

5. Community Initiatives

A variety of municipal departments and committees have an interest in pedestrian issues, including Public Works and Highway Departments, Planning Boards, safety officials, and other groups such as sidewalk committees. Some committees may have established methods of collaborating between entities with an interest or responsibility in accommodating pedestrians, but many do not.

a. Master Planning

A community may choose to prepare a Pedestrian Master Plan to serve as a guide for long-term implementation of sidewalks and other pedestrian-related projects. Pedestrian programs and issues can be addressed either in the Circulation Element of the existing Master Plan or a stand-alone Master Plan could be prepared.

Figure 4 Pedestrian Wayfinding Sign on Brandeis University Campus



Pedestrian planning does not necessarily need to take place on a municipal level. For example, Brandeis University recently implemented a comprehensive campus signage program. Taking about a year to implement, this well-received program made the campus more welcoming and accessible, improved wayfinding, provided a unifying visual theme, and promoted the university's character and spirit. Figure 4, 'Pedestrian Wayfinding Sign on Brandeis University Campus,' shows one sign in the campus signage program.

Source: Roll · Barresi & Associates, Inc.

Best Practices – Pedestrian Plans

Cambridge

The [Cambridge Pedestrian Plan](#) describes the role of walking in Cambridge, current city policies and projects, and the direction of future pedestrian improvements.

Seattle, Washington

[Seattle's Pedestrian Master Plan](#) defines the steps needed to make Seattle a more walkable, livable, and healthy city. The plan establishes policies, programs, design criteria, and projects.

b. Sidewalk Construction and Retrofitting

Multiple studies have found that presence of sidewalks greatly increases pedestrian safety. Sidewalk coverage in the Boston Region varies, with large gaps in many communities. Analysis shows that although the presence of well-maintained sidewalks is widely considered to be perhaps the most important element of a good walking environment, 54 percent of the roadway miles in the region that allow pedestrians lack sidewalks.⁷

MassHighway's Project Development and Design Guidebook emphasize the importance of facilities that serve all users and consider pedestrians, bicyclists, and motorists equally. Specifically, the guidelines state, "sidewalks are desirable in all areas where pedestrian activity is present, expected, or desired." There are several possible approaches to increasing sidewalk coverage in a community, including both new and existing roadways. They are discussed below, along with benefits and potential issues to consider.

Land Development Requirements

A community can request or require that private developers build sidewalks on streets within a subdivision and/or along their property frontage. If there are particular reasons why sidewalks cannot or ought not to be built along the development itself, the community can obtain a payment in lieu and use the funds to build sidewalks in more appropriate locations within the community.

There are many benefits of including sidewalk construction as a routine element of new construction. First, it is more efficient to include pedestrian facilities in new construction rather than to go back and retrofit later. Including sidewalks from the beginning will ensure that there is sufficient right-of-way reserved for the sidewalks. This eliminates future confusion over land ownership or the need to secure easements from residents. Second, this approach does not use limited community funds for sidewalk construction which frees up funds for pedestrian improvements in other areas. Unless there are unusual environmental or topographic conditions, inclusion of sidewalk construction is usually a relatively small expense compared to the entire cost of the project. Third, regularly including sidewalks in new developments reinforces the commitment of the community to foster pedestrian-friendly development practices and create a safe pedestrian environment whenever possible.

Challenges/Issues to Consider

It may be difficult for some communities to change subdivision and development regulations to formally require private developers to provide sidewalks. Even in these cases, it can still be possible to request and prioritize sidewalks when conducting plan review discussions. However, it is not enough to just request sidewalks in a new development – in order to be truly useful, sidewalks should connect to one another and to existing pedestrian networks. At a minimum, subdivision and development regulations need to require sidewalks,

Figure 5 Shared Street in Cambridge



⁷ Lacking sidewalks is defined as a road with a neither side having a sidewalk.

crosswalks, and trees. See Appendix D, 'Pedestrian-Related Issues to Consider when Reviewing Development Plans.'

Depending on the location and layout of the development, off-road walkways may also be appropriate to create a connected pedestrian network. This is particularly important in cases where roads dead-end or end in a cul-de-sac. Providing connected pedestrian paths could significantly decrease walking distances and facilitate and encourage walking.

One possible challenge to sidewalk building is environmental issues associated with the additional impervious surface necessary to include sidewalks. In many communities, new development occurs in locations with impervious surface limitations based on wetland or watershed conditions.

Another challenge is the argument that sidewalks are unnecessary in small residential subdivisions, as they are inconsistent with small town character and there is not a lot of traffic. However, it may also be argued that if part of the appeal of such areas is that they are quiet and safe to raise a family, then creating a safe walking environment is part of fulfilling this commitment. Establishing 'shared-use' streets, which mix pedestrians, bicyclists, and drivers in a low-speed environment that emphasize a street's community function, should be considered in these areas. Figure 5, 'Shared Street in Cambridge' is an example of a shared street.

