### Department of Public Works, Sudbury & Wayland, MA



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### Questions From Visioning Workshop / Public Comments

The Towns of Wayland and Sudbury are collaborating in their efforts to repair conditional deficiencies with Sherman's Bridge. A Visioning Workshop was held on October 9, 2025 to provide an opportunity for residents and bridge users to have their questions answered and concerns heard.

With an awareness to achieve a balance of preserving the bridge's historical nature and be mindful of desired amenities, while also meeting current bridge standards, the Project Team took what was learned at the Workshop and adjusted the design to include many agreeable accommodations.

Summary of project progress:

- Asphalt on the bridge is no longer being proposed.
- Reviewing and revising a cross section with MassDOT that addresses the concerns raised on 10/9:
  - Maintaining walkway access
  - o Retaining the 5' (foot) walkway
  - Reviewing options for appropriate crash-tested barriers (on bridge) and guardrails (off bridge)
- Working on new renderings to better depict the newly proposed conditions.
- Plans for additional pre- and post-construction speed and traffic monitoring.
- Pavement markings at bridge approaches to encourage a reduction in speed.
- Review and process all the comments received.

### Summary of questions/general themes received:

 Question 1: What materials are being proposed on the bridge for the decking, barriers, and guardrails?

The rehabilitation project proposes timber glulam decking and timber glulam bridge barriers (on bridge only) and pedestrian handrails. Solid sawn lumber is proposed for the walkway walking surface. On the east side of the bridge (non walkway side), the project team continues to consult with MassDOT and investigate appropriate materials for approach guardrails and guardrail transitions.

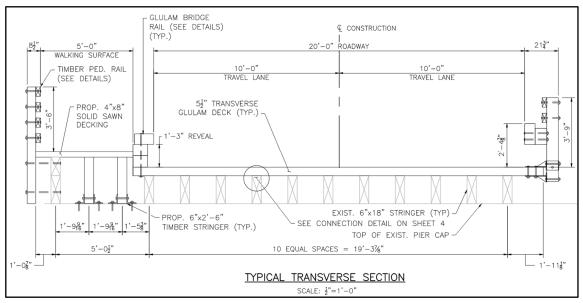
Question 2: Why is glulam decking proposed?

When proposing rehabilitation or reconstruction work at a bridge, the design standards are outlined by MassDOT and AASHTO (American Association of State Highway and Transportation Officials). The MassDOT bridge manual requires crash tested bridge barriers. In trying to maintain the use of timber at the bridge, the only timber crash-tested bridge barriers utilize a glulam deck and glulam barriers. Glulam represents modern technology while aiming to maintain the timber appearance of the structure.

- Question 3: Why was an asphalt overlay proposed on the bridge?
   Verbal communication with MassDOT and research into documents from AASHTO and USDA (United States Department of Agriculture) all recommend the use of an asphalt overlay on top of timber decks for protection.
- Question 4: Are you still proposing an asphalt overlay on the structure? After consideration and hearing the concerns from residents, the asphalt overlay is no longer proposed over the structure. The Towns acknowledge the potential for reduced service life of the glulam decking but are taking the concerns of the community into consideration and are proposing to move forward with this project without the asphalt overlay on the bridge.
- Question 5: Is MassDOT continuing to offer financial support in the form of purchasing the glulam materials if an asphalt overlay is not proposed over the bridge?

Yes, MassDOT remains committed to providing financial assistance of the glulam material with or without the asphalt overlay.

Question 6: What is the proposed bridge cross section at this time?
 A screenshot of the proposed updated cross section is presented below:



The bridge will have two 10-foot-wide travel lanes for a total width of 20 feet between vehicle barriers. The walkway will have a width of 5 feet, which meets all ADA and AAB requirements.

