



## ***Old Hill Neighborhood Walk Audit Springfield, MA***

April 27, 2017

MAKING MASSACHUSETTS MORE WALKABLE

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## Purpose of the Assessment

WalkBoston conducted a walk assessment in the Old Hill neighborhood at the request of Way Finders staff (formerly HAP Housing) and Springfield's Department of Health and Human Services (HHS). WalkBoston is assisting HHS in its implementation of walkability principles throughout Springfield under a CDC grant known as 1422. Springfield's Old Hill neighborhood also received a grant (known as the Healthy Hill Initiative) from the national awards program, BUILD Health Challenge that focuses on improving public health by addressing the 3 Ps of Policy, Physical Infrastructure and Programs. The Healthy Hill Initiative (HHI) is improving public safety by engaging residents of all ages in fitness activities that put eyes on the street and children playing in underutilized parks. Way Finders is one of the HHI partners.

Creating a more walkable neighborhood is attainable by combining public safety strategies and infrastructure improvements. Leveraging the efforts of the many partners in HHI and through HHS will make for a more sustained effort to implement built environment changes in Old Hill.

The walk assessment served two main purposes:

1. Identify deficient or missing pedestrian infrastructure and make recommendations for improvements.
2. Engage with the community and city staff around the issues of a safe walking environment.

Before the walk, WalkBoston staff reviewed the concept of walkability and built environment elements, such as crosswalks and sidewalks, which contribute to a safe, high quality pedestrian experience.

Also reviewed were the basic concepts behind the theory of Crime Prevention Through Environmental Design (CPTED) as a methodology for assessing the pedestrian environment along the walking route. CPTED includes four basic principles each with a specific goal:

1. See and be seen (Natural Surveillance)
2. Direct flow of people and clearly differentiate between public and private space (Natural Access Control)
3. Extend a sphere of influence so that users develop a sense of ownership that is noticeable to potential offenders (Natural Territorial Reinforcement)
4. Show community commitment to the neighborhood through regular trash removal, landscape maintenance, and repair of structures (Maintenance)

Rather than focus on the potentially charged terminology used to describe CPTED, all walk audit participants were asked to come together around the CPTED goals of safety and community engagement. As described below, most of the recommendations fit under the maintenance principle.



*Walk audit participants tour the Old Hill neighborhood*

## Study Area/Walk Route

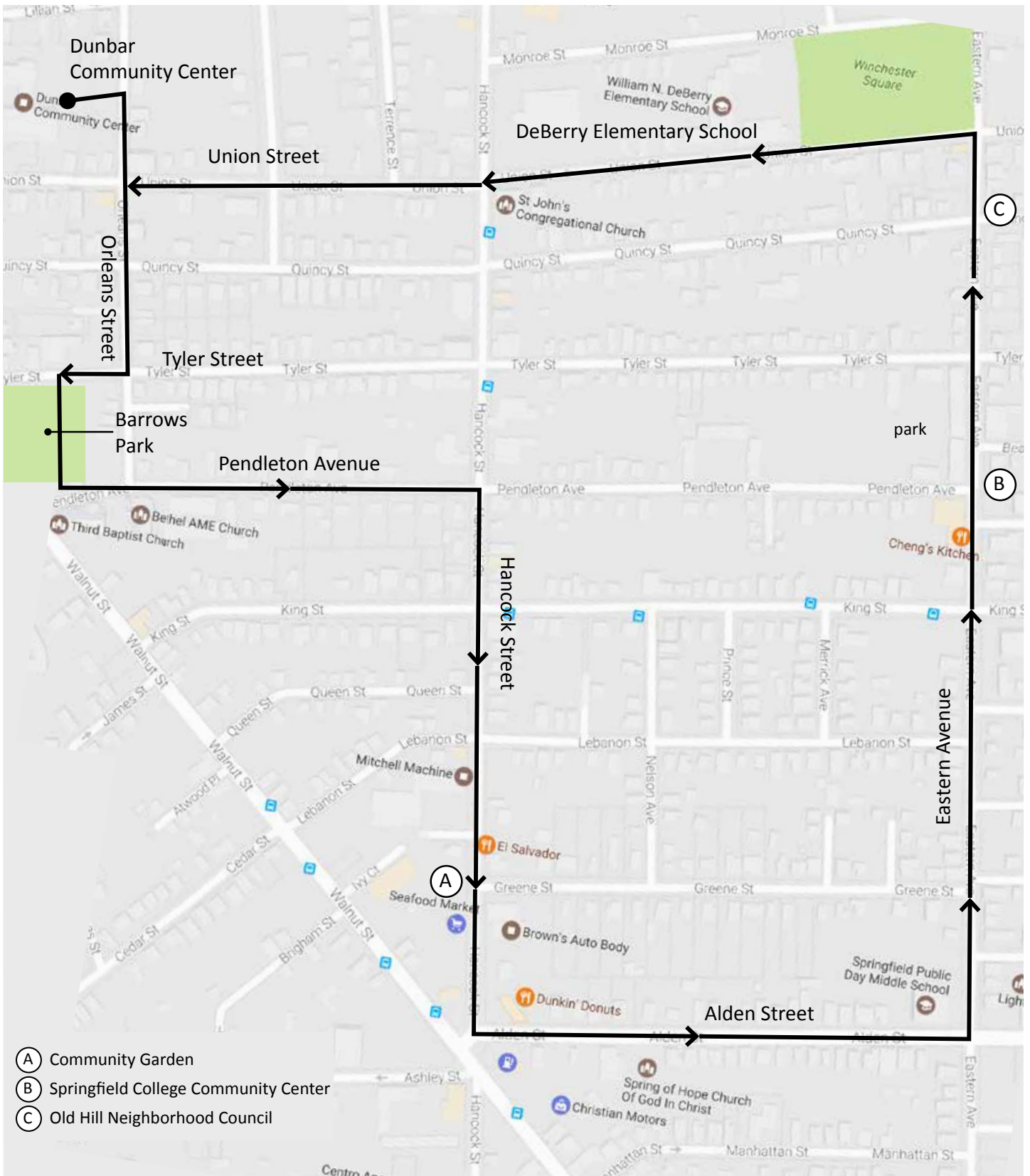
The walk route covered much of the Old Hill neighborhood, including narrow, low volume residential streets and wider, higher volume collector streets. Given the interest in evaluating the lighting at night in the Tyler Street, Quincy Street and Union Street area, the walk route was timed to end at dusk along these streets.

