



Engineering Division

TOWN OF ARLINGTON
Department of Public Works
51 Grove Street
Arlington, Massachusetts 02476
Office (781) 316-3320 Fax (781) 316-3281

To: Howard Muise; Chairman, Transportation Advisory Committee
From: Wayne Chouunard; Town Engineer
RE: Chestnut Street Summary
Date: May 10, 2021

Chestnut Street Summary

The Engineering Division is providing the following comments for the consideration of the Transportation Advisory Committee's (TAC) Chestnut Street Working Group (CWWG) to help guide and progress development of safety improvements along the Chestnut Street corridor.

First, the Engineering Division strongly recommends the removal of the existing crosswalk located on Chestnut Street adjacent to Chestnut Terrace. As such, the existing crosswalk encourages pedestrians to cross Chestnut Street in a location where drivers are already required to process numerous movements and interactions in the course of travel, including, but not limited to, the following:

- sight impacts caused by the curve approaching St. Agnes Church;
- pedestrian crossings at the heavily utilized crosswalk in front of Keefe Funeral Home (having just passed a crosswalk, another crosswalk may not be expected within 230 feet);
- vehicles entering and exiting the Municipal Parking Lot;
- vehicles parking and pedestrians exiting vehicles on both sides of Chestnut Street;
- review of wayfaring signs for Route 2A, Route 3, and Route 60;
- vehicles exiting Chestnut Terrace and/or vehicles not adhering to the "Do Not Block The Box" pavement markings and sign near the existing crosswalk;
- traffic signals at Mystic/Chestnut and the associated turning movements.

Additionally, Chestnut Street (Route 60), is a heavily utilized Truck Route which can accommodate oversized loads and hazardous cargoes. Route 60 is the only east to west designated truck route available between Interstates 93 & 95 north of Interstate 90. It has also been reported by the Arlington Police Department that in addition to the large truck volume on Route 60, a significant amount of truck traffic also utilizes Mystic Street (Route 3) due to the significant presence of trucking, distribution, and retail centers located in Woburn/Burlington in the vicinity of I-95/Route 3/Route 3A. Heavy truck volume should be expected for the foreseeable future and it is thereby recommended that large radius turning movements be considered in the long term design plans for the Chestnut Street corridor. This is of particular importance due to the fact that a high percentage of Massachusetts' bicycle fatalities include collisions with large vehicles. It is therefore recommended that careful consideration be given when considering bicycle accommodations in this area while also planning for potential intersection and geometry changes as described in the Summary, especially the removal of the Mystic/Chestnut slip lanes.

Lastly, strong consideration should be given to understanding the local pedestrian characteristics. Due to the location and proximity to Chestnut Manor, a housing development for the elderly/disabled, it is anticipated that a significant number of users will be mobility challenged and may encounter additional difficulties due to reduction of walking speed, diminished eyesight, and diminished hearing, which can have a dramatic affect on judgement of



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traffic speed and distance. As such, the Engineering Division notes the following comments specific to the Chestnut Terrace crosswalk:

- Ensure observations are made detailing the volume of pedestrians crossing through this area as was discussed in previous meetings;
- The original survey of residents/users did not investigate or determine the destinations of users:
 - If St. Agnes Church, Gail Ann's Coffee shop or any of the businesses along Medford St. and/or Mass Ave west of Medford St. is the destination, the existing crosswalk located at 5 Chestnut Street would be a safer crossing location.
 - If Town Hall, the First Congregational Church, Library, Winslow Towers or the Post Office is the destination, the existing crosswalk located at the Mystic/Chestnut Street traffic signal would be a safer crossing location. This Route would require a two (stage) crossing.
 - Very few destinations require pedestrians to utilize the three (3) stage portion of the signal phase.
 - If the current crosswalk remains, it should be determined whether residents are/will utilize the parking lot as a cut-through to their destination. The Municipal Parking Lot is not a recommended route for pedestrians due to parking lot traffic, particularly the intensity of use during school commuting hours at Arlington Catholic (at pre-pandemic levels), during church services, and during other events such as the Farmers Market.
 - Analysis should include a study determining what the effects of geometry changes at Medford Street/Chestnut Street would have on schools buses, MBTA buses, trucks and deliveries on Medford Street.
 - Pedestrian data should be compared for the crosswalk in question and the existing crosswalk at 5 Chestnut Street (Keefe Funeral Home). It is recommended that any investment in infrastructure and equipment be focused on the cross-walk with the heaviest usage.

The final design should consider all factors including both drivers, cyclists and pedestrians to reduce the risk of collisions and ultimately provide the safest project feasible for all users. Before implementing the permanent curb realignments/modifications indicated in the recommended short term improvements it is recommended that temporary flexible barricades first be utilized to allow the affects and impacts of any such modifications on traffic movement including pedestrians, cyclists, automobiles and trucks, to be observed and monitored. A thorough Engineering Study should also be performed in order to fully evaluate all criteria that may have an impact on neighboring streets and the subsequent safety issues for all users of the corridor.