Safe Walking

Is the Heart and Soul of a

ALL PHOTOS COURTESY WALKBOSTON

Who wants to walk? Everyone! Where do they want to walk? Everywhere!

Livable, Vibrant Community

By Wendy Landman

Whether in the heart of downtown, leafy suburban streets, city neighborhoods or small rural communities, people want to walk safely and easily.

Studies show that walkability is a key to the strength of local economies. Millennials and seniors, in particular, see walkability as a priority. A recent Transportation for America survey finds that 80 percent of eighteen- to thirty-four-year-olds want to live in walkable neighborhoods, while an AARP survey finds that 60 percent of those over age fifty want to live within one mile of local main streets and town centers.

Since our founding in 1990, WalkBoston has worked with more than 110 Massachusetts cities and towns to improve walkability and safety. The roster of communities we work with has expanded significantly over the last five years, as our understanding of the contribution of walkability to public health, environmental quality, local economic strength, and community vibrancy have all grown.

As WalkBoston staff travel across the state, we see a deep and growing desire for safe, walkable neighborhoods, main streets and rural roadways. There is a growing body of evidence indicating why this is true:

- People who live in walkable neighborhoods and are able to walk for local errands are more likely to achieve the U.S. Surgeon General's physical activity targets.
- Walkable downtown districts have higher sales per square foot than car-centric shopping districts.
- Civic engagement is greater among residents of walkable communities.
- Walkability is one of the top desires cited by people when choosing a home.

Protecting Pedestrians

At the same time that the desire for walkable communities is growing across the country, we are also seeing a rise in pedestrian fatalities and injuries. In the first six months of 2016, Massachusetts saw pedestrian fatalities rise by 8.6 percent from 2015, according to the Governor's Highway Safety Association.

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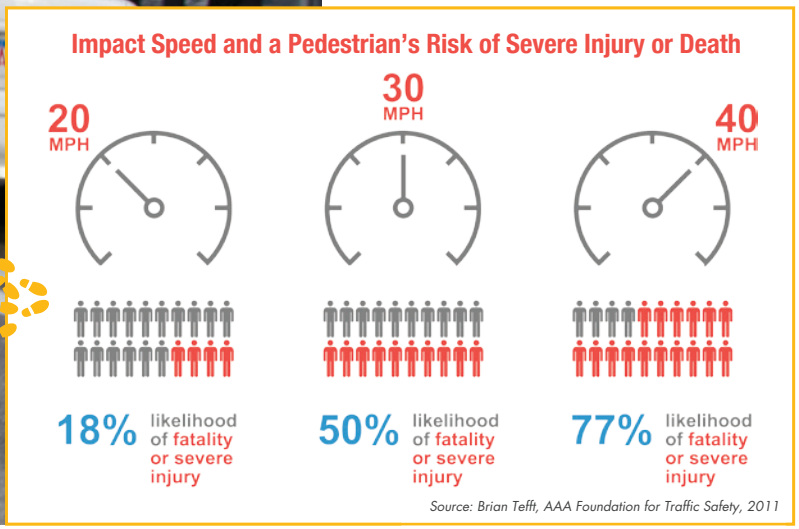

Often, the most important safety measure is slowing traffic speeds, and many of the safety recommendations that WalkBoston makes are focused on this most basic element of walking safety. Sometimes what is needed is a new crosswalk with the design features to make it work. Sometimes local residents need to join forces with the board of selectmen to find funds to fix tripping hazards on sidewalks. Sometimes seniors need help getting shade trees planted and benches installed.

WalkBoston works with local residents, municipal and state officials, and community-based organizations to provide technical expertise and help find answers to make walking safer and easier—and to sort out compromises among all modes of travel. Cities and towns can help to meet the desires of residents and business communities for more walkable streets and sidewalks—and combat the rising number of fatalities and injuries—by focusing municipal policies, operations and investments on safer and more attractive walking environments.

Municipalities have many options to help make walking safer, such as:

• The holistic, data-driven Vision Zero approach

BEFORE AND AFTER: A crossing in Codman Square in Boston was made safer with a painted crosswalk, no-parking areas to improve visibility, and flexible poles.

