

# **Downtown Technical Assistance Report**

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## **City of Northampton**

**June 1999**



**Prepared by the  
Massachusetts Downtown Initiative  
Department of Housing & Community Development**

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## **Purpose of the Downtown Technical Assistance Program and Report**

The Commonwealth of Massachusetts, through the Department of Housing and Community Development's Massachusetts Downtown Initiative (MDI), provides technical assistance to communities focusing on downtown revitalization. The primary mission of the MDI is to make downtown revitalization an integral part of community development in cities and towns across the Commonwealth.

Through the provision of a Downtown Technical Assistance Program, MDI is able to provide communities with an on-site technical assistance visit and a written feedback report which includes responses, recommendations and additional assistance options.

In January 1999, 26 communities applied to the Downtown Technical Assistance Program. The following 11 communities were chosen by a lottery to receive a technical assistance site visit:

- Acushnet
- Adams
- Amesbury
- Amherst
- Bourne
- Easthampton
- Harwich
- Medfield
- Monson
- New Bedford
- Northampton

Based on each community's request for assistance with a particular topic, a team with relevant expertise conducted a one-day site visit. The visit included facilitated meetings with downtown stakeholders and community representatives, as well as a tour of the downtown area. Information gathered during the course of the day formed the basis of the Downtown Technical Assistance Report submitted to the community.

The purpose of the Downtown Technical Assistance Report is to describe downtown needs reviewed during the site visit and to provide information and recommendations addressing them. Within the report, the main needs and how they relate to an overall revitalization strategy for the community are discussed, followed by recommendations, responses, and follow-up options.

The Downtown Technical Assistance Report reflects MDI's guiding principle that the most effective approach to downtown revitalization is a holistic one; one which addresses economic and community development needs, and provides a framework of interrelated activities which promote positive, desirable change in a downtown to keep it healthy and prosperous.



## **Seven Building Blocks of Successful Downtown Revitalization**

Successful downtown revitalization is comprehensive and includes a well-balanced community strategy composed of seven downtown building blocks:

- **Encouraging Community Involvement & Ownership**
- **Preserving & Enhancing Downtown Character**
- **Ensuring Economic Vitality**
- **Promoting Downtown Assets**
- **Getting Into & Around Downtown**
- **Living Downtown**
- **Keeping Downtown Safe**

Each of these building blocks includes many interrelated elements that support a cohesive downtown revitalization effort. In the following section, the major downtown needs identified by the community are presented in relation to these building blocks, including a brief description of what those elements are.

# Site Visit Overview and Identification of Downtown Needs

## Background

The City of Northampton is an advanced community in terms of downtown development. Revitalization activities have been going on for two decades, and the commercial center has evolved into a mecca of restaurants, specialty retail shops, and entertainment venues for the Pioneer Valley and Hampshire County. The downtown area is 79 acres at the convergence of Routes 9, 66, and 10. The major streets included are Pleasant Street, Main Street, South Street, West Street, Bridge Street, and North Elm Street. The primary commercial and civic section is along Main Street with City Hall at the west end and a new bike and walking path over Bridge Street at the east end.

Northampton has accomplished much in its history of revitalization. Pedestrian friendliness has been greatly enhanced, it is visually attractive, and most importantly, much of its economic vitality has been restored. As identified in the application for technical assistance, however, the downtown still requires assistance with traffic and parking, maintenance, safety, aesthetics, infrastructure and streetscape improvements, support for businesses, and affordable housing. Specifically, parking and congestion were named as major concerns. Two recent plans, the 1995 strategic plan and the 1997 parking study, each recommended the promotion of alternative forms of transportation to alleviate congestion.

To this end, Northampton is incorporating biking into its downtown circulation scheme. The City has worked with regional entities to put bike racks on buses, will be installing bike racks on sidewalks in the downtown, and is working with the state and regional agencies to plan for a new bike path adjacent to downtown. The goal of the DHCD site visit was to add another perspective to the City's plans for bicycles. DHCD was asked to identify gaps in plans and activities, assist with research on topics such as bike lanes and traffic calming, identify state policies applying to maintenance of bike lanes and paths, identify resources for encouragement and educational measures, and provide additional information on how the downtown can become more bike friendly.

Attendees at the meeting included representatives from the Pioneer Valley chapter of MassBike, the Pioneer Valley Planning Commission, the Pioneer Valley Transit Authority, the Mayor's office, the City Council, the Department of Public Works, and the Planning Department. Though the group was small, it was the first time everyone had met together to discuss bicycles comprehensively. The main theme of the visit was the desire of the City to promote biking as a means of getting into downtown. An additional theme was the desire not to do a separate, formal plan for biking but instead to integrate biking into its existing plans and activities. A final

theme was the importance of automobile parking relative to the importance of bike facilities.

Underlying all these themes is the fact that Northampton has begun the process of incorporating bikes without formally organizing around the topic. Individual projects are planned, but there is little group consensus on what needs to be done next or how each piece fits into the whole. The efficacy of forming a bike advisory committee was raised at the conclusion of the site visit. Due to the importance of establishing organizational capacity to manage the City's efforts, this subject is covered in some detail within this report.

## **Downtown Building Block**

### **Getting Into & Around Downtown**

Biking is an increasingly popular form of transportation, and Northampton readily recognizes its need to make downtown more friendly to cyclists. Biking is less space-intensive than driving, it is cleaner and cheaper than driving, and there is public demand for it.

Biking is also an important component of getting into and around downtown which complements mass transit, driving, and walking. The City's traffic management strategy must address the complementary nature of each form of transportation -- ultimately, every person becomes a pedestrian and one person may use two or three types of transportation to reach his destination. The strategy also must address the potential conflicts between cars, bikes, and pedestrians while providing adequate facilities for each type of transportation. Providing for biking also helps define the character of the downtown overall. Incorporating bikes means slowing traffic which in turn provides a safer, more attractive environment for pedestrians.

