



Office of the Town Manager

TOWN OF ACTON

472 Main Street
Acton, Massachusetts 01720
(978) 929-6611
www.actonma.gov
manager@actonma.gov

Date: January 11, 2019

To: Commission on Disabilities

From: John Mangiaratti, Town Manager

Re: Kelley's Corner Infrastructure Plan – Safety and Accessibility Improvements

Dear Members of the Acton Commission on Disabilities,

It is my understanding that Green Acton presented a series of concerns related to the Kelley's Corner infrastructure plan at your December 18, 2018 meeting. The proposed Kelley's Corner infrastructure plan makes significant improvements to safety for all users, and includes numerous enhancements to increase accessibility and ensure compliance with the Americans with Disabilities Act (ADA). This letter is intended to provide you with detailed information about the plan for Kelley's Corner and clarify concerns related to crosswalks and speed of traffic that were discussed at your meeting.

Crosswalks

Currently, there are nine crosswalks in the Kelley's Corner project area and only four (at the main intersection) are signalized with a specific phasing sequence for pedestrians. Below are some details about the proposed improvements:

- There will be five additional crosswalks where they do not exist today, for a total of fourteen crosswalks.
- Twelve of the fourteen crosswalks are proposed to be signalized either with a specific phasing sequence for pedestrians or with a rapid flashing beacon so that cars will be alerted to stop when a pedestrian initiates the signal push button. The time to cross the crosswalk is calculated using the industry standard 3.5 feet per second crossing speed and using the longest crosswalk distance. (The MUTCD (Manual on Uniform Traffic Control Devices – FHWA) provides the design standard).
- The crosswalks at the primary intersection will be more perpendicularly aligned where they are currently angled.
- Two of the newly proposed crosswalks will provide a mid-crossing protection with a raised landscape pedestrian refuge island.
- All crosswalks will have wheelchair ramps with tactile pavement inlays.
- All pedestrian signals will have audible systems adjustable to ambient sound.

For further clarification, the following page includes a map showing the proposed and existing crosswalks. Existing crosswalks are shown in yellow; the new additional crosswalks are shown in red. Also, the following page also includes a table showing the crosswalks discussed at your December meeting identified with capital letters A through F to correspond to the map.

Map of crosswalk locations in Kelley's Corner.



Table of crosswalk locations listed by letters that correspond to the above map.

	<i>Crossing location</i>	<i>Is there an existing crosswalk?</i>	<i>What is the existing length?</i>	<i>What is the proposed length?</i>	<i>Is the existing crosswalk signalized or have a flashing beacon to stop vehicular traffic while crossing?</i>	<i>Will the proposed crosswalk be signalized or have a flashing beacon to stop vehicular traffic while crossing?</i>
A	Main Street & Community Lane	Yes	+/-35 feet	+/-45 feet	No	Yes
B	Main Street & NYAJ/Dunkin Donuts	No	N/A – currently there is no crosswalk	+/-16 feet (Two segments pedestrian refuge island) +/-16 feet	N/A – currently there is no crosswalk	Yes, and segmented in a pedestrian refuge island
C	Mass Ave between Roche Brothers and CVS	No	N/A – currently there is no crosswalk	+/-41 feet	N/A – currently there is no crosswalk	Yes
D	Main Street between K-Mart and Sorrento's	Yes	+/-32 feet	+/-44 feet	No	Yes
E	Mass Ave at Victor School	No	N/A – currently there is no crosswalk	+/-16 feet (Two segments pedestrian refuge island) +/-16 feet	N/A – currently there is no crosswalk	Yes, and segmented in a pedestrian refuge island
F	Mass Ave at Charter Road	Yes	+/-30 feet	+/-42 feet	No	Yes

Speed of Traffic

The Kelley's Corner infrastructure plan implements traffic calming techniques. Traffic calming is building or retrofitting roadways with certain features and characteristics that induce drivers to slow down and pay more attention to their surroundings. Traffic calming techniques have been found by the Institute of Traffic Engineers (ITE) to, "reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized users". Most research concludes that driver speed is less a function of posted speed limits and more a function of real or perceived driving conditions. The plan proposes to add the following safety features and traffic calming design techniques:

- Raised landscape islands will be located at each entrance into Kelley's Corner on Massachusetts Avenue and Main Street, which serve to reduce motor vehicle speeds and identify entrance into a center;
- Proposed consolidated and narrowed curb-cuts will make turning movements more predictable and safer for all traffic participants, especially pedestrians;
- Designated left turn lanes will be located at strategic, highly frequented access drives channeling vehicle turn movements to predictable locations and removing turning vehicles from the through-lanes; this also provides additional landscape island opportunities;
- Correctly positioned street trees located between the sidewalk and roadway curb will increase safety by framing a distinct buffer for pedestrians and creating a "green" visual edge, which influences drivers to reduce motor vehicle speeds.

The speed of traffic is not projected to increase, but cars will be able to maneuver throughout the Kelley's Corner area at a more consistent flow due to the reduction in queue lengths, designated left turn lanes at the major intersections and in other locations to facilitate more efficient access management into business locations. In total these measures, combined with the application of complete street design standards, will greatly improve the efficiency of flow and safety for all traffic participants in the Kelley's Corner area regardless of their choice of transportation mode.

Actual speeds in Kelley's Corner have been studied as part of the Kelley's Corner infrastructure design process. On Main Street, the average speed of existing traffic is 23-33mph varying by location; the posted speed limit is 30-35 mph depending on the location. On Massachusetts Avenue, the average existing traffic speed is 20-37mph varying by location; the posted speed limit is 30mph-35mph depending on the location, and drops down to 20mph in the school zone when the school zone limit is in effect. The Acton Police also implements enhanced enforcement for speed monitoring when the school zone speed limit is in effect.

Please let me know if there is any further information that our team can provide related to this project.

Sincerely,



John S. Mangiaratti
Town Manager