Town and State Roadway Projects

MassDOT's Project Development and Design Guidebook recommends that the project designer calculate the cross-section from the right-of-way edge⁸ rather than center line, stating that, "through this approach, accommodations of pedestrians and bicyclists is positively encouraged, made safer, and included in every transportation project as required under Chapter 87 of state law." By doing so, walkways are included on all roadway construction projects, whether on town- or state-maintained roads. The exception would be along controlled-access freeways where pedestrian access is not allowed.

Challenges/Issues to Consider

While the focus on providing facilities for pedestrians and bicyclists is prominent in the MassHighway Guidebook, there are still barriers in the mindset of many practitioners.

Even without the challenge of convincing local or state officials to include walkways on roadway projects, it may not be physically or financially feasible to build sidewalks or paths on both sides of every road. Some communities elect to build on one or both sides based on roadway classification. For example, sidewalks are added to one side of local and collector streets and in most cases to both sides of all arterials. While it would be preferable to have sidewalks on both sides of every road, these communities determined that in the interest of building facilities on roadways throughout the entire community, it is acceptable and reasonable to limit construction to just one side of the smaller roads. In theory, local and collector streets would have low enough traffic volume and speeds that a person

⁸ The MassDOT Guidebook defines *cross section* as a view of a vertical plane cutting through the roadway, laterally perpendicular to the center line, showing the relationship of various roadway components and *right-of-way* as the land (usually a strip) acquired for or devoted to highway transportation purposes.

walking on the other side would be able to cross to access the sidewalk or specific destinations. On an arterial road with higher traffic volumes and speeds, sidewalks are necessary on both sides.

Individual Property Owner Installation

Although infrequently done, individual property owners can pay to install sidewalks. This approach is beneficial in areas where there is demand for a separate pedestrian facility and no other projects to combine with sidewalk construction or community funds are available for the construction. Allowing individual property owners to build sidewalks does not use community funds, enables private citizens to contribute to the public good and fulfills a need not currently being met.

Challenges/Issues to Consider

Having property owners pay for sidewalk installation can be considerably complicated. The community should have a formal process for ensuring the sidewalk is built to engineering standards, built by a reputable contractor, and have agreements about maintenance and liability.

For example, homeowners in Reading may elect to construct sidewalks and install curbing at their own expense. Homeowners can coordinate with the Town Engineering Office to use a contractor having proper insurance and bonds. A "[Sidewalk or Curbing Release](#)" form must be completed by the homeowner prior to final approval. Once sidewalk or curbing is installed and approved by Reading, the town is responsible for ongoing maintenance. Although this option is available to all Reading residents, very few chose to install their own sidewalks or curbing primarily due to the expense. A program for sidewalk construction that is financed by both property owners and municipal funds with a predetermined percentage match could be established.

In addition, new sidewalks need to interconnect with existing sidewalks and close gaps in the pedestrian network.

Neighborhood Petition Assessment / Betterments

Residents can petition for sidewalk construction to be financed by all property owners in the requested area. This type of process typically requires consent of at least 51 percent of the property owners in the improvement area, and a formal petition for no less than one block of the street. Once the request is approved, all property owners in the area will be required to pay for the sidewalk. If the 51 percent decide to build a sidewalk on only one side of the street, all of the residences along both sides of the street are still required to pay for it.

A neighborhood petition assessment is a more organized way to facilitate citizen sidewalk building. It allows the community to ensure that the sidewalk will be continuous and also of a sufficient length to be worth the investment. Also, by requiring a vote of the property owners, it ensures support for sidewalk construction on the street. Using a neighborhood assessment may decrease the cost per household, and depending on the structure of the agreement, it may allow the payments to be spread over a number of years, thereby further reducing the financial burden on households.

Challenges/Issues to Consider

Because sidewalk construction can be contentious in some communities, particularly when paid for by residents, communities should carefully consider the necessary level of resident support to impose a neighborhood assessment. To minimize neighbor conflicts, it may be prudent to require greater than 51 percent support. Also, more affluent parts of a community could afford sidewalks whereas areas with lower incomes and/or higher renter percentages may not.

Municipal Bonding

Municipal bonds are issued by state and local governments and are generally used to raise money for major capital projects. By issuing municipal bonds, states and local governments can raise money for capital expenditures—such as the construction of highways, bridges or a streetscape project.

Challenges/Issues to Consider

The issuer of a municipal bond usually uses proceeds from a bond sale to pay for capital projects it cannot or does not desire to pay for immediately with available funds. Tax regulations generally require all money raised by a municipal bond sale to be spent on one-time capital projects within three to five years of issuance.