Participants began walking from Dunbar Y Community Center south on Orleans Street before walking west on Tyler Street. We then walked through Barrows Park and east onto Pendleton Avenue. At the intersection with Hancock Street, we turned south onto Hancock and walked to the Alden street intersection (which is one approach to the Six Corners intersection to be reconstructed soon). The walk continued east along Alden Street turning north onto Eastern Avenue. We followed Eastern Avenue to the DeBerry Elementary School and its adjacent park, then turned west onto Union Street, and returned to the Dunbar Y Community Center.

The evening was warm and slightly overcast. We began walking at 6:15 pm and finished the route at 7:30 pm. The street lights were still not illuminated when the walk ended. Below is a list of walk audit participants. Residents, City staff, non-profit leaders, community group members and police officers joined us for the walk.

## Walk Audit Participants

Stacey Beuttell	WalkBoston
Beatrice Dewberry	Way Finders
Sarah Page	Way Finders
Kiah McAndrew-Davis	Springfield Dept of Health and Human Services
Officer Doug Bernier	Mason Square C3 Police
Sgt. Devon Williams	Mason Square C3 Police
Michael Tully	Springfield Parks and Recreation Dept
Sandra West	Springfield Housing Authority, Property Manager in Old Hill
Tracey Thomas	Dunbar Y Community Center
Monica Mignott	Resident and walker
Brieajah Grimes	Youth resident
Tyanna Grimes	Youth resident
Dorothea Hass	WalkBoston
Audrey Jenkins	Health Hill Initiative Resident Health Advocate (RHA)
Awilda Sanchez	Brookings School Parent Facilitator and RHA
Antonio Delesline	RHA, Men of Color Health Awareness (MOCHA)
Karon Tyler	RHA, Stone Soul Inc.
Ann Brantley	Resident, HHI Walking Group participant
Richard Scroggins	Mt Zion Church and Dunbar Community Center
Tavis Scott	Mt Zion Church and Dunbar Community Center
Charlene Elvers	Community Affairs, Springfield College
Brandon Robinson	Gardening the Community
Matt Sokop	Springfield Dept of Public Works



Old Hill neighborhood walk audit route map



## Summary of Key Recommendations

The key recommendations fall into five categories: crossings, sidewalks, streetlights, neighborhood cleanup, and trees. Several of these categories depend on the allocation of City resources, i.e., money to rebuild sidewalks and paint crosswalks. Other recommendations focus on drawing upon the skills and commitment of the residents and community groups already involved in Old Hill's revitalization.

