



I-91 Viaduct Study Working Group Meeting #10

June 28, 2017 – 4:00 PM

UMass Center at Springfield, Tower Square, 1500 Main Street, Springfield, MA

Summary

Purpose: The tenth meeting of the I-91 Viaduct Study Working Group presented the evaluation criteria rating matrix showing the results for each alternative, and solicited feedback from the Working Group.

Present: Ethan Britland and Michael Clark of the Massachusetts Department of Transportation (MassDOT); Mark Arigoni, Tim Baird, Van Kacoyannakis and Carly Picard of the project study team led by Milone & MacBroom (MMI); Emily Christin and Sarah Paritsky of Regina Villa Associates; and the following members of the Working Group:

Jenny Catuogno, Young Professional
Networking Groups
Stephanie DiNezio, MassDOT Environmental
Donna Feng, MassDOT District 2
Dave Gaby, Open Housing of Western MA
Laura Hanson, MassDOT District 2
M. K. Kwatowski, City of Springfield Police

Rich Masse, MassDOT District 2
Campbell Narron, MassDOT
Paul Nicolai, Nicolai Law Group, P.C.
Hardy Patel, MassDOT Highway Design
Gary M. Roux, Pioneer Valley Planning
Commission
Thomas Yarsley

MassDOT Project Manager Ethan Britland opened the meeting, introduced the project study team, and reviewed the agenda.

MMI Principal Mark Arigoni briefly reviewed the three alternatives and walked through the presentation, which is available on the project website (www.massdot.state.ma.us/i91viaductstudy).

Alternative 1 – Sunken, Tunnel, or Combination(s) Following Current I-91 Alignment

Mr. Arigoni described the conceptual, isometric model of Alternative 1 that has been presented at previous meetings. He briefly summarized the alternative, which would involve sinking a portion of I-91 following its current alignment, merging East and West Columbus Avenues, creating the potential for new economic development in the downtown area, covering a portion of the railroad, and improving pedestrian access for the waterfront.

Alternative 2 – Sunken, Tunnel, or Combination(s) Following Modified I-91 Alignment

Mr. Arigoni presented the isometric model of Alternative 2 that has been presented at previous meetings. He briefly summarized the alternative, which would involve sinking a portion of I-91 following

a modified alignment that is closer to the railroad, creating a “transportation corridor.” He noted the rail line would remain in its current location. Other improvements include merged East and West Columbus Avenues and a roundabout at Boland Way. Mr. Arigoni added that the same improvements to the Longmeadow Curve are included in each alternative.

Alternative 3 – Reconstructed Elevated Structure (Modern Viaduct)

Mr. Arigoni described the isometric model of Alternative 3 that has been presented at previous meetings. He briefly reviewed the improvements this alternative would provide, noting that the I-91 North Garage would remain but the I-91 South Garage would need to be relocated or replaced with a surface lot. He said a higher elevation for the viaduct would allow more light to flow beneath it, and would be less of an obstruction to the Connecticut River and riverside park.

Evaluation Criteria

Mr. Arigoni said the evaluation criteria results are more complete than they were at the previous Working Group meeting. He said the air and noise analyses, land use and economic development, community effects, and cost estimates have been incorporated. Mr. Arigoni said there is too much detail in the evaluation criteria to be presented on a screen, and instructed attendees open the Evaluation Criteria Workbook (which can be reviewed on the study website, www.massdot.state.ma.us/i91viaductstudy).

