



# **I-90 ALLSTON INTERCHANGE A MULTIMODAL TRANSPORTATION PROJECT**

**TASK FORCE MEETING #3**

**JUNE 11, 2014 – FIORENTINO COMMUNITY CENTER, ALLSTON**



## Task Force Administration

- Minutes
- Website ([www.mass.gov/massdot/I90Allston](http://www.mass.gov/massdot/I90Allston))
- Information Requests



## Viaduct Discussion

- Physical Condition of Existing Structure
- Additional Deficiencies of Existing Structure
- Extent of Viaduct Replacement
- Constraints on Viaduct Reconstruction
- Conceptual Reconstruction Approach



## Viaduct Condition

- Deteriorated components (steel and concrete) throughout
- Material Testing Results – Chloride Contamination





## Additional Viaduct Deficiencies

- Early 1960's Design Criteria
- User Volumes over 140,000 vehicles per day
- No Shoulders
- Previous repairs
- Numerous Deck Joints
- Substandard railings





## Extent of Viaduct Reconstruction





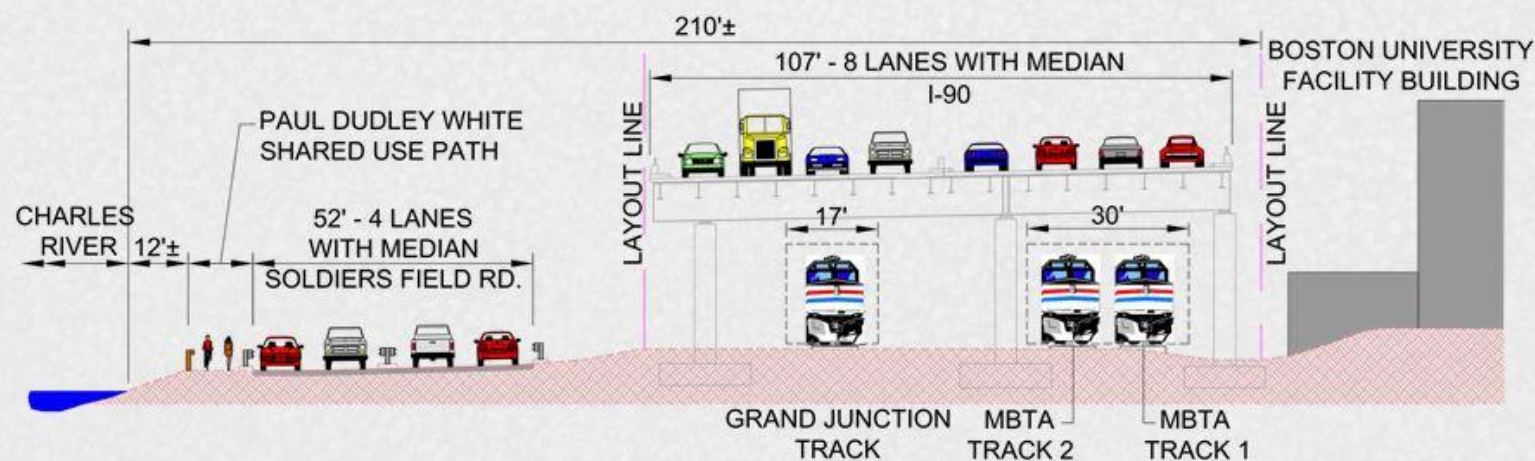
# Extent of Viaduct Reconstruction





## Constraints on Viaduct Reconstruction

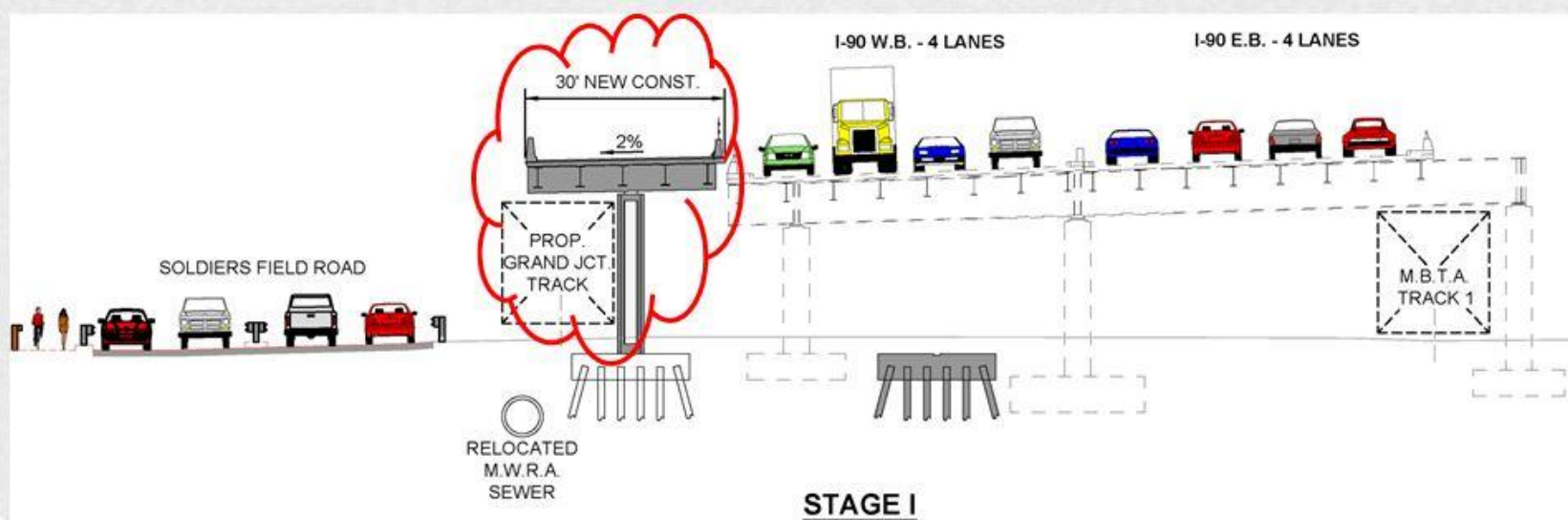
- Maintenance of Traffic (4 lanes each direction)
- Maintain MBTA Rail Line
- Maintain Grand Junction Connection
- Maintain Rail Connection to Houghton Chemical
- Limited ROW



