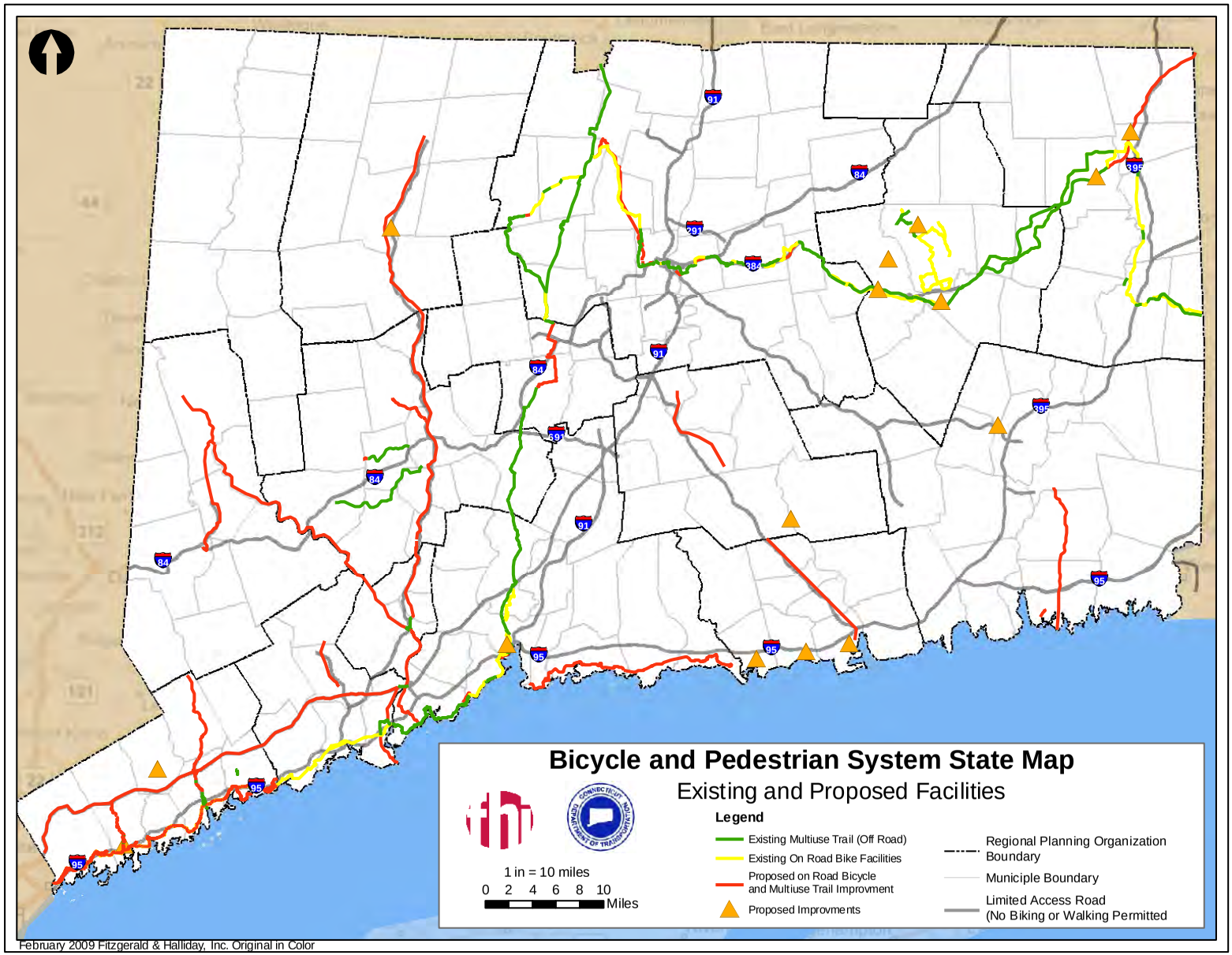
Regional Bicycle and Pedestrian Plans

All RPO transportation plans specify bicycle and pedestrian improvements that are desired by the RPOs. In addition, representatives of each region have identified their most critical needs for bicycle and pedestrian impro vements during the outreach process associated with the development of this plan. Many of the desired improvements are regional or statewide. For example, a number of RPOs cite a cross-state, multi-use trail network as their most desired improvement. This section lists the top bicycle and pedestrian improvements for each region. These improvements are considered items of statewide significance and are included in Figures 6 and Appendix J and described below.

