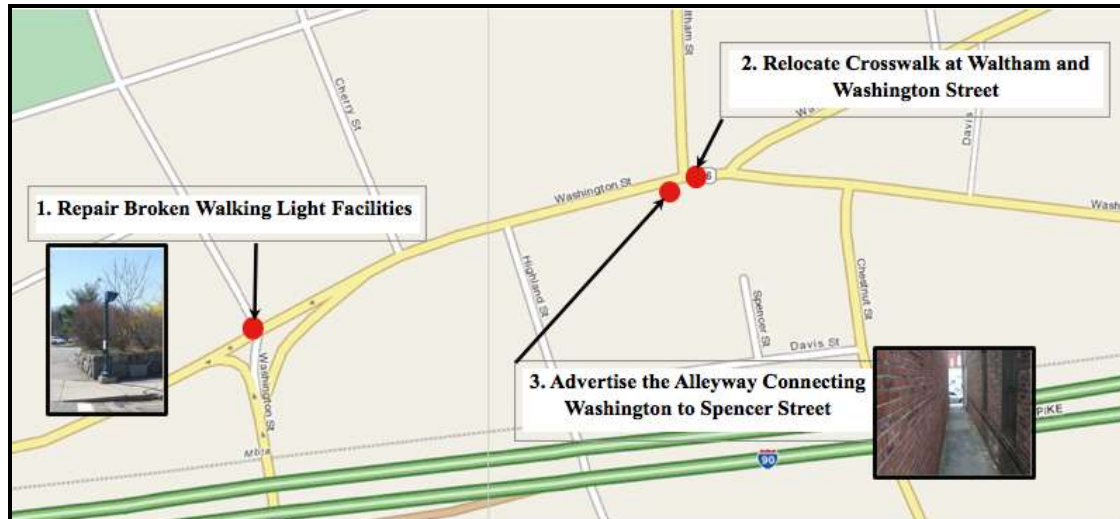


## Short-term, Long-term, and City-wide Recommendations

In this section, we summarize high priority improvements for pedestrian mobility, both throughout Newton and in each study area. Many of these improvements will be relatively inexpensive and simple to implement, yet can have a significant impact on increasing pedestrian mobility. We also present some more expensive improvements that can have a greater positive impact on pedestrian mobility.

Short-term recommendations are those that are less costly and can be implemented easily and without much further planning. Below we present our short-term recommendations for each area.

### West Newton Short-Term Recommendations:



**Figure 1: Map of West Newton Short-Term Recommendations**

- 1. Repair Broken Walking Light Facilities:** At the intersection of Elm Street and Washington Street, there is a walking light that is not visible to pedestrians and there is a button for a walking light that is not functional. Fixing these two facilities will help improve pedestrians' safety.
- 2. Relocate Crosswalk at Waltham and Washington Street:** The crosswalk across Washington Street at Waltham Street should be moved from one side to the other. Moving this crosswalk will allow pedestrians a safer crossing providing a refuge for pedestrians with a median and by avoiding hazards such as right-on-reds.
- 3. Advertise the Alleyway Connecting Washington to Spencer Street:** This alleyway is very conveniently located, but because it is hidden and not

aesthetically pleasing, it is often unused. Improving the alley's aesthetics and advertising its public use with signage cuts pedestrians' commutes significantly and allows access to shops along Spencer Street. It also will increase safety by cutting down the interaction time between pedestrians and vehicles.