In Massachusetts, Proposition 2½ limits the amount of revenue a city or town may raise from local property taxes each year to fund municipal operations. Communities must seek voter approval to raise additional funds beyond Proposition 2½ limits. Proposition 2½ establishes two types of voter-approved increases in taxing authority:

Overrides: An override allows a municipality to permanently exceed its property tax cap of 2.5 percent plus new revenue from growth.

Exclusions: An exclusion increases the amount of property tax revenue a community may raise for a limited or temporary period of time in order to fund specific projects.

Community Constructs Sidewalks Using its own Funds

A community can use its own funds to build sidewalks on roadways. Typically, community funds would be used only on roadways under local control because there is a possibility of being able to use state or federal funds to make improvements on state maintained roadways. There are three main sources of community funds that can be used to build sidewalks: Capital Improvement Program (CIP), Community Preservation Act (CPA), and Chapter 90. CIP is described below; CPA and Chapter 90 funds are described later in Chapter 8, section c.

Capital Improvement Program (CIP)

A Capital Improvements Program (CIP) is a planning blueprint for a community's capital expenditures. It coordinates community planning, financial capacity, and physical development. The CIP is composed of two parts -- a capital budget and a capital program. The capital budget is the upcoming year's spending plan for capital items. The capital program is a plan for capital expenditures that extends beyond the capital budget. A complete and properly developed CIP will identify the most economical means of financing capital projects.

Some communities plan for sidewalk construction and/or maintenance using CIP funds. Newton, for example, uses CIP funds for activities related to sidewalks: curb and sidewalk betterments, curb and sidewalk maintenance, and ADA access curb cuts. If a property owner requests the construction of a sidewalk, the cost is split halfway between the property owner and Newton (if the cost is \$500 or more). If the cost is less than \$500, the property owner is fully responsible. Newton's betterment program does face funding challenges and the program has a significant backlog of requests.

Community Department Coordination

Creating better pedestrian amenities and walkability is a proven and known key to revitalizing downtowns in cities and suburbs and establishing stronger communities. Working closely with

community departments will help to accomplish this goal. Depending on the community, relevant departments can include Economic Development, Community Development, Planning and Redevelopment.

c. Prioritizing Sidewalk Construction Locations

The need for sidewalk facilities is great, but community resources are limited. Communities that plan to use their own funds for sidewalk construction should have a process for identifying and prioritizing the most critical locations. Below are three communities with programs that prioritize locations for sidewalk construction:

Best Practices – Prioritizing Sidewalk Construction Locations

Cambridge

Cambridge has an extensive [Street and Sidewalk Reconstruction Plan](#) that includes an emphasis on Complete Streets.

Charlotte, North Carolina

There are four categories (tiers) of sidewalk ranking in the [City of Charlotte](#). The tiers are primarily based on the traffic volume of each street.

Rockville, Maryland

[Rockville](#) has a Sidewalk Prioritization Policy that helps determine in what order sidewalks should be constructed where they are missing. The prioritization is based on a total score, which is the sum of a utility score and a traffic conditions score. Sidewalks are placed into one of five groups, A through E, with A being the highest and E being the lowest range of scores. Available city right-of-way, public support for the construction of the sidewalk, and potential environmental impacts are also taken into consideration.

d. Paths

The development of paths in a community is encouraged. Paths are separated from motorized vehicular traffic by an open space, barrier or curb. Paths provide access to open spaces within a community and if designed appropriately, can be used by bicyclists in limited situations. The Southwest Corridor Park, a 4.7 mile linear park in Boston, has separate bicycle and pedestrian paths. The Somerville Community Path in Somerville, is an example of a shared-use path designed to accommodate both pedestrians and bicyclists. Chapter 11, [Shared Use Path and Greenways](#), of MassDOT's Project Development and Design Guidebook, describes these design guidelines in more detail.

Best Practices – Walkway Planning and Paths

Sudbury

[Sudbury](#) has an extensive Walkway Planning and Prioritization Initiative.

Lincoln

Lincoln's long-range plan has resulted in a network of sidewalks and paths throughout the town and along most of its major streets to connect residential areas, schools, parks and commercial centers. An example of a 'Path in Lincoln' is shown in Figure 6.

Wellesley

Wellesley has developed, through signs and maps, an extensive trails network. The [Wellesley Trails System](#) comprises 14 trails including nine woodland trails that connect conservation lands, parks and open space, and five interconnecting trails that run along aqueducts, parks and roads. Color coordinated trail blazers are marked at every turn on each route. A Trails Committee is responsible for maintaining and monitoring the trails. An example of a 'Trail in Wellesley' is shown in Figure 7.