Getting Into & Around Downtown is a basic building block of downtown revitalization. Essentially, it involves effective traffic management, crucial to the success of any downtown. While most downtown stakeholders are eager to see their city centers grow and prosper, increased traffic volume often leads to unwelcome congestion and a less than inviting environment to pedestrians as well as cyclists, without careful planning. A well-balanced downtown traffic management program can provide practical solutions for communities who want their downtown to be friendly to pedestrians and bicyclists, as well as to motorists.

The benefits of such a program, once established, are many and include:

- Increased safety for drivers, cyclists, and pedestrians
- Less traffic and cut-through traffic
- Reduced noise and air pollution
- Enhanced streetscape and visual quality

Key to an effective traffic management program is the deployment of one or many traffic calming measures. These measures may include: active controls such as traffic lane narrowing, diagonal diverters, or creating changes in the road surface which force drivers to slow down; or passive controls like improved traffic signs, pavement markings and yellow flashing pedestrian signs at crossings. Well-executed streetscape improvements such as brick-paved strips, street trees, pedestrian-oriented street lighting, bicycle lanes, and narrowed vehicular traffic lanes also play an important role in traffic calming and in reminding motorists that they share space with pedestrians and cyclists.



## Summary of Downtown Needs

There were eight key downtown needs identified during the site visit and each need has one or more requests made by the City. Each request is addressed with a response and/or recommendation in the report.

- 1. Encouragement Measures, Education Programs, and Publicity**  
Northampton would like DHCD to provide examples and ideas on these topics.
- 2. Connecting Schools and Other Destinations to Bike Path**  
The City needs to make programmatic and physical links between various destinations and the bike path. They asked DHCD to provide examples and ideas.
- 3. Massachusetts Highway Department Policies**  
Information is needed on particular policies including lighting on bridges, snow removal and treatment, and practical implementation of the requirement to include bike lanes on state roads.
- 4. Bike Lanes**  
The City asked DHCD to summarize the debate on bike lanes, provide examples of what other communities have done, and provide references to more information and resources.
- 5. Traffic Calming**  
The request is to summarize the debate on traffic calming and provide references and resources for more information.
- 6. Maintenance of the Bike Path**  
Specifically, the City asked for assistance in changing the Chapter 90 formula so that the bike path can be incorporated as a city street and funds can be used for maintenance.
- 7. Current Plans and Actions**  
The City asked DHCD to identify gaps in current plans, including location of bike racks, bike parking in general, traffic calming, and links of bike path to downtown.
- 8. Bike Committee**  
The City asked for recommendations on revamping an existing rails-to-trails committee into a broader bike advisory committee.



## Recommendations and Responses

The following information is offered to assist the City of Northampton in making their downtown friendly for bikes. Additional information is included in the appendices.

### **Downtown Need 1. Encouragement Measures, Education Programs, and Publicity**

There is a need to develop incentives for biking, programs for adult and child safety, and campaigns to encourage biking.

#### **Recommendation**

#### **Establish a dedicated account, like an enterprise fund, to provide continuous funding for bike programs.**

The benefit of using an enterprise fund or similar is that revenue does not have to be supplied by the City's budget. Given Northampton's hesitancy to jump into funding of a full-scale bicycle program, a dedicated fund from outside revenue would be ideal. The City can set it up, host a few events or classes which generate revenue, and put the money into additional programs and equipment. The other benefit of such an account is that there is a great deal of flexibility with revenue sources. They can include event fees, registration fees, enforcement fees, and retail sales (such as t-shirts and bike maps), among others.

#### **Request A**

Provide examples of incentives to biking that are not necessarily directly bike related. Provide examples and references from other communities.

#### **Response**

This task is an extensive one because it involves creative thinking about how a community can encourage biking. There are myriad solutions. An example raised at the site visit is to provide cash payment in lieu of parking passes for employees who bike to work. The best answer will involve knowledge of Northampton's existing policies, therefore, the task should be assigned to the new bike advisory committee (see Downtown Request 8). They will need to review the City's current policies and ordinances and research those of other communities.

## Recommendation

### Install storage lockers in the downtown.

One very easy way to encourage biking to the shopping audience is to provide coin-operated storage lockers in the downtown. This option was discussed at the site visit and the City appears to be open to the idea. Bicyclists will like the facility because they do not have a car in which to leave purchases while they continue to shop. The same is true of pedestrians.

## Resources

- For possible examples and methods of encouragement measures, contact the following:

Artery Business Committee Transportation Management Association  
Allison Simmons  
617-557-7322

City of Cambridge  
Cara Seiderman, Transportation Program Manager  
617-349-4629  
Kathy Watkins, Traffic Calming Project Manager  
617-349-4655

- For publications on promotional measures, including *What Needs to be Done to Promote Bicycling and Walking* and *Analysis of Successful Provincial, State, and Local Bicycle and Pedestrian Programs in Canada and the U.S.*, contact:

The National Bicycle and Pedestrian Clearinghouse  
1506 21st Street, NW  
Suite 210  
Washington, DC 20036  
800-760-6272  
fax: 202-463-6625  
nbpc@access.digex.net

- For examples of successful programs from the *Oregon Bicycle and Pedestrian Plan*, contact:

Oregon Bicycle and Pedestrian Program  
Room 210 Transportation Building  
Salem, OR 97310  
503-986-3555  
fax: 503-986-3896  
michael.p.ronkin@state.or.us



- For leaflets on a local bicycle program, contact:

City of Eugene Public Works/Transportation  
858 Pearl Street  
Eugene, OR 97401  
503-687-5298  
fax: 503-683-6826

## **Request B**

Provide references for safety and education programs for children and adults.

## **Recommendation**

### **Devote a segment of the Mayor's cable television show to bicycling.**

Having the Mayor use even a small portion of one show to promote biking would be an easy and free way to reach the public. Topics could include all forms of alternative transportation, with a focus on biking and what the City is doing to encourage it. Show video clips of the bus racks (available from Pioneer Valley Planning Commission) and bring in cyclists to discuss how and when they ride. Also discuss the bike paths and what the City's plans are for linking them to downtown.