CCRPA

- Complete the Farmington Canal Heritage Trail and East Coast Greenway in Burlington, Plainville, and Southington.
- Develop and designate a local bicycle/multi-use network in the region and connect it to networks in adjoining regions.
- Study the potential of a cross-region trail linking urban centers with current and future greenways and multiuse trails.
- Support and implement complete/livable streets and streetscape improvement policies and projects.
- Incorporate pedestrians and cyclists into transportation planning and ensure

Figure 6: Bicycle and Pedestrian System State Map



that, whenever appropriate and possible, transportation projects benefit them.

COGCNV

Complete the Naugatuck River Greenway. So far, only walking paths in Naugatuck and Beacon Falls, have been constructed along the proposed alignment. There is $4 million allocated for the construction of future sections in Waterbury. Portions of the greenway may be on-road or for walking only.

- Design and build Steele Brook greenway in Watertown with a future connection to the Naugatuck River Greenway.

- Complete Middlebury Greenway / Trolley Line extension to Woodbury.

- Extend Farmington Canal Heritage Trail in Cheshire to Southington town line.

- Complete various pedestrian improvements in community centers, including a pedestrian connection between Brass Mill Center and Downtown, as well as a connection to the intermodal center.

- Improve bicycle facilities and integration with transit, including bicycle parking at train stations, in community centers, and other key locations.

CRCOG

- Complete the Farmington Canal Heritage Trail through the region. From Farmington north to the Massachusetts border, the trail should be complete by the end of 2009. Design and construction are needed for the segment from Meadow Road in Farmington south to the Plainville town line.

- Complete the East Coast Greenway in the Region. Several segments require completion: short segment of the Hop River Trail in Andover (drainage, grading, placing stone dust); Charter Oak Greenway link from Hop River trail in Bolton to current terminus in Manchester (some design work is complete, some construction funding is in place); Charter Oak Greenway from current terminus in East Hartford to downtown Hartford (some design work is complete, some construction funding is in place); link from Hartford to the Farmington Canal Heritage Trail , utilizing the North Branch of the Park River corridor, the Griffin rail corridor, and a Tariffville connector Trail, to link with the proposed canal trail in Simsbury (design and construction needed).

- Complete the Farmington River trail link between Farmington and the Route 4 underpass and the Burlington town line. This will enable cyclists to avoid Route 4, and make use of the bike path underpass of Route 4.

- The region has identified an on road bicycle network in its latest Pedestrian/ Bicycle Plan. Improvements to this network are needed to insure bikeability throughout the region.

- Pedestrian improvements are needed throughout the region, with particular needs on busy commercial arterials (Berlin Turnpike, Route 75 near the airport, Day Hill Road, Route 44).

CRERPA

- Study and construct a north-south bike route that will connect areas within the region and connect the region to Hartford. This agency will consider both on-road and/or off-road facilities.

- Improve pedestrian and bicycle routes between towns and improve access to transit.

- Expand and enhance the crosswalks in the region.

GBRPA

- Complete the Housatonic Railroad Trail (also known as the Pequonnock Valley Greenway) from downtown Bridgeport to the Monroe-Newtown town line by constructing the approximate five mile section from the Pequonnock Valley in Trumbull to the end of the Berkshire Spur Trail in Bridgeport.

- Develop the Housatonic River Greenway in Stratford from Stratford Point to Roosevelt Forest, with connections to Milford over the Sikorsky Memorial Bridge (Merritt Parkway).

- Install and provide user amenities along the trail network, including route and mileage markers, information kiosks and rest areas.

- Conduct a feasibility study for a Merritt Parkway Trail.

- Designate a regional on-road bicycle route network.

- Implement a comprehensive pedestrian safety program that repairs and maintains all pedestrian facilities (crosswalks, sidewalks, pedestrian signals, signs) in a state of good repair, installs pedestrian actuated controls with countdown indicators and audible warnings, and provides good and accessible pedestrian access and paths to and from transit stops.

HVCEO

- Complete the Still River Multiuse Trail, in Danbury, Brookfield, and New Milford. Some sections have been constructed, and much of the remainder of the trail has been funded, however, a few of gaps remain.