• Approaching street design through "complete streets"

• Using low-cost quick fixes to address smaller-scale neighborhood issues

When thinking about improving walkability, it is critical to approach the issue in site-specific ways. What is needed in a small rural village is different from what's needed on suburban arterial streets or in urban shopping districts. Understanding the needs of the people you are serving is the place to start. Are children prevented from walking to neighborhood schools because of missing sidewalks and a lack of safe crosswalks? Do shoppers feel they need to drive from store to store because they cannot walk between nearby shops? Are people driving to local parks and open spaces because there are not adequate walking connections to neighborhoods?

Speed, Crossings, Sidewalks and Maintenance

The key elements of safe and attractive walking environments fall into four basic categories:

• **Traffic speed:** The probability of pedestrian death or severe injury increases exponentially with speed (see graphic on pg. 13). Slowing traffic on the streets where pedestrians are walking is a critical component of walkability.

Last summer, Massachusetts enacted legislation giving municipalities the option to lower the prevailing speed limit on local roads from 30 mph to 25 mph and to establish "safety zones" of 20 mph to protect walkers in many locations (such as near schools, parks, senior housing, etc.). Many different built-environment changes can help to slow speeds, ranging from painting fog lines that narrow travel lanes to addiump-outs and raised crosswalks. WalkBoston's "Ped 101" highlights many of these options (see walkboston.org/resources/conference-presentations).

• **Safe street crossings:** Walkers must be able to get across the street safely and conveniently in order to get around in their communities. This means providing well-marked, frequently spaced and appropriately regulated crosswalks. The details are site-specific, but the need is universal. "Ped 101" provides guidance, as does WalkBoston's *Simple Fixes* brochure and toolkit (available at walkboston.org/low-cost).

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Walk Audits Assess the Pedestrian Experience and Identify Improvements

WalkBoston conducts "walk audits" in urban, suburban and rural communities across the Commonwealth. The audits assess walking environments around schools, in downtown urban districts and town centers, near senior centers, and even at night in order to address personal safety and crime prevention through environmental design.

While the goals of each walk audit are tailored to the needs of the community, most have these three general goals:

- Foster awareness among municipal staff and local residents of infrastructure elements that contribute to the safety and appeal of the walking environment
- Evaluate the safety and quality of existing walking conditions
- Recommend infrastructure and operations improvements

In addition to technical expertise and infrastructure analysis, walk audits are a means of building local capacity for improving the safety and quality of the walking environment. Audit participants may include municipal planners, civil engineers, public works staff, public health staff, transportation planners, police, bicycle and pedestrian committee members, advocates, business owners and district representatives, elder affairs, parks and recreation, schools, and any other individuals recommended by community members. Spontaneous conversations that walk audit participants have at an intersection with poor traffic signal timing or a wide curb radius often have a huge impact on the implementation of real change to the built environment. Experiencing the effects of traditional road design on pedestrians is a powerful motivator for instituting walkable community design principles.

A walk audit is not meant to be a complete inventory of infrastructure deficiencies, nor is it meant to provide specific engineering designs for improvement. The audit itself is a relationship-building experience that begins, or continues, a conversation about infrastructure elements that contribute to a safe, high-quality pedestrian environment.

WalkBoston leads a walk audit in Salem.

The walk audit process begins with a preliminary meeting to discuss potential areas of concern, establish the goals of the walk audit, and identify stakeholders who can contribute their knowledge of the area or the municipal resources that may be available for infrastructure improvements. WalkBoston staff conduct a pre-assessment walk, often with stakeholders, to determine a walking route that includes areas of concern, examples of positive and negative pedestrian infrastructure, and any neighborhood destinations of interest. Walk audits take about two to three hours to complete.

Prior to the date of a walk audit, WalkBoston staff produce a walking route map and adapt a presentation on pedestrian safety and infrastructure for the community. On the day of the walk audit, WalkBoston begins with a discussion of the process and introduces concepts of walkability and the elements that contribute to safe, high-quality walking environments. All audit participants then walk the predetermined walking route, take notes and pictures, and observe and discuss traffic patterns and infrastructure elements along the route. After the walk, everyone reports back on what they saw and makes preliminary recommendations for infrastructure improvements.