## **Resources**

- For information on youth education programs, see Appendix A and contact:

Jim Carvalho, Teacher  
Rafael Hernandez School  
61 School Street  
Roxbury, MA  
617-635-8187

Get Out Spoke'n, An Earth Force Campaign to make America more bike friendly  
Earth Force  
1908 Mount Vernon Avenue, Second Fl.  
Alexandria, VA 22301  
703-299-9400  
fax: 703-299-9485  
getoutspoken@earthforce.org  
<http://www.earthforce.org>

- See Appendix A for *Bringing Bicycle Safety to the Schools*, an essay describing the elementary level safety and techniques.



- For information on *Effective Cycling* classes (adult, youth and instructor) contact:

MassBike/The Massachusetts Bicycle Coalition  
44 Bromfield St, Suite 207  
Boston MA 02108  
617-542-BIKE/2453  
fax: 617-542-6755  
bikeinfo@massbike.org  
<http://www.massbike.org>

or  
Paul Schimek  
617-494-3601  
schimek@volpe2.dot.gov

- For information including guidance on organizing events around National Bike Month contact:

League of American Bicyclists  
1612 K Street, NW, Suite 401  
Washington, DC 20006  
202-822-1333  
fax: 202-822-1334  
bikeleague@bikeleague.org

- For general safety brochures and information contact:

Governor's Highway Safety Bureau  
10 Park Plaza, Suite 5220  
Boston, MA 02116-3933  
617-973-8900  
fax: 617-973-8917  
Brook.Chipman@hsb.state.ma.us  
<http://www.state.ma.us>

National Highway Traffic Safety Administration  
400 7th Street SW  
Washington, DC 20590  
<http://www.nhtsa.dot.gov/people/injury/pedbimot/>

NHTSA Regional Office  
George A. Luciano  
Regional Administrator, NHTSA  
Volpe Transportation Systems Center  
Kendall Square, Code 903  
Cambridge, MA 02142



617-494-3427  
fax: 617-494-3646

- For safety research, including *Bicycle Safety-Related Research Synthesis*, contact:

The National Bicycle and Pedestrian Clearinghouse  
1506 21st Street, NW, Suite 210  
Washington, DC 20036  
800-760-6272  
fax: 202-463-6625  
nbpc@access.digex.net

### **Request C**

Provide examples and references for convincing encouragement campaigns.

### **Recommendation**

#### **Link to Pioneer Valley Planning Commission's Congestion Mitigation and Air Quality (CMAQ) project.**

Pioneer Valley Planning Commission (PVPC) has received a grant for work in the entire region, and they are looking for communities and local cyclists with which to partner. One possible project is Bike To Work Week. This project would involve events throughout 2000 and would start with a kick-off event in the spring. Other possibilities include publishing promotional and educational materials and sponsoring events other than Bike To Work.

### **Resources**

- To tie into PVPC's CMAQ, contact Jeff McCollough, 413-781-6045.
- Contact Transportation Alternatives, a New York City based organization devoted to making the city bike friendly. A sample of one of their campaigns is in Appendix B. The web site contains many other examples.  
115 West 30th Street, 12th Floor  
New York, NY, 10001  
212-629-8080  
fax: 212-629-8334  
info@transalt.org  
<http://www.transalt.org/campaigns>
- For information on the American Lung Association's campaigns, such as the Clean Air Challenge and Autumn Escape Bike Trek, contact:



American Lung Association of Western Massachusetts  
393 Maple Street  
Springfield, MA 01105  
413-737-3506  
fax: 413-737-3511  
<http://www.lungusa.org>  
Judy Deane - Clean Air Challenge  
Marie Sheedy - Autumn Escape Bike Trek

## **Request D**

Provide a list of good sample web sites devoted to biking.

### **Resources**

- Community sites:

<http://www.ci.cambridge.ma.us/~CDD/envirotrans/bicycle/index.html>  
useful information on state and city regulations, bike lanes, committee, safety, and parking

<http://www.fuzzylu.com/falmouth/bikeway/home.htm>  
simple page with description and history of The Shining Sea Bikeway, nice photos

<http://www.geocities.com/Yosemite/1357/>  
Los Angeles area bike paths, map, photos, and cyclists' comments

<http://www.ci.eugene.or.us/PW/bike/bikesite/default.htm>  
includes Frequently Asked Questions, map, projects, and news releases

- Other sites:

<http://www.self-propelled-city.com/employcomm.html>  
interesting site devoted to bicycle commuting; includes urban planning, bike advocacy, and commuter news

## **Request E**

Provide references for development of publicity for the bus racks and of a city biking and walking map.

## Resources

- Contact City of Cambridge for examples and methods.  
Cara Seiderman  
Transportation Program Manager  
617-349-4629
- For extensive resources, contact the Federal Highway Administration's National Bike & Pedestrian Information Center.  
web site: <http://www.fhwa.dot.gov/hep10/biped/biped.html>

### **Downtown Need 2. Connecting Schools and Other Destinations to Bike Paths**

There is a need for physical and programmatic links between the bike path and schools, downtown, and other establishments. Physical links include ramps, connection points, and signage. Programmatic links include events and outreach programs aimed at students and downtown customers who may use the bike path for access or recreation.

## Request

Provide examples from other communities of linkages. Provide references to resources and make recommendations when appropriate.

## Recommendation

### **Utilize the expertise of a consultant to develop links.**

The nature of this request is beyond the services DHCD can provide. It is complex and will involve studying the layout of the bike path and the location of the different destinations, among other things. There are grant programs which will pay for this kind of work, however, there are also programs which will provide technical assistance for free. In addition to taking advantage of grants, the City should consider budgeting an amount, which does not have to be large, for development of long term programmatic links. These links can be accomplished in conjunction with education programs and encouragement measures.