### Newton Corner Short Term Recommendations:

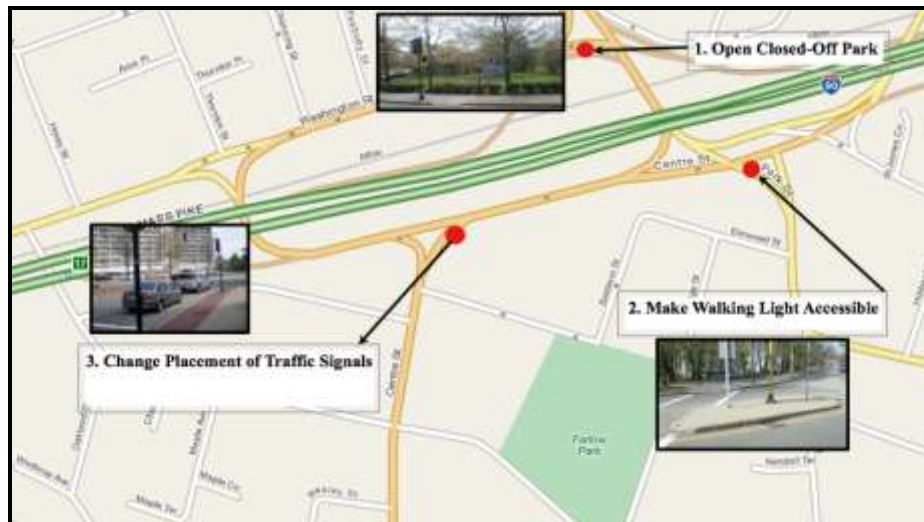
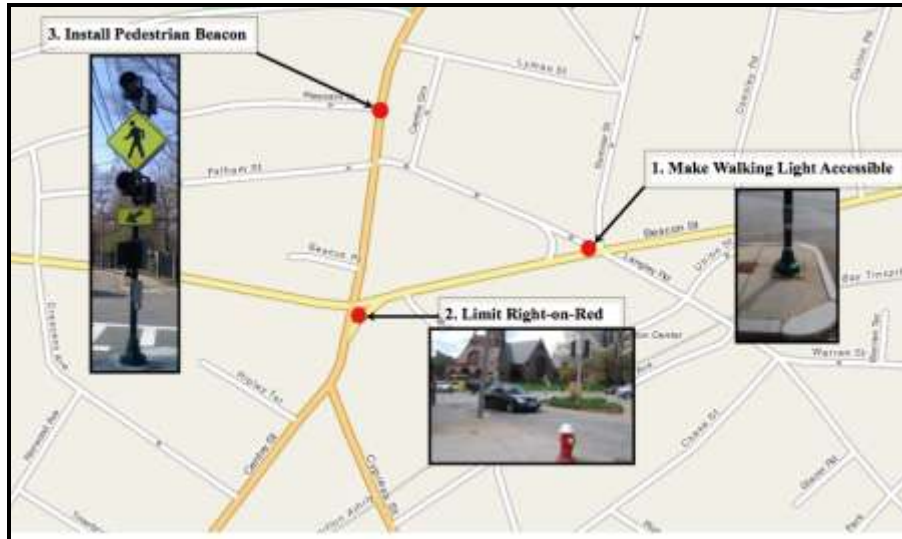


Figure 2: Map of Newton Corner Short-Term Recommendations

- 1. Open Closed-Off Park:** On the north side of Newton Corner, there is a green, open space that is closed off by a fence. This park is a memorial containing a bell from a former fire station. Opening this park would provide a safe and inviting destination for pedestrians.
- 2. Make Walking Light Accessible:** After being fixed, the walking light on Park Street needs to be moved to the edge of the median, putting it within arm's reach of the lowered cut-through. This will provide a safe and accessible means of travel, especially for the children using this as a route to school.
- 3. Change Placement of Traffic Signals:** In order to improve the safety of crossing the intersection of Centre Street and Centre Avenue, relocating and removing some traffic lights would reduce the impact from traffic in this area. Currently, there are three traffic lights at this intersection. Two exist on either side of Centre Street after a crosswalk and the other exists in the median before the crosswalk. We recommend removing both lights after the crosswalk and adding another light on the other side. This will result in cars stopping before the crosswalk instead of on top of it, decreasing the interaction time between motorists and pedestrians, increasing safety for pedestrians at this intersection.