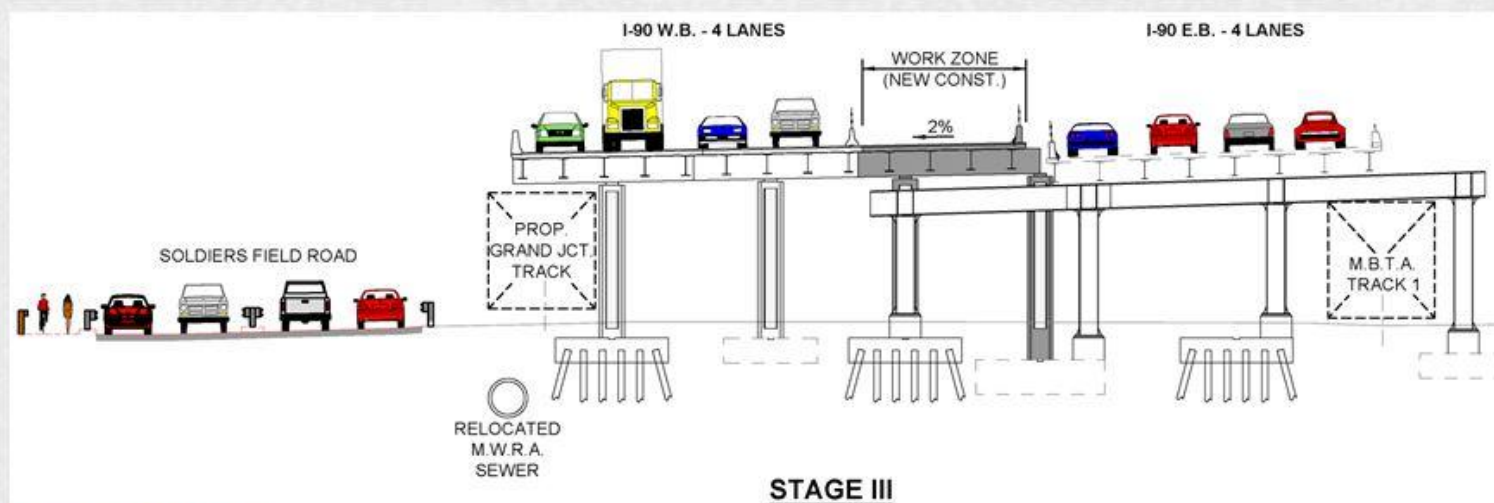
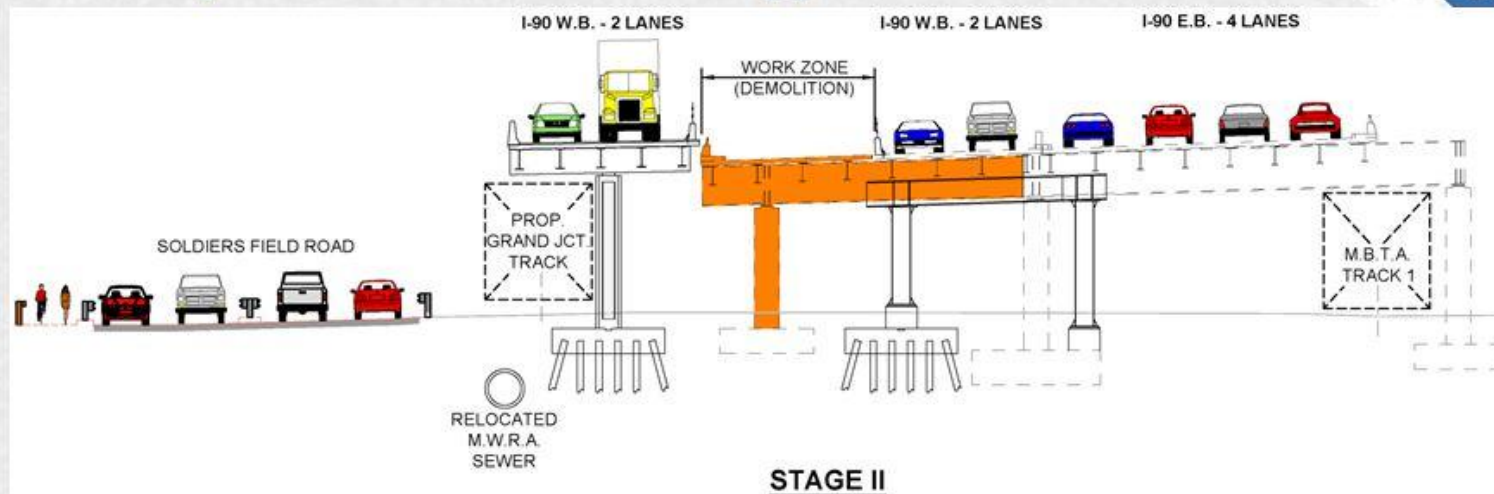


## Conceptual Reconstruction Approach

- Stage Construction – 2 Lanes Reconstructed per Phase
- Widen Structure to North towards Soldiers Field Road
- Maintain Rail Lines with Temporary/Permanent Track Realignment



