

Shrewsbury Bridge Rehabilitation, Project # 613299 Centech Boulevard over Pratts Pond Inlet



Project Purpose and Need

This project will rehabilitate or replace the spandrel walls of an existing roadway bridge that are reaching the end of their anticipated service life.

Existing Conditions

- Centech Boulevard is currently an undivided two-lane Major Collector carrying approximately 4,200 vehicles per day.
- The roadway connects the Town of Shrewsbury with the Town of Grafton and, critically, provides access from Shrewsbury to the Grafton Station of the MBTA Framingham/Worcester Commuter Rail Line.
- A sidewalk is present on one side of the roadway.
- Unbuffered bike lanes are located in the roadway shoulder.
- The existing bridge structure carries Centech Boulevard over a stream named Pratts Pond Inlet.
- The bridge is a corrugated steel arch with a span of approximately 40 feet and two nearly 40 foot tall spandrel walls which support Centech Boulevard above the arch.
- The spandrel walls are in very poor condition and are in need of rehabilitation or replacement.

Proposed Improvements

Preferred Alternative:

- Rehabilitation of the existing spandrel walls by applying reinforced concrete facings to the walls and supporting the facing with drilled earth anchors.
- This alternative is only feasible if the existing arch structure and foundations are determined to be structurally adequate for reuse, and appropriately sized for future flood events.
- No changes to the existing roadway configuration would be required for this approach.
- Vehicles, bicycles and pedestrians would be minimally impacted during construction, possibly requiring the setup of a temporary alternating one-way traffic pattern.

Secondary Alternatives:

- Full replacement of the spandrel walls or entire bridge structure.
- These alternatives may be required if it is determined that the existing walls are unsuitable for rehabilitation or if the existing arch structure is unsuitable or undersized by current design requirements.
- Roadway improvements would accompany reconstruction of the bridge. Improvements would include sidewalks and buffered bike lanes on both sides of the roadway.
- Construction of these alternatives would require a full closure of the roadway. Vehicle, pedestrian and bicycle detours would be utilized for the entire duration of construction.

Anticipated Project Milestones subject to Fiscal Year Programming

- Design Public Hearing - Fall 2026
- Project Advertisement - Summer/Fall 2028
- Construction Begins - Spring 2029