



Age-Friendly Walk Audit - Ware Ware, MA

November 15, 2019

With funding from the Tufts Health Plan Foundation and the Massachusetts Council on Aging

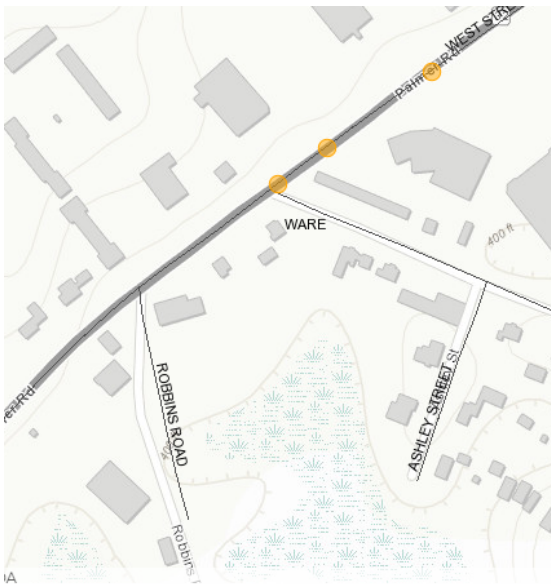
Background

On Friday, November 15th, WalkBoston conducted a walk audit in Ware, MA. The town of Ware is currently in the process of developing a Bike and Pedestrian plan and a Complete Streets Prioritization plan. The town requested this walk audit to help inform these processes. The audit focused on the walkability of the residential neighborhood north of Ware’s town center and its connectivity to areas of town with a high density of goods and services and senior housing complexes.

This walk audit was completed as part of WalkBoston’s Age-Friendly Walking initiative, which is a three year, statewide initiative to improve walking conditions for people of all ages in rural and gateway communities of Massachusetts through policy implementation and built environment change.

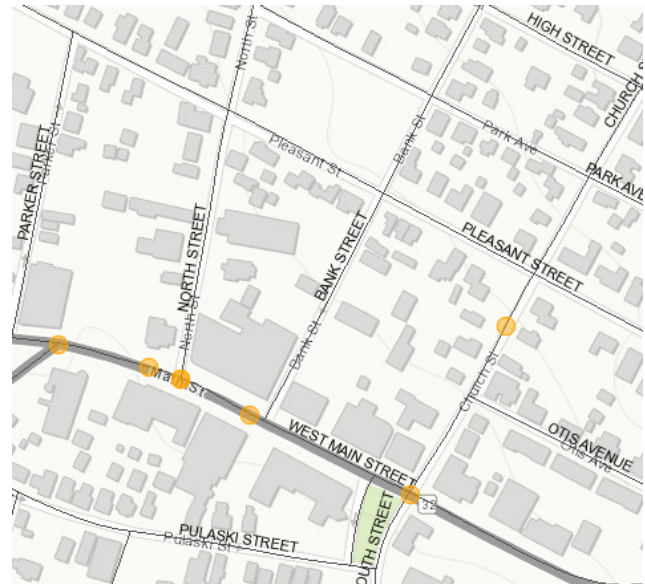
MassDOT’s crash data indicates 10 pedestrian-involved crashes in the walk audit study area since 2009. One of these crashes resulted in a fatality and nine resulted in non-fatal injuries of the involved pedestrian.