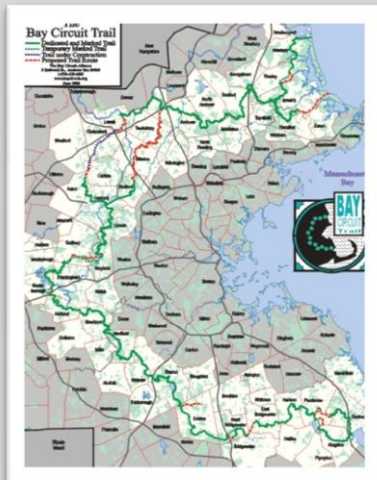
Figure 6 Path in Lincoln



Figure 7 Trail in Wellesley



Figure 8 Map of the Bay Circuit Trail



Bay Circuit Trail and Greenway

With over 170 miles open to the public, the [Bay Circuit Trail and Greenway](#) is a recreational trail and greenway corridor extending through 34 towns in Eastern Massachusetts and linking the parks and open spaces surrounding metropolitan Boston. When complete, the multi-use trail will form an arc through the outlying suburbs of Boston from the North Shore (Newburyport) to the South Shore (Duxbury), distance of almost 200 miles. A 'Map of the Bay Circuit Trail' is shown in Figure 8.

e. Rail Trails

A rail trail is the conversion of an unused railway easement into a shared-use path, typically for walking and bicycling. Most rail trails are flat, long and can run through historic areas. Rail trails are often graded and covered in gravel or crushed stone, paved with asphalt, or left as dirt. Since both Federal and state laws are involved, rail trail conversions can be complex. Where possible, rail trails should connect to corridors to enable both transportation and recreation.

Best Practice - Bikeway

Minuteman Commuter Bikeway

Running for approximately 12 miles through Bedford, Lexington and Arlington, the [Minuteman Commuter Bikeway](#) is an example of a rail trail conversion. The Minuteman Commuter Bikeway is a popular rail trail which is frequently used for both transportation and recreational purposes. On an average day, slightly over 1,200 pedestrians and bicyclists use the Minuteman Commuter Bikeway. Of these users, almost 11 percent are pedestrians.⁹

f. Education and Programs

Education and program efforts in pedestrian planning should include training and education of planning and engineering professionals, transportation maintenance workers, school boards, teachers, law enforcement officials, elected officials as well as the public at large.

Educational efforts directed at motorists (e.g., obeying speed limits), pedestrians (e.g., legally crossing the street) and bicyclists (e.g., obeying traffic signals) can be an effective means to improve safety. School curricula should include programs instructing children on issues of pedestrian safety. Driver education programs should incorporate the rights of pedestrians (e.g., yield to pedestrians when turning). Effective education programs need to be designed with an understanding of the diverse needs and skill levels of various user groups (e.g., children, adults and people with disabilities).

Driver Education

Driver Education and Pedestrians

Educational material provided by the Registry of Motor Vehicles (RMV) addresses motor vehicle laws with regard to pedestrians. Pedestrian safety is addressed in the RMV's [Commonwealth of Massachusetts' Driver's Manual](#).

The Driver's Manual clearly conveys that drivers must always yield to pedestrians who are walking in or are crossing a roadway. The Manual tells drivers to take extra care to look for pedestrians, how to drive defensively, and discusses right-of-way rules. Pedestrian signals and signage are graphically depicted in the Manual. The Driver's Manual also addresses accommodating pedestrians in roundabouts and rules for passing pedestrians in a roadway. A section on rules for pedestrians to follow is even included in the Driver's Manual.

⁹ Data is compiled from counts conducted by the Central Transportation Planning Staff (CTPS) in 2009 for the Boston Region MPO Bicycle / Pedestrian Traffic Count Report.

As a means of standardizing driver education throughout the state, the Registry of Motor Vehicles has developed a [Driver Education Program](#). The Driver Education Program contains sections on accommodating pedestrians in its Traffic Signals and Sharing the Road modules. While materials for driver education do exist, there is room for pedestrian safety to be more strongly emphasized in driver education materials, programs and driver tests.

Education and Programs in Schools

Established in 2005, the [Massachusetts Safe Routes to School \(SRTS\)](#) program helps to teach and inspire children to start walking and bicycling more often – to and from school. The SRTS program aims to reduce congestion, air pollution, and traffic conflicts near participating schools, while increasing the health, safety, and mobility of elementary and middle school students. The program is managed by MassDOT and funded by FHWA. It includes separate programs for education and encouragement (delivered by MassRIDES) and for infrastructure improvements.

To date, the SRTS program worked with over 230 elementary and middle schools in over 100 communities statewide, reaching over 85,000 students. Over half of these communities are in the MAPC region. Through this program, schools receive a range of direct professional services to educate students, parents, and school and community officials about the benefits of walking and bicycling to school while addressing safety concerns. The SRTS program includes education, encouragement, enforcement, engineering, and evaluation strategies to ensure a comprehensive and successful program to increase walking and bicycling to and from school.