## Resources

- For possible free assistance with design and planning, try the National Park Service Rivers, Trails and Conservation Assistance Program.  
Charlie Tracy  
National Park Service  
15 State Street  
Boston, MA 02109  
617-223-5210  
fax: 617-223-5164
- For assistance from DEM, contact Danny O'Brien, Rails to Trails Planner, 617-727-3160 x 557.
- For grant programs, refer to DHCD's *Downtown Resources*, provided at the site visit.
- Contact the City of Worcester for examples and methods. They've been successful using enhancements money and doing thorough planning for bikeways. Alan Gordon, Planning Coordinator, 508-799-1400.
- The Transportation and Community and System Preservation (TCSP) Pilot program provides grants for exploring ways to make transportation more environmentally friendly. The program might be used to study and design a complete bike path network, including programs.

Edward Silva  
Federal Highway Administration  
617-494-2253  
edward.silva@fhwa.dot.gov

### **Downtown Request 3. Massachusetts Highway Department Policies**

Clarification of various highway policies is needed.

## Request

Provide information on the policies of MHD relating to snow removal, lighting on bridges, and practical implementation of the requirement for bicycle lanes on state highways.

## Recommendation





## Contact the MHD District 2 Director.

Per the recommendation of Josh Lehman, Bicycle & Pedestrian Coordinator for EOTC, the best way to get information is to talk directly to the District 2 Director. Policies of MHD vary from site to site and project to project. Contact John Hoey, 413-784-1805.

## Resources

- For the story of how one community accomplished the addition of a bike path on a repaved street, contact Joan Blaustein, Town of Watertown Bike Committee, 617-451-2770.

### **Downtown Need 4. Bike Lanes**

There is a need for basic information on the benefits of bike lanes.

## Request

Summarize the pros and cons of bike lanes. Address design standards and maintenance costs. Provide information on how other communities handle snow removal and treatment. Provide references for more information.

## Response

Though there is some interest in installing bike lanes in and around downtown, the City has concerns about location, design, and maintenance. Information is provided below and in Appendix C.

## Advantages

Bike lanes are a generally popular and increasingly utilized method to accommodate and promote bicycling. While there is documentation that bike lanes result in fewer accidents, studies on both sides of the issue have been criticized for not accounting for other contributing factors. For this reason, support for bike lanes tends to focus on their broad appeal and their enhanced sense of safety to many bicyclists, particularly inexperienced, would-be bicyclists who may not otherwise feel comfortable using the road. To the extent that most bicyclists and would-be bicyclists do feel more comfortable when bike lanes are provided, these facilities can encourage more bicycle use. Some studies have documented increased usage of

bikes on roadways where bike lanes have been installed. Guidelines by the Federal Highway Administration support this view, particularly in terms of urban areas with significant traffic volumes and/or speeds above 30 mph.

Another common argument on behalf of bike lanes is that they legitimize and advertise bicycling by creating obvious, bicycle-oriented infrastructure as well as a special bicycle space on the road. Although bicycles are treated as vehicles under the law and bicyclists are therefore afforded most of the same rights and responsibilities as automobile drivers, both groups are guilty of ignoring this fact. Advocates see bike lanes as a very direct means of communicating to a sometimes resistant automobile public that bicyclists are in fact legitimate road users who are not restricted to sidewalks (actually prohibited by state law in commercial districts), parks, and other areas that interfere less with automobiles.

From a safety perspective, bike lanes and the delineation they create have been purported to have a channeling effect on both cyclists and automobile drivers. The *Caltrans Highway Design Manual* claims that "bike lane stripes can increase bicyclists' confidence that motorists will not stray into their path of travel if they remain in the bike lane," and that, "with more certainty as to where bicyclists will be, passing motorists are less apt to swerve toward opposing traffic in making certain they will not hit bicyclists."<sup>1</sup>

## **Disadvantages**

The primary disadvantage of bike lanes is that they become problematic at intersections, where turns are made, because they encourage movements that are potentially dangerous and in conflict with normal traffic maneuvers. Where motorists are making right turns, most experienced cyclists will merge gradually into the full travel lane and allow the motorist to move to the far right as the driver prepares to turn. The way bike lanes have traditionally been designed, cyclists are encouraged to stay to the right where they could be lost in a turning driver's blind spot, creating the potential for a collision. Another problem can occur when a cyclist, following the designated route of a bike lane, wishes to make a left hand turn at an intersection and attempts to do this from the far-right rather than gradually merging left in adequate advance of the turn. Various alternative designs have been developed that use broken or dotted lines in the bike lane demarcation so as to allow for necessary cross-merging. Bike lane opponents seem generally unsatisfied with these alternative designs which they tend to feel are either ambiguous or unrealistic in terms of anticipating the demands of actual traffic conditions. Another response has simply been to end the bike lane demarcation in advance of intersections.

After intersections, another common argument against bike lanes is that when they are installed along on-street parking, as is often the case in urban areas, they encourage the bicyclist to ride too close to the parked cars. Though there seems to

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<sup>1</sup> *California Highway Design Manual*, California Department of Transportation, Sacramento, CA, 1987.

be little empirical data on this issue, many bicyclists perceive this to be one of the most common bicycle accidents. Bike lane advocates counter that this is not a problem if the adjacent parking lane is properly designed, that is, approximately 13' wide in order to account for the additional width of an open car door and some maneuvering space. Some bike lane designs (e.g., Hudson Street in Manhattan's West Village) have incorporated a striped buffer zone (approximately 18") between the bike lane and the adjacent travel lane to further comfort bicyclists trying to stay wide of car doors.

There are several arguments relating to awareness and education. One is that once bike lanes are installed, drivers will expect cyclists to be in them, even when for some reason this is impractical or unsafe. Another is that the edge of the road, where bike lanes are typically installed, tends to accumulate sometimes hazardous debris via the "sweeping" effect associated with the faster-moving automobile. A final one is that bike lanes may lend false confidence and encourage improper maneuvers that could simultaneously attract unqualified bicyclists and put them in danger.