# Conceptual Reconstruction Approach

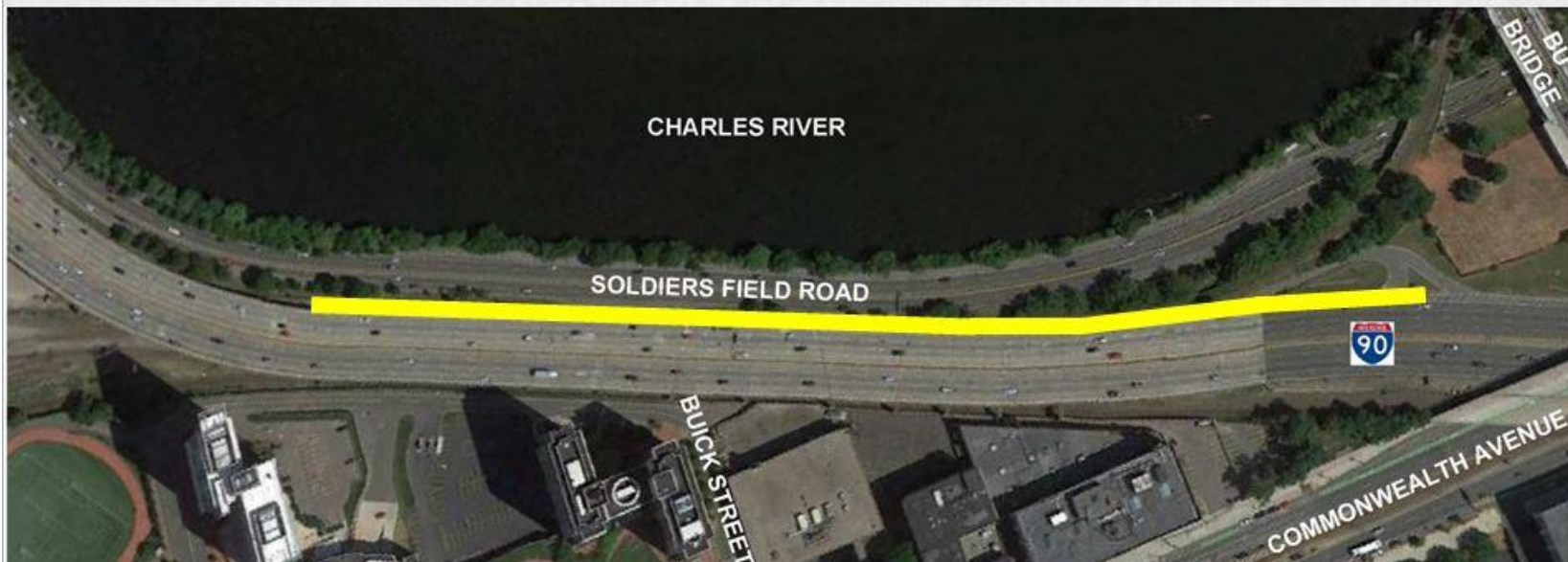




## Conceptual Reconstruction Approach



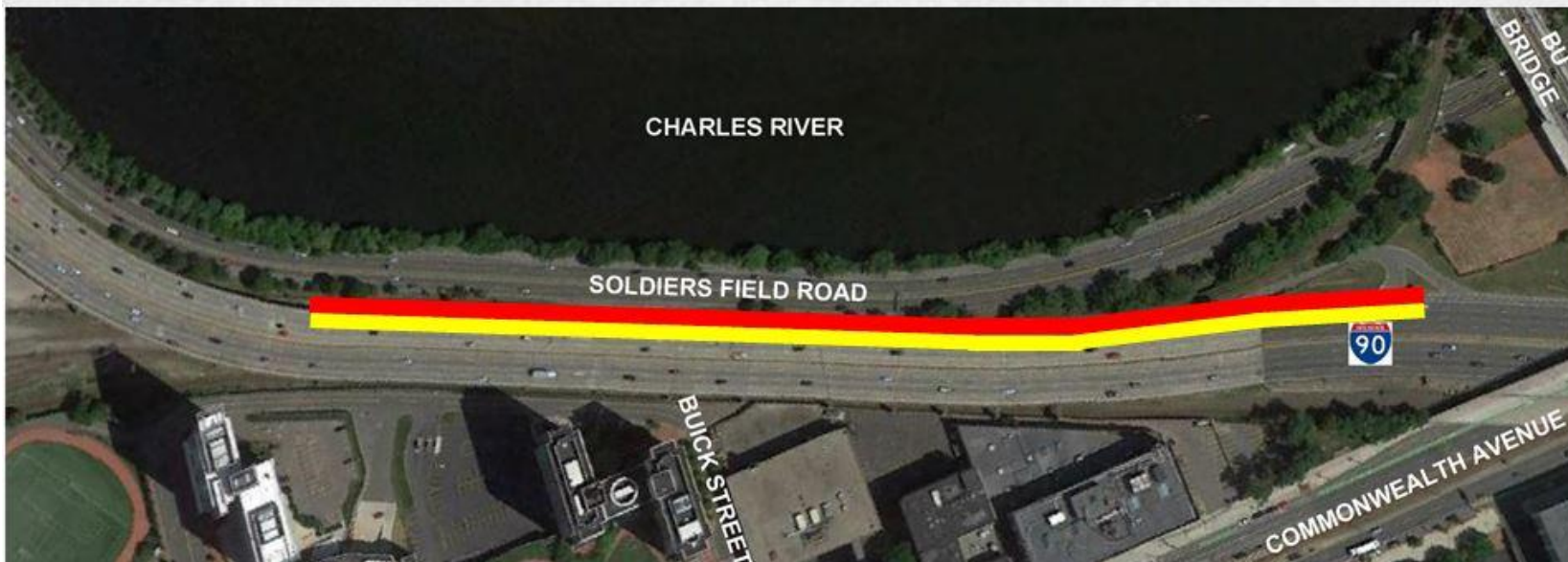
- Stage Construction – 2 Lanes Reconstructed per Phase From North to South.
- Then make connection to realigned I-90