Technical assistance in designing, implementing, marketing, and evaluating initiatives tailored to each school's needs and priorities is offered through this program. Participating schools receive free promotional materials to implement SRTS, plus no-cost educational materials targeted to students, parents, and community leaders. Training prepares school stakeholders to identify school access challenges and design solutions. Participating schools represent diverse socio-economic communities with varying population densities statewide.

The SRTS program held its third annual Massachusetts Walk to School Day in May 2009. On Massachusetts Walk to School Day, children, parents, school and local officials walked to school together on a designated day. This event is intended to remind everyone of the joy of walking to school, the health benefits of regular daily activity, and the need for safe places to walk. Walk to School Day aims to create long term change by increasing physical activity among children, enhancing pedestrian safety, reducing traffic congestion, improving the environment, and building strong communities.

As communities participated in this event, schools across the state reported a dramatic increase in walking. For example, at Braintree Ross Elementary School, even though all students live within a mile, 80 percent of children are driven to and from school each day. In May 2008, nearly all students walked to school. The collaboration among the school, town, and community contributed to the event's success. To develop a broader program, the school implemented a Pedestrian Safety Training and sponsored 'Trekking Tuesdays.' In the fall, the school organized a Walking School Bus program¹⁰ and participated in International Walk to School Day. Canton, Hingham and Scituate also have Walking School Bus programs.

¹⁰ A Walking School Bus program is a group of children walking to school with one or more adults.

These programs aim to improve walking and bicycling conditions and encourage students to safely walk and bicycle to school. SRTS programs seek to reduce congestion, air pollution, and traffic congestion near participating schools, while increasing the health, safety, and physical activity of elementary and middle school students. The ultimate goal is to develop walking to school as the norm, rather than the exception, and to create long-term sustainable change.

[The American Heart Association's Start! Walking Program](#)

The American Heart Association's Start! Walking Program assists companies to encourage their employees to have healthier lifestyles. Companies set up 'walking routes' in the workplace and encourage employees to use them. The Start! Walking Program gives employers materials to start the program (e.g., route stickers, goal sheet). The Start! Walking website contains an inventory of previously established Start! Walking Paths that employers can utilize.

[Blue Cross Blue Shield's Walking Works](#)

Health care insurer, Blue Cross Blue Shield of Massachusetts, offers a program, Walking Works, in which all subscribers are eligible to enroll. Walking Works enables participants to create walking programs suited to their specific needs. For example, the program offers an online log to allow participants to track their progress. The goal of Walking Works is to make walking and weight management interactive, easy, and fun. A pedometer and walking routes are some of the materials provided as part of the Walking Works program.

[Mass in Motion](#)

Mass in Motion is a Department of Public Health Initiative that combines health, transportation and land use. This program includes regulations to promote healthy eating and physical activity. It also provides grants to cities and towns to make wellness initiatives a priority. Mass in Motion's website gives Massachusetts' residents tips on how to integrate healthy eating and physical activity into their daily lives. Safe walkable streets have been identified by Mass in Motion as a key factor that makes a community healthy.

[Green Streets Initiative](#)

The Green Streets Initiative is an international grassroots organization that celebrates, promotes, and advocates for the use of alternative transportation. The organization's aim is to create safer, quieter, and healthier streets for all commuters and citizens. The vision of the Green Streets Initiative is to celebrate alternative transportation, give people an opportunity to make community connections, and promote a festive local atmosphere.

The Green Streets Initiative began in Cambridge and has expanded to the neighboring cities of Boston, Newton, Somerville, and Stoneham. Through educational efforts, and the opportunity to experience and practice alternative transportation, the Green Streets Initiative helps individual citizens, children, and families discover how alternative modes of transportation can enhance their lives by creating safe, healthy, and friendly communities for everyone.

This Initiative is best known for the creation of monthly Walk/Ride Days that occur on the last Friday of every month. On these days people everywhere are invited to participate, and wear green. On a Walk/Ride Day, people who wear and go green are eligible to partake in a host of rewards offered by participating local businesses, or sponsors. These rewards include discounts at local retailers, to participating in an on-line raffle.

Walkable Community Workshops

The Boston Region MPO conducts free Walkable Community Workshops to encourage safe and accessible walking environments in the region. A workshop comprises three parts. First, an MPO employee gives a presentation on good pedestrian design by using local, regional, and national examples. Participants then walk together through a local area chosen by the community to identify shortcomings and discuss possible improvements and strategies for resolving them. Finally, the participants work in small groups to brainstorm on how to make the community more walkable, and present their findings to the entire group.