### **Implementation/Maintenance**

In an effort to research some of the concerns that arose in regard to the implementation and maintenance of bike lanes, we spoke with Tom Huber, Bicycle and Pedestrian Coordinator for the Wisconsin Department of Transportation and Arthur Ross, Bicycle and Pedestrian Coordinator for the City of Madison.

Both Tom and Arthur felt that any added maintenance associated with on-road bicycle facilities was incidental in relation to overall maintenance costs. They acknowledged that this is not so much the case with respect to separated bike paths; however, in Wisconsin these too tend to be plowed and "de-iced" except on weekends. In addition, Tom did state that snow removal on bike lanes running adjacent to parked cars could be problematic. In this instance, the shoveling and plowing of snow tends to result in a ridge of snow that accumulates within the bike lane and is difficult to clear, particularly after freezing temperatures. Note that in Wisconsin, shoulders and bike lanes are regularly plowed with roads whereas in Massachusetts, shoulders are often used to store snow.

Both Tom and Arthur seemed to generally support the idea of bike lanes. Regarding design and implementation, Tom's remarks reinforced the importance of allowing enough width in adjacent parking lanes so that the opening of car doors will not pose a hazard to bike lane users. As for intersections, the City of Madison currently moves the bike lane in or to the left of right-turn-only lanes. Where there is no dedicated right-turn-only lane, the city will sometimes make the inside bike lane demarcation dotted or perhaps eliminate the bike lane markings 50-100' before an intersection.

Contacts: Tom Huber  
Bicycle and Pedestrian Coordinator



Wisconsin Department of Transportation  
4802 Sheboygan Avenue, PO Box 7913  
Madison, Wisconsin 53707-7913  
608-267-7757

Arthur Ross  
Bicycle and Pedestrian Coordinator  
City of Madison  
608-266-6225

## Resources

- For design information, including *Selecting Roadway Design Treatments to Accommodate Bicycles*, contact:

The National Bicycle and Pedestrian Clearinghouse  
1506 21st Street, NW, Suite 210  
Washington, DC 20036  
800-760-6272  
fax: 202-463-6625  
nbpc@access.digex.net

- For examples of costs and maintenance, contact:

Cara Seiderman  
Transportation Program Manager  
City of Cambridge, MA  
617-349-4629

- For paid assistance from a community with experience (up to 30 hours of work), such as design and maintenance advice and review of city plans:

Peer to Peer Program  
Department of Housing & Community Development  
Sandra Cummings  
One Congress Street, 10th Floor  
Boston, MA 02114  
617-727-7001 x 442

## **Downtown Need 5. Traffic Calming**

There is a need for basic information on the pros and cons of traffic calming.

### **Request**

Provide a summary of the pros and cons of traffic calming. Provide information on MHD's design standards. Provide references.

### **Response**

Traffic calming is the process of using various roadway, streetscape, or regulatory techniques to provide a safe environment for pedestrians, drivers, and bicyclists. The basic tenet of traffic calming is that reduced automobile speeds result in fewer and less serious accidents. Roadway methods are physical barriers or indicators such as speed bumps or humps, chicanes, narrow lane widths, traffic circles, and neck downs, among others. Streetscape methods include trees and beautification techniques, widening sidewalks, etc. Regulatory techniques include speed limits, yield signs, and enforcement of laws.

The Massachusetts Highway Department does not have design standards for traffic calming. For information on what Brookline has used, contact Bill Smith, City of Brookline, 617-264-6480, [Bill\\_Smith@brookline.mec.edu](mailto:Bill_Smith@brookline.mec.edu).

### **Advantages**

The advantages of traffic calming include increased safety for everyone, improved scenery, improved livability, reduced noise, reduced air pollution (with exceptions), increased street activities by non-motorists, and increased property values. Livability is the key factor since it incorporates all other advantages: the preferred street is one on which people, namely pedestrians, are safe, comfortable, healthy, and bustling.

### **Disadvantages**

The disadvantages of traffic calming include the expense of physical installations, liability by communities for accidents (explained below), increased air pollution (in certain instances), reduced mobility of emergency vehicles, obstacles for bicyclists and disabled pedestrians, and delays for drivers. Overall, the disadvantages of traffic calming vary by technique with speed bumps being the biggest culprit. For example, by Massachusetts law, a speed bump is classified as an obstacle in the roadway thereby making the community liable for any accident caused by the bump. Speed bumps are also the worst obstacle for bicyclists and the handicapped.

Speed bumps and raised crosswalks are also problems when it comes to air pollution because they force drivers to brake and accelerate abruptly.

The following is an alternative list of pros and cons taken from *Citizens Alliance for Liveable Municipalities, Wakefield Chapter*<sup>2</sup>:

The BENEFITS...include:

1. Increased Road Safety.
2. Increased comfort for non-motorized modes (reduced "Barrier Effect").
3. Increased non-motorized travel.
4. Environmental benefits (reduced noise and road dust).
5. Increased property values (which to a large degree reflect safety and environmental benefits so it is important to avoid double-counting).
6. Increased street activities.
7. Reduced automobile dependency (which has a variety of long-term environmental and social benefits).

The COSTS...include:

1. Project expenses.
2. Reduced mobility/increased travel time for motor vehicle users.
3. Increased traffic on other streets.
4. Delays to service and emergency vehicles.
5. Increased drivers' effort and frustration.
6. Problems for bicyclists and visually impaired pedestrians caused by some traffic calming measures (thanks to those who suggested these impacts).

Equity impacts can be evaluated in terms of the following categories of winners and losers:

Drivers	vs.	Non-Drivers
Residents	vs.	Non-Residents
Urban	vs.	Suburban
Residential	vs.	Commercial/Employment
Decentralized	vs.	Centralized Businesses

Author: Todd Litman, Director  
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Victoria, BC, V8V 3R7, Canada  
250-360-1560  
litman@islandnet.org

## Resources

- For San Francisco's experience with traffic calming, see Appendix D.

