



Interstate 91 Viaduct Study Public Meeting Summary

September 12, 2018, 5:30 PM
Sheraton Springfield Monarch Place Hotel
Mahogany Room, 2nd Floor

Project Team

Ethan Britland, Massachusetts Department of Transportation (MassDOT)
Michael Clark, MassDOT
Mark Arigoni, Milone & MacBroom (MMI)
John Hoey, MMI
Van Kacoyannakis, MMI
Emily Christin, Regina Villa Associates (RVA)
Sarah Paritsky, RVA

Present: See attendance on page 6

Meeting Purpose

This was the third and final public information meeting on the Interstate 91 (I-91) Viaduct Study. The purpose of this meeting was to present an overview of the draft recommendations and the Draft Final Report. The presentation, handout, boards and Draft Final Report can be viewed on the study website, www.mass.gov/i-91-viaduct-study.

Presentation

Welcome & Introductions

Michael Clark, MassDOT Project Manager, opened the meeting and welcomed attendees. Mr. Clark introduced the members of the project team and reviewed the agenda. Mark Arigoni, MMI Project Manager, reviewed the goals, objectives, and evaluation criteria that were used throughout the study. Mr. Arigoni noted that the handout provided at the meeting includes information on how to share comments on the Draft Final Report.

Project Review and Alternatives

Mr. Arigoni recapped the study and alternatives development process, noting the Working Group met a total of 11 times. From the feedback provided at the Working Group meetings, three alternatives were advanced for analysis:

- Alternative 1: Sunken, Tunnel, or Combination(s) following current I-91 Alignment

- Alternative 2: Sunken, Tunnel, or Combination(s) following modified I-91 Alignment (section of combined rail and highway corridor)
- Alternative 3: Reconstructed Elevated Structure (Modern Viaduct)

Mr. Arigoni reviewed the alternatives and showed conceptual plans of each. He explained that the original study area was expanded to include the Longmeadow Curve and Route 5/57 Interchange areas.

Mr. Arigoni said each alternative was reviewed with the evaluation criteria and compared to a “Rehab Option” in which the existing viaduct would be rehabilitated in 2040. He explained that each of the six evaluation criteria had subcategories and a Harvey Ball ranking system rated the alternatives for each subcategory. The rating process could not be too complex since the alternatives are conceptual. The Working Group provided comments on the evaluations at the tenth Working Group meeting and the project team incorporated the feedback and revised the ratings as necessary. The comments were also responded to in a letter. The evaluation criteria and the “response to comments” letter are posted on the study website.

Public Health Activities

Mr. Clark presented the public health activities of the study. He explained that MassDOT has previously worked with the Massachusetts Department of Public Health (DPH) on a study in Somerville which resulted in a Health Impact Assessment (HIA). Based on available resources, MassDOT and DPH collaborated to integrate public health into the evaluation criteria for the I-91 Viaduct Study. A baseline health assessment was carried out to inform the existing conditions data collection, and graduate students at UMass conducted interviews in the community. This also resulted in the study team developing maps showing the locations of vulnerable populations and environmental resources for each alternative.

MassDOT and DPH concluded that the resulting data was too limited for drawing evidence-based conclusions. Mr. Clark said MassDOT will continue to work with DPH on how best to integrate public health in future studies and added that Massachusetts is one of the only states doing this.

Comparison of Alternatives

Mr. Arigoni showed a table summary of the alternatives compared to the Rehab Option for each evaluation criteria (shown below). The costs are calculated in 2040 dollars since the projects would likely be constructed around that timeframe. The “Mobility & Connectivity” criteria focused on the on-/off-ramps and merging/weaving patterns on I-91. He explained that each alternative included various short and mid-term improvements to locations other than just the viaduct, described below.