Mr. Arigoni said the Evaluation Criteria Workbook includes comprehensive ratings, descriptive text, and reference maps for each criterion and alternative. He explained that each alternative was compared to the Future No Build condition rather than to each other. Mr. Arigoni reviewed the Harvey Ball rating system that was used and noted that some are based on quantitative data and others are more qualitative:

Ranking	Symbol	
2	●	Better
1	◐	Same-Better
0	◑	Same
-1	◒	Same-Worse
-2	○	Worse

Mr. Arigoni, Van Kacoyannakis, and Tim Baird from MMI highlighted the following evaluation criteria from the Workbook:

Mobility and Accessibility – Roadway Operational Functionality (Section 1.1)

Mr. Kacoyannakis explained that Criterion 1.1.3 – Queue length changes in total number of intersections, which measures vehicle queue lengths at intersections. He defined queue length as the stacking of vehicles that are stopped at an intersection (and noted there is a detailed description of queue length on Page 1 in the Workbook). Mr. Kacoyannakis said the study team provided the 95th and 50th percentile queue lengths for both AM and PM hours at each intersection. The Future No Build received a “same” ranking and all three alternatives received a “same-worse” ranking.

Mr. Britland explained the alternatives had longer queue lengths than the Future No Build condition because the alternatives include longer crossing times and exclusive pedestrian phasing at key intersections. He added the roads would be wider, necessitating longer crossing times. Mr. Kacoyannakis confirmed the traffic signals would be optimized for traffic flow.

Question from Jenny Catuogno, Young Professional Networking Groups: Were the queue length results based on current vehicle counts? Mr. Kacoyannakis said the evaluation criteria were updated based on the TransCAD model results for each intersection. Mr. Britland noted that each alternative has a different number of intersections as well, which may influence the total queue lengths.

Question from Hardy Patel, MassDOT: Why are the travel times heading northbound along the I-91 corridor slower for Alternative 2 in Criterion 1.2.1 - Change in travel time along I-91 between two points, when all the other alternatives are faster? Mr. Arigoni said that the team would review the times presented to verify that the travel times are correct, but noted that some variables in each alternative could skew the numbers considerably, i.e. differing number and location of on and off ramps.

Comment from M. K. Kwatowski, City of Springfield Police: Traffic that usually travels on the I-91 Viaduct is routed through East and West Columbus Avenue now for the I-91 Viaduct Rehabilitation Project. Some cars speed on the local roads, when they should be utilized for people coming into the City, not traveling through it. A sunken highway and East and West Columbus Avenue merged together will improve traffic conditions in and access to the City.

Mobility and Accessibility – Travel Time (Section 1.2)

Mr. Kacoyannakis summarized Criterion 1.2.2 – Change in travel time between A to B travel pairs, which measured travel time on local streets from the intersection of East Columbus Avenue and Union Street (site of the new casino) to Bay State Medical Center (shown on Maps 6 and 7). He noted that Alternative 1 had the fastest average travel time.

Question from Gary Roux, Pioneer Valley Planning Commission: Why is Alternative 3 rated as worse when the travel times faster than the No Build? Mr. Kacoyannakis said he will look into why the PM travel times are slower, but it may be caused by a different flow of traffic at that time.

Mr. Arigoni noted there may be different travel times for each alternative due to their different street-level intersections and on- and off-ramps. Mr. Britland said the TransCAD model may also assign different traffic volumes based on the physical changes of each alternative.

Mr. Arigoni and Mr. Britland confirmed Criterion 1.2.2 looks at the differences in travel time between two random points in the primary study area, and does not show a recommended route between the points. In some cases, taking the highway might be faster, but this criterion looks at local streets only.

Comment from Paul Nicolai, Nicolai Law Group, P.C.: Don't use Baystate Medical Center as a destination for Criterion 1.2.2, as some people may interpret the results as having longer travel times to the hospital. Mr. Britland thanked him for his comment.

Question from Thomas Yarsley: Is the roundabout at Boland Way for Alternative 2 signalized or free-flowing? Mr. Kacoyannakis confirmed the roundabout would not be signalized.

Mobility and Accessibility – Pedestrian and Bicycle Functionality and Connectivity (Section 1.3)

Mr. Baird said Section 1.3 (Pedestrian and Bicycle Functionality and Connectivity) did not have any comparable simulation results for the Future No Build, so the study team looked at Complete Streets improvements at each location. Mr. Baird described Criterion 1.3.3 – Change in number of connections to goods and employment centers, and he referred to Maps 10 and 11. Approximately 313 properties would have improved access with Alternatives 1 and 2, and 321 properties would benefit with Alternative 3. He added there will also be improved access to schools and libraries.