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<sup>2</sup> <http://ourworld.compuserve.com/homepages/kbarrett/refrneces.htm>

- For an overview:

*Traffic Calming, An Overview*

by Walter Kulash

Glatting Jackson Kercher Anglin Lopez Rinehart, Inc. Community Planning

33 East Pine Street

Orlando, FL 32801

407-843-6552

corporate@glatting.com

cost: free?

Walter Kulash is widely considered to be the foremost expert on traffic calming.

- For an overview and examples from the US and abroad:

*Slow Down, You're Going Too Fast: The Community Guide to Traffic Calming*

Public Technology, Inc.

1301 Pennsylvania Ave NW

Washington DC 20004

800-852-4934

[pti.nw.dc.us/task\\_forces/transportation/docs/trafcalm/TRAFCAGL.HTM](http://pti.nw.dc.us/task_forces/transportation/docs/trafcalm/TRAFCAGL.HTM)

cost: \$12 for government entities

PTI is the non-profit technology branch of the National League of Cities, the National Association of Counties, and the International City/County Management Association. Sample pages of the book are attached. Brookline, MA is included as an example.

- For design, rules of the road, and relevant state laws:

*Take Back Your Streets: How to Protect Communities from Asphalt and Traffic*

Conservation Law Foundation

62 Summer Street

Boston, MA 02110-1016

Attn: Publications Order

617-350-0990

cost: \$10

- For a good summary of the pros and cons of specific techniques:

[engineering.ci.charlottesville.va.us/trafficalming/trafcalm.html](http://engineering.ci.charlottesville.va.us/trafficalming/trafcalm.html)

or

Mike Fontaine

City of Charlottesville, Virginia

804-970-3238



## **Downtown Need 6. Maintenance of the Bike Path**

The City needs to dedicate funding for maintenance of the bike path and would like to gain an allocation of MGL Chapter 90 funds for this purpose.

### **Request**

Make a recommendation to the Legislature that the formula used in MGL Chapter 90 be changed so that the bike path can be accepted by Northampton as a city street. In this way, the City can use Chapter 90 funds for maintenance.

### **Response**

DHCD fully recognizes that communities are strapped by the formula under Chapter 90. Currently, Chapter 90 funds can be used for all public ways which includes bikeways, however, the amount of funding is based on only roadways, not all public ways. Communities have to prioritize their allocation of Chapter 90 funds, and it is unlikely a bike path would take priority over a road.

### **Recommendation**

#### **Talk to the MHD District 2 State Aid Engineer.**

He will be able to direct you as to why the formula does not include bikeways, the possibility of having the formula changed, and what impact the new Transportation Bond Bill will have. Call 413-784-1805.

## **Downtown Need 7. Current Plans and Actions**

There is a need for review of existing activities to determine if there are any gaps. Specifically mentioned at the site visit are: additional locations for bike racks, adding raised crosswalks, involving downtown merchants, funding bike programs, and getting to know the city's biking population.

### **Request A**

Provide input on the installation of a raised crosswalk at Pleasant Street.



## Response

The idea of a raised crosswalk was mentioned as a possible tool for general traffic calming as well as for improving conditions for pedestrians, bicyclists and other users along the portion of the Magle Downtown Walkway that intersects with Pleasant Street. The information provided below pertains to design and usefulness of raised crosswalks.

The Conservation Foundation's *City Routes, City Rights, Building Livable Neighborhoods and Environmental Justice by Fixing Transportation* highlights the use of raised crosswalks in a City of Cambridge traffic calming project along Berkshire and York streets. The description of the project notes that whereas, "before the improvements, only 41% of vehicles traveled within the 25 mph speed limit; afterward, a full 95% of vehicles were within the speed limit." As *City Routes, City Rights* goes on to explain, raised crosswalks not only signal to automobile drivers that they are approaching a shared space, what is effectively an extension of the sidewalk, but these devices actually force drivers to slow down. Other communities that have utilized raised crosswalks include Fort Lauderdale, FL; Berkeley, CA; Seattle, WA; and Portland, OR.

The following provides some basic information on raised crosswalks taken from the City of Portland Office of Transportation web site<sup>3</sup>:

**DESCRIPTION:**

Raised cross walks are cross walks constructed 3-4 inches above the elevation of the street. They typically have a profile similar to Portland's 22 foot speed bump, or larger.

**PURPOSE:**

Raised cross walks are intended to reduce vehicle speeds specifically where pedestrians will be crossing a street.

**EFFECTIVENESS:**

Raised cross walks are very effective at reducing vehicle speeds.

**COST:**

Raised cross walks cost approximately \$2,000-5,000 each.

**PARKING IMPACTS:**

None.

**TRANSIT SERVICE IMPACTS:**

Experience shows that raised cross walks should not impede transit service or scheduling.

**EMERGENCY SERVICES IMPACTS:**

Raised cross walks selected for a street must take into consideration whether it is use as an emergency response route. The Portland Fire

<sup>3</sup> [http://www/trans.ci.portland.or.us/Traffic\\_Management/Trafficcalming/DEVICES/Peds/RAISEDXW.HTM](http://www/trans.ci.portland.or.us/Traffic_Management/Trafficcalming/DEVICES/Peds/RAISEDXW.HTM)

Bureau reviews all raised cross walks that are proposed on their primary response routes.

**NOISE IMPACTS:**

Raised cross walks may generate noise from vehicle decelerating and accelerating.

**OTHER CONSIDERATIONS\*:**

Consideration for visually impaired persons dictates not placing the raised cross walk at the same elevation as the sidewalk. Though the crosswalk is raised from the street surface, a pedestrian should also be able to tell when they are entering an area shared with automobiles.

\*In Massachusetts, another consideration is snow removal. Talk to Cambridge to find out how they handle this issue.

**Resources**

- Contact City of Cambridge for their experience. They believe raised crosswalks are the only effective means of traffic calming. Cara Seiderman, 617-349-4629.

**Request B**

Provide input on bike parking facilities.

