
To:	John Alessi	From:	Erin Cameron
	Town of Arlington		Stantec, Urban Mobility Group
File:	Massachusetts Avenue Design	Date:	August 15, 2023

Reference: Mass Ave/Appleton Street Safety + Accessibility Corridor Project

The Mass Ave/Appleton Street Safety + Accessibility Corridor Project was initiated to develop a permanent design for the corridor between Richardson Avenue and Quinn Road, to design a safer roadway, reducing conflicts between vehicles, bicyclists, and pedestrians. The permanent design is an evolution of the short-term improvements recommended to the Town by the Mass Ave/Appleton Street Design Review Committee in 2021. Early engagement for the Safety + Accessibility Corridor Project revealed that while the short-term design is an improvement from the base condition, there is still room for improvement.

The Safety + Accessibility Corridor Project began in April 2022 and is continuing to develop a conceptual design, which will be advanced to a 100% design package with construction documents. The project includes support to apply for grant funding for implementation.

This memorandum summarizes the inclusion of parking and left-turn accommodations, in response to a request to explore removing the Mass Ave EB left-turn lane to Forest Street in exchange for more parking spaces along the southern curb of Mass Ave between Appleton Street/Appleton Place and Burton Street.

CROSS SECTION LIMITATIONS

The design is limited by right-of-way with local businesses and residential housing on either side of Mass Ave. Public comments indicated a desire for bicycle facilities, retaining trees along the corridor, parking, and maintaining vehicle operations along Mass Ave. Accommodating these neighborhood requests is only possible by reusing the wide sidewalk on the north side of Mass Ave between Appleton Street and Forest Street, maintaining an ADA-accessible public sidewalk.

The design team explored four (4) alternatives, listed below, where the Option 1 was favored universally:

1. Narrowed Sidewalk with Parking on North Side and Left-Turn Lanes – favored by public
2. Narrowed Sidewalk with Parking on Both Sides (No Left-Turn Lanes)
3. No Change in Sidewalk with Left-Turn Lanes (No Parking)
4. No Change in Sidewalk with Parking on North Side Only (No Left-Turn Lanes)

Parking

Parking is important to Mass Ave, as heard in every public engagement effort to date. The project intentionally kept spaces on the north side of Mass Ave between Quinn Road and the Mass Ave/Appleton Street intersection and provided crosswalks where parking is only located on one side of the street.

On February 27, 2023, the Project was presented to the Town Selectboard with 31 parking spaces (50 fewer than exist today). After receiving feedback at the March 2023 Town Selectboard meeting and the public meeting on March 15, 2023, the project included additional spaces for a total of 42 spaces. The updated

August 15, 2023

John Alessi

Page 2 of 3

Reference: **Mass Ave/Appleton Street Safety + Accessibility Corridor Project**

design also keeps Appleton Place open (one-way southbound), providing access to neighborhood parking for Mass Ave eastbound vehicles.

Left-Turn Lane

Early engagement with the public and town staff indicated a concern for visibility along the corridor, due to solar glare. The best option to overcome the solar glare concern is to signalize the intersections and provide a dedicated left-turning phase so vehicles are not permitted to turn left while pedestrians, cyclists, or oncoming vehicles are approaching. The analysis showed a signal was warranted at the Mass Ave/Forest Street/Burton Street intersection in addition to the Mass Ave/Appleton Street/Appleton Place intersection. Additionally, counts collected in Spring 2022 showed more left-turning vehicles for Mass Ave eastbound to Forest Street than at Mass Ave westbound to Appleton Street.

PARKING VS. LEFT-TURN LANE

Removing the left-turn lane to Forest Street Reduces Storage for Eastbound Vehicles

Parking can be added to the south side of the street if the left-turn lane to Forest Street is removed. This will result in queues on Mass Ave, as vehicles turning left will block those continuing eastbound on Mass Ave towards Arlington Center. This can result in queues occasionally backing into the Mass Ave/Appleton Street/Appleton Place intersection.

Sight Lines

The left-turn lanes and dedicated left-turn phases of the traffic signal were incorporated to eliminate the concern for reduced visibility, given solar glare is a documented concern in this area. While eliminating the left-turn lane does not prohibit the dedicated left-turn phase of the signal, it reduces the efficiency of the signal.

Additionally, the design looks to reduce conflicts between pedestrians and vehicles. To achieve this goal, the design incorporates curb extensions to reduce the pavement width at pedestrian crossings. This practice should be carried into a design where parking is maintained on the south side of Mass Ave.

A design with a left-turn lane from Mass Ave to Appleton Place and parking on the south side of Mass Ave would add no more than 3 or 4 parking spaces.¹

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Attachment: Arlington Roadway Design__Design Update.pdf

Design with community in mind

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August 15, 2023

John Alessi

Page 3 of 3

Reference: Mass Ave/Appleton Street Safety + Accessibility Corridor Project

By-Law Compliance

Should the design need to change, the project team will continue to adhere to Town bylaws unless explicitly directed otherwise by Town staff. The design meets state standards and Town bylaws. Related to parking, there are a couple areas a stall appears to be missing, as the design is adhering to the bylaw noted below, dictating the location of parking spaces in relation to driveways.

Based on the Parking By Laws: *No person shall stand or park or allow, permit, or suffer any vehicle registered in his name to stand or park in any of the following places: ...g. In front of any private road or driveway or within three (3) feet on either side thereof, moreover on the opposite side of any driveway in such a manner as to inhibit the entry or departure from same... o. Upon any street or highway within twenty (20) feet of any intersecting way, except alleys.*