As evidenced by the attendance at the walk audit, the neighborhood has many highly motivated residents and leaders looking for ways to improve neighborhood quality, safety and community engagement. Many of the homes and businesses along the walk route were well cared for, showing a true commitment to and ownership in Old Hill. The community garden, managed by Gardening the Community, along Hancock Street is reclaiming valuable green space and providing residents access to healthy food.

It will be important to engage these and other dedicated neighbors in implementing the recommended neighborhood cleanup and tree planting strategies, and in advocating for City resources to make the more expensive fixes, such as street crossings, sidewalks and streetlights.

**Repaint existing crosswalks with enhanced pavement markings. Install new crosswalks and curb ramps at priority locations throughout the neighborhood.**

Many crosswalks are missing in the Old Hill neighborhood, including across collector roads such as Hancock Street and Eastern Avenue. The crosswalks that do exist are worn and use the minimal crosswalk design of just two solid parallel lines. New crosswalks require the installation of curb ramps that are compliant with Americans with Disabilities Act (ADA) standards that make them accessible for people who use wheelchairs, walkers and scooters, and for people with strollers. This report prioritizes the locations for new crosswalks so that limited infrastructure resources are used to improve the most dangerous, most highly used crossings.



*Existing crosswalks need to be repainted with enhanced pavement markings, such as a ladder or continental crosswalk design*

**Invest in sidewalk replacement and repair throughout the neighborhood. Prioritize sidewalks based on use, condition, and level of need to guide reinvestment.**

Most of the sidewalks in Old Hill meet the recommended sidewalk width for residential streets – five to eight feet wide. However, many sidewalks need to be repaired: sections are missing, concrete panels are cracked and heaving, and very few are accessible. The City of Springfield has an objective rating process that identifies sidewalks in need of repair and replacement across the City. However, the City currently has an approximately \$1 million backlog of requested repairs at specific locations. Old Hill neighborhood groups should engage with City Staff to better understand the sidewalk prioritization process.



*Tripping hazards like this one on Alden Street are common in Old Hill.*



*Cobra-head lights are the primary light source on the streets, which generally do not provide enough light for people to see while walking at night.*

**Evaluate the lighting in the Old Hill neighborhood and install new street lights where needed. Maintain the existing lights along the streets and in neighborhood parks.**

Illuminated sidewalks are a crucial factor in encouraging residents to walk through their neighborhood after dark. Some areas in the neighborhood, such as near the DeBerry School, have playing fields that are well lit. Others areas, such as Barrows Park at the corner of Walnut and Tyler Streets, have almost no functional lighting. Street lighting throughout much of the neighborhood is limited to cobra-head light fixtures that may not be adequately spaced creating areas of light and dark that make visibility at night difficult.

**Organize a neighborhood-wide cleanup campaign. Work with the City to better understand maintenance services, street sweeping schedule and trash receptacle options.**

While most sidewalks and adjacent homes are well maintained and free of trash, several of the neighborhood streets and sidewalks are in need of general clean up. A neighborhood that appears uncared for does not feel like a safe environment in which to walk. A concentrated effort with interested, motivated homeowners could be used as a model for the rest of the neighborhood.



*Trash and debris occur on some of the roadways, particularly near vacant lots and abandoned houses where illegal dumping occurs as pictured above.*

**Plant new street trees in the Old Hill neighborhood and advocate for sidewalk fixes that preserve existing trees to the extent possible.**

Trees can define a neighborhood. Residents of all communities like trees. Along the Old Hill streets that have trees, such as Alden Street, the street appears more inviting to walk along than those streets without trees, like Hancock Street. Moreover, trees provide needed shade in the summer and also slow down traffic, reduce noise, absorb storm water, increase property values and reduce home heating and cooling costs. Every effort should be made to plant new trees in conjunction with nearby homeowners' commitment to watering the trees. In cases where street tree roots have damaged sidewalks, advocate for solutions that preserve the existing tree when fixing the sidewalk.



## Detailed Descriptions of Key Issues and Recommendations

While several community-based organizations, homeowners, and property owners have invested in the Old Hill neighborhood and its homes in the past several years, the City has not significantly invested in its pedestrian infrastructure. Crosswalks, where they exist, are faded. Lengths of sidewalks are missing, sometimes resulting in worn dirt paths. Pedestrian signals are not available at traffic lights. Lighting, in general, is sparse and where it exists does not provide enough light at night for residents to feel safe. Street trees, which provide shade and add to quality to the walking environment, are only present on a couple of the neighborhood streets. Furthermore, trash litters much of the neighborhood.