**Response**

Many communities have already increased the quantity and quality of bike parking facilities, and the City is encouraged to examine these various approaches to get the best possible results. An overview and reference information relating to key siting and design issues are provided here. Also provided is information on the development of zoning requirements to insure that new private development contributes to this effort.

**Parking Facility Design Guidelines**

- A good online source of information can be found via the City of Portland, Oregon Bicycle Program at:  
[http://www.trans.ci.portland.or.us/Traffic\\_Management/Bicycle\\_Program/parkguide.htm](http://www.trans.ci.portland.or.us/Traffic_Management/Bicycle_Program/parkguide.htm)
- The City of Cambridge Community Development Department hosts online request forms for bike rack installation. Refer to the web site at:  
<http://www.ci.cambridge.ma.us/~CDD/envirotrans/bicycle/racks/index.html>  
or contact:  
Joseph Barr  
617-349-4671  
[jbarr@ci.cambridge.ma.us](mailto:jbarr@ci.cambridge.ma.us)



## **Bicycle Parking Laws/Requirements**

An effective mechanism to improve bicycle parking is to implement a bicycle parking ordinance which ensures that new development shares responsibility for providing appropriate accommodations. Approximately 16 communities in Massachusetts, including Cambridge, Watertown, Brookline and Newton, now require bicycle parking in their zoning. The following is a description of the process for developing bicycle requirements along with some general guidelines that may be useful. This information was adapted from an article featured in a MassBike newsletter and written by Joan Blaustein, Chair of the Watertown Bicycle Committee.

For more information including sample ordinances from other communities and a comparison of bike parking ordinances in nine different cities, refer to:  
<http://www.massbike.org/lawlegis/parking.html>.

### **Process:**

- Bike Committee or other sponsors researches issues and reviews existing ordinances in similar communities.
- Sponsor drafts the ordinance.
- Sponsor works with appropriate departments and/or boards (e.g., the Planning Dept.) as well as the business community and other interested citizens/parties to refine the ordinance.
- Public hearing is held.
- Ordinance is recommended by the Planning Board.
- Ordinance is forwarded to the appropriate legislative body for approval.

### **Sample provisions/language:**

- Purpose of the existing ordinance adapted to include bicycle transportation as a means of lessening traffic congestion.
- One bicycle space for every 15 automobile spaces.
- Minimum of 4 spaces; maximum of 50.
- Inverted U frame racks required unless an alternative providing a comparable level of security and convenience approved by Zoning Board of Appeals.
- Recommendation/requirement that half of the spaces be provided as long term parking (*safe, secure from vandalism and protected from the elements*).
- Short term (customer or visitor) be visible and convenient to the building entrance.
- Shared bicycle parking facilities are allowed.
- The Board of Appeals may vary the requirements by Special Permit.
- Bicycle committee shall receive copies of all site plans.
- The circulation section of a site plan must consider the provision of adequate operating area for bicycles.

Questions or concerns may arise about the legal liability that bicycle parking might impose on business owners and the impact on business insurance. In Watertown, the Town Counsel's research confirmed that there is no case law in Massachusetts regarding lawsuits over bicycle parking and that the same standards of reasonable care would apply to bicycle parking as well as automobile parking.

Though requiring bicycle parking may be justified given existing requirements for automobiles, it may be important to emphasize the benefits of encouraging bicycle travel as a means of reducing traffic congestion. These arguments should be put in context with the development of related facilities/infrastructure, planned or existing, such as bike paths that, by creating a more favorable climate for cycling, will increase bike traffic. It may also be useful to provide photographs of bikes parked in front of businesses to illustrate that people are in fact doing errands by bike and that the de facto practice of parking bikes on sidewalks can create potentially dangerous or at least inconvenient situations for pedestrians and wheelchair users.

Lastly, it is important for the sponsors to have a good understanding of the basic information about costs, zoning procedures, liability, benefits. Sponsors should work closely with the appropriate Planning Department or Planning Board as these are the entities that will have to implement the ordinance on a day-to-day basis. The business community is likely to have concerns about cost and liability, and it is therefore recommended that this group be involved early on in the process. Input should also be sought from as many bicyclists and potential bicyclists as possible, so that attempts can be made to address the needs of the full range of users.

### **Request C**

Provide input on the location and placement of bike racks.

### **Recommendation A**

#### **Implement a trial project of placing bike racks in 1 or 2 diagonal parking spaces.**

The City should conduct a demonstration project of dedicating 1 or 2 diagonal car parking spaces on Main Street to bike racks for 1 month only. The purpose of the project will be to promote awareness of biking in the downtown, test out conditions for cyclists on that stretch of Main Street, educate drivers about the existence of biking in downtown, test out the demand for bicycle parking in a visible location, and test out the City's resolve to improve conditions for bicyclists.

Once the demonstration is over, Northampton will have better knowledge of how well used bike racks are, how well cyclists and drivers function together on the same stretch of road, and of how important visible, dedicated facilities are for bicycles.

Two caveats to this project: there may be a legal issue with the racks constituting objects in the road. Contact Josh Lehman, EOTC, at 617-973-7329 for more information. There may also be a need for parking regulation revisions and changes to ticketing procedures. Follow local procedures for regulatory changes.

## **Recommendation B**

### **Install bike racks in downtown parking garages.**

It was mentioned at the site visit that the City already plans to do so or has investigated how to do so. Covered bike racks are a favorite of cyclists, and the garages provide an ideal location and the benefit of having someone on duty at all times. Given that two additional garages are planned for construction, it is an excellent time to integrate bike parking with the plans. Installing racks in the existing garage and integrating them into future garages will get the City in the habit of handling bicycle facilities whenever automobile facilities are handled.