Question from Dave Gaby, Open Housing of Western MA: How is access to Union Station improved for pedestrians (referring to Criterion 1.3.4 – Change in vehicular, bicycle, pedestrian and transit network to promote connectivity to Union Station)? How are bike lanes being incorporated here? Mr. Baird said the conceptual plans do not have that level of detail for pedestrians or bicycles yet. Mr. Kacoyannakis said some plans show bike lanes on East and West Columbus Avenue, as they would be required to add bike accommodations with any of the alternatives. Mr. Gaby said he thinks on-street bike lanes are very hazardous and special separation is needed for comfort and safety. Mr. Kwatowski expressed similar concerns and described new green painted bike boxes on Main Street and State Street. Mr. Arigoni said at this point in the study, the only detail regarding bike lanes is the linear footage of the accommodations.

Michael Clark, MassDOT, suggested the language can be changed from “bike lanes” to “bike accommodations” in Criterion 1.3.4.

Safety – Pedestrian and Bicycle Safety (Section 2.1)

Mr. Arigoni described Criterion 2.1.2 – ADA compliance, which evaluates improvements to intersections to make them ADA compliant, such as ramps, crosswalks, pedestrian countdown signals, flashing beacons, etc. He noted there is no change for the Future No Build, and pointed to Maps 1, 2, and 3, which highlight the intersections that would receive the improvements.

Question from Mr. Nicolai: Why is safety for pedestrians and bicyclists worse for all alternatives in Criterion 2.1.4 – Improve intersection crossing times for bicycles and pedestrians? Mr. Kacoyannakis and Mr. Britland explained that longer crossing times would be necessary for the wider roads, which increases the danger for pedestrians at those intersections. Mr. Britland said he would not consider them inherently unsafe.

Mr. Britland said it is fine to disagree with anything in the Workbook, and the study team will consider all Working Group when developing the Final Report. He said the report will also include further explanations for the ratings.

Comment from Mr. Yarsley: I see many people jaywalking in Springfield currently, and they often disobey the pedestrian walk signals. If signals are changed, they should be long enough to allow people to cross. The rules of the road should apply to all users, including pedestrians.

Comment from Mr. Kwatowski: I am on the Traffic Commission in Springfield, and I can confirm that bicyclists that disobey the rules of the road do get fined. Springfield has a \$1 jaywalking fine but other cities have much higher fines. The City of Springfield is hesitant to increase the current \$1 jaywalking

fine because it would affect low-income communities the most. Pedestrian safety education needs to start in the schools. Mr. Arigoni thanked Mr. Yarsley and Mr. Kwatowski for their comments.

Safety – Public Safety (Section 2.3)

Mr. Arigoni explained that most of the criteria are quantitative, but the Public Safety criteria are more subjective. For Criterion 2.3.1 – Minimize factors that would contribute to increased crime and fear or crime, he explained that the study team analyzed perception of safety. He reviewed the improvements for each alternative, including enhanced lighting and surveillance under the viaduct in the Future No Build. Mr. Arigoni noted there are significant improvements in Alternatives 1 and 2, which create a more pedestrian friendly area and greater sense of personal safety. He added there can also be lighting improvements and more airflow under an elevated viaduct (Alternative 3).

Question from Ms. Catuogno: Will there be any lighting changes beneath the viaduct as part of the I-91 Rehabilitation Project? Rich Masse, MassDOT District 2, confirmed the streets beneath the current I-91 Viaduct will have new and improved lighting.

