

October 21, 2025, Listening Session Questions and Answers

This document provides answers to the most frequently asked questions received during the Listening Session held on October 21, 2025. These answers were provided by MassDOT and the Contractor. For more information on MassDOT's Powder Point Bridge Replacement Project, please visit the project website:

<https://www.mass.gov/powder-point-bridge-replacement-project> or email the project team:
powderpointbridgereplacement@dot.state.ma.us

Structural

Piles

What are MassDOT's requirements for pile depth? What are the Federal requirements?

There are no explicit policy-level requirements for minimum pile depth, either MassDOT or Federal. The anticipated pile depths are a function of the subsurface conditions and the necessary geotechnical capacity required to support the intended loads and avoid settlement, as well as design criteria and constraints outlined in the MassDOT Bridge Manual. At this time, it is expected that the piles will extend to bedrock.

Were there any noticeable pile impacts or damage after the November 2024 storm?

There was no inspection specifically timed to determine if damage occurred as a direct result of any specific recent storm event. The closest inspection was a regular inspection in November 2024, which did note that several elements had deteriorated or failed since the previous inspection 6 months earlier.

Load Bearing

What is the targeted load weight to be supported by the bridge and what determines it?

The design load for new vehicular bridge structures is called "HL-93," which is a representative load used for design purposes on most vehicular bridges across the country regardless of bridge size or type. This load is established by the American Association of State Highway and Transportation Officials and is required by both MassDOT and FHWA for bridge design. The HL-93 load is representative of a wide variety of vehicles, including emergency vehicles such as ambulances and fire engines, which can be as heavy as 86,000lbs. Bridges that cannot carry the full design load may be restricted such that emergency vehicles cannot cross them, increasing response times to the beach and the homes at Saquish Head.

Wood

Could a more effective type of wood be used that can last longer than 40 years?

Wood species are not known to be consistently reliable for service life approaching 75-100 years, especially without chemical treatment.

October 21, 2025, Listening Session Questions and Answers

Why are the current planks not spaced further apart to allow for drainage?

This is a question relating to the original design, which was not by MassDOT. We have no information about the reason behind this decision.

Location

Will the location of the new bridge be different than the original?

The current concept is to replace the bridge largely in its existing location. Small shifts may be implemented as a function of geometry changes.

Construction

What is MassDOT's expected construction timeline and staging plan?

We are too early in the design process to answer this question. Not only is the design still not determined, but the environmental restrictions are also not yet known. Typically, restrictions are identified through the environmental permitting process that put limits on construction activities during particular months of the year to avoid damaging the environment (e.g. harming wildlife). This has the potential to slow or stop the work during particular times, which will affect the construction timeline.

Does the bridge need to close during construction? Can it stay open as a bike and pedestrian bridge?

Yes, the bridge needs to be closed during construction. It cannot remain open as a pedestrian and bike bridge due to its advanced deterioration and the risk of damage or settlement during construction. Additionally, since the bridge is intended to be replaced in largely its current location as discussed above, the existing bridge needs to be removed before the replacement bridge can be constructed.

Functional (Complete Streets)

Sidewalks and Travel Lanes

If there are two sidewalks, can one be used for bikes?

Bicycles may be ridden on sidewalks outside of business districts in Massachusetts when necessary for safety, unless prohibited by local ordinance. Electric bicycles are prohibited statewide from operating on sidewalks.

What accommodations are required in the new design for pedestrians and cyclists?

Proposed accommodations shall be designed to comply with M.G.L. Chapter 90E, Section 2A, requiring that MassDOT make all reasonable provisions for bicycle and pedestrian accommodation in the planning, design,

October 21, 2025, Listening Session

Questions and Answers

and construction of any project, unless such provisions are deemed unreasonable for safety, environmental, or right-of-way reasons.

What is the required width of travel lanes?

Standard lane widths for this classification of roadway are 10-11' wide plus 3' shoulders on either side; however, the proposed lane widths are anticipated to remain as existing (10' lanes without shoulders) for the purpose of traffic calming.

Will the speed limit on the bridge be changed?

We anticipate maintaining the existing posted speed limit over the bridge at 10 MPH.