All members of the community, including elected officials, business owners, involved residents, and local professionals in the fields of planning, engineering, law enforcement, and education are encouraged to participate. Outcomes of this program include the formation of committees to address pedestrian needs in the municipalities. To date, the MPO has given about 40 workshops in the region.

Walking Clubs

In addition to exercise, walking clubs increase the sociability of walking as well as improve mental and physical health. The Massachusetts Department of Public Health's Keep Moving Program maintains a [Walking Club Directory](#) as part of the program.

[Walk 'n Mass Volkssport Club](#), part of the [American Volkssport Association](#), is one example of numerous walking clubs in Massachusetts. Since 1985, the Walk 'n Mass Volkssport Club has hosted walking events for participants of all ages, sexes, and levels of athletic ability to exercise outdoors at their own pace. Walking events are non-competitive, usually 5-10 kilometers, and there is no fee to participate. Walks can include historic sites, downtown areas, and woodland trails.

g. Advocacy Groups

Advocacy groups are organizations that seek to influence public policy. Advocacy groups in Massachusetts that are strong supporters of pedestrian issues include:

WalkBoston

WalkBoston is a non-profit membership organization dedicated to improving walking conditions in cities and towns across Massachusetts. Founded in 1990 and representing over 58 cities and towns across the state, WalkBoston's mission is to create and preserve safe walking environments that build vital communities. WalkBoston promotes walking for transportation, health and recreation through education and advocacy.

LivableStreets Alliance

The LivableStreets Alliance is a non-profit organization that believes urban transportation has the power to make the Boston region more connected and more livable. The LivableStreets Alliance challenges people to think differently and to demand a system that balances transit, walking, and biking with automobiles. In addition, this non-profit organization promotes safe, convenient, and affordable transportation for all users in urban Boston. The LivableStreets Alliance advances the theory that when streets are enjoyable to use, they will better support neighborhoods and business districts.

Massachusetts Smart Growth Alliance

Founded in 2003, the Massachusetts Smart Growth Alliance (MSGA) promotes healthy and diverse communities, protects critical environmental resources and working landscapes, advocates for housing and transportation choices, and supports equitable community development and urban reinvestment. MAPC was a founding member of MSGA.

Best Practices – Community Health Programs

Activate Attleboro Initiative

Part of a YMCA-led nationwide program called Activate America, the Activate Attleboro Initiative serves as a leading model of a community collaborative in Massachusetts. It is a strong example of community leaders and representatives from the City's Health Department and School Committee who are improving the health of Attleboro residents by creating positive changes in behavior and striving to create a healthier environment through more than 30 diverse activities aimed to increase physical activity and improve nutrition. Activities that are part of the Activate Attleboro Initiative include:

- Physical Activity Club is an intensive one-on-one educational and awareness program for overweight children who are referred by physicians. This program educates overweight children and their parents about exercise and healthy nutrition. Results from this program included an average increase of 17 percent in daily physical activity.
- With technical support from the National Park Service, Activate Attleboro seeks to improve the city's walkability with an extensive city-wide trail and plans to expand a bike path system.
- The 'corporate step challenge' challenges adults to log at least 10,000 steps per day using a pedometer. This is an example of working with local companies to support walking programs for employees.

Best Practices – Community Health Programs

Cambridge Walks

Coordinated by the Cambridge Public Health Department, CambridgeWalks is a campaign designed to encourage people of all ages to walk for their health, for the environment, and for the benefits of less traffic. City departments, university, state, local health providers, educators, advocates, and community groups have all been involved. CambridgeWalks also includes individuals who are physically challenged.

CambridgeWalks initiated the Hunt for the Golden Shoes, which is now a project of the Cambridge Pedestrian Committee. Once a year, shoes - spray-painted gold - are hidden through the city in places where people walk. People who find the shoes turn them in for prizes donated by local merchants to encourage people to walk and shop in the city. This event inspires people to be active and explore the city.

Keep Moving

Keep Moving is a program that promotes fitness and physical activity for persons over the age of 50. Walking clubs are organized under the auspices of Councils on Aging, senior centers, Park and Recreation Departments, churches, and housing sites. The clubs are locally organized and take on their own unique characteristics. Happy Hoofers of Barnstable, the Quincy Walk of Ages, Walkers of Roslindale, and the Mt. Carmel Striders from Worcester, are examples of the local clubs that have been established.

Keep Moving is supported by the Department of Public Health, the Executive Office of Elder Affairs, the Massachusetts Association of Councils on Aging and Senior Center Directors, and Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University, as well as financial support from BlueCross BlueShield.

More than 2,500 older adults in the Keep Moving program walk two to three times a week. Walkers vary their routes from urban to rural areas. A sense of camaraderie among the walkers keeps them connected so that exercise becomes a regular part of their daily routines.