Environmental Effects – Sustainability (Section 3.1)

Mr. Arigoni described how the alternatives were overlaid onto GIS maps of the study area (Maps 15 – 18) to measure the impacts to surrounding wetlands in Criterion 3.1.1 – Specific environmental resources impacted critical resources in study area. The square footage of impacted areas was compared to the Future No Build (which had zero impact). Since each of the three alternatives has impacts to the surrounding environment, they received a lower rating than the Future No Build. Mr. Arigoni explained that the data that was collected under Task 1 of the Study was used for this evaluation.

Question from Mr. Nicolai: How are the wetlands being impacted in Map 18? Mr. Arigoni said the impacts would be from any improvements to the South End Bridge, associated with the Route 5/Route 57 improvements. Mr. Arigoni said that the team would verify the amount of impacts shown.

Question from Stephanie DiNezio, MassDOT: What is the difference between Criteria 3.1.2 and 3.1.3? Mr. Baird explained that 3.1.2 looked at the I-91 Viaduct area footprint and 3.1.3 looked more broadly at the study area and future development areas. Ms. DiNezio suggested the study team provide more clarification about this in the Workbook.

Question from Stephanie DiNezio, MassDOT: Why is there no conceptual health pathway for Criteria 3.1.1, 3.1.2 and 3.1.3? Mr. Baird said the health impacts are still ongoing and under review by the MA Department of Public Health (DPH), and the study team will follow up with the Working Group when they are complete.

Question from Mr. Gaby: How did the study define “greenspace development”? Mr. Arigoni said since the alternatives are concept level designs, any area that is not a roadway or building was considered hypothetical greenspace. He said the distinction is space that is for pedestrians and not vehicles.

Question from Mr. Yarsley: Have you considered adding a glossary to assist the public in reading the evaluation criteria? Mr. Arigoni said that the team would consider expanding on some definitions, however he noted that the description section of the evaluation criteria was intended to provide more digestible background information.

Environmental Effects – Air Quality (Section 3.2)

Mr. Baird described how TransCAD data was shared with the Central Transportation Planning Staff (CTPS) to determine emissions and the effect of each alternative on air quality. For Criterion 3.2.1 – Health impact to vehicle occupants, bicyclists, and pedestrians, he noted there is a slight increase in emissions with Alternative 1, a slightly greater increase with Alternative 2, and a negative/neutral change in emissions with Alternative 3.

Question from Mr. Nicolai: Why are the vehicle miles traveled (VMT) and emissions from Alternative 2 higher than the others? Mr. Britland said it may be due to the realigned or relocated ramps onto and off-of I-91 causing people to take different routes. The team will verify the numbers are correct.

Environmental Effects – Noise (Section 3.3)

Mr. Baird described Section 3.3, and pointed to Maps 19-22. He said the maps show two sets of noise impact areas based on different decibel levels. He said the noise threshold for the highway is different for commercial and residential areas. Mr. Baird described the ratings of each alternative, with Alternatives 1 and 2 having the highest ratings.

Question from Mr. Yarsley: Does the noise model identify the various sources of noise? For example, how much noise is coming from tires, trucks, horns, engines? Mr. Baird said he does not believe so. Mr. Britland said the model did take vehicle type (trucks vs. cars) into account.

Land Use and Economic Development – Economic Development Potential (Section 4.1)

Mr. Baird described Section 4, which evaluates the potential for commercial and residential development from an economic perspective. He explained Criterion 4.1.5 analyzed the potential for each alternative to create new tax generation by looking at comparable properties in Springfield. Alternative 2 would yield the highest new tax generation.

Question from Mr. Nicolai: What is the assumption for the type of development over the depressed highway in Alternatives 1 and 2? Mr. Arigoni said the study team came up with development scenarios based on created land and balanced it with economic data; he referred to previous Working Group presentations. The square footage was then plugged into the regional model.

Mr. Britland noted that the development scenarios for each alternative were factored into the model, which may account for why there are different results for each alternative in the evaluation criteria. Mr. Baird said Alternative 2 would result in the highest number of jobs created, which may also factor into VMT and traffic volumes.

