Public Meeting #3

Sheraton Springfield Monarch Place Hotel
One Monarch Place – The Mahogany Room
Springfield, Massachusetts

September 12, 2018
Welcome & Introductions

- Ethan Britland – Project Manager (MassDOT)
- Michael Clark – Project Manager (MassDOT)
- Mark Arigoni, LA – Principal-in-Charge (MMI)
- Van Kacoyannakis, PE – Traffic (MMI)
- John Hoey - QA/QC (MMI)
- Sarah Paritsky – Public Involvement (Regina Villa)
- Emily Christin – Public Involvement (Regina Villa)
Agenda

- Welcome and Introductions
- Study Progress & Alternatives Review
- Refresher of the Evaluation Criteria
- Short and Mid-term Improvements
- Draft Recommendations
- Next Steps
I-91 Viaduct Study Goals, Objectives, and Evaluation Criteria

- **Mobility and Connectivity** – maintain and improve the efficient function of I-91, I-291, associated ramps, and key intersections in the study area, encouraging mode shift through improved bike/ped functionality

- **Safety** – improve bike/ped and vehicular safety throughout the study area, as well as public safety adjacent to the viaduct

- **Environmental Effects** – improve air quality, reduce noise impacts, and decrease environmental impacts such as wetlands incursion and pavement footprint

- **Land Use and Economic Development** – enhance access to existing development parcels and establish new development parcels, while creating more attractive, economically viable riverfront connections

- **Community Effects** – provide fair and equitable treatment for Environmental Justice populations and improve the visual perception of the viaduct

- **Cost** – estimate construction and long-term maintenance costs
Project Review: Alternatives Development

• Ten alternatives initially developed

• Additional Assessment Effort (West Side Alternatives)

• 11 Working Group Meetings (WGMs)

• Three Public Meetings (including tonight)

• Three alternatives advanced for analysis
  • Sunken Highway following Current Alignment
  • Sunken Highway following Modified Alignment
  • Reconstructed Elevated Highway

• Detailed Evaluation Criteria Analysis: Alternatives developed to achieve favorable outcomes by balancing community, environmental impacts, engineering complexity, ease of implementation, and costs
1. Sunken, Tunnel, or Combination(s) following current I-91 Alignment

2. Sunken, Tunnel, or Combination(s) following modified I-91 Alignment (section of combined rail and highway corridor)

3. Reconstructed Elevated Structure (Modern Viaduct)
Alternative No.1
Sunken following current I-91 Alignment

Conceptual Planning Study: This graphic represents a hypothetical development scenario that could be representative of potential future development along the I-91 Viaduct Corridor and is shown for general informational purposes. Any actual future development that occurs along this corridor may vary from this conceptual representation.
Conceptual Planning Study: This graphic represents a hypothetical development scenario that could be representative of potential future development along the I-91 Viaduct Corridor and is shown for general informational purposes. Any actual future development that occurs along this corridor may vary from this conceptual representation.
Alternative No. 2

Sunken following modified I-91 Alignment

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Alternative #2
Conceptual Planning Study: This graphic represents a hypothetical development scenario that could be representative of potential future development along the I-91 Viaduct Corridor and is shown for general informational purposes. Any actual future development that occurs along this corridor may vary from this conceptual representation.
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• A workbook was developed to function as a stand alone document providing information to support ratings shown in the Evaluation Criteria.

• Comments were generated by the Working Group following WGM #10.

• Responses to comments were provided and posted to the study website
The Evaluation Criteria was further developed and refined based on comments provided following the WG meeting in June 2017.

Mapping & Ratings (Harvey Ball/Numeric) were reviewed and revised as necessary.
Public Health Activities

• Baseline health assessment informed Existing Conditions data collection
  • Characterizing baseline health information that are directly related to transportation and land-use decisions
    • Hospitalizations for Asthma and Heart Attack; Pediatric Asthma data; Small Area Estimates from a survey (BRFSS) for hypertension, obesity, diabetes, F/V consumption, physical activity rates

• Key informant interviews conducted through UMass graduate course
  • Examine the I-91 Viaduct Study evaluation criteria for community relevance

• Outreach to community members and groups
  • Live Well Springfield, Baystate Health, Arise for Social Justice, Springfield Climate Justice, cities of Springfield and West Springfield
Public Health Activities