Figure 1: Pedestrian Crash Map – Town Center



Source: MassDOT IMPACT crash portal

Figure 2: Pedestrian Crash Map – SR 32 Shopping Plaza

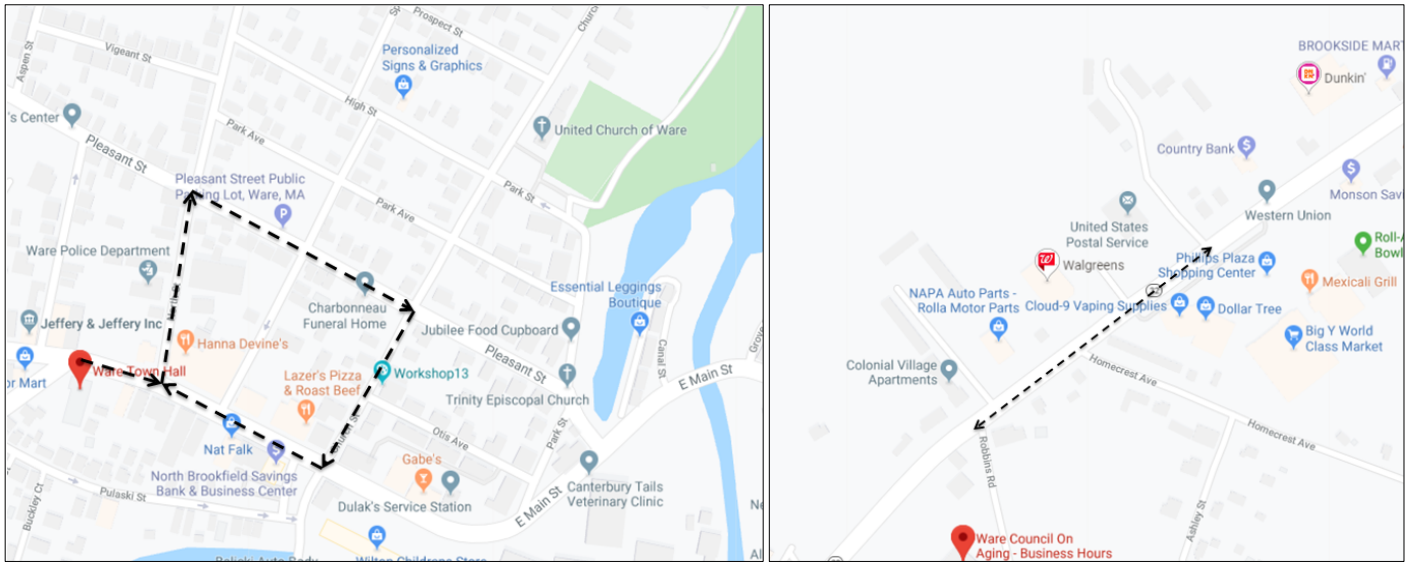


Walk Audit Participants

<u>Name</u>	<u>Organization</u>
Becky Basch	Pioneer Valley Planning Commission
Stuart Beckley	Town of Ware
Rebekah DeCoursey	Town of Ware
Steven Tyler	Howard Stein Hudson
John Zienowicz	Ware Council on Aging
Stacey Beuttell	WalkBoston
Liz Rickley	WalkBoston
LeighAnne Taylor	WalkBoston

Walk Audit Route

The walk audit began at Ware Town Hall on Main Street. Participants walked east on Main Street to North Street and traveled north on North Street to Pleasant Street. The group then walked east on Pleasant Street to Church Street. Participants followed Church Street south back to Main Street and returned to Town Hall. Walk audit participants then drove to Phillip’s Plaza Shopping Center on State Route 32 (SR-32) and walked from the shopping center west on SR-32 to Robbins Road.



Neighborhood Characteristics

The two focus areas of this walk audit included a section of one of Ware’s residential neighborhoods and the area near the town’s main shopping plaza on SR-32. The residential streets assessed for this audit included segments of North Street, Pleasant Street, and Church Street (as shown in the map above). These streets are within a part of Ware’s environmental justice neighborhood, which includes low-income and senior housing. Residents of this neighborhood walk to Ware’s Main Street downtown district and to the shopping plaza on SR-32 to access goods and services. There is a desire to improve the safety and comfort of the walking environment in this residential district and along SR-32 to ensure that walking is safe for Ware residents of all ages and abilities.

Key Observations and Recommendations

Main Street

Main Street in downtown Ware is a two-way arterial with one travel lane in each direction. The Main Street corridor included in the walk audit study area has three signalized intersections. Main Street’s Church Street and North Street intersections are fully signalized, and the SR-32 intersection has a flashing red-yellow signal. Main Street is currently on MassDOT’s Transportation Improvement Plan (TIP)

for a resurfacing project in 2020 and signal upgrades in 2024, including the traffic signals along the corridor studied in this walk audit.