Rather than provide an inventory of each broken sidewalk or missing curb ramp, this report provides a general description of the current conditions in the neighborhood, highlighting some egregious examples on specific streets. Recommendations for improvements should be applied neighborhood-wide. Funding will be the major obstacle cited as the reason for a delay in reinvestment. However, a mobilized neighborhood group can have an impact on setting the City's priorities for capital spending. WalkBoston recommends choosing small, achievable goals to start the process, like a neighborhood cleanup plan. Also, we recommend identifying specific locations where there are safety hazards and prioritizing those areas when having discussions with the City.

### Crosswalks

Of the 28 intersections along the walk route, only 5 have crosswalks across all approaches, (i.e., all roads that meet at the intersection have a crosswalk). These intersections are located on roads classified as urban collectors, which connect larger arterial roads with smaller local roads, and include: Union Street, King Street, Alden Street, Hancock Street, and Eastern Avenue. All of the crosswalks are minimal in design – just two parallel lines and relatively faded. Each of these intersections is signalized, but only two have pedestrian WALK signals (Union/Hancock and King/Hancock). Crosswalks at every intersection are not required, but the neighborhood would benefit from additional crosswalks on the busier streets.

There are only three marked crosswalks for the length of Hancock Street between Union Street and Alden Street. The same is true for Eastern Avenue. It is unreasonable to expect people to walk to a marked crosswalk given the distance between them. Consequently, people are crossing busy roads with no pedestrian accommodations.

### Short-term recommendations

- Repaint existing crosswalks with enhanced pavement markings, such as a continental crosswalk design. (Springfield just established continental design as the City crosswalk standard.)
- Establish at least one more marked crossing on Hancock Street. Proposed locations include: @ Pendleton or @ Green intersections.
- Establish at least one more marked crossing on Eastern Avenue. Proposed locations include: @ Lebanon Street, @ Greene and Ladd Streets, or @ Tyler Street.
- Identify locations for new crosswalks neighborhood-wide based on pedestrian use patterns, crash data, and vulnerable populations (e.g., seniors and children).

### Long-term recommendations

- Install new crosswalks and ADA-compliant curb ramps at intersections identified in neighborhood-wide crosswalk study.
- Install accessible pedestrian signals with countdown clocks at each of the signalized intersections along the walking route.



*At the Eastern Avenue/King Street intersection, the crosswalks are faded and there are no pedestrian signals.*



## Sidewalks

Many of the sidewalks in the Old Hill neighborhood are in a general state of disrepair. Some sidewalks at intersections have been reconstructed to include curb ramps, but in general accessibility is a real challenge on all streets. Many of the sidewalks are narrow or obstructed with utility poles. Concrete sidewalk panels are uneven creating many tripping hazards. Asphalt sidewalks are cracked and damaged by tree roots. Some sidewalks are brick and end in dirt paths or patches of weeds. Orleans Street between the Dunbar Community Center and Pendleton Avenue is in the worst condition.

In the City of Springfield Pedestrian and Bicycle Complete Streets Implementation Guide, published in 2014, Pendleton Avenue and Eastern Avenue are identified as key complete streets corridors within the Old Hill neighborhood. The plan indicates that both streets should be transformed into neighborhood streets, which include bike facilities, sidewalks, and other traffic calming strategies. While funding has not been procured for these improvements yet, Old Hill residents can point to this plan and advocate for change.



*Sidewalk along Orleans Street is reasonably wide, but in poor condition.*

### *Short-term recommendations*

- Install new sidewalks along Orleans Street between Union Street and Pendleton Avenue.
- Complete sidewalk on the west side of Eastern Avenue between Greene Street and Alden Street.
- Shorten the long curb cuts and delineate vehicular entrances to service station along the eastern side of Hancock Street and the northern side of Alden Street at the Hancock/Alden Street intersection.
- Identify other sidewalks in greatest need of repair and replacement in the Old Hill neighborhood.

### *Long-term recommendations*

- Upgrade all crossings to include ADA-compliant curb ramps.
- Consider raised crossings across local streets where they intersect with urban collectors such as Hancock Street, Eastern Avenue, King Street, Alden Street, and Union Street. Drainage patterns need to be evaluated to determine feasibility.
- Work with City staff members to understand sidewalk improvement priorities and schedules for road redesign and maintenance.