- Complete the Housatonic Valley River Trail, a proposed multi-use trail along the Housatonic River, that would be aligned parallel to a canoe/kayak trail.

- Erect signs along bike routes that are marked on the Statewide Bicycle Map.

- Improve pedestrian access around town centers.

LHCEO

- Widen state road shoulders to four feet where possible while repaving or restriping state roads.

- Provide pedestrian enhancements in Torrington. The city needs additional and wider sidewalks, traffic calming, etc.

- Complete the Naugatuck River Greenway, including pedestrian improvements from Stillwater Pond to Thomaston Dam. A study was recently completed from Stillwater Pond to Route 118.

- Harwinton has proposed a pedestrian trail south of Route 118 along east side of Naugatuck River.

- Complete a rail trail from Torrington to Winsted.

- Complete a rail trail from Litchfield to Bantam. This project had funding allocated in the 1990s, though right-of-way issues has halted the process.

Midstate RPA

- Study and complete a bicycle connection between Middletown and Cromwell along Route 9 and the Connecticut River. This route could connect, or be a part of, the

future cross state route from Hartford Old Saybrook.

- Construct a sidewalk for bicycles and pedestrians on the East Haddam – Haddam Bridge.

Northeastern CT Council of Governments

- Complete the East Coast Greenway in the region (Moosup Valley Trail to Quinebaug River Trail to Airline Trail North).
- Construct the proposed trailhead kiosk / visitor's center at Route 169 and Airline Trail North. This would improve pedestrian crossing of Route 169.
- Complete the existing rail trail that extends south from Massachusetts into Thompson.
- Close the gap between the Airline North and the Thompson section of Airline Trail.
- Complete the Quinebaug Trail north of Putnam towards Webster, MA.
- Complete pedestrian improvements in Putnam.
- Improve signage to various destinations and to trails, including better on- and off-road signage.

Northwestern CT Council of Governments

- Sign bike routes that are marked on the Statewide Bicycle Map.
- Improve pedestrian mobility and circulation in the village centers (Cornwall, Canaan, Salisbury, Kent, Sharon, etc.). Sidewalk construction and traffic calming are necessary measures on state roads in the village centers.

SCRCOG

- Consider designating Route 34 as a regional bicycle connector.
- Complete the Shoreline Greenway Trail. There are local, state, and federal funds allocated for route identification and design.
- Complete the East Coast Greenway. Currently in early planning stages to determine a contiguous off-road route that connects into the Farmington Canal Heritage Trail .
- Complete the Farmington Canal Heritage Trail connection in New Haven to Union Station and Long Wharf. This project is currently in final planning stages.
- Complete bicycle and pedestrian improvements around Union Station, in New Haven.

SCCOG

- Construct the proposed mixed-use bicycle and pedestrian facility in the proposed Route 11 right-of-way.
- Complete a Route 117 multi-use facility from Bluff Point in Groton to Preston.
- Complete the Thomas Road bike lane in Groton (near airport).
- Reconstruct the Old Route 32 Bridge across the Yantic River in Yantic (either as a pedestrian bridge or as an STC requirement for redevelopment of the area). This would provide a connection across the Route 2/32 interchange.
- Improve signage and striping necessary for on-road bicycling.

SWRPA

- Complete the Merritt Parkway Trail. The demonstration trail between CT 137 (High Ridge Road) and Newfield Avenue is the top priority.

- Complete the Norwalk River Valley Trail to the Norwalk/Wilton town line. One section has been completed from the Maritime Center to Union Park in Norwalk. It would intersect the Merritt Parkway Trail at the rebuilt Route 7/Route 15 interchange. This interchange is being reconstructed by CTDOT in order to provide an expressway connection between the two highways, and, if possible to improve bicycle and pedestrian access to intersecting trails. The trail has the support of the City of Norwalk.

- Complete the SWRPA Regional Bicycle and Pedestrian Plan.

- Develop a regional marked route system. Identify and sign three east-west bicycle routes: 1) East Coast Greenway on-road and Route 1 (major surface route through densely populated area with many destinations), 2) Merritt Parkway Trail, and 3) one on-road route further north from Weston to Greenwich. Identify and sign north-south bicycle routes: 1) Route 7 and/or Route 53, 2) Route 137 and/or Route 104, and 3) Route 106.