## Newton Centre Short-Term Recommendations:



**Figure 3: Map of Newton Centre Short-Term Recommendations**

- 1. Make Walking Light Accessible:** There is a walking light located at the end of Langley Road right before it begins to intersect with Sumner Street and Beacon Street. This walking light is located on a median which currently possesses no curb cut. This makes the walking light inaccessible. Installing a curb cut located at this median will allow all people, regardless of disabilities, to use the walking light to cross the street safely.
- 2. Limit Right-on-Red:** Some motorists driving north on Centre Street making rights-on-red onto Beacon Street take this turn at relatively high speeds. This endangers pedestrians when using the walking light because despite the safety that these lights provide, motorists taking the right-on-red do not yield or see pedestrians attempting to cross. The installation of a traffic signal stating, “No Turn on Red” should be implemented at this intersection. This light will only appear when pedestrians use the walking light to cross Beacon Street. Installing this light will increase the safety for pedestrians crossing by increasing driver awareness.
- 3. Install Pedestrian Beacon:** Pedestrian beacons make crosswalks safer by making motorists more aware of the pedestrians in the area. After determining that the beacon is effective in notifying motorists of pedestrians, we recommend that a beacon be installed at the Pleasant Street crosswalk on Centre Street. This crosswalk exhibits heavy pedestrian traffic and is also located on a hill, which may affect the visibility of motorists when traveling up it.

## Chestnut Hill Short-Term Recommendations:

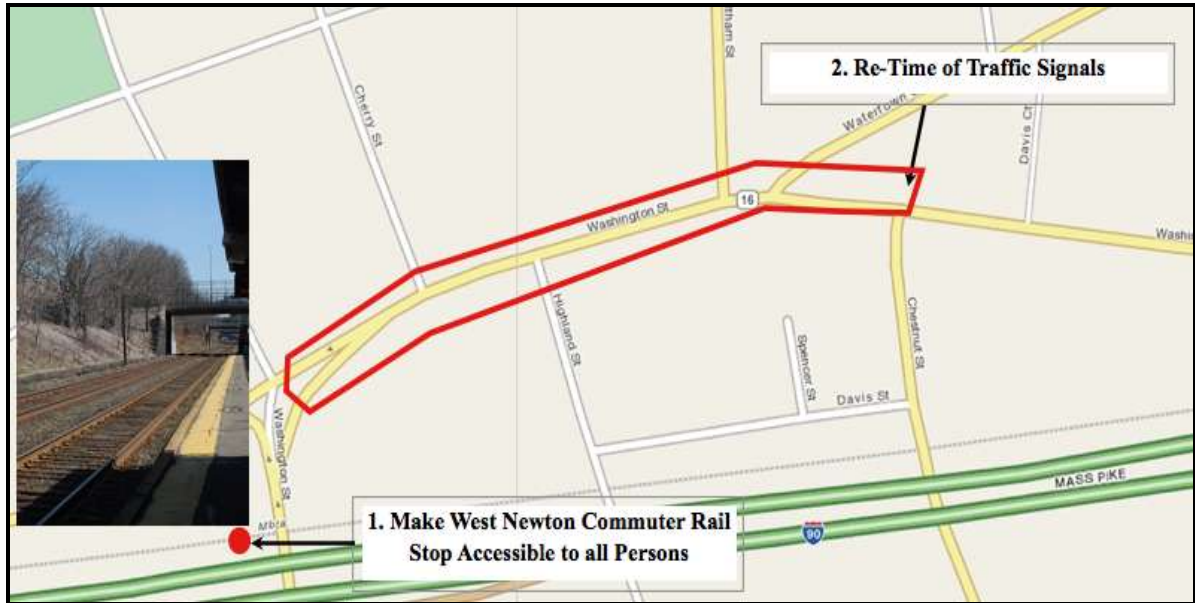


**Figure 4: Map of Chestnut Hill Recommendations**

- 1. Install a Traffic Signal and Walking Light at Un-signalized Crossing:** This crossing is located on Route 9, across from Finagle-a-Bagel. Route 9 is unsafe to cross without any help from traffic signals or walking lights. Installing a traffic signal and walking light will increase the safety of pedestrians wishing to cross Route 9.
- 2. Implement Accessible Crossing on Hammond Pond Parkway:** Hammond Pond Parkway is unsafe for pedestrians to cross and travel along. Currently, there are many areas that have no pedestrian facilities, causing people to create their own walking routes. Designing and implementing new pedestrian facilities along this parkway will increase the safety of those who choose to walk here.