*Some neighborhood sidewalks have been upgraded with new concrete and ADA-compliant curb ramps. Investments such as these need to occur throughout Old Hill.*

## Street Lights

In the Old Hill neighborhood, street lighting is limited to cobra-head light fixtures that create areas of light and dark that make visibility at night difficult. While there are light fixtures in the neighborhood parks, some of them have been damaged and no longer function.

Lighting at night is a huge concern where crime and fear for personal safety are realities in Old Hill. Residents credit the improved street lighting on Eastern Avenue and the additional lights in the park near the DeBerry School with improving the safety of the neighborhood and bringing residents out at night to picnic and play in the park. Walk audit participants witnessed this firsthand as we saw people hitting softballs on the field and playing volleyball on the grass in the park near DeBerry.

The current lighting patterns along both the urban connectors (Union Street, King Street, Alden Street, Hancock Street, and Eastern Avenue) and the neighborhood streets are irregular which causes pools of bright light in some areas and dark zones in others. The streetlights are positioned to light the street and do very little to illuminate the sidewalks. Given the current quality of the sidewalks and the lack of crosswalks, the limited lighting further contributes to a potentially dangerous pedestrian environment.



*Lighting in Barrows Park has been vandalized and no longer functions. This park has longstanding issues with illicit activity after dark.*

### *Short-term recommendations*

- Organize a campaign to repair the lights in Barrows Park. Contact Eversource at 800-286-2000, or go to the Eversource website at this link: <https://www.eversource.com/wmeco/wms/createrequest.aspx?nl=slr> (Note: this information was found on the City of Springfield website - <http://www.springfield-ma.gov/dpw/index.php?id=lighting>)
- Prioritize streets based on greatest need of new lighting due to lack of light, presence of crime or hot spots, low quality sidewalks, or vulnerable populations (e.g., seniors or children).
- Consider a community-based porch light strategy. Strategies could include regularly leaving porch lights on at night to improve neighborhood light levels.

### *Long-term recommendations*

- Work with Eversource and City Staff and request a lighting study of the Old Hill neighborhood to improve light levels at night. The study may yield a recommendation for better light in different locations rather than more lights. The lighting designer's focus should be on the pedestrian experience.



*The lighting in the park near DeBerry School has contributed to greater use rates of the ball fields and green spaces in that area.*

## Neighborhood CleanUp

WalkBoston strongly encourages a neighborhood-based effort to clean up Old Hill and engage community members in efforts to advocate for a safer walking environment. A neighborhood that appears cared for feels like a safe environment in which to walk. A concentrated effort with interested, motivated homeowners could be used as a model for the rest of the neighborhood. Those neighborhood streets and sidewalks that are now littered with trash and debris, as well as overgrown weeds and leaves, make the community look unkempt and unwelcoming. Cleaning up these streets and transforming the streetscape can be achieved at minimal cost with a wholehearted neighborhood cleanup project.

Revitalize CDC, with its many community partners and sponsors, just held its annual Green N Fit Day that involves 1,000 volunteers fixing up houses and clearing debris from vacant lots on one block of Old Hill in one day. This annual event has helped many families with needed home improvements and yard cleanup activities. It would be wonderful to build on this annual event and instill a greater sense of responsibility for cleanup and maintenance throughout the year.

### *Short-term recommendations*

- Work with the City to better understand maintenance services, street sweeping schedule and trash receptacle options. The City of Springfield website currently lists street sweeping for the Old Hill Neighborhood as TBD (to be determined). Metro Center is swept weekly (source: <https://maps.springfield-ma.gov/gis/>. Street sweeping GIS layer)
- Identify a specific area with motivated residents within the Old Hill Neighborhood to model street cleanup activities.

### *Long-term recommendations*

- Monitor clean up activities and see if positive social pressures to maintain homes, yards and sidewalks increases.

## Trees

Streets with a consistent tree plantings, such as Alden Street, are more inviting to walk along and provide needed shade in the summer. Street trees slow down traffic, reduce noise, absorb storm water, increase property values and improve neighborhood quality of life. Trees add character and beauty to a neighborhood. While it would be advantageous to plant trees along all streets, resources are limited. Planting trees along the higher volume roads, such as Hancock Street and Eastern Avenue, would have a greater impact on slowing traffic for more Old Hill residents.