WalkBoston facilitates a walk audit meeting in Springfield with local advocates.

After the audit, WalkBoston prepares a summary report detailing the audit findings. The format and depth of analysis depend on the goals of the audit, the audience to whom the report is directed, and the needs of the audit stakeholders. Reports can be a two-page memo or a multiple-page report complete with pictures, diagrams, tables and executive summaries. No matter the format of the report, the experience of participating in the audit itself builds awareness and community support for making the pedestrian environment safer and more enjoyable.

Visit walkboston.org/walk-audit-examples for more information.

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• **Sidewalks:** A fully connected network of smooth sidewalks with curb ramps at street crossings is needed to create an accessible and safe walking environment. In cities and towns where there are missing pieces to the network, the Local Access Score tool provided by the Metropolitan Area Planning Council can help determine the most critical missing connections (localaccess.mapc.org).

• **Maintenance and operations:** Ensuring safe walking includes sidewalk snow clearance, trimming hedges that block sidewalks, picking up trash (one of the main impediments to walking cited by city residents), adding street trees for shade, maintaining tree pits so they don't become tripping hazards, and fixing uneven sidewalks. Most of these requirements need to be built into municipal operation schedules and communicated with property owners who may have responsibility for them (which varies by municipality).

Progress Takes Work and Time

Making progress on pedestrian and cyclist safety in Massachusetts isn't easy. Many parts of the state are densely developed and populated, placing a wide range of demands on overcrowded roads. Many roads here are hundreds of years old and weren't laid out with today's realities in mind. And there are often scant resources along with public resistance to change.

But many communities that work at it find that progress can be made. For example, roads and sidewalks in the city of Springfield have seen limited investment and inadequate maintenance for many years. As budgets became more

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Low-Cost Fixes Can Have Big Impact

Communities can make real change to the safety and quality of their streets without spending a lot of money. WalkBoston's toolkit, *Strategies for Improving Pedestrian Safety Through Low-Cost Traffic Calming,* summarizes dozens of local projects, providing objectives, impacts and costs. The toolkit highlights proven, low-cost ways to create safe, dynamic, accessible spaces for all. Photos show many of the low-cost fixes in action.

Each tool falls into one of four categories: create relationships, paint with a purpose, add signs, or make streets lively. The solutions help create clear and safer behaviors for everyone.

Modest changes are a great place for communities to start when improving the safety of their streets. Approval and completion of modest projects are often easier than projects requiring engineering changes to the built environment, such as curbs and raised crossings. Simple fixes can either be permanent or used to test design alternatives before choosing a final design and investing in construction. For example, paint and temporary flex posts can be used to shorten crossing distances, narrow travel lanes, and improve visibility at a crossing.

Before any physical changes are made, an important step toward improving safety is fostering good communication, both with and among decision-makers and neighbors.

Paint With a Purpose

The simple act of painting can provide "immediate infrastructure" that makes a significant impact on safety. Here are some examples:

- Well-marked crosswalks: Intersections and heavily used midblock crossings need wide, well-painted crosswalks. A ten-foot-wide crosswalk is ideal. Keep the paint fresh to ensure visibility. Signs may be needed to make pedestrians aware of unexpected traffic movements, such as right turns on red.

High school students paint a crosswalk in vibrant colors for better visibility in Salem.

- Lane markings: Painting fog lines—the road edge lines that define a single vehicle lane of ten or eleven feet—helps to reduce vehicle speeds. Stripes that mark parking lanes and bicycle lanes have a similar effect.
- Curb bump-outs: Streets can be made narrower by painting a curb extension directly on the street. Bump-outs make walkers more visible, shorten crossing distances and provide larger waiting areas.
- Tighter corners: A tight, painted corner (for example, in a small downtown area) makes drivers reduce their speeds when turning, while shortening the crossing distance for walkers.
- Improved visibility at intersections: "Daylighting" an intersection refers to providing clear sight lines between pedestrians crossing and drivers in cars. People walking and driving can see one another better if vehicles are parked farther back from corners and crosswalks.