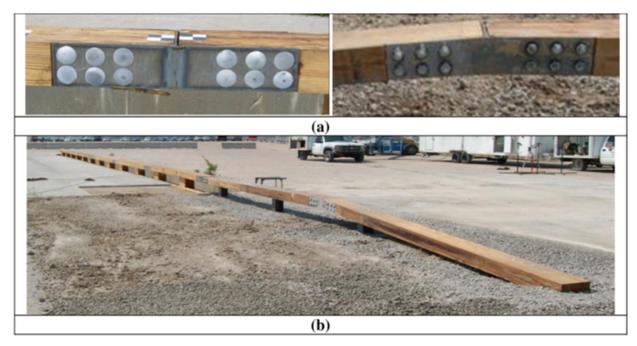
## Question 7: What has changed with the cross section since the Visioning Workshop?

A summary of changes is listed below:

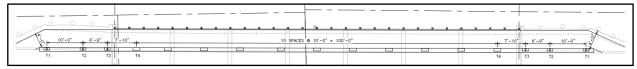
- Removed asphalt wearing surface from the bridge.
- Updated the "right" (east) side bridge barrier to a TL2 glulam barrier.
- Updated the "left" (west/walkway) side bridge barrier to a TL1 glulam barrier.
- Increased the walking surface to maintain the existing 5'-0" walking surface on the bridge.
- Included 2 additional stringers under the walkway to provide structural redundancy.

# - Question 8: Will access to the walkway be maintained with the proposed bridge barrier at the curb line?

Yes! With the TL1 bridge barrier, there is an approved glulam barrier transition that terminates before the end of the existing walkway access. This will allow the project to maintain the existing steel-backed timber guardrails in the bridge approach on the west side of Sherman's Bridge/Lincoln Road. A photo of the appearance of this barrier transition is shown here:



A screenshot of the proposed layout of this barrier and the walkway access is shown here:



# Question 9: Is a crash-tested barrier required between pedestrians and a travel lane?

No, not necessarily. Residents' have referenced bridges throughout local towns and the state where there is no barrier along the curb. In those cases, the crash tested bridge barrier is placed at the back of sidewalk connected to approach guardrails and extend along the roadway approach. The project team investigated this option, and asked for technical guidance from MassDOT. Ultimately, a bridge barrier at the back of walkway is not possible for this project. The project site is constrained by the existing timber wingwalls, where there is not adequate space for safe, crash tested approach guardrail or transitions, without major modifications to the wingwalls. Modifications to the existing wingwalls would utilize materials other than timber, and would likely cause unnecessary impacts to the boat launch(es).

## Question 10: What about the approach guardrails on the east side of Sherman's Bridge/ Lincoln Road?

The project includes crash tested glulam barriers on the bridge. These barriers need to properly transition off the bridge to an approved crash-tested approach guardrail system. After investigation and discussion with MassDOT, the only approved

guardrail transition utilizes steel guardrails. This is awaiting confirmation from MassDOT and alternatives are still being discussed. As mentioned previously, the MassDOT bridge manual requires bridge barriers and approach guardrail to meet federally regulated MASH (Manual for Assessing Safety Hardware) crash testing standards. The project is proposing to include color treatment(s) to the steel guardrail to better fit in the surrounding landscape aesthetic. The project team would also like to note photo documentation from 1986 where there is evidence of steel approach guardrails in place at this crossing. See photos:



## Question 11: Will the proposed steel guardrails affect or block off the boat launch areas in the Wayland approach?

No, the construction limits of the proposed approach guardrail will not permanently impact the boat launch areas aside from during construction.