- Improve bicycle and pedestrian access and integration with transit. This includes sidewalks, bike routes markings to and around various stations; bicycle parking at all train stations, etc.

- Improve bicycle and pedestrian safety on Route 1 through markings and delineations or other measures.

- Develop a policy to narrow the lanes when re-striping to slow traffic and provide a safer place for bicycle and pedestrians. Apply this policy to certain classifications (such as minor arterials or collectors), considered as “context-sensitive design”.

- Implement sharrows and bike boxes.

- Complete the Mill River corridor in Stamford, extending up Route 137 with bike lanes or shoulders.

- Complete a pedestrian connection between South End of Stamford / Stamford Station and the Mill River / Downtown area.

- Improve pedestrian mobility, through more sidewalk development (e.g. New Canaan).

- Complete the East-West Path as proposed in the Town of Greenwich’s Bicycle Master Plan.

VCOG

- Consider designating Route 34 as a regional east – west bicycle connector, connecting Derby to New Haven.

- Complete the Naugatuck River Greenway – Derby, Ansonia, Seymour (connection to Beacon Falls, and COGCNV).

- Complete the Housatonic River Greenway – west side in Shelton (connection to Stratford, GBRPA), east side in Derby (connection to Orange, SCRCOG).

WINCOG

- Complete Airline Trail through Lebanon and link it to Charter Oak Greenway.

- Complete trail connection between the Hop River Trail in Columbia and Airline Trail in Willimantic.
- Complete walkway/streetscape improvements within and adjacent to Storrs Center Project.
- Complete Coventry Town Center connecting streetscapes.
- Complete resurfacing of EastCoast Greenway Trail in Coventry, Columbia, Chaplin and Hampton.
- Complete bicycle and pedestrian improvements in Willimantic.

Statewide Bicycle Network

As part of the Plan and Map update process, the Steering Committee and CTDOT identified a series of cross-state bicycle routes. These roadways are direct routes that can be used to travel across longer distances across and through the state. Roadways are assigned even numbers if they generally travel east-to-west and odd numbers if they generally travel north-to-south. Figure 7 identifies the suggested cross state routes in Connecticut. Appendix K includes turn-by-turn directions for cross-state routes.

The Steering Committee and CTDOT suggest potential state bicycle routes. It is important to note that many of these routes could benefit from additional improvements such as shoulder widening, addition of bicycle lanes, and signage. As identified in the 2009 Statewide Bicycle Map, many segments on these routes have less suitable classifications, based on shoulder width and Average Daily Traffic (ADT). ADT is defined as the average number of vehicles passing a specific point, in both directions, in a 24-hour period. The designation of official state bicycle routes is an important step towards improving safety and mobility for cyclists. Such routes, when designated, should be prioritized for improvements.

Connecticut Bicycle Map

CTDOT collaborated with the Steering Committee assigned to assist with development of this plan, to institute numerous changes to the way information is displayed on the new Statewide Bicycle Map. The 2003 map included recommended routes, cross state routes, loop rides, and routes not recommended for cyclists. However, no detailed information regarding the criteria used to select and designate these routes was available. As a result, map users could gain little insight into the data reviewed or the decision-making beyond those designations.

In the 2009 Statewide Bicycle Map, CTDOT determined to show more information regarding state roadways. A system was adopted assigning each segment of state roadway one of five classifications, called bicycle suitability, based on ADT (Average Daily Traffic) and shoulder width. Generally, the suitability increases with wider shoulders, and lower traffic volumes. Presenting roadway information this way, rather than assigning recommended routes, allows each individual map user to select a route which is suited to his or her particular bicycling preferences and comfort level. Tables 15 through 17 display the suitability matrix and the breakdown of roads in each classification.

Table 15: Roadway Suitability Matrix

	Shoulder Width (ft)			
ADT	**0**	**1-3**	**3-6**	**>6**
<2,500	A1	A2	A3	A4
2,500 to 5,000	B1	B2	B3	B4
5,000 to 7,5000	C1	C2	C3	C4
7,500 to 10,000	D1	D2	D3	D4
>10,000	E1	E2	E3	E4

ADT: average daily traffic volume on a roadway per day.

Suitability review of state roadways:
Number of miles.