With the focus of this walk audit being primarily in the residential district and on the shopping plaza, the recommendations aren't focused on Main Street. The group did, however, make a few observations and recommendations regarding Main Street, which are included in this report.

Observations:

- **Sidewalks in good condition:** The sidewalks are wide, level, and smooth for most of the Main Street corridor. There are some accessibility concerns with steps on the sidewalk near the southside business at the east end of Main Street near South Street.
- **Inconsistency of the sidewalk verge:** The separation of people walking on the sidewalk from moving vehicles is missing in some areas and could be improved in others.
- **Poor visibility of midblock crossings:** The midblock crossings lacked elements to enhance pedestrian visibility and safety.
- **Confusing lane markings:** The painted turn lane markers on Main Street were confusing in places in their configuration, placement, and distance from the signalized intersections.
- **Need for signal upgrades:** The pedestrian signals at the signalized intersections were not up to current MUTCD standards. The signal timing did not provide enough WALK time for safe clearance of the crosswalk.
- **Dangerous configuration of the intersection of Route 32 and Main Street:** The skewed alignment of this intersection, vehicular turning movements, and long crosswalk distance across Route 32 in the east-west direction contribute to an unsafe street crossing condition at this intersection.



The pedestrian signals on Main St need to be replaced with updated Accessible Pedestrian Signals with countdown WALK signals



The sidewalks are in good condition on Main Street but lack a verge in some places



Exposed street tree pits may pose a tripping hazard to older adult pedestrians

Recommendations:

- **Enhance the sidewalk verge:** Plant street trees in areas with gaps to create a uniform separation of people walking from moving vehicles. Evaluate the installation of tree pit treatments that are

contiguous with the level of the sidewalk to prevent tripping hazards.

- **Improve the visibility of midblock crossings:**

Increase the visibility of the three existing midblock crossings on Main Street with features such as in-crosswalk signage or rectangular rapid flashing beacons (RRFBs). Evaluate adding bump outs (like the ones currently in place at Bank Street) at the crosswalks that do not currently have them to decrease crossing distances and increase pedestrian visibility. Consider parking regulations, such as a no parking zone within 20 feet of a marked crosswalk, to improve visibility.



Bumpouts at the Bank Street midblock crossing enhance the visibility of pedestrians and shorten the crossing distance. Adding this feature to other crosswalks on Main Street could further enhance pedestrian safety.

- **Upgrade pedestrian signals at signalized intersections:**

Include Accessible Pedestrian Signals (APS) with tactile and audible crossing warnings and countdown WALK signals to the 2024 planned update of the signals on Main Street. Ensure that the signal phasing allows 3.5 feet per second crossing time, or 2.5-3 feet/second walking speed if vulnerable road users (older adults, children, or people with disabilities) frequent the crosswalk.

- **Improve the safety of the east-west crosswalk at the intersection of Main Street and SR-32:**

Evaluate the vehicle turning patterns at this intersection and signal phasing to protect pedestrians from high speed turning vehicles. Evaluate re-configuring the alignment of this intersection to tighten the left turn radius from Main Street onto SR-32 to slow speeds and protect people walking in the east-west crosswalk.

- **Age-Friendly walking features:**

Evaluate the installation of benches on Main Street to encourage older adult walking. Consider adding wayfinding signage additions that show in-town walking trips in number of minutes it will take to walk to the destination (instead of distance). Improve night time walking safety on Main Street with increased pedestrian-scale lighting.



Poor sight lanes, vehicle turning patterns, and a long crossing distance at the Main Street and SR-32 intersection contribute to an unsafe walking environment in this location

Residential Streets: North Street, Pleasant Street, and Church Street

The study area included portions of three residential streets that fall within Ware’s environmental justice neighborhood. The majority of the homes in this residential district are within a 5 to 20-minute walk of Ware’s downtown district. There is a diversity of home types in this district including single family homes, multi-family homes, and low-income and senior apartment buildings. Many neighborhood residents walk or use the local bus service (Pioneer Valley RTA) to access goods and services on Main Street and in the retail district on SR-32. Construction is underway to build a new dog park in this neighborhood on Pleasant Street, and the town’s only funeral home is also on Pleasant Street. The town’s public library and an art facility that hosts community events are both located on Church Street.

