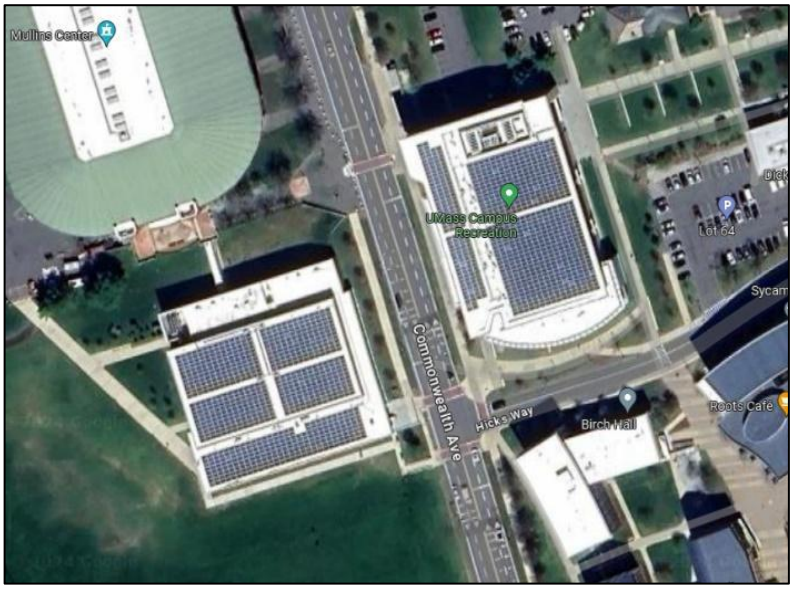
Campus Wide Safety Improvements Speed Humps – Commonwealth Ave, Amherst, MA

Site and Treatment Description

Commonwealth Avenue in Amherst, MA serves as a collector/local roadway and a part of the "campus loop" within the University of Massachusetts Amherst campus. This corridor serves multiple modes of transportation, including pedestrians, bicyclists, and an average annual daily traffic volume of 5100 vehicles per day. The corridor adheres to the same speed limit across campus at 25mph.

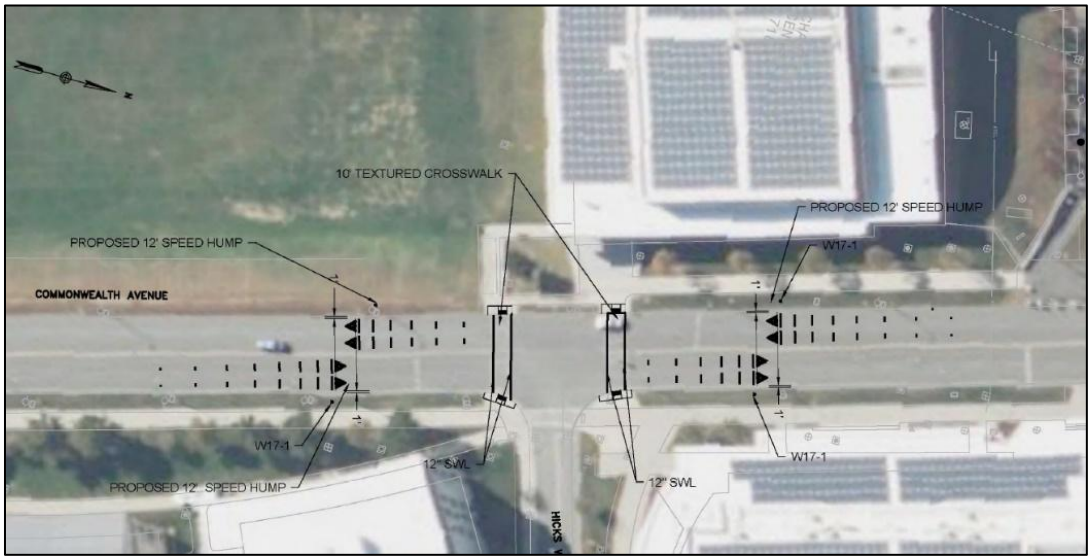


In early 2022, there was a crash resulting in a pedestrian fatality on the UMass Amherst campus. Less than a month later, there was another crash leading to a pedestrian being seriously injured in a crosswalk. Given these incidents, the campus initiated a campus-wide pedestrian safety audit, evaluating every roadway, intersection, and pedestrian crossing on campus. As a result, several initiatives were taken to enhance the safety of pedestrian crossings, including the implementation of speed humps on Commonwealth Avenue.

Design Specs and Cost

Initially a set of speed humps were installed along Commonwealth Avenue on the northern section of the corridor near the Mullins Center. It was important to begin here, as several pedestrian collisions had occurred on this segment over the last decade. The speed humps were designed to follow the Delaware DOT design spec that has been shared through the [FHWA Traffic Calming measures toolbox]. Campus officials designed each of these with a total rise of 3 inches; however, the depth of the speed humps varied. Depending on the location, the speed humps varied from 12 to 15-feet in depth along the corridor. Regardless, the speed humps were estimated to cost roughly $3000 per installation along the corridor.

The graphic below highlights the two additional speed humps installed along the southern section of Commonwealth, located in proximity to the Commonwealth Honors College and the UMass intramural athletic fields. Similarly to the first set of installations, these were installed with a total height of 3-inches and a proposed 12-feet in depth. Again, the construction varied on these installations as well, ranging between 12 and 14 feet in depth. In total, eight (8) speed humps have been installed along the corridor to date.



Support Story

As mentioned, following a pedestrian fatality on the UMass campus in early 2022, the campus initiated a campus-wide pedestrian safety initiative. In May of 2022, a pedestrian facility audit was conducted across the UMass campus, including a review of all sidewalks, pedestrian crossings, and pedestrian signals. Following this initial audit, the campus worked with a consultant to complete some “quick-hit” projects including repainting pavement markings with reflective paint, adding roadway edge lines, new bike lanes, improving crosswalk visibility, and reducing sign clutter.

Following the campus-wide pedestrian audit, which included voices from undergraduate and graduate students, faculty, and the pedestrian safety committee, the campus planned additional improvement. New crosswalks were designed and installed along Massachusetts Avenue based on this, and additional speed humps were constructed along the Commonwealth Avenue corridor (as mentioned in the design specs).

Maintenance Tips

Each of the speed humps were designed uniquely which can make it challenging for winter maintenance to traverse them. Cooperating with University Physical Plant personnel was crucial in order to limit the erosion from snowplows during the winter months. Including stakeholders such as winter maintenance, Police, Fire, and EMS made the implementation of these treatments more feasible.

Speed Impacts

Although speed data has not been collected on the Commonwealth corridor since the installation of these speed humps, campus personnel have noted that vehicles are driving more cautiously given the quantity of speed humps. There remains slight concern with the acceleration profiles between each speed hump; however, the campus plans to work with university groups to quantify these impacts in the coming year.

Further Plans

As mentioned previously, the speed humps were installed in sequences along Commonwealth Avenue. While each of these speed humps were installed with slight modifications, the campus plans to collect additional speed data and community feedback when looking to install future speed humps on other campus corridors

Appendix – Speed Hump Design Specification