Below we present our long-term recommendations for each area. These recommendations are more costly and require further study and planning to be implemented.

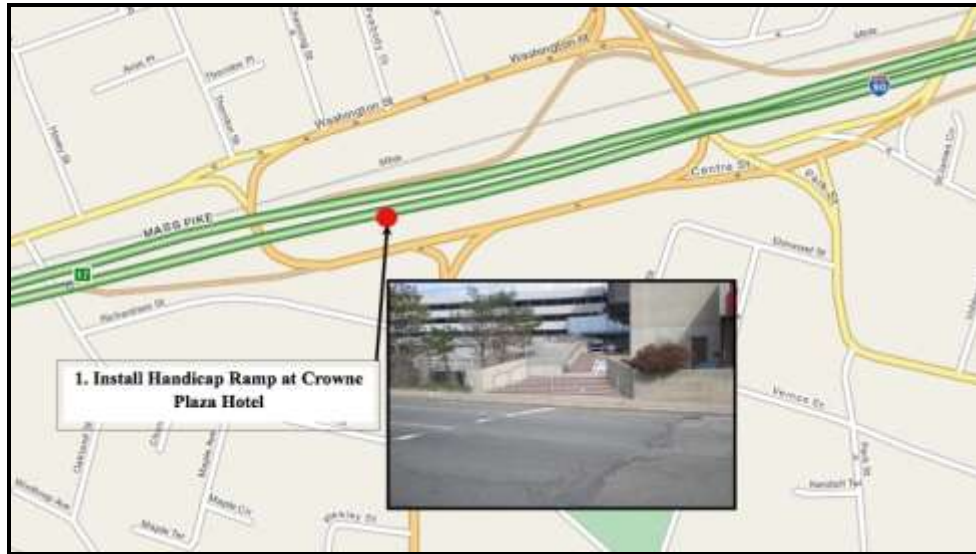
### West Newton Long-Term Recommendations:



**Figure 5: Map of West Newton Long-Term Recommendations**

- 1. Make West Newton Commuter Rail Stop Accessible to all Persons:** There are three commuter rail stations in Newton, including one in West Newton. Every station is currently inaccessible to many people with disabilities because only a set of stairs provides access to these stations. The city should consider working with the MBTA to create a ramp at least at the station in West Newton. The space provided here is wide enough for development of this facility. This will increase accessibility to mass transit and make West Newton a more pedestrian-friendly environment.
- 2. Re-Time of Traffic Signals:** A major problem facing pedestrian mobility in West Newton is the heavy traffic caused by five sequential lights located within a quarter mile on Washington Street. The heavy traffic often causes cars to back up onto crosswalks and creates poor visibility between motorists and pedestrians. Cars on top of crosswalks present safety issues because it forces pedestrians to direct themselves around vehicles. Re-timing the lights will improve traffic flow, helping prevent cars from backing up onto crosswalks.