	Sunken Highway Following Current Alignment	Sunken Highway Following Modified Alignment	Reconstructed Elevated Highway
Mobility and Connectivity	Some reduction in number of merge, diverge, and weave locations Improvement in vehicular travel time along I-91 and study area	Highest reduction in number of merge, diverge, and weave locations Minimal change in vehicular travel time along I-91 and decline in study area	Some reduction in number of merge, diverge, and weave locations Improvement in vehicular travel time along I-91 and smaller improvement in study area
Safety	Reduction of on- ramps/off-ramps improves bike/ped conditions Redesign of 15 crash clusters	Reduction of on- ramps/off-ramps improves bike/ped conditions Redesign of 15 crash clusters	Reduction of on- ramps/off-ramps improves bike/ped conditions Redesign of 15 crash clusters
Environmental Effects	Slight increase in VMT and decrease of air quality 27,000 square feet of wetlands impacts Reduced noise impacts	Slight increase in VMT and decrease of air quality 27,000 square feet of wetlands impacts Reduced noise impacts	Virtually no change in VMT or air quality 27,000 square feet of wetlands impacts Similar noise impacts
Land Use and Economic Development	468,800 square feet of space over highway created Potential for \$2.2 million in annual tax revenue at full build-out	553,800 square feet of space over highway created Potential for \$3.5 million in annual tax revenue at full build-out	13,800 square feet of space over highway created Potential for \$300,000 in annual tax revenue at full build-out
Community Effects	Potential for greenspace and better connection to Riverfront 10-15 year construction duration	Potential for greenspace and better connection to Riverfront 10-15 year construction duration	Potential for activation of space underneath viaduct 8-12 year construction duration
Cost (in 2040 dollars)	\$3.78 billion	\$3.74 billion	\$3.14 billion

Short and Mid-Term Alternatives

Mr. Arigoni explained the project team calculated separate cost estimates for short-term and mid-term alternatives (associated projects) in order for these projects to potentially move forward independent of a viaduct-specific project. He noted the associated projects meet the study goals and objectives even though they are not part of the viaduct and they can be implemented as standalone projects. He showed conceptual plans of each short and mid-term alternative, and described the components of each:

- Longmeadow Curve Area Improvements (see slides 20-23)¹
 - Frontage roads on east and west side of I-91 and roundabouts at South End Bridge and US-5 (ability to access I-91 southbound from US-5)
 - Maintain three lanes of travel on I-91 North and South and elimination of weaving hazards
 - Elimination of US-5/MA-57 rotary
 - New bicycle/pedestrian connection from Forest Park to Connecticut Riverwalk and Bikeway

Mr. Arigoni showed a breakdown of costs for the Longmeadow Curve Area Improvements (see slide 23) and described the I-291 Southbound to I-91 Southbound On-Ramp Relocation (see slide 24) and the Plainfield Street/Route 20 Improvements (see slide 25).

Mr. Arigoni presented short-term improvements which can be implemented within a few years and showed photographic examples and renderings of each:

- Safety and aesthetic improvements beneath the existing viaduct, including better lighting and making it a more inviting space. Mr. Arigoni noted projects like this are occurring in Boston and other areas of the state.
- Pedestrian improvements near the viaduct, including relocation of the pedestrian bridge.
 - An attendee said the Draft Final Report incorrectly stated that the elevator in this area is broken. Mr. Arigoni said that can be fixed in the Report, and the City can look at other options that are not mechanical and therefore would not need frequent maintenance.
- Shared-use path along Longmeadow Street/Route 5.
- Pedestrian walkway and grade crossing improvements to Riverfront Park.
- Accessibility improvements including a new ramp from the South End Bridge to River Road.

Mr. Arigoni noted that each of the short-term improvements has a cost estimate equal to or less than \$2 million. Mr. Arigoni showed the cost estimates for the associated projects on slide 30 and the alternatives on slide 31. He noted that the total cost of the Rehab Option, including the associated projects, is \$1.52 billion.

¹ Mr. Arigoni showed a VISSIM traffic simulation of the Longmeadow Curve Area Improvements.

Draft Recommendations and Next Steps

Mr. Arigoni explained that MassDOT selected the Viaduct Rehabilitation as the option for a long-term project with several short and mid-term associated projects. He noted this is detailed in the Draft Final Report. He said that the City of Springfield and Pioneer Valley Planning Commission (PVPC) can pursue projects on locally-owned roads with support from MassDOT. Short and mid-term alternatives on state-owned roads would advance in MassDOT's project development process.

Mr. Clark summarized the next steps for the study, including the 30-day comment period of the Draft Final Report. He noted that email or letter comments are preferred to phone calls, so nothing gets lost in transcription. The handout includes space for written comments as well. Comments will be accepted through October 10, 2018. The Final Report will be published after the comment period.

Question and Answer

Mr. Clark invited the participants to share questions or comments.