NeighborWalk Program

Run by the Boston Public Health Commission, the NeighborWalk program encourages Boston residents of all ages to be physically active by providing support for organized walking groups. All registered NeighborWalk groups are required to complete a weekly electronic walking log. The Electronic Neighborwalk Log provides an on-going progress summary of walking groups with information such as how many people are walking, the number of walks per week, and who is walking.

Walking in Arlington

Walking in Arlington is an example of a community based pedestrian advocacy and walking safety group. Walking in Arlington was formed to make Arlington a more pedestrian-friendly place for people of all ages who live and work in Arlington. In addition to having an extensive website, this advocacy group reaches out to the community by submitting newspaper articles, attending public events and working closely with Town Meeting, the Police, the Selectmen, the Council on Aging, the Superintendent of Schools, the Department of Public Works, the Planning Department as well as business and community groups.

h. Snow and Ice Clearance

Prompt and effective snow clearance on sidewalks is critical to maintaining safe walking conditions. If walkways, crosswalks, islands, and curb ramps are icy or unshoveled, travel is both difficult and dangerous for pedestrians. Children, the elderly and people with disabilities are most affected. Although there are challenges with enforcement, it is critical that municipalities improve sidewalk and road snow and ice clearance and enforce their regulations to encourage walking and increase pedestrian safety. Depending upon jurisdiction, snow and ice removal may be the responsibility of state and municipal agencies or private abutters (e.g., homes, businesses, property owners or tenants).

Both MassDOT and the Department of Conservation and Recreation (DCR) are responsible for maintaining their respective roadways reasonably safe for public travel by keeping them sufficiently clear of ice and snow. Both state agencies carry out these responsibilities under a snow and ice removal partnership. MassDOT is responsible for providing curb-to-curb snow removal for specifically designated DCR Parkways in the Greater Boston Area. However, DCR is responsible for clearing sidewalks related to these parkways. [DCR's Winter Storm Plan and Priority Map](#) and [MassDOT's snow removal responsibilities](#) further delineate snow removal roles for both agencies.

In dense urban areas property and business owners are required to clear sidewalks (often including curb cuts and ramps) that abut their property. Usually, property and business owners have between three and twenty-four hours to clear sidewalks. Subsequently, communities may issue a warning or a ticket. Communities primarily clear sidewalks adjacent to municipally owned buildings or property. In some cases, communities clear the most heavily traveled sidewalks. To ensure pedestrian access and safety, it is critical that a community's snow removal program address both roadways and sidewalks.

The following is an inventory of snow clearing policies of select communities in the Boston Region. Densely developed mature cities as well as suburban and rural communities have been selected for comparative purposes.

Newton's ordinance (Section 26-8) states that snow and ice must be removed from sidewalks in defined business districts within twenty-four hours. There is no fine indicated in the ordinance if snow removal does not take place. Woburn's ordinance (Title 12, Section 6) requires snow removal from specifically designated sidewalks. The property owner has two hours to remove the snow (6 hours if there is ice) after snowfall and is subject to a onetime 50 dollar fine. If an individual removes ice or snow from public and private property, and places the ice or snow without permission on public or private property they can be subject to a 300 dollar fine. In Westwood, if a person lays, throws, or places snow or ice on any paved town street or sidewalk that creates a hazardous condition or public safety concern, a minimum 300 dollar fine can be issued (Ordinance - Article 10, Section 3).

Bolton has a 100 dollar fine in its ordinance for persons who pile, push, or blow snow or ice onto a public way that is already plowed and sanded by the Town. The Towns of Concord and Essex will issue a 50 dollar fine for the same activity. The Towns of Lincoln and Carlisle can issue a ten dollar fine if a vehicle is parked to prevent the plowing or removal of snow and ice.

Residential and commercial property owners in Boston are required to remove snow within three hours after a snowfall. Cleared paths must be a minimum of 42 inches wide. Removal should be conducted in a manner "that ensures the orderly flow and safety of pedestrian traffic upon such sidewalks." Depending on the severity of the violation, fines range between 50 and 250 dollars per day.

Since the 1960s, Stoughton has been using sidewalk snowplows as part of their snow removal program. Figure 9, 'Sidewalk Snowplow,' is an example of the type of snowplow currently used in Stoughton. Priority snow removal locations, for both sidewalks and roadways, are schools, the town center, the train station, hospitals, and areas where elderly residents are highly concentrated. Residents are not required to clear snow on sidewalks that abut their property. Canton and Sharon also use sidewalk snowplows as part of their snow removal programs.¹¹

Figure 9 Sidewalk Snowplow



Source: Prinoth, Ltd.

Best Practices – Snow Removal Regulations

Boston

In 2007, the City of Boston adopted an ordinance (16-12.16 Snow, Slush, and Ice on Sidewalks) that outlines fine policies for the removal of snow and ice from sidewalks and abutting curb ramps.