The WalkBoston toolkit of low-cost fixes is available for free at walkboston.org/low-cost.

Rural Town Works on Comprehensive Plan to Improve Walkability

By Stacey Beuttell

Williamsburg, a Hampshire County town of 2,500 people, is in the process of taking a comprehensive look at walkability. The town has engaged planning, transportation and healthy community design experts in efforts to assess the vitality and safety of Burgy Village Center, loosely defined as the Route 9 corridor between Buttonshop Road and South Street.

Many in the community understand the effects that townwide land use decisions and community policies might have on the compact town center. Further, the community has looked at the design of its built environment through the lens of older adults, with an eye toward implementing age-friendly design principles.

As the town discusses the fate of the former Helen James School, the possible reuse or sale of other town-owned buildings, and the location of a new public safety building, town officials are considering the implications of these land use decisions on the design, density and economic vitality of Burgy Village Center. As stakeholders work with the Pioneer Valley Planning Commission to develop a Facilities Master Plan, they understand that the results of these decisions will have a direct impact on the area's walkability, as will any revisions to policies related to housing and parking.

In April 2016, WalkBoston conducted a walkability workshop, funded by the Department of Public Health's Mass in Motion program, to discuss the principles of walkable communities and describe pedestrian infrastructure changes that improve safety and the quality of the walking environment.

A major community concern is the safety of a crossing between the elementary school and the public library. Schoolchildren going to the library use a crosswalk to cross Route 9, a state-owned rural highway, but traffic volumes do not warrant a traffic signal there. One Williamsburg resident who lives on Route 9 just uphill from the crosswalk described the safety hazard of fast-moving traffic, including tractor-trailers, coming down the hill into Burgy Center.

Workshop participants discussed the possibility of gateway features and signage to announce to drivers that they are entering the town center and should slow down. A well-marked crossing with an in-street pedestrian sign is the current solution, as the town continues to explore traffic calming strategies on this major roadway.

As the town continues to examine walkability, it plans to hold an event this fall, called Burgy Revelation Day, to demonstrate how the town center "can become a more walkable, vibrant place." The event will demonstrate temporary infrastructure changes to improve safety, potential greenspace improvements, complete streets improvements, and municipal facilities investments. Burgy Revelation, to be held in partnership with Healthy Hampshire and the Pioneer Valley Planning Commission, will highlight opportunities to build on the unique sense of place of the small, walkable village center, which features quality green spaces and historic architecture. Organizers hope that, in time, "the improvements tested by Burgy Revelation can increase physical activity in Williamsburg through walk- or bike-to-town activity, in-town recreational walking, park-once pedestrian activity, and active recreation."

For more information, visit www.healthyhampshire.org/our-communities/williamsburg.

Stacey Beuttell is the Program Director at WalkBoston.

A walk audit assesses sidewalks and crosswalks near the library in Williamsburg.

Williamsburg is examining improvements for this crosswalk on Route 9 between the elementary school and public library.

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strapped, the Department of Public Works had trouble keeping up with filling potholes, much less ensuring that sidewalks were continuous along school walking routes and in neighborhoods. Over the past four years, community-based organizations and advocates, along with WalkBoston, have worked to identify the pedestrian infrastructure deficiencies and appealed to the city to allocate funds to improve safety.

Led by the Pioneer Valley Planning Commission and MassBike as part of LiveWell Springfield, the city published a *Pedestrian and Bicycle Complete Streets Plan* in 2014. The plan formalized many of the goals city departments had regarding street improvements and provided a framework for addressing investments moving forward.

WalkBoston, with support from other community-based organizations and city departments, has conducted more than ten walk assessments around elementary schools, two walk assessments in city neighborhoods, two downtown walk assessments, and a walkability workshop specifically for seniors to promote walking as a health benefit. Each of these assessments was followed up with a report documenting missing crosswalks, broken pedestrian signals and deteriorating sidewalks.