## Conceptual Reconstruction Approach



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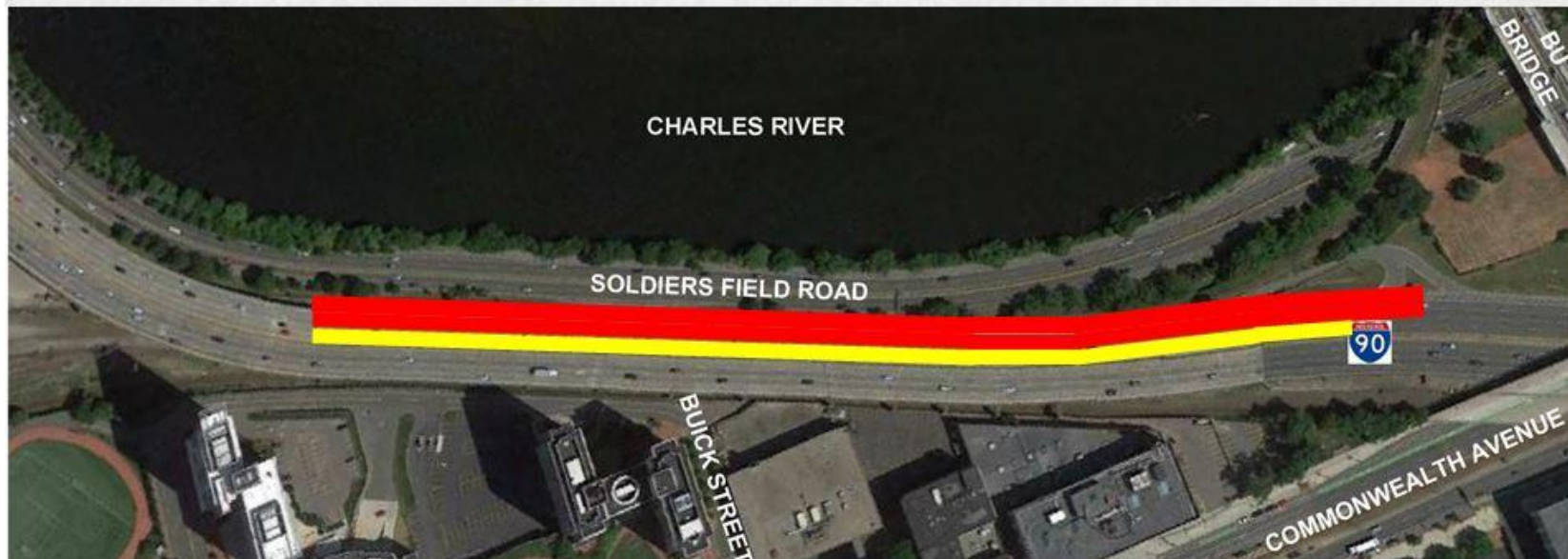