Depending on building size and length of time it takes to remove snow (greater than three or six hours) and if paths are not shoveled to a minimum of 42 inches wide, daily fines ranging from \$50 to \$150 can be incurred. If someone removes slush, snow, or ice from privately-owned real property and places it upon any sidewalk or street, a daily fine of \$250 will be imposed.

The City of Boston also has an extensive [Snow Information and Advisory Program](#). Interested parties can register for e-mail or text alerts to be notified when snow emergencies are declared.

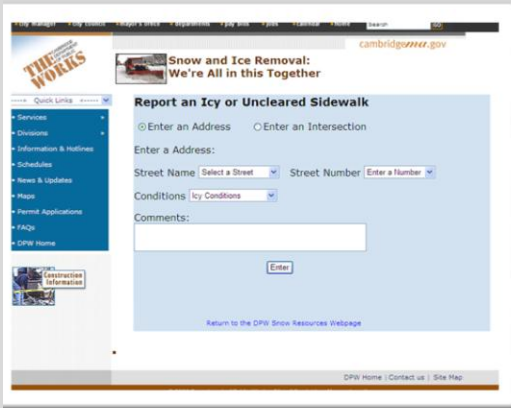
¹¹ Conversation with Larry Barret, Director of Public Works, Town of Stoughton, March 12, 2009.

Best Practices – Snow Removal Program

Cambridge

In Cambridge, property owners are responsible for keeping all sidewalks that border their property clear of snow and ice. The Cambridge Municipal Code requires property owners to remove snow from the sidewalk within 12 hours after snow stops falling in the daytime and before 1:00 P.M. when snow has fallen during the night. Ice must be cleared from sidewalks or treated with an ice-melting substance. In addition, paths must be at least three feet wide and ramps, corners and crosswalks must be cleared (Section 12.16.110, Sidewalk – Snow and Ice Removal).

Figure 10 City of Cambridge's On-Line Snow Removal Reporting System



After a snow storm, Cambridge deploys parking control officers on prioritized routes to ticket property owners who do not clear sidewalks. Failure to comply with the City's sidewalk clearance ordinance is 50 dollars for each day of non-compliance. Cambridge also has an on-line form for residents to report icy or uncleared sidewalks as shown in Figure 10, 'City of Cambridge's On-Line Snow Removal Reporting System.'

WalkBoston Recommendations

The advocacy group WalkBoston has developed seven basic recommendations to improve sidewalk snow and ice clearance for state agencies, communities, individual property owners/managers, and advocacy organizations. The seven recommendations are outlined in its 2007 report, "Keep it Clear - Recommendations for Sidewalk Snow and Ice Removal in Massachusetts."

- 1. Create a norm of snow and ice clearance through social awareness campaigns.*
- 2. Identify a municipal point person for snow removal.*
- 3. Set priorities for sidewalk snow clearance.*
- 4. Improve monitoring and enforcement.*
- 5. Design sidewalks for easier snow removal.*
- 6. Train municipal and private snow plowing personnel.*
- 7. Create sensible state policies through appropriate legislation.*

Monitoring and Enforcement

There are three primary ways in which the clearance of sidewalks can be monitored and enforced:

- Identify who monitors and enforces.
- Define penalties and how they will be collected.
- Implement social awareness campaigns (e.g., distributing notices to households that indicate rules and penalties).

It is important for regulations to clearly differentiate between residential and municipal responsibilities regarding snow removal from sidewalks. Regulations should include times by when sidewalks must be cleared before being subject to fines.

Problematic Areas

The most problematic areas are curb ramps and pedestrian-crossing islands. These locations are often subject to poor drainage, which can create dangerous ponds of ice or slush. There are no laws that require abutting property owners to clear these locations and communities often do not take responsibility.

Pending Legislation

There are two bills under review that, if implemented, will serve as strong incentives for property owners to properly remove snow and ice.

In Massachusetts, property owners can be held liable for damages resulting from injuries due to falls on sidewalks adjacent to their property if they have made an attempt to clear the sidewalks. However, if private property owners do nothing to change the condition of the sidewalks, they cannot be held liable in the event of injury. This policy discourages people from clearing sidewalks and actually increases the risk of injury. Currently under legislative review is a bill, *An Act Relative to Snow and Ice Removal*, which proposes to change the liability for property owners who have not cleared their sidewalks from simple negligence to gross negligence. The implementation of this bill will encourage property owners to clear sidewalks abutting their homes and businesses. In addition, proposed bill, *An Act to Promote Pedestrian Safety*, would not make an individual liable for an injury or damage sustained upon a public way, if they removed the snow or ice from the public way in accordance with municipal ordinance or by-law. This proposed act extends statutory immunity of municipalities to individuals.