Table 16: Miles of Roadway per Category

	Shoulder Width (ft)			
ADT	**<2**	**2 - 3**	**3 - 6**	**>6**
<2,500	**210.7**	303.0	46.5	17.0
2,500 to 5,000	**155.1**	354.8	67.6	52.7
5,000 to 7,5000	**82.8**	287.3	90.4	57.1
7,500 to 10,000	**36.8**	210.2	94.5	75.1
>10,000	**176.2**	790.4	290.7	342.4

Table 17: Summary Miles per Class

Class	Miles
Less suitable	661.5
	1,287.9
	740.0
	803.4
More suitable	248.2

Information regarding the 2009 Statewide Bicycle Map can be obtained by contacting the CTDOT Bicycle and Pedestrian Coordinator at via www.ctbikeped.org.

Recommendations

These recommendations are selected implementation options from Chapter III. These implementation options are specific courses of action that CTDOT and others can take to achieve more bicycle- and pedestrian-friendly facilities. All of the goals in the Plan have implementation options that are facilities related. However, Goals 1, 2, 3, and 7 have the largest concentration of facilities related implementation options.

Any number and /or combination of the listed implementation options could be utilized. This list is not all inclusive, as other mechanisms not listed may be used to achieve more bicycle- and pedestrian-friendly facilities, and thus move towards the overall vision of the Plan. Some recommended implementation options include:

1. Conduct an inventory of all bicycle facilities – CTDOT should conduct a regular inventory of all bicycle facilities, including signage, bike lanes, and bicycle racks. This can be done through local and regional coordination as well as site visits, as needed.

2. Designate overall network – Once CTDOT has an inventory of all bicycle facilities, they can determine which routes should be designated in a statewide bicycle network. The first step of identifying an overall network has begun in this Plan through the designation of the cross state routes.

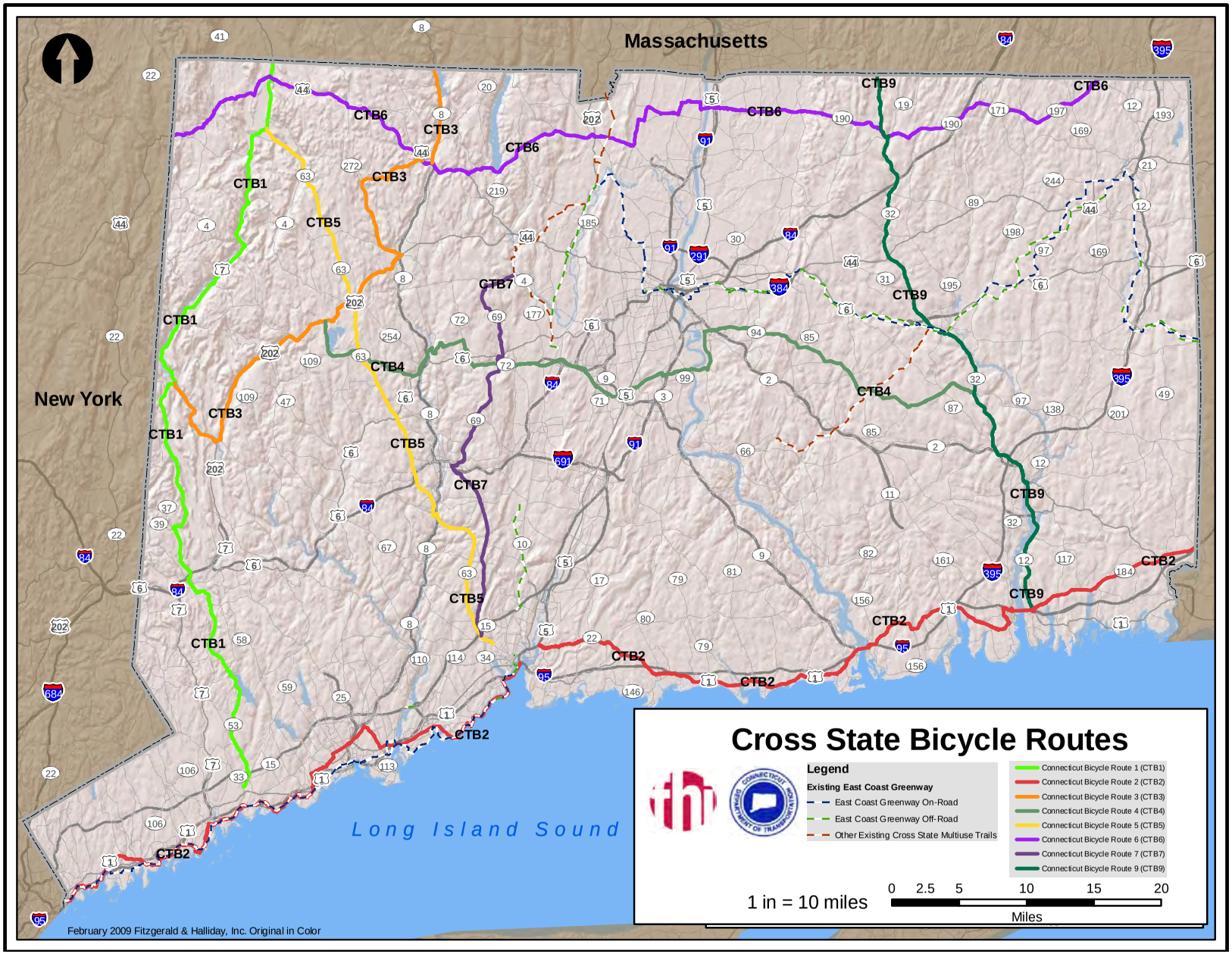
3. Develop statewide route network plan – This will include the identification missing links between network facilities and prioritizing them for improvements and expand state routes to link additional on-road and off-road multi-use facilities.