## Conceptual Reconstruction Approach



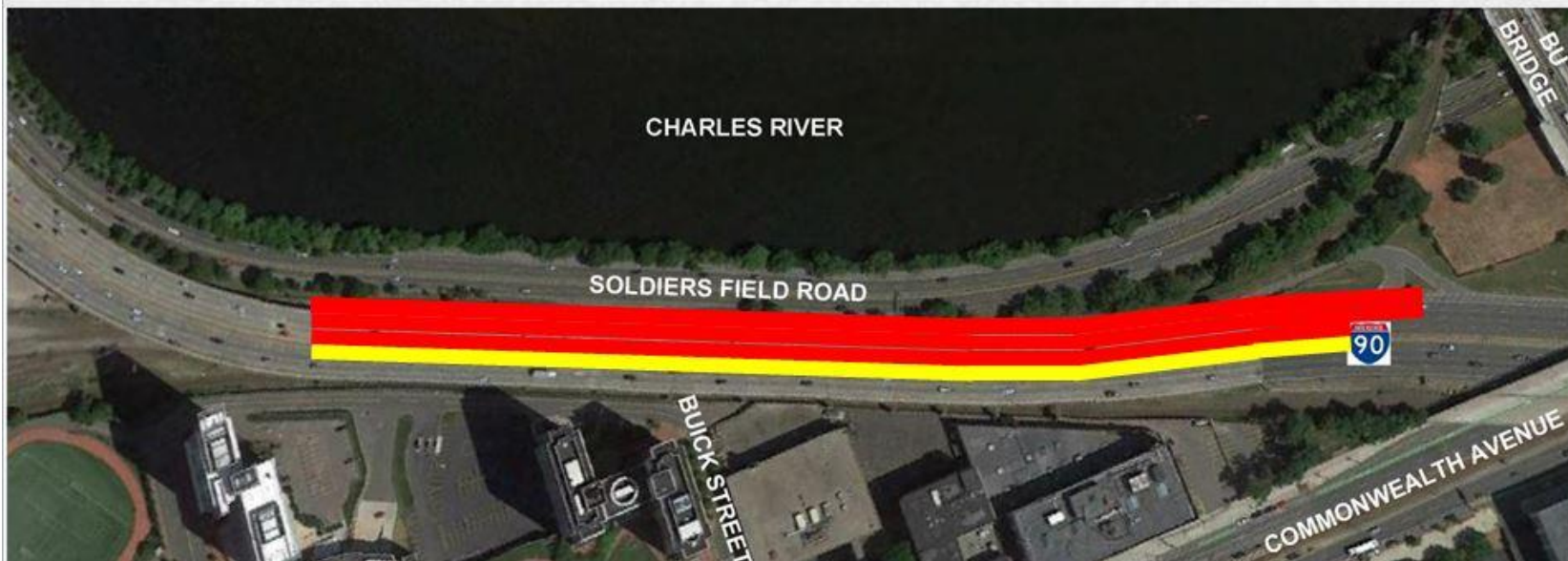
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## Conceptual Reconstruction Approach



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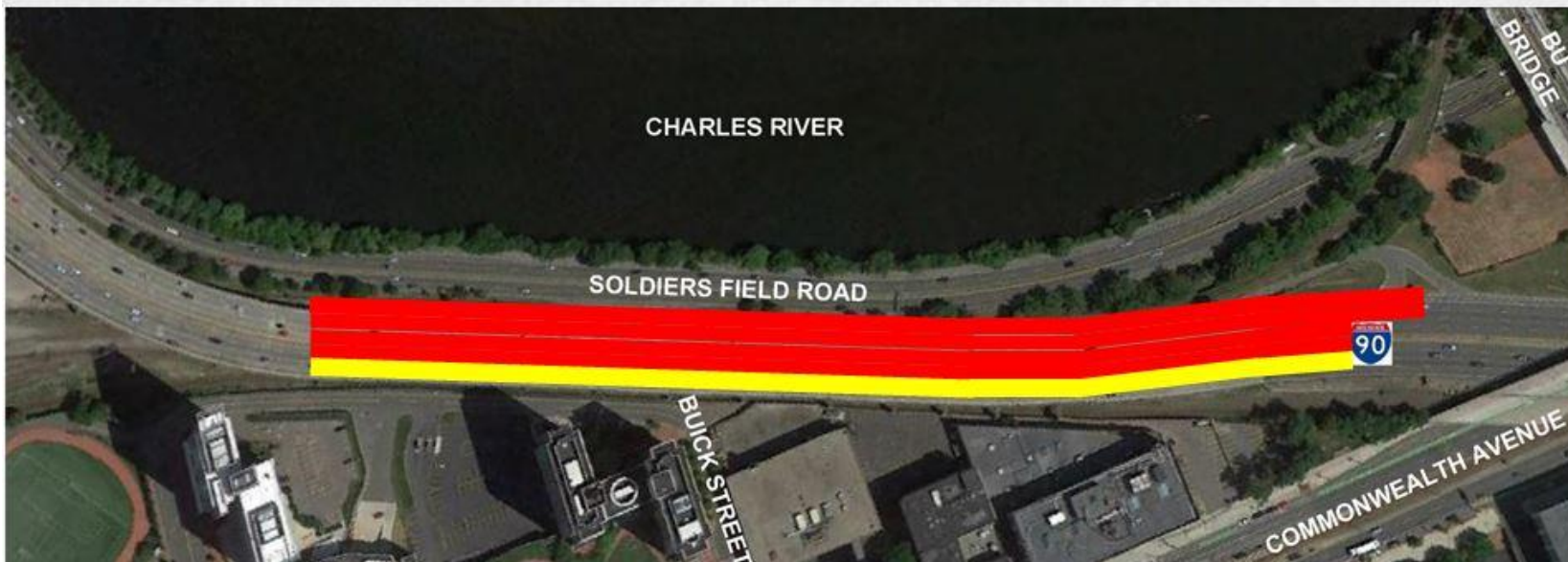