# Question 12: How will the project address speeding on both bridge approaches?

The project team is proposing a data-driven approach in regards to speed over the bridge. Traffic counts were taken just east of the bridge in Wayland in July and November 2024. A full data set of the traffic volume, speed data, and vehicle class has been provided on the project website. A summary of the daily bi-directional traffic data from 2024 is provided below:

	Dire		
Date	NB	SB	TOTAL
7/16/24	1180	738	1918
7/17/24	1103	659	1762
11/12/24	1253	734	1987
11/13/24	1197	822	2019

Volume Data (presented as total vehicles/day)

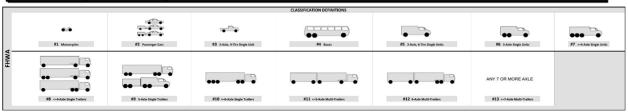
Date	Direction	Average	85 <sup>th</sup>	ADT		
		Speed	Percentile			
	NB	25	29	1180		
7/16/24	SB	26	29	738		
	TOTALS	25	29	1918		
7/17/24	NB	26	29	1103		
	SB	26	30	659		
	TOTALS	26	29	1762		
	NB	25	30	1253		
11/12/24	SB	24	29	734		
	TOTALS	24	30	1987		
11/13/24	NB	25	31	1197		
	SB	25	32	822		
	TOTALS	25	31	2019		

Speed Data (presented in mph)

The 85th percentile speed is the speed at which 85% of the motorists are traveling at or below. It is used as a "design speed" for most engineering applications.

MassDOT regulates speed limits along all public roadways in the Commonwealth, even those owned by the Town. For more information regarding MassDOT's speed zoning policies, please visit: <a href="MassDOT Speed Zoning">Mass.gov</a>

CLASSIFICATION															
Date		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
7/16/2024	Totals	2	1540	317	1	46	5	0	4	2	0	0	0	0	1917
	% of Totals	0%	80%	17%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	100.00%
7/17/2024	Totals	4	1389	293	0	50	7	0	16	3	0	0	0	0	1762
	% of Totals	0%	79%	17%	0%	3%	0%	0%	1%	0%	0%	0%	0%	0%	100%
11/12/2024	Totals	0	1603	283	6	69	14	3	7	2	0	0	0	0	1987
11/12/2024	% of Totals	0%	81%	14%	0%	3%	1%	0%	0%	0%	0%	0%	0%	0%	100%
11/13/2024	Totals	0	1602	290	4	86	15	2	5	10	5	0	0	0	2019
	% of Totals	0%	79%	14%	0%	4%	1%	0%	0%	0%	0%	0%	0%	0%	100%



Class Data

#### Class Data Summary:

- Passenger/light vehicles are classified as vehicles #1-3 & #5. See image above for the different vehicle classifications. Based on classification data on the 4 days, the percentage of bridge traffic consisting of these vehicles is 99.3%, 98.3%, 98.4%, and 98.0%. In general, less than 2% of the overall traffic flow is comprised of heavy vehicles.
- For more information regarding MassDOT's truck exclusion regulations, please refer
  to Section 2B.59 of the Massachusetts Amendments to the Manual on Uniform
  Traffic Control Devices (MA MUTCD) in the following link: Massachusetts
  Amendments to the Manual on Uniform Traffic Control Devices Revised
  Massachusetts Amendments to 2009 Edition

The project team will collect similar traffic data post-construction and utilize the data to compare traffic and speed pre- and post-construction. If the Towns determined that speed has significantly increased with the smoother timber decking, the Towns will investigate options for addressing speeding at or near the bridge. It is unlikely that the Towns or MassDOT will recommend a speed limit below 25 mph. The lowest enforceable speed limit typically approved by MassDOT is 25 mph. Continued engagement with the respective Police Departments will continue to provide speed monitoring and enforcement assistance. Appropriate pavement markings to account for speed traffic calming will be considered as part of this project.

Question 13: Are weight restrictions on the bridge being considered?
 MassDOT performs load ratings on bridges throughout the state on behalf of municipalities. Per MassDOT, they will only recommend/impose a bridge weight restriction if it is supported by a structural analysis of the bridge, rather than as a means to impose a general truck exclusion. Therefore, a weight restriction is not being considered at this time.

Truck exclusions lie under MassDOT's jurisdiction, even for a Town-owned roadway. MassDOT requires a data-intensive reporting process with a requirement to consider regional impacts to traffic. Based on the field-collected vehicle classification data collected for this project, it is unlikely that the Towns would be successful in soliciting MassDOT for their approval. Assuming a broader truck exclusion is approved, even if unlikely, it would still allow truck access to businesses and institutions that have frontage on the subject roadways.