- Development of overlay maps to identify vulnerable areas and populations
Public Health Activities

• MassDOT and DPH continued to coordinate during alternatives evaluation process

• Evaluation criteria intended to incorporate health benefits and impacts but ultimate utility was limited
  • Data availability and robustness too limited to draw conclusions
  • Planning concepts and evaluation outputs require further specificity to inform public health analysis
Comparison of Alternatives

**Note:** Build Alternative cost estimates include component improvements

<table>
<thead>
<tr>
<th>Mobility and Connectivity</th>
<th>Sunken Highway Following Current Alignment</th>
<th>Sunken Highway Following Modified Alignment</th>
<th>Reconstructed Elevated Highway</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Some reduction in number of merge, diverge, and weave locations</td>
<td>Highest reduction in number of merge, diverge, and weave locations</td>
<td>Some reduction in number of merge, diverge, and weave locations</td>
</tr>
<tr>
<td></td>
<td>Improvement in vehicular travel time along I-91 and study area</td>
<td>Minimal change in vehicular travel time along I-91 and decline in study area</td>
<td>Improvement in vehicular travel time along I-91 and smaller improvement in study area</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Safety</th>
<th>Reduction of on-ramps/off-ramps improves bike/ped conditions</th>
<th>Reduction of on-ramps/off-ramps improves bike/ped conditions</th>
<th>Reduction of on-ramps/off-ramps improves bike/ped conditions</th>
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<tbody>
<tr>
<td></td>
<td>Redesign of 15 crash clusters</td>
<td>Redesign of 15 crash clusters</td>
<td>Redesign of 15 crash clusters</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental Effects</th>
<th>Slight increase in VMT and decrease of air quality</th>
<th>Slight increase in VMT and decrease of air quality</th>
<th>Virtually no change in VMT or air quality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>27,000 square feet of wetlands impacts</td>
<td>27,000 square feet of wetlands impacts</td>
<td>27,000 square feet of wetlands impacts</td>
</tr>
<tr>
<td></td>
<td>Reduced noise impacts</td>
<td>Reduced noise impacts</td>
<td>Similar noise impacts</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Land Use and Economic Development</th>
<th>468,800 square feet of space over highway created</th>
<th>553,800 square feet of space over highway created</th>
<th>13,800 square feet of space over highway created</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Potential for $2.2 million in annual tax revenue at full build-out</td>
<td>Potential for $3.5 million in annual tax revenue at full build-out</td>
<td>Potential for $300,000 in annual tax revenue at full build-out</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Community Effects</th>
<th>Potential for greenspace and better connection to Riverfront</th>
<th>Potential for greenspace and better connection to Riverfront</th>
<th>Potential for activation of space underneath viaduct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10-15 year construction duration</td>
<td>10-15 year construction duration</td>
<td>8-12 year construction duration</td>
</tr>
</tbody>
</table>

| Cost (in 2040 dollars) | $3.78 billion | $3.74 billion | $3.14 billion |

All alternatives compared against Rehab Option
Rehabilitation of viaduct under current alignment at existing elevation

2040 Cost - $695 M
Short and Mid-Term Alternatives

• Associated projects (part of the Alternatives) **outside of the Viaduct** which serve study goals and objectives

• Can be implemented as stand-alone projects or in logical groups or phases
Longmeadow Curve Area Improvements

- Shared Use Path Connection from Forest Park to CT River Greenway
- Longmeadow Curve
- South End Bridge
- Route 5 and Route 57 Interchange improvements
Longmeadow Curve Area Improvements
Longmeadow Curve Area Improvements

- Construction of collector-distributor roads along I-91 mainline and roundabouts at South End Bridge and U.S. Route 5
  - Ability to access I-91 southbound from US-5 in Longmeadow

- Elimination of weaving hazards along I-91 mainline

- Elimination of US-5/MA-57 rotary in Agawam for operational and safety improvements

- Creation of pedestrian access from Forest Park to Connecticut Riverwalk and Bikeway in Springfield across South End Bridge to Agawam

Estimated 2040 costs:

Longmeadow Curve - $213 million
South End Bridge - $206 million
US-5/MA-57 interchange in Agawam - $157 million
Bicycle/pedestrian bridge - $20 million
I-291 Southbound to I-91 Southbound On-Ramp Relocation

• Shifts on-ramp from left-hand entrance onto I-91 to right-hand entrance

• Eliminates weaving movements from on-ramp to Exit 7 towards Memorial Bridge

• Restriping with deck replacement project to discourage weaving movements

• Estimated 2040 cost - $152 million
Plainfield Street / Route 20 Improvements

- New bridges over I-91 and railroad tracks
- Third lane of westbound vehicular travel
- Bicycle and pedestrian improvements
- Intersection reconstruction at Main Street and Avocado Street
- Estimated 2040 cost - $76 million
Short Term Improvements

Safety and aesthetic improvements underneath viaduct

Improvements or relocation of pedestrian bridge behind former Luxe Burger/BHOF

Cost estimates for each of the short term improvements are equal to or less than $2 million in 2018 dollars
Add a shared-use path to east side of US-5 in Springfield - link Forest Park with Longmeadow
Short Term Improvements

Improvements to walkway underneath railroad to Riverfront Park north of State Street

Improve at-grade pedestrian crossing to Riverfront Park south of State Street (active crossing)
Short Term Improvements

Provide ADA accessible ramp or switchback from bridge to River Road for bicyclists and pedestrians

Cost estimates for each of the short term improvements are equal to or less than $2 million in 2018 dollars
**Cost Estimates**

- Associated Projects - can be constructed regardless of Alternative ($826M)
  - Longmeadow Curve - $213 million
  - South End Bridge - $206 million
  - I-291 SB to I-91 SB entrance - $152 million
  - Plainfield Street / Route 20 improvements (north of I-291) - $76 million
  - CT Riverwalk/Bikeway improvements - $20 million
  - Under viaduct improvements – (approx.) $2 million
Cost Estimates

Component breakdowns for Build Alternatives:
- I-91 through downtown core (Alts. 1/2) - $2.475-2.5 billion
- I-91 through downtown core (Alt. 3) - $1.875 billion
- I-91/I-291 interchange (all) - $407-424 million
- I-91 northern touchdown (all) - $33 million
- E/W Columbus Avenue frontage road improvements - $155-160 million

Associated Projects - can be constructed regardless of Alternative ($826M)
- Longmeadow Curve - $213 million
- South End Bridge - $206 million
- I-291 SB to I-91 SB entrance - $152 million
- Plainfield Street / Route 20 improvements (north of I-291) - $76 million
- CT Riverwalk/Bikeway improvements - $20 million
- Under viaduct improvements – (approx.) $2 million

All Alternative costs include I-91 SB/I-291 NB and I-291 SB/I-91 NB ramp systems, which may require replacement prior to expected lifespan of viaduct.
Viaduct Rehabilitation selected as the option for a long-term project with several short and mid-term associated projects

- Longmeadow Curve Area improvements
- I-291 SB to I-91 SB ramp relocation
- Route 20 improvements in Springfield
- Short-term alternatives around the viaduct

MassDOT to work with municipal (local cities and towns) and regional (PVPC) parties to initiate the project development process

- For locally-owned infrastructure, municipalities and PVPC pursue with MassDOT support
- For MassDOT infrastructure, MassDOT pursues with local and regional support. Given transportation funding constraints, prioritization of the mid and short term improvements needs to be established regionally and is subject to availability and funding.
Next Steps

- Draft Report Published for Public Comment
  - Report can be accessed at the study website: [www.mass.gov/i-91-viaduct-study](http://www.mass.gov/i-91-viaduct-study)
  - Comments due by October 10, 2018
  - To comment:
    - Email the Project Manager: Michael Clark, [Michael.clark@state.ma.us](mailto:Michael.clark@state.ma.us)
    - Call: 857-368-8867 or TTY: 857-368-0655
    - Mail: Office of Transportation Planning
      - Attn: Michael Clark/I-91 Viaduct Study
      - Massachusetts Department of Transportation Planning
      - 10 Park Plaza, Suite #4150, Boston, MA 02116

- Final Report issued after 30 day public comment period
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Email: ethan.britland@state.ma.us

Study Website Link:  
www.mass.gov/i-91-viaduct-study
Thank you!