## **Resources**

- For funding through Transportation Demand Management:  
Pioneer Valley Planning Commission  
Jeff McCollough  
413-781-6045

## **Recommendation C**

### **Involve downtown merchants through an "Adopt-A-Rack" or similar program.**

As expressed at the site visit, the City is eager to monitor how well used the bike racks will be. One way to accomplish monitoring is to have merchants keep tabs on racks outside their doors. The benefit of this program is it saves City staff time and money. Another component of an "Adopt-A-Rack" program is that merchants may be convinced to purchase racks, especially if they do not have a rack and want one. The program can be furthered by involving them in posting bicycles promotional materials and announcements, sponsoring safety or educational events, donating food or gear to events, etc.

## **Request D**

Provide information on getting to know the downtown biking population.

## **Recommendation**

### **Have PVPC conduct a survey of downtown bicyclists and residents.**



Over the course of the site visit, it was apparent that city employees and bike advocates disagree over who is actually biking downtown. We recommend conducting a survey to see who would bike, when, and why. The purpose of the survey will be to determine the composition of your biking audience so that the City can design its facilities appropriately. Set goals for the survey, such as identifying the demand for bike lanes into downtown, identifying obstacles to biking, and identifying the events or destinations most frequented by bicyclists.

Once the survey is complete, the City can use the results to incorporate bike planning into its transportation programs, economic development projects, streetscape and design work, and promotional events.

## **Resources**

- For free assistance, get the project put on PVPC's Unified Work Plan. Contact Jeff McCollough, 413-781-6045.

### **Downtown Need 8. Bicycle Advisory Committee**

There is a need for an advisory committee dedicated to biking in the City and in the downtown specifically.

## **Request**

Make recommendations on how to revamp the existing Rails-to-Trails Committee into a broader Bicycle Advisory Committee.

## **Recommendation**

### **Convert the existing committee into a sanctioned, appointed Bike Advisory Committee.**

Although this topic only came up at the very end of the site visit and did not receive much attention from the group, it is apparent to DHCD staff that Northampton needs to put some organized manpower behind efforts to make downtown bike friendly.

Northampton has an existing Rails-to-Trails Committee which focuses on the bike path. Members on the committee are officials from two wards plus interested residents. According to Wayne Feiden, the City prefers to reinvent the existing committee rather than form a new one. A bike committee will be a positive step for

the City because it will assign responsibility for planning and programming to a designated group of people. It also will provide staff, albeit volunteer, to fill in where City employees cannot.

There are several types of committees: sanctioned, unsanctioned, volunteer, appointed, etc. Given Northampton's history of having a sanctioned, appointed committee for the bike path, this model will serve as the best base. The mission of the committee should include researching and compiling information, making recommendations to the City, assisting with planning and design of facilities, and conducting educational or programmatic events.

In order to make the committee the most useful to downtown revitalization, membership should represent all stakeholders in the downtown. They would include residents, City employees/officials, regional representatives, bike advocates, youth, public transportation representatives, and merchants.

The simplest way to revamp the existing committee is to get appropriate city approval for the new mission and composition of the committee, appoint the appropriate city employees, and then advertise for additional volunteers. The volunteers can then be appointed.

Here are examples from three communities in Massachusetts:

### **Town of Watertown**

Watertown has had a sanctioned, volunteer bike committee since 1994. Membership was established by advertising in the local paper for volunteers and then having the Town Council appoint them. In total, the committee has nine members with various professional backgrounds. There are no town officials or employees on the committee. The mission of the group is broad (see Appendix E). To date, the committee has focused on working with the state to initiate development of a bike path along the Charles River which will connect the Minuteman Bike Path to the new bikeway along the river in Newton. Two of the committee's important accomplishments are getting the Town to adopt a zoning bylaw which requires new developments to incorporate bicycle parking and receiving \$15,000 in FY2000 Town funds for a bicycle master plan.

Contact: Joan Blaustein  
Chair, Watertown Bicycle Committee  
617-451-2770

### **City of Cambridge**

The Cambridge Bicycle Committee was established by the City Council in 1991. The committee works to improve conditions for bicyclists, promote bicycling as a means of transportation, and improve safety conditions for bicyclists. Members include residents plus staff from the Community Development Department; Department of



Traffic, Parking, and Transportation; Police Department; and Department of Public Works. Activities of the committee include developing encouragement materials, participating in public events, and reviewing plans for road construction.

Contacts: Michael Halle  
617-868-3352  
mhalle@media.mit.edu

Cara Seiderman  
617-349-4629  
cseiderman@ci.cambridge.ma.us

### **Town of Brookline**

The Brookline Bicycle Committee evolved out of a citizen initiative pertaining to the ongoing Beacon Street reconstruction project. At the outset of the project, Andrew Fischer, an attorney and a local bicycling advocate, approached the town Transportation Board and urged the creation of a bicycle advisory committee. Members were recruited through an advertisement in a local newspaper, and eventually the town went through the process of establishing a formal committee. The committee currently consists of six members who have undertaken the following projects:

- Lobbying for a branch path off the existing Muddy River bike path
- Working to build bicycle accommodation requirements into the town's zoning ordinance
- Participating in the development of the town's greenspace plan
- Obtaining commitments from the town for specific increases the number of bike racks in commercial areas over the next several years.
- Organizing events for Bike Week Developing safety program for kids

A copy of the committee's mission statement is included in Appendix E.

Contacts: Anita Johnson  
anita.johnson@usdoj.gov

Andrew Fischer  
102523.3263@compuserve.com



## Appendices

### **Appendix A:**

#### **Looking at the Future of Youth Cycling Today -**

From Earth Force's Get Out Spoke'n campaign

#### **Bringing Bicycle Safety to the Schools -**

From Southern Bicycle League publication, *Freewheelin'*

### **Appendix B: Samples of Advertisements & Encouragement Measures**

### **Appendix C: 5 Basic Questions on Bike Lanes -**

From Tracy-Williams Consulting

### **Appendix D: Strategic Analysis Report on Traffic Calming -**

From City of San Francisco

### **Appendix E: Mission Statements of Local Bike Committees**

### **Appendix F: How to Conduct a Speed Count -**

From Transportation Alternatives

### **Appendix G: DHCD Site Visit Team Members**

### **Appendix H: Site Visit Attendees**