An attendee asked for further explanation on the decision to move forward with the Rehab Option, when Alternatives 1 and 2 showed more benefits to merging/weaving hazards when compared to the No Build/Rehab Option. Ethan Britland, MassDOT, explained that the "no build" option is really the "Rehab Option" as the viaduct would need to be rehabilitated in the future. The associated projects (short and mid-term alternatives) that were described in the presentation are included in the Rehab Option. Mr. Britland said cost is one of the factors in the decision, as well as the many benefits of the associated projects. He explained the associated projects will meet the study goals and objectives with reducing the weaving conditions, enhancing access to Forest Park, bicycle and pedestrian improvements, and improvements beneath the viaduct. Mr. Britland confirmed the comparison chart (shown above) incorporates the associated projects and not just rehabilitation of the viaduct. He explained the study was unable to complete full travel demand modeling of each associated project, but they were included in the microsimulation model, so the team could see their benefits. Mr. Britland confirmed the full evaluation criteria matrix is on the study website.

Thomas Yarsley said the recommendation of the Rehab Option should be indicated more clearly in the presentation. Mr. Britland agreed.

A participant said his understanding was this study was initiated because the viaduct will need to be replaced at some point in the future and doesn't understand why Alternative 3 (elevated viaduct) is so much more expensive than the Rehab Option. The study team explained that Alternative 3 would involve constructing new piers which would need deeper foundations to support a higher viaduct, and the ramps would need to be much longer. There is a lot more involved with elevating the viaduct than just rehabilitating the deck and existing supports. Rich Masse, MassDOT District 2, said the current viaduct rehabilitation included a deck replacement and some pier work and cost \$140 million.

An attendee asked if the Rehab Option would eliminate most of the braided arterials. Mr. Britland said the Rehab Option would fix the viaduct in-place and would not include any changes to the ramp system unless the state decides to do so at that time.

A participant asked if there will be a difference in the cost of the projects 25 years from now. Mr. Britland explained the cost estimates for each project are in 2040 dollars. That year was chosen when the conceptual plans were engineered as that would have been the timeframe a new viaduct would be constructed. Mr. Britland confirmed the associated projects do not have to wait until 2040 to be constructed, and a lot could be completed within 10 years. He noted that each project still needs to go through design and permitting as well as compete with other projects throughout the state for funding during the Capital Investment Plan (CIP) process (as none are funded at the moment).

A participant asked where the Longmeadow Curve projects (specifically, improvements to frontage roads along I-91) would begin and if there has been any consideration to environmental review. Mr. Arigoni pointed to the conceptual images on slide 21 and noted the roads will largely stay within the existing right-of-way but there will be some impacts at the proposed peanut-shaped interchange. Mr. Arigoni noted this project would also eliminate some existing roadways and the team did not go out and do any flagging of wetlands. The attendee said the work will be in Springfield then and not Longmeadow.

An attendee asked if there is a difference in useful lifespan of the viaduct in Alternative 3 and the Rehab Option. Van Kacoyannakis, MMI, said it is difficult to know in the conceptual stage without knowing specific materials, but the team used a 35-year lifespan in its modeling. Mr. Masse said when it comes time to evaluate the existing viaduct again, the structure will be completely reexamined (steel, concrete, piers) to determine whether elements could be rehabilitated or would need to be replaced.

A participant asked how MassDOT took future driving patterns (such as autonomous vehicles) into consideration for this study. Mr. Clark said the existing conditions analysis looked at demographic trends and impacts on future vehicle ownership but MassDOT has not yet had a broader discussion about autonomous vehicles and how the agency could plan for them. The participant asked if MassDOT's mode-shift goals were included in the study. Mr. Clark said MassDOT strives to maximize multimodal use for all of its projects, and the evaluation criteria looked at better connectivity and accessibility for pedestrians and bicyclists. He said there will be more opportunities for discussion as projects advance.

An attendee asked how many roads people use beneath the existing viaduct to access other destinations. Mr. Kacoyannakis said Memorial Avenue is the only road that passes beneath the viaduct and provides access to West Springfield.

Mr. Clark thanked everyone for attending and closed the meeting.

Attendance

Mike Campbell, UMass

Donna Feng, MassDOT

Stephen Gazillo, Longmeadow Conservation Commission

Ed Hiney, Springfield Police

Betsy Johnson, Walk/Bike Springfield

Douglas Johnson

Charlie Knight, AQCA

Rich Masse, MassDOT

Douglas Mattoon, Town of West Springfield

Steve Mitchell, AECOM

Christian Nielson, UMass

Malcolm Ragan, UMass

Gary Roux, PVPC

Carmen Santana, New North Citizens Council

Jim Scheffler, Walk/Bike Springfield

Thomas Yarsley