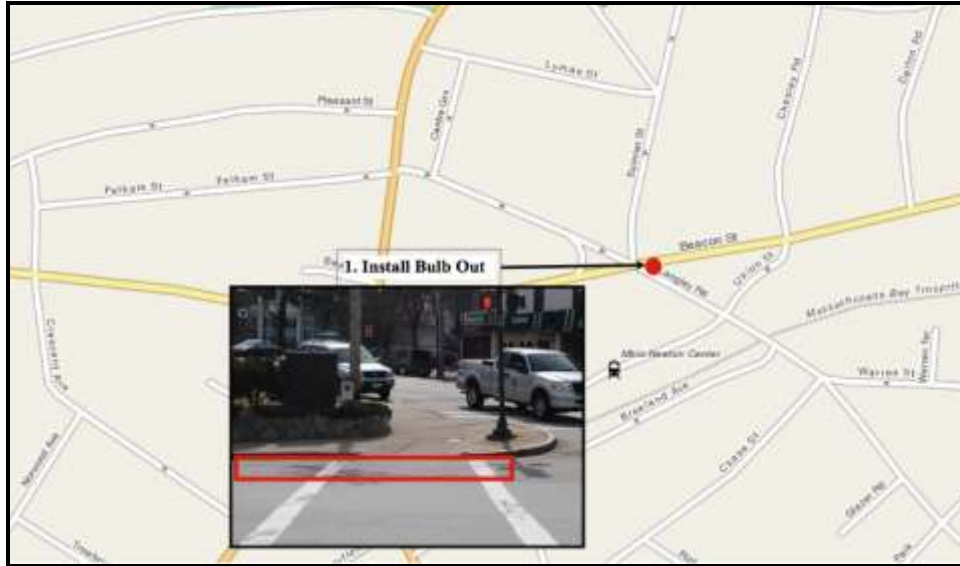
## Newton Corner Long-Term Recommendations:



**Figure 6: Map of Newton Corner Long-Term Recommendations**

- 1. Install Handicap Ramp at Crowne Plaza Hotel:** On the south side of the Crowne Plaza path over the Massachusetts Turnpike is a stairway. These stairs prevent those with disabilities to cut-through this area as a safe means to cross over the Massachusetts Turnpike. We recommend implementing a ramp at this location. This will be expensive and require planning in conjunction with the Massachusetts Department of Transportation as well as the hotel; however this will greatly increase accessibility in this area.

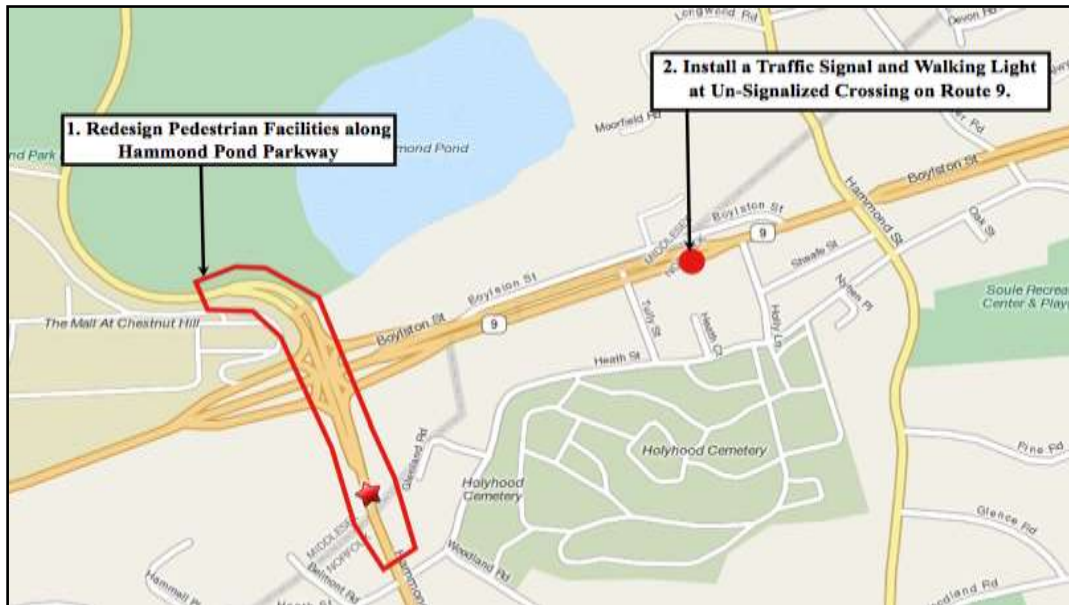
## Newton Centre Long Term Recommendations:



**Figure 7: Map of Newton Centre Long-Term Recommendations**

- 1. Install Bulb Out:** At the Langley Road and Beacon Street intersection, there is an extremely long crosswalk that leads to a curb cut and median. The median is at such an incline that people with walking disabilities avoid this area. Installation of a bulb out, which requires extending the sidewalk into the road, will reduce the length of the crosswalk and give ample room to redesign a curb cut and median that will be accessible to all persons. This improvement will increase pedestrian safety when traveling within this intersection.