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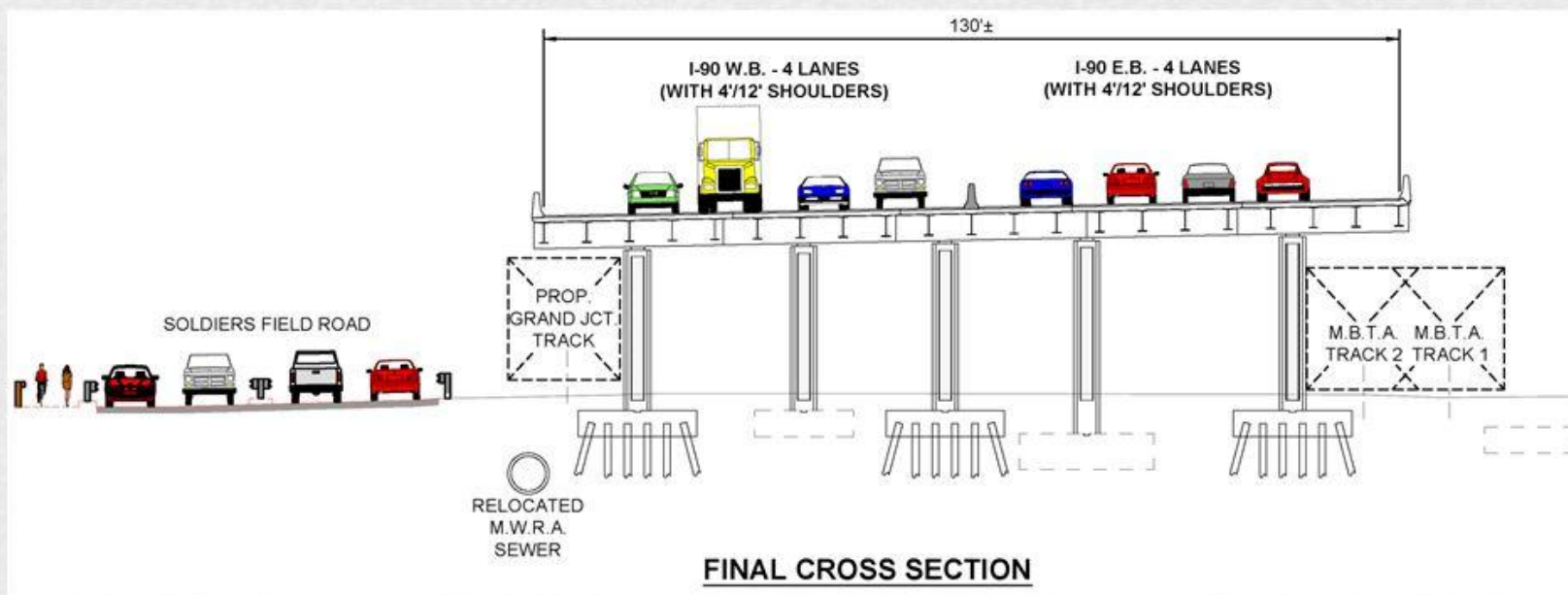


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## Final Cross Section

- Proposed Section Wider than Existing
- Provides for Shoulders and/or Acceleration-Deceleration Lanes







## NEPA / MEPA Alternatives Analysis

- “Heart” of Environmental Impact Analysis
- All Reasonable (Feasible) Alternatives, including No Action (No Build