These neighborhood amenities generate a high volume of walking on North Street, Pleasant Street, and Church Street.

Observations:

- **Poor sidewalk conditions:** the sidewalks on North Street, Pleasant Street, and Church Street are in varying states of disrepair with cracks and unlevel surfaces creating tripping hazards, broken or nonexistent curb ramps, interruption by utility poles, and overgrown vegetation in places. The Church Street sidewalk conditions are of particular concern, as they provide connectivity to and from senior housing and to the town’s public park.
- **Unsafe intersections:** The intersection of North Street and Pleasant Street is a four-approach intersection that has stop signs at the Pleasant Street approaches. The intersection has crosswalks at all approaches. Without stop signs at the North Street approaches, vehicles travel at high speed through this intersection. Furthermore, there is no pedestrian crossing advance signage to signify that people might be crossing the intersection. The intersection of Pleasant and Church Street is a four-approach intersection with a blinking yellow traffic light at the Church Street approaches, and a blinking red light at the Pleasant Street approaches. There are crosswalks at all approaches, which also lack advance signage. High vehicles speeds on Church Street in the downhill, southbound direction is a concern at this intersection. Wide lane widths on Church Street may contribute to high speeds.



The Church Street sidewalks are narrow and cracked in places



The midblock crosswalk to access the library on Church Street lacks features that make it visible to drivers

- **High volume crossing from the municipal parking lot to the funeral home:** There is no crosswalk on Pleasant Street to safely cross to the funeral home from the municipal-owned parking lot where people park for funeral services.
- **Wide travel lanes on Pleasant Street:** The wide travel lanes on Pleasant Street may contribute to high vehicle speeds.
- **ADA compliance of curb ramps:** Many of the curb ramps on North Street, Pleasant Street, and Church Street are broken, steeply sloped, and misaligned.
- **Poor visibility at midblock crossing on Church Street:** Church Street has a midblock crossing near the community art space, Workshop 13, that lacks features that would make it more visible to drivers.

Recommendations:

- **Improve sidewalk conditions** in high-priority locations, such as those on Church Street and North Street, which are frequented by vulnerable pedestrians (seniors, children, people with disabilities). Evaluate full replacement of sections in disrepair (on all three streets), widening of Church Street sidewalks on the east side, and trimming of overgrown vegetation.
- **Improve intersection safety and slow vehicle speeds:** Evaluate bringing the North Street and Pleasant Street intersection to a four-way stop. Add advance pedestrian signage at this

intersection and at the intersection of Pleasant Street and Church Street. Consider placing a speed feedback sign on North Street and on Church Street to slow vehicle speeds and add speed limit signs. If not already adopted, consider adopting a 20 MPH prevailing speed limit on residential streets (“slow zone.”). Consider adding fog lines or other elements to reduce the lane widths on Church Street, North Street, and Pleasant Street to slow vehicle speeds.

- **Evaluate ADA compliance of curb ramps:** Ensure that curb ramps on North Street, Pleasant Street, and Church Street are ADA compliant and accessible by pedestrians of all abilities and ages.
- **Enhance the midblock crossing on Church Street:** Consider adding elements to enhance the visibility (in-street signage or an RRFBs) of pedestrians crossing Church Street at Workshop 13.



The intersection of North St and Pleasant St is traveled at high speeds and lacks advance pedestrian crossing signage



The sidewalks of the residential neighborhood north of town center are in need of repair and vegetation trimming in places



Updating all crosswalks with continental striped paint and advanced pedestrian crossing signage could improve walking safety for neighborhood residents

State Route 32 (SR-32):

- The study area included a stretch of SR-32 from Phillip’s Plaza Shopping Center to Robbins Road, which is the location of the Ware Council on Aging. This shopping plaza houses the town’s main grocery store -Big Y, The Dollar Store, and other retailers. Walgreens and the Ware Post Office are located across from this shopping center on the north side of SR-32. Residents who do not own personal vehicles walk or take the local bus to this part of town to access food and other goods. High School students also walk from the school to this commercial district on SR-32, as well as to the downtown commercial district on Main Street.