## Chestnut Hill Long-Term Recommendations:



**Figure 8: Map of Chestnut Hill Long-Term Recommendations**

- 1. Install a traffic signal and walking light at un-signalized crossing on Route 9.** Installing a traffic signal and walking light will increase the safety of pedestrians wishing to cross Route 9. This recommendation will require cooperation from Brookline.
- 2. Redesign Pedestrian Facilities along Hammond Pond Parkway:** Since Hammond Pond Parkway is very unsafe for pedestrian travel, a redesign of the area, including the intersection with Route 9 and travel north to the mall entrance, should be considered. This could allow for the construction of new pedestrian facilities along this route, such as the implementation of a sidewalk on the side of the street closest to the Shopping Center and some traffic lights equipped with crosswalks and walking signals. This would make the area where the parkway meets Route 9 much safer for both pedestrians and motorists.

## Citywide Recommendations:

- **Right-on-Red:** Right-on-red turns present a safety issue to pedestrians, even when using the walking light. Our recommendation to those right-on-red turns that present challenges to pedestrians are eliminating the right-on-red turn, installing a traffic signal that reads “No Turn on Red” when the walking light is in use, or implementing *leading interval lights* that will provide a buffer for the pedestrian to cross lanes before vehicular travel in any direction can begin again.

- **Earlier Seasonal Maintenance:** Sidewalks and crosswalks should be maintained earlier in the spring. This will minimize the time that debris and poor visibility affect safety and accessibility in Newton. This recommendation is directed towards Newton's Department of Public Works, who is responsible for the maintenance and upkeep of these facilities.
- **Improve Crosswalk Painting:** In order to improve crosswalk painting, hatching or solid colors should be used. These will improve visibility and therefore the safety of pedestrians.
- **Install Curb Cuts for Each Crosswalk:** A common regulation violation that we found during our work in Newton was one curb cut that accommodated more than one crosswalk. According to the American with Disabilities Act, each crosswalk must have its own curb cut, meaning it cannot be shared with another crosswalk. By installing curb cuts at each crosswalk location, this will help ensure safe and accessible pedestrian crossings.
- **Install Perpendicular Crosswalks at Intersections:** Throughout the four study areas, we noticed many crosswalks that are diagonal. Diagonal crosswalks can be more convenient for pedestrians because they could provide a more direct path to their destinations. However, these present a serious safety issue, because diagonal crosswalks cause longer interaction time between motorists and pedestrians. Due to this, curb cuts should be installed directly across from one another in order to allow a straight crosswalk for pedestrians.
- **Install Medians in Necessary Locations to avoid Long Crosswalks:** In all locations, long periods of pedestrian-vehicle interaction should be avoided to help improve pedestrian mobility. Installing medians at crosswalks that are long will provide safety for pedestrians by allowing a place in the middle of the crosswalk to separate the pedestrian from vehicular traffic.
- **Replace Brick Walkways with Pressed Concrete:** Brick can be a hazardous surface therefore as it degrades pressed concrete should be used as a replacement. Pressed concrete is a cheaper and safer material and still possesses much of the same aesthetics as brick.
- **Improve Bus Stops:** At bus stops throughout the city, where able, full shelters and bike racks should be added. These will increase aesthetics and also encourage the use of these stops.

In this report, we have identified challenges and opportunities concerning pedestrian mobility in four villages of Newton, and have provided recommendations for each area intended to promote safe pedestrian activity. We hope these recommendations will aid Newton's efforts to creating more walkable environments. Enhanced pedestrian mobility can benefit residents, tourists, and business owners within each study area, thereby improving quality of life in the city.