Usage

What are ways to manage which vehicle types use the bridge?

There are several strategies to help manage the types of vehicles that use the bridge:

Preserving Existing Roadway Geometry: The approach roads of King Caesar Road and Powder Point Avenue are narrow (approximately 18 feet wide) and include abrupt reverse curves throughout. Maintaining the existing geometry as-is naturally discourages larger vehicles from using the bridge as a bypass.

Implementing Speed Management Strategies: Posting lower speed limits and the inclusion of traffic calming features, such as channelization islands or mini-roundabouts at the approaches, may assist in maintaining safe operating speeds – improving safety for all users. The use of traffic calming measures may also make the bridge less appealing as a shortcut for through traffic. Speed management strategies will be presented in further detail as we transition the public meeting agendas from exclusively bridge discussion to the overall project limits.

Weight and Size Restrictions: To restrict heavy commercial vehicles for reasons other than structural safety, the Town may apply for a Heavy Commercial Vehicle Exclusion (HCVE) through MassDOT. The process will include coordination with The Town of Duxbury, MassDOT District 5, and The Town of Marshfield.

Are bikes supposed to ride on the road or the sidewalk?

The development of the design is currently ongoing. At this time, we are continuing to evaluate approaches and solutions to address cyclists based on local needs and the bridge type selected to advance. In general, bicycles may be ridden on sidewalks outside of business districts in Massachusetts when necessary for safety, unless prohibited by local ordinance. Electric bicycles are prohibited statewide from operating on sidewalks.

October 21, 2025, Listening Session Questions and Answers

Aesthetics

Materials

What materials are MassDOT considering?

We are exploring a variety of options to achieve both the structural stability required by Code, and the aesthetic appearance desired by the Town. This process is ongoing and more information will be shared during the next Public Informational Meeting.

Can the driving surface remain “bumpy”?

We are exploring options to roughen the surface. This process is ongoing and more information will be shared as it is available.

Wood

Can wood cladding be used?

Wood cladding may be possible. We are actively exploring options. This process is ongoing and more information will be shared during the next Public Informational Meeting.

Can piles mimic wood?

We are exploring options for the piles. This process is ongoing and more information will be shared as it is available.

Can a covered wood bridge be built?

A covered wood bridge would be a very different aesthetic to the existing structure, and not consistent with the majority of the public feedback we have received.

Design

Are crossed beams (cross bracing on the piers) an option?

Cross bracing on the piers is not structurally necessary. The bolts required to attach them would create penetrations in the protective coating of the piles which would adversely affect service life by letting in salt water.

October 21, 2025, Listening Session Questions and Answers

Environmental

How will the project protect the natural environment?

The Powder Point Bridge is located in a setting with diverse habitat types supporting a range of flora and fauna. Consequently, there are a host of possible mitigative measures often considered to protect the natural environment during construction. These construction mitigation techniques can be incorporated into the project requirements. These commitments will be developed as the design progresses and will be presented within the application process when seeking environmental permits. The proposed mitigation measures will first be evaluated by MassDOT then will undergo a review process by the permitting agencies. Both the original permit applications and the issued permitting conditions resulting from the permitting process will be the responsibility of the contractor to fulfill during construction. Examples of construction mitigation measures can include: time of year restrictions, sound attenuation techniques, water quality measures like cofferdams or turbidity curtains, vessel draft and speed restrictions, and lighting guidelines, among others. However, at this early stage of the project, constructability commitments typically cannot be made and will require further design decisions before they can be evaluated and formally incorporated.

Other

Why has the current bridge lasted only 40 years, but the original from 1891 last over much longer?

Any ideas would only be speculation, as we do not know any details as to what species the original bridge was built from or how the wood may have been treated or maintained. It may have been old growth wood which is no longer available.

Will the parking lot on the west side of the bridge be altered by this project or impacted during construction?

We are too early in the design process to answer this question. More information will be shared when it becomes available.

How can I find out more?

Please visit the project website below for more details, to sign up for update and email alerts, and to view the latest resources on the Powder Point Bridge Replacement Project.

Project website <https://www.mass.gov/powder-point-bridge-replacement-project>

Project email powderpointbridgereplacement@dot.state.ma.us