- Question 14: Are there binding conditions established for bridge repairs?

  It has been mentioned that bridge-repair conditions were established in association with land takings during the early 1970's. However, through the inspection of Wayland Town records, no evidence of any written agreement, whereby conditions were memorialized along with these land takings, were found or appear to exist.

  Legal counsel has advised that in the absence of a written executed agreement, there are no legal conditions associated with bridge work. That being said, the design remains mindful to maintain a large measure of historic appearance.
- Question 15: Is there potential for a wider or cantilevered sidewalk for multiple users (walkers, anglers, photographers)?
   An updated bridge cross section has been developed, and the existing 5'-0" width of the platform is maintained in the current design.
- Question 16: Could both sides of the bridge include pedestrian space?
   A second pedestrian platform is not being considered part of the project at this time. It is currently not possible with the existing structural framing without major additional construction and reinforcements and an overall widening of the bridge. Additionally, it would encroach on existing federal easements.

Question 17: Does glulam timber degrade after being submerged in flood waters? From AASHTO guidance, section C8.4.1.2.1, "When wet-use adhesives are used, the bond between the laminations, which is stronger than the wood, will be maintained under all exposure conditions." The project team has inquired with MassDOT and their experience with glulam throughout District 3, and there has been no observed degradation in glue-laminated structures or components resulting from repeated or cyclic water submersion. The wet adhesive used is specifically formulated for high-humidity environments and direct water exposure. Additionally, the panels are treated with a wood preservative formulated to protect the timber from decay and water damage. Therefore, there are no concerns with the proposed decking material withstanding damage due to potential flood waters.

 Question 18: Could interpretive signage or historic markers be incorporated to honor the site's heritage?

The Town's will discuss this with their representative Historic Commissions and will coordinate the funding of signage and historic markers, designed by the Historic Commissions.

- Question 19: How will lighting be handled... will new fixtures be added, and will they affect nighttime character?

In following with the Dark Sky Initiative, there will be no fixtures added. There are already light poles and overhead wires that cross the river to the southeast of the bridge, and a light fixture on the Sudbury approach. This project does not propose to modify the overhead wires, poles, or light fixtures.

 Question 20: Will boat and kayak access remain available during and after construction?

There will be temporary impacts to boat and kayak access during construction. The Contractor will be responsible for maintaining a safe bridge site and kayaks and boats will not be allowed in spans where the Contractor is working. There will be no long-term permanent impacts on kayaking or boat access after construction.

- Question 21: How will emergency access be maintained during closures? The Town's will need to coordinate with their respective safety departments to develop a plan for preparedness in the event of an emergency that could be affected by the closed bridge. There have been other bridge closures that impacted the Towns and emergency considerations were successfully made.
- Question 22: Who will be responsible for future maintenance: Wayland,
   Sudbury, or shared?

Future maintenance of the bridge will continue to be shared equally by both Towns.

#### **Next Steps:**

- The Town of Sudbury and the Town of Wayland will continue to work with MassDOT on an approved cross section and approved bridge barriers and approach guardrails.
- Finalize design plans and provide the public with the opportunity to provide their comments.
- Submit project construction plans to MassDOT for formal Chapter 85 Review.
- Both Sudbury and Wayland will provide revised plans to both Historic Commissions to facilitate further discussions.
- Both Towns will submit Notice of Intents (NOI's) to both Conservation Commissions relative to their communities for their review.
- Both Towns will submit permits relative to the Bridge Rehabilitation Project with the required and appropriate permitting agencies.

During these next steps, there will be opportunities for the public to provide additional comments and public input. Preceding the approval of the designs and permitting, both Wayland and Sudbury will work with MassDOT on the necessary procurement needs for the project including construction. Both Towns are committed to providing a safe asset that best serves both communities and its users.