WalkBoston leads a walk audit near the Brookings School in Springfield.

City departments, specifically the Department of Health and Human Services and the Department of Public Works, now have an open dialogue about what needs to be fixed, and they are working together to try to find funding to make repairs. The city has passed a complete streets policy and completed a *Complete Streets Prioritization Plan,* which, when approved, will qualify the city for up to $400,000 from the MassDOT Complete Streets Program to make road improvements. The *Prioritization Plan* used the walk assessment findings, in part, to determine priority fixes throughout the city.

While many in Springfield still wait for needed improvements, the planning, partnerships and potential funding streams are now in place. The joining of forces among city departments, and the galvanization of residents and a dvocates around walking as a key element in the city's revitalization, together will lead to safer, higher-quality walking environments.

Video Seeks to Raise Pedestrian Safety Awareness

In partnership with the Massachusetts Department of Transportation and the Boston Police Academy, WalkBoston produced a video for law enforcement that summarizes state traffic laws related to pedestrian safety.

Called "Walk … Don't Walk," the video:

- Informs police officers of relevant statutes and citations
- Demonstrates the complexities of laws that apply to pedestrians and other road users, such as right-of-way issues, protecting the most vulnerable users, and the significance of enforcing traffic speed and parking rules for pedestrian safety
- Elevates the status of enforcing laws that protect pedestrians
- Provides information about the impact of road design on pedestrian safety
- Suggests ways that police officers can improve the built environment by informing others in a municipality of deficient pedestrian infrastructure

The video is now part of the police continuing education program statewide and has been used by many outside of law enforcement (e.g., public health, municipal staff, regional planning agencies) as a tool to promote pedestrian safety issues.

A crew interviews a police officer at Coolidge Corner in Brookline.

View the video on YouTube at http://bit.ly/PedSafetyVideo.

Online Resources Available From WalkBoston

The WalkBoston website (walkboston.org) provides free resources on a number of topics, including the following:

RURAL WALKING TOOLKIT • walkboston.org/rural-walking
WalkBoston identified a variety of tools to improve walking opportunities in the state's rural and semi-rural areas.

***GOOD WALKING IS GOOD BUSINESS* BROCHURE**
walkboston.org/good-business
Business districts benefit wherever walking conditions are improved. Good walking conditions pay off in increased retail sales, healthier employees and higher real estate values.

WALKABLE CAMPUS DESIGN REPORT • walkboston.org/campus
Students walking to school are often confronted with traffic congestion, unsafe crossings and a circuitous route to the front door. This report shares strategies for improving pedestrian safety on school campuses by guiding readers through a number of design decisions that any new campus plan must address for people arriving on foot or by bike, bus or car.

AGE-FRIENDLY WALKING PROJECT • walkboston.org/age-friendly
WalkBoston is working with seniors and local organizations in three Boston neighborhoods to identify key issues and concerns and to implement street and sidewalk improvements that create safe and pleasant walking conditions for seniors. The lessons learned from the pilot neighborhoods will be used to create guidelines for a long-term, citywide approach to senior walking.

Vision Zero

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. The Vision Zero philosophy says that keeping people alive and healthy ought to be the number one priority in how city roadways are designed, outranking concerns about vehicle speeds, convenience and other objectives. Vision Zero policies set a timeline and a commitment and bring stakeholders together to ensure a basic right of safety for all people as they move about their communities.

Vision Zero is a significant departure from the status quo in two major ways:

• Vision Zero acknowledges that traffic deaths and severe injuries are preventable and sets the goal of eliminating both in a set time frame with clear, measurable strategies.

• Vision Zero is a multidisciplinary approach, bringing together diverse and necessary stakeholders to address this complex problem, acknowledging that there are many factors that contribute to safe mobility, including roadway design, speeds, enforcement, behaviors, technology, and policies.

U.S. cities that have adopted Vision Zero policies include: Boston, Chicago, San Diego, San Francisco, Seattle and Washington, D.C.

Source: Noteworthy Local Policies That Support Safe and Complete Pedestrian and Bicycle Networks, Federal Highway Administration