In cases where street tree roots have damaged sidewalks, advocate for solutions that preserve the existing tree when fixing the sidewalk. Some cities have sidewalk replacement strategies that work to preserve the existing tree by patching a sidewalk using asphalt or replacing an individual concrete panel rather than removing the tree. In some cases, tree roots can be obstacles that those with disabilities cannot overcome. Trees will need to be removed in these situations.

### *Short-term recommendations*

- Maintain existing trees. Work with the City Forestry Division to determine maintenance responsibilities. Consider a neighborhood Adopt A Tree program if City ordinances allow it.
- Determine if ReGreen Springfield (<http://regreenspringfield.com/>) can help to fund and plant street trees in Old Hill.
- Identify sidewalks damaged by tree roots, such as on the north side of Alden Street near the Alden/Hancock Street intersection. Use repair strategies that preserve the tree, where possible.

### *Long-term recommendations*

- Identify locations for new street trees. Urban connectors, such as Hancock Street and Eastern Avenue, would feel safer and more comfortable for walkers if trees were planted along them.



## Appendix A. Terminology

Below are images and definitions of the terms used to describe the walking environment in this report.

### Crosswalk and Stop Line

Crosswalks can be painted in a variety of ways, some of which are more effective in warning drivers of pedestrians. Crosswalks are usually accompanied with stop lines. These lines act as the legally mandated stopping point for vehicles, and discourage drivers from stopping in the middle of the crosswalk.



*Crosswalk patterns*  
Source: USFHA



*Crosswalk and stop line*  
Source: [http://safety.fhwa.dot.gov/ped\\_bike/tools\\_solve/ped\\_scdproj/sys\\_impact\\_rpt/images/fig16.jpg](http://safety.fhwa.dot.gov/ped_bike/tools_solve/ped_scdproj/sys_impact_rpt/images/fig16.jpg)

### Curb Ramp and Detectable Warning Strip

Curb ramps provide access from the sidewalk to the street for people using wheel chairs and strollers. They are most commonly found at intersections. While curb ramps have improved access for people who use wheelchairs, they are problematic for people who are visually impaired and use the curb as an indication of the side of the street. Detectable warning strips, a distinctive surface pattern of domes detectable by cane or underfoot, are now used to alert people with vision impairments of their approach to streets and hazardous drop-offs.



*Curb ramp and detectable warning strip*

### Curb Extension/Curb Bulb-out

A sidewalk extension into the street (into the parking lane) shortens crossing distance, increases visibility for walkers and encourages eye contact between drivers and walkers.

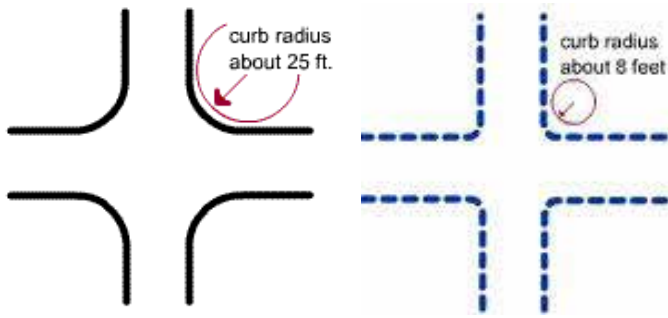


*Curb extensions are often associated with mid-block crossings*



## Curb Radius

A longer curb radius (on the left in figure below) allows vehicles to turn more quickly and creates longer crossing distance for pedestrians. A shorter curb radius (on the right in the figure below) slows turning speeds and provides pedestrians shorter crossing distances.



(A) Gravel-filled curb extension

There are two excellent examples of the shortening of curb radii in Woburn, MA. The first (A) is a low-cost solution using a gravel-filled zone between the original curb line and the newly established road edge. The second is a higher-cost solution using grass and trees and extending the sidewalks to the new curb. Both work to slow traffic.

## Fog Line

A fog line is a solid white line painted along the roadside curb that defines the travel lane. It narrows a driver's perspective and helps to slow traffic speeds. Fog lines are used in urban, suburban and rural locations.



(B) Grass, trees and extended sidewalk in curb extension



Fog lines delineate the vehicular driving zone on wide roadways.

## In-street Pedestrian Crossing Sign

In-street pedestrian crossing signs are used at the road centerline within crosswalks to increase driver awareness of pedestrians in the area. These signs are a relatively low-cost, highly effective tool in slowing traffic by the narrowing travel lanes. They are popular with road maintenance departments since they can be easily moved for snow removal.