Comment from Mr. Gaby: The City of Springfield removed the original Boland Way rotary in the 1970s because it was too small to be safe, and that one was larger than the one proposed in Alternative 2. Mr. Britland said roundabout standards have changed drastically in the last several years, and one designed in this instance would meet the current standards. Mr. Kacoyannakis confirmed the roundabout worked well in the model with standard, 25-foot vehicles.

Question from Mr. Nicolai: Why are the three alternatives rated the same for Criterion 4.2.7 when the amount of greenspace is different? Mr. Arigoni said that although only two of the alternatives would provide for greenspace on top of a portion of sunken highway, the third alternative would allow for

considerable improvement to light and pedestrian space under a new, modern viaduct. The ratings will be revised to ensure consistency.

Question from Mr. Nicolai: Why are the alternatives rated “same-worse” in Criterion 4.3.1 – Construction related impacts to freight operations, when there are no impacts to freight? Mr. Arigoni said this criterion is a little in flux, as any potential impacts to freight need to be identified. Mr. Kacoyannakis said Alternative 2 would have a potentially larger impact than Alternatives 1 or 3 because it is shifted closer to the railroad. He said there will need to be some mitigation measures for the railroad during construction, such as a temporary track or switches for Alternative 2.

Cost (Section 6)

Mr. Arigoni said the lifecycle cost benefit of each alternative was not discussed at previous meetings. He explained that because the actual construction of any alternative would probably take place in 2030-2040 a life cycle was added and the year 2075 was identified to develop the lifecycle cost estimates for Section 6. He noted that the model assumes two additional deck replacements would be required for the Future No Build before 2075.

Mr. Arigoni showed a VISSIM simulation of the “peanut” intersection, or the Route 57 and Route 5 interchange. Mr. Kacoyannakis explained that the model shows PM volumes for 2040, and traffic begins at the “peanut” in Longmeadow and ends at the South End Bridge intersection. The simulation shows the proposed bikeway from Forest Park that crosses over the roadway.

Question from Mr. Yarsley: Would any properties near the South End Bridge be impacted by the “peanut” rotary? Mr. Arigoni said no private properties would be impacted. Mr. Yarsley suggested adding the existing houses to the renderings or simulation.

Question from Mr. Nicolai: Did the study separate the mid-term improvements to the Longmeadow curve for cost estimates? Mr. Arigoni said yes, and they are called “Longmeadow Curve, South End Bridge, and Route 57/Route 5 Interchange Improvements.”

Comment from Mr. Yarsley: The simulation shows a stack of cars blocking the exit to Route 5 North. Mr. Kacoyannakis said the simulation is only conceptual and the lanes could be modified during the design of this project.

Mr. Britland said he will send Mr. Patel information on estimated costs.

Schedule and Next Steps

Mr. Britland noted that the study is scheduled to be completed by October 2017. He said the study team will share the workbook electronically and initiate an informal comment period on the evaluation criteria, noting it is a challenge to post the Workbook on the website as it must be formatted for accessibility first.

Mr. Britland said MassDOT is still working with DPH on the health impact analysis, and hopes to bring the results to the next Working Group meeting. He reminded attendees that he will consider all feedback received from the meeting and on the Evaluation Criteria Workbook, and share it with MassDOT decision-makers. The team will present a recommended alternative at the next (and last) Working Group meeting. Mr. Britland said there is also one public meeting remaining.

Question from Gary M. Roux, Pioneer Valley Planning Commission: How long of a comment period will there be for the Evaluation Criteria Workbook? Mr. Britland said probably a couple of weeks.

Question from Mr. Nicolai: Who makes the final decision about the recommended alternative? Mr. Britland said MassDOT Secretary Stephanie Pollack makes the decision.

Question from Mr. Roux: Is it possible to share a summary of all comments received from the Working Group? Mr. Britland said yes, and it will also be included in the Final Report.

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