4. Provide signage on network – On-street signage should be installed on the overall network."

5. Conduct regular route field reviews – Regular field reviews, or site inventories, should be completed to ensure that routes are well maintained for bicycle use.

6. Establish on-line, interactive resource for most current Bike Map and bicycle and pedestrian related amenities, programs, etc. – This should be a permanent webpage linked to CTDOT's website. It should include the "Report an Issue" page described in the Chapter VII recommendations.

Figure 7: Cross State Bicycle Routes



Trial Guide, Farmington to Suffield, CT

The Farmington Canal Heritage Trail & Farmington River Trail Guide, released in December 2008, by the Farmington Valley Trails Council, is a spiral bound, 22-page guide with 11 fold-out maps for the Farmington Canal Heritage Trail and the Farmington River Trail. The guide includes trail information similar to their folding trail map, but adding more mapping detail, historic and cultural information, lodging, food and useful commercial sites for visitors to the trail system.

The production of the guide was a multi-agency effort. A number of different groups came together to utilize their existing knowledge and resources to reduce the cost of producing the guide. The Farmington Valley Trail Council provided the base data, much of which was in their existing folding maps, in addition to the written text and photographs for the guide. The Simsbury Main Street Partnership applied for the funding for graphic design and printing of the first 4,000 copies of the guide through a Preserve America grant, for which Simsbury was eligible because of its status as a Main Street Partnership town. The Farmington Valley Visitors Association handled the coordination of the proposal/bid development to develop the maps and other content of the guide.

Because of the efforts of the various groups, the production and printing of the first 4,000 copies amounted to $30,000. Distribution of these free guides began in early spring 2009. Beginning in summer 2011, after the initial 4,000 copies are distributed, the guide can be printed and sold with the assistance of paid advertisements. The guide is the first of its kind to be produced in this manner in New England. For more information, please contact Farmington Valley Trail Council President Bruce Donald at rbd14@comcast.net.

7. Conduct site audit at state owned intermodal and Park & Ride facilities – A site audit, during active working hours, will allow CTDOT to identify area that merit bicycle and pedestrian improvements. A site audit can best show if there is inadequate parking or unsafe conditions. Are pedestrians congregating in unsafe areas? Are bicycles being locked to signs, illustrating the need for more storage? Or are there so few pedestrians and bicyclists that could moving the storage facilities to another location makes sense?

8. Increase signage of bicycle and pedestrian amenities at intermodal and Park & Ride facilities - Any additional amenities can make multimodal travel easier and more seamless.

9. Continue to assess modal split options and opportunities to encourage bicycle and pedestrian trip credits during STC review -– CTDOT should encourage the STC to address pedestrian and bicycle access and egress as well as bicycle storage opportunities in their certification process. This can assist in encouraging pedestrian and bicycle connections between neighborhoods, commercial areas, employment centers, schools, state and municipal parks.