Observations:

- **High speeds:** Audit participants expressed concern that vehicles travel at high speeds along this corridor. On the day of the walk audit, participants used radar speed detection devices and recorded vehicle speeds in the range of 40-50 MPH, despite a 35 MPH posted speed limit on SR-32, which is reduced to 25 MPH near the SR-32 and Robbins Street intersection.

- **Poor sidewalk conditions:** The sidewalk conditions are poor or nonexistent along the SR-32 corridor near the shopping plaza and between town center and the shopping plaza. The sidewalk is too narrow to be passible in a wheelchair in sections, interrupted by utility poles, and broken and uneven in many segments. The sidewalk is nonexistent for stretches of SR-32, and there are no safe crossings to get to the other side of the street to use the existing sidewalk when it ends.



There is no sidewalk along much of the south side of SR-32

- **Wide shopping plaza driveways with no painted walkways:** Wide driveways with wide-angle turns contribute to high vehicle turning speeds into the shopping plaza, which contribute to an unsafe walking environment. The driveways do not have painted crosswalks or walkways to indicate that people will be walking in this location.
- **Outdated signalized intersection features:** The pedestrian signals at the signalized intersection of the Walgreens entrance do not include accessible tactile and audible features and do not have countdown WALK signals. The WALK times at this intersection are extremely short (5 seconds) and do not allow safe clearance of the crosswalk. The accessibility panels at the curb ramps of this intersection are cracked and misaligned.
- **No STOP sign or crosswalk at Robbins Street:** Robbins Street is the access point to the Council on Aging. Many residents walk or use motorized wheelchairs to access the Council on Aging. The intersection of Robbins Street and SR-32 lacks a STOP sign and STOP bar. Robbins Street also lacks a crosswalk across the entrance in the east-west direction to signalize that people will be walking at this location.

- **Disconnected sidewalk configuration at the Crystal Springs Dairy Barn Driveway:** The sidewalk and curb ramp on the south side of SR-32 dead ends into the parking lot of Crystal Springs Dairy Barn parking lot at the signalized intersection. The sidewalk does not continue on the south side of SR-32 in front of the shopping plaza. There are some resident concerns about the signal pattern at the Dairy Barn driveway entrance onto SR-32, which serves as one of the entrances to the shopping plaza. May consider evaluation of the signal pattern and driveway configuration to improve vehicle traffic and pedestrian conflict at this intersection.



The sidewalk dead ends into a parking lot on the south side of SR-32

- **Need for safety improvements at the midblock crossing on SR-32 near Colonial Village Apartments.** There are no elements to enhance the visibility of the unsignalized midblock crossing at Colonial Village Apartments on SR-32 and the curb ramps are inaccessible at this intersection. This crosswalk is heavily utilized by residents in this apartment complex, which includes many older adults. Given the curve south of the crosswalk on SR-32, visibility of people in the crosswalk for drivers traveling northbound on SR-32 may be compromised. The location of this crosswalk should be evaluated for sight distance.



The sidewalks of SR-32 are cracked and impassible in places



The safety of the midblock crossing at Colonial Village apartments could be enhanced with an RRFB

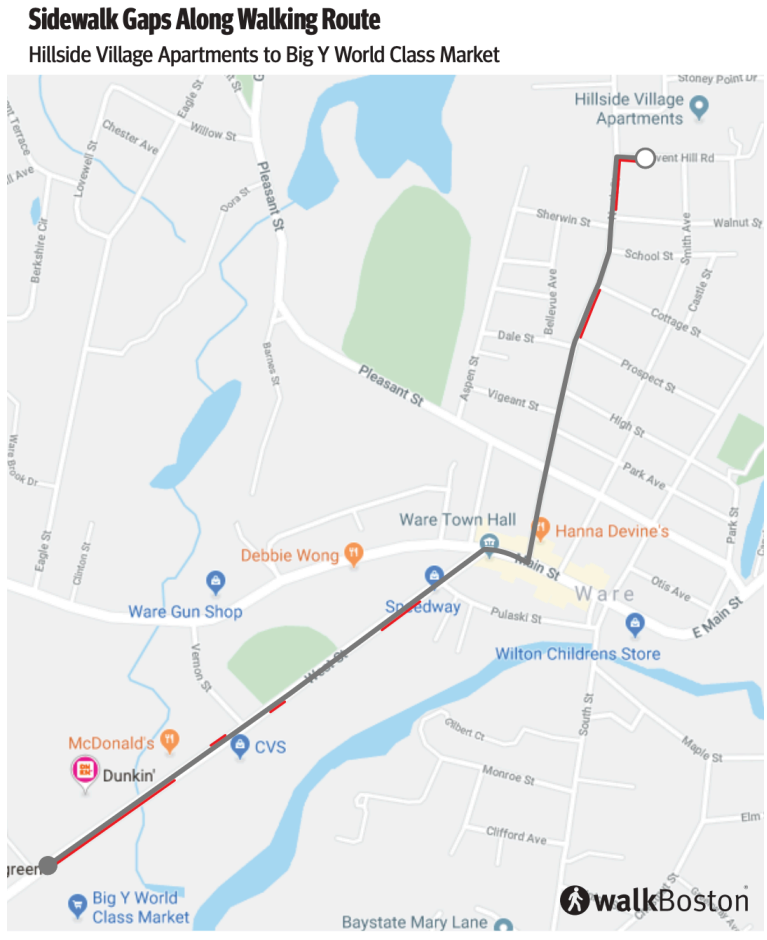


Utility poles narrow the width of the sidewalk, making it difficult to navigate for persons in wheelchairs

Recommendations:

- **Improve sidewalk conditions:** Ensure that the sidewalk network is accessible to pedestrians of all ages and abilities. Work towards establishing a complete sidewalk network that runs along both sides of SR-32 and provides connectivity to other town destinations (Main Street, residential streets, Council on Aging, churches, etc.).
- **Mitigate speed:** Evaluate narrowing lane widths on SR-32 to slow speeds with features such as fog lines and/or bike lanes. Consider intermittent placement of speed feedback signs on SR-32.
- **Narrow shopping plaza driveways and add painted walkways:** Consider paint or landscaping features to narrow and tighten the turn radii of the shopping plaza driveways. Evaluate the need for the current number of plaza entrances. Add walkways (with paint or stamped concrete) across plaza entrances.
- **Update signalized intersection features:** Update the pedestrian signal heads to APS standards with countdown WALK signals and longer WALK times. Evaluate the accessibility of the curb ramps.
- **Improve Robbins Street safety:** Add a STOP sign at Robbins Street and a walkway in the east-west direction across Robbins Street with paint or stamped concrete. Include a receiving ramp on the westerly corner of Robbins Street and provide a safe connection to the Council on Aging parking lot.

- Repair, replace, and install sidewalks on the north and south sides of SR-32:** This is a key sidewalk for connecting the town’s residents with goods and services. Improvements to this sidewalk would create a safer, more comfortable walking environment on this corridor and would provide a walking connection from nearby residential streets and the Council on Aging to downtown Ware. If a resident in Ware’s environmental justice neighborhood were making a walking trip to Phillip’s Shopping Plaza, there would be long stretches without a sidewalk and the trip would require several unmarked, unsafe crossings to access the fragments of sidewalk that are in place on the route. The reality of this fragmented sidewalk trip is highlighted in this map, which indicates sidewalk gaps in red.



- Improve the visibility of the midblock crossing on SR-32 near Colonial Village Apartments:** Given that vulnerable road users utilize this crosswalk and that vehicles travel at high speeds on SR-32, evaluate adding an RRFB at this intersection that is motion-activated (not push-button activated alone). Add advance pedestrian crossing signage for this crossing. Given the road geometry at this location, may consider moving this crosswalk northward for better lines of sight to improve pedestrian visibility.
- Ensure that the south-side sidewalk does not strand pedestrians and people in wheelchairs in the parking lot:** Continue the south-side sidewalk in front of the length of the shopping plaza to create safer accessibility for people walking.