

Merrimac Street/Lower Atkinson Common Safety Improvements Complete Streets Concept Plan

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Summary

The section of Merrimac Street between Moulton and Plummer Streets is in need of safety improvements. The existing deficiencies include:

- A 1,000-foot gap in the sidewalk system on the south side of Merrimac Street, so that there is no sidewalk connecting Pioneer Field to Moulton St and Plummer Ave and the neighborhoods served by these streets;
- A lack of pedestrian accommodations on the side of the street adjacent to Pioneer Field;
- Head-in angle parking at the Common/Field, resulting in congestion and conflicts with passing traffic in both directions at peak hours;
- A lack of bicycle facilities on either side of Merrimac St, requiring bicyclists to share the road with vehicles (which frequently travel over the 25 mph speed limit) and creating potential conflicts with cars backing out of angle parking spaces.

To be effective, a complete streets approach to this segment of Merrimac Street must address all of the above deficiencies. This paper and the accompanying plans describe and illustrate a conceptual complete streets project for this area which will (1) protect bicyclists and pedestrians by separating them from motor vehicle traffic, including cars that are entering and leaving parking spaces, and (2) reorient the existing angle parking to reduce conflicts with passing traffic and to improve safety for children and adults around the parked cars. The proposed project begins to close a critical gap in the pedestrian/bicycle accommodations on the south side of Merrimac Street, and also sets the stage for future improvements to the lower Atkinson Common/Pioneer Field complex.

The Problems

The intensive recreational uses at lower Atkinson Common, combined with the existing layout of on-street parking spaces and the lack of pedestrian and bicycle infrastructure on the southerly side of the street, create conflicts and safety hazards for drivers, bicyclists and pedestrians.

The existing head-in angle parking creates a number of problems:

- Drivers must back out of the parking spaces into fast-moving traffic. Because of the angle of parking, the views of eastbound vehicles and bicycles are blocked.
- The shallow angle of the parking spaces (nearly perpendicular to the road edge) often requires entering and exiting vehicles to cross the centerline of the street, thus creating conflicts with traffic in both directions. It also encourages westbound drivers to make left turns into the parking spaces, which may not be expected by pedestrians, bicyclists and eastbound drivers.
- Children and adults who are loading and unloading equipment and other belongings at the rear of parked vehicles must stand close to passing traffic as well as to cars in the

adjacent parking spaces whose drivers may be looking in the other direction as they attempt to leave the space.

- Children using the crosswalk in front of the Pioneer League building emerge into the street from between parked vehicles. This means they are hidden from approaching drivers, especially when the parked vehicles are SUVs.

There is no sidewalk on the south side of Merrimac Street in this location, while the majority of houses in the neighborhood are on the south side of the street. Although walkers can also approach the playing fields along the path from upper Atkinson Common, anyone coming from further east would have to cross Merrimac Street at Jefferson Street, walk on the sidewalk on the north side of Merrimac, and then re-cross to the park on the crosswalk at the parking lot. This lack of a safe sidewalk on one side of a busy street with fast-moving traffic is a safety issue and a significant deficiency from a complete streets perspective.

There is no dedicated bicycle accommodation along Merrimac Street, meaning that bicyclists in both directions have to share the road with faster-moving cars. In addition, eastbound bicyclists can easily be invisible to drivers who are backing out of the angle parking spaces.

All of these problems are exacerbated by the fact that drivers routinely go faster than the 25-mph speed limit. This is an issue all day long, but it is especially of concern when games are being played at Pioneer Field – and peak afternoon traffic volumes coincide with game times. While targeted enforcement might help to a certain degree, it is clear that the speeding issue is to a great extent a function of the design of the road, with no physical or visual cues (such as curbing or striping) to reinforce the speed limit.

The Concept

The proposed complete streets project is designed to provide better visibility for drivers to reduce conflicts between passing traffic and vehicles in parking spaces, and to separate bicyclists and pedestrians from motor vehicle traffic to the greatest extent possible.

1. Restripe the existing parking spaces from head-in angle parking to back-in angle parking, and make the parking angle 45 degrees.

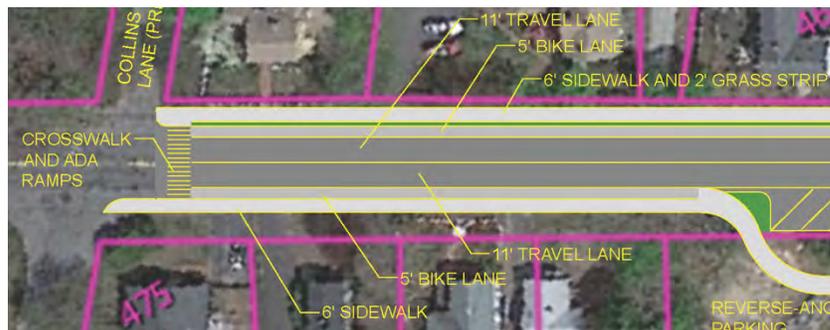


Compared to head-in angle parking, back-in angle parking (also called reverse angle parking) has two significant safety advantages. First, just like with parallel parking, arriving drivers stop in the travel lane before backing into the space. As a result, approaching drivers have more advance warning of an upcoming conflict than they do when drivers are backing out of an angle parking space. Second, departing drivers can see approaching cars and bicycles much more easily, limiting the potential for conflicts and crashes.

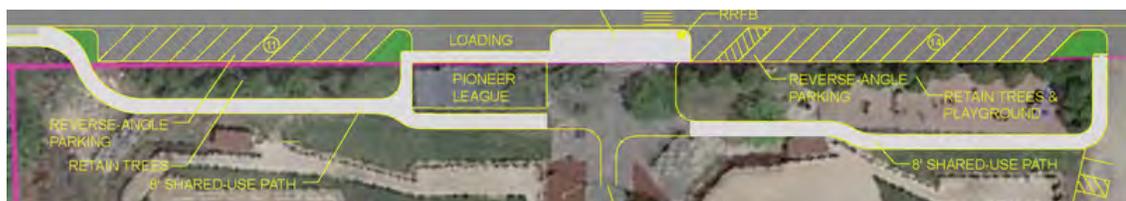
Striping the parking spaces at a 45-degree angle will result in the loss of some parking capacity but will allow cars to enter and leave the spaces without having to cross the centerline of the road. (The reduced on-street parking capacity will to a certain extent be offset by improvements and better access to the existing off-street parking lot, which are also part of this concept plan.)

Back-in angle parking has been used in many cities across the country, but is still relatively new in New England. Using this approach to address a safety issue could be seen as an innovative complete streets project and a pilot project for other locations in Newburyport and for other Massachusetts communities.

2. Construct a sidewalk/bike lane/multi-use path connection on the south/west side of Merrimac Street from Moulton Street and Plummer Avenue, to provide safe access to the park for children and adults walking and bicycling.
 - From Moulton Street to Atkinson Common, construct a 6' sidewalk and a 5' bike lane.



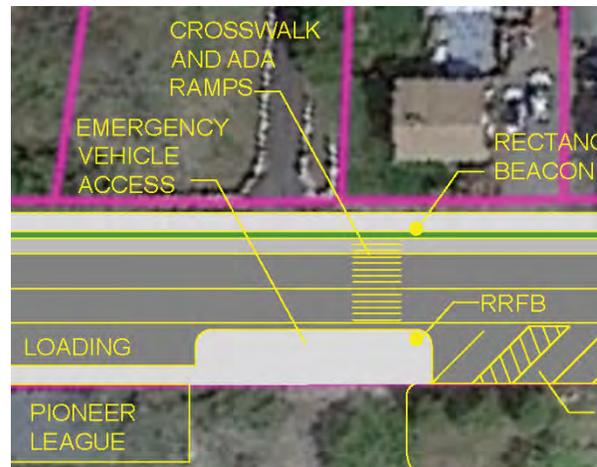
- Across Atkinson Common/Pioneer Field, construct an 8' multi-use path to the gravel parking lot at east end of the park.



- At the west (north) corner of the park, the new sidewalk and bike lane coming from Moulton St will merge and enter the park as a multi-use path. The path will run behind the line of trees and the Pioneer League building to the existing paved driveway; cross the existing paved driveway, and continue behind the left dugout and beside the playground to the parking lot.

- In order to allow for a 10' gap between the playground and the corner of the dugout, the playground fence line would need to be adjusted reducing the area of the playground by about 100 sq. ft., but there is plenty of room on the adjacent grassy area for a compensating extension of the playground if needed.
 - From the parking lot entrance to Plummer Ave, construct a bike lane and sidewalk. In order to accommodate these facilities, replace the existing head-in parking spaces at the day care center with four parallel spaces, and accommodate the use of several spaces in the parking lot for drop-off and pick-up of day care children.
3. On the north/east side of Merrimac Street, widen the sidewalk to 6 feet plus a 2-foot grass strip within the existing curb line and right-of-way, where possible (in places this width will be impeded by existing trees, utility poles and hydrants). Remove the recently delineated parallel parking spaces and stripe a 5-foot bicycle lane.
 4. Construct one new pedestrian crossing and relocate and enhance two existing crossings:

- Construct a new crosswalk just east of Moulton Street and Collins Farm Road.
- Relocate the existing crosswalk at the Pioneer League building approximately 85 feet east, to just beyond the vehicular entrance. (Moving the crosswalk away from the Pioneer League building will eliminate potential conflicts with the loading area and will provide a more direct route into the park.) Construct a wide curb extension (bumpout) on the south end of the crosswalk in order to provide visibility and shorten the crossing distance. Maintain an at-grade entrance to the Common for maintenance and emergency access. Construct a rectangular rapid flashing beacon (RRFB).
- Relocate the existing crosswalk at the parking lot driveway approximately 160 feet east, to the corner of Merrimac St and Plummer Ave, and construct a curb extension on the south side of Merrimac.



In addition to providing clearly defined spaces for walkers and bicyclists, the addition of a sidewalk on the south side of the street and bike lanes on both sides will visually narrow the travel lanes for cars, influencing drivers to slow down. Along with these improvements, we recommend that the City designate the section of Merrimac Street between Moulton Street and Plummer Avenue as a safety zone under MGL ch. 90, sec. 18B, establishing a 20 mph speed limit.

Impacts to Existing Parking

Up until about three years ago, most cars parked in the angled parking spots and along the curb on the north side of the street. The enhancements described in this proposal will entail the elimination of a number of existing on-street parking spaces. However, this loss will be offset by more efficient utilization of the remaining on-street and off-street spaces.

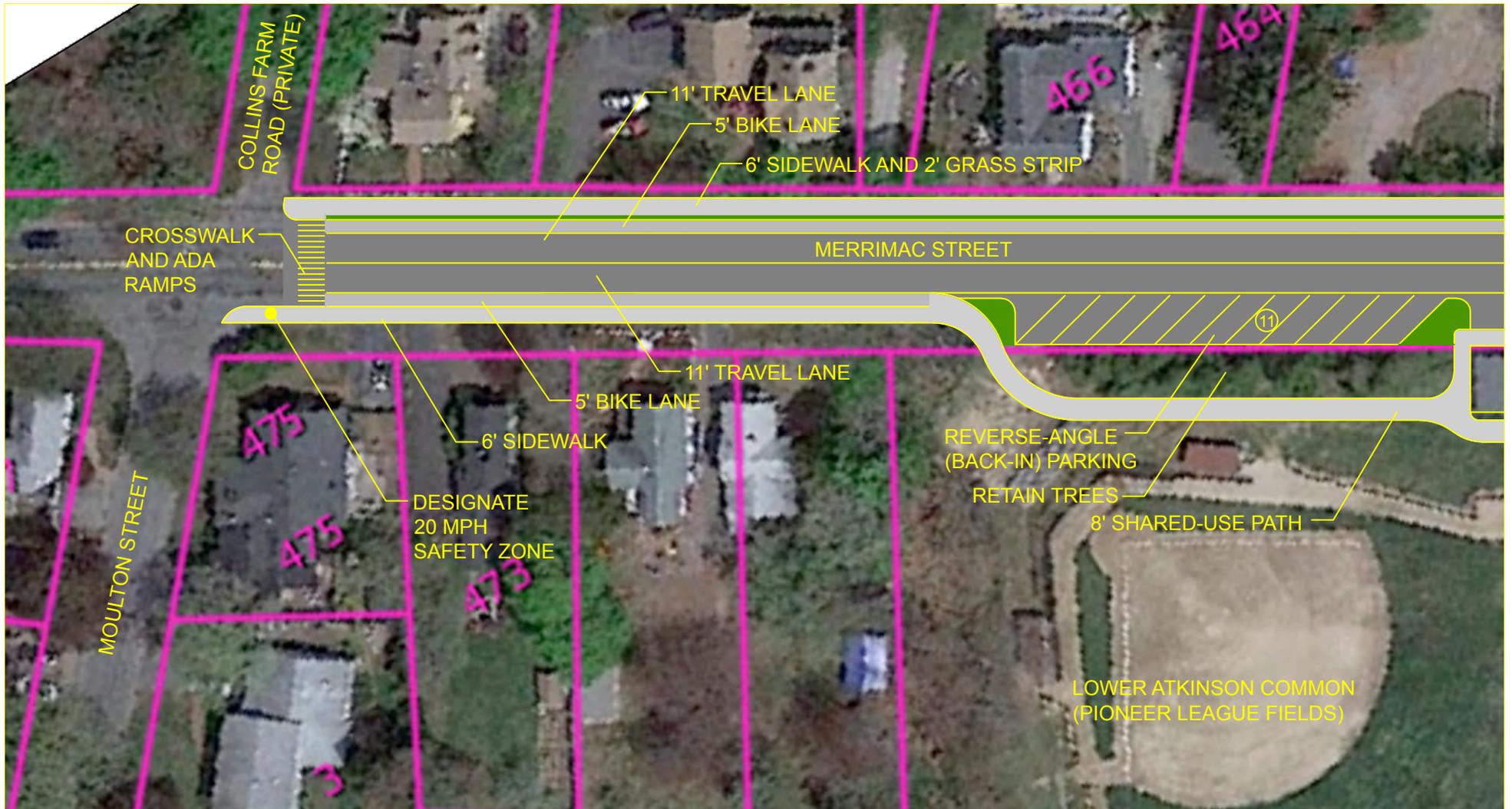
Resurfacing of the gravel parking lot has provided a significant amount of additional space, but currently cars are not parking there efficiently. Marking the lot to allow for more efficient utilization will offset most of the reduction in on-street parking. This can be done at a relatively low cost using timber or cement wheel stops.

The angled parking numbers will stay relatively the same because currently cars are not parking within designated lines. On particularly crowded game days, such as tournaments, overflow parking will be available on-street within a short walking distance to the park (e.g., on the north side of the street, west of Moulton Street).

Context and Wider Benefit

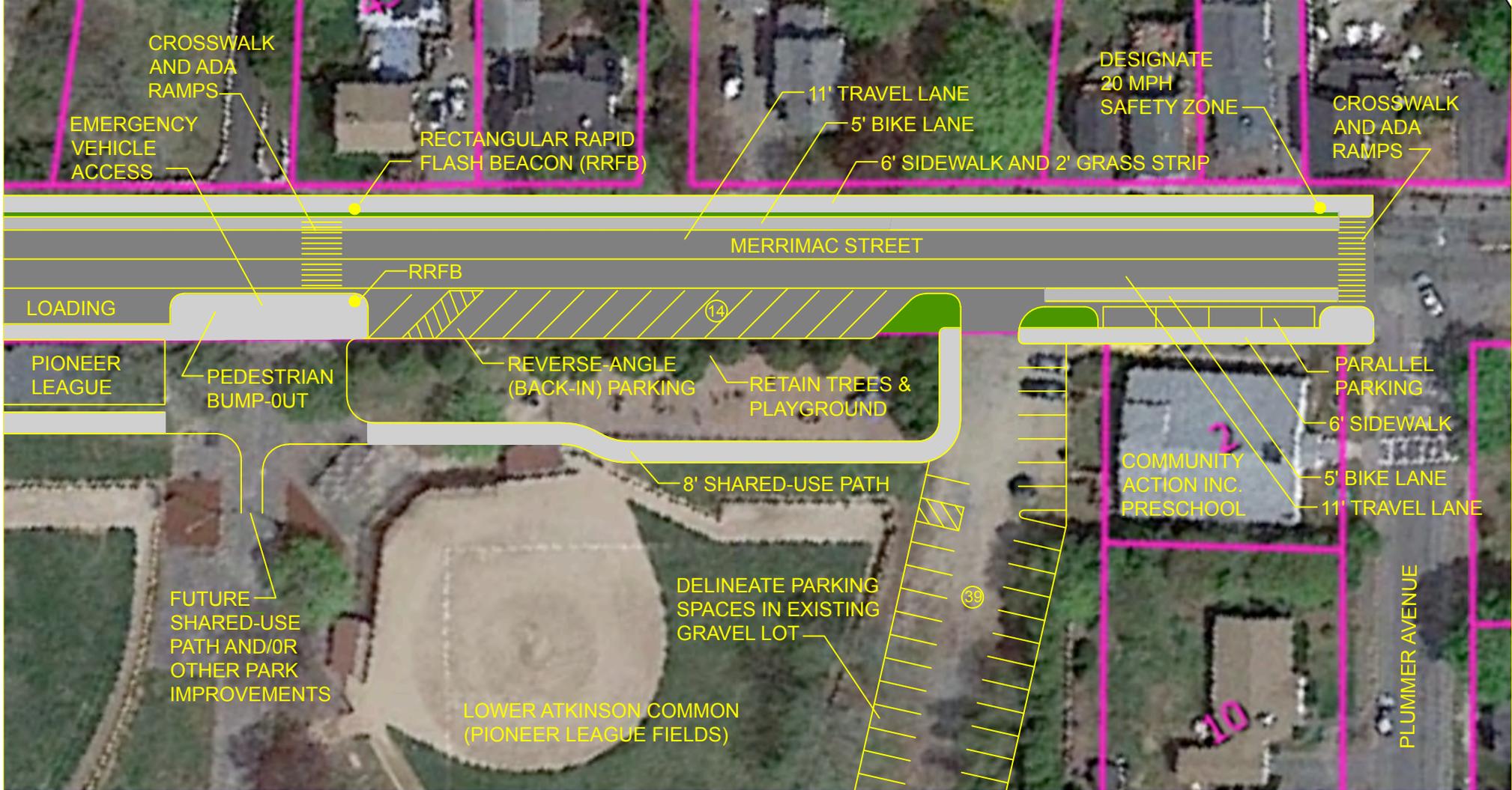
The project described here focuses on traffic, pedestrian and bicycle safety in the 1,000-foot (0.2-mile) section of Merrimac Street between Moulton St and Plummer Ave, but it also addresses a significant gap in pedestrian infrastructure along Merrimac Street west of Ashland Street. There is an existing sidewalk in good condition along the south side of Merrimac Street between Plummer Ave and Jefferson Street, but beyond that there is a gap of about 1,350 feet (0.25 mile) from Jefferson to Ashland Street. About 500 feet of that gap could be closed by adding a sidewalk as part of the upgrading of the Mersen parking lot, leaving only two short sections totaling about 850 feet without a sidewalk on the south/west side of Merrimac Street between the downtown and Pioneer Park.

Thus, this proposed project would help connect Pioneer Field to other North End neighborhoods as well as making a taking a major step toward making Merrimac Street a safer and more “complete” street.



**COMPLETE STREETS CONCEPT PLAN
 MERRIMAC STREET AT LOWER ATKINSON COMMON**

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 NEWBURYPORT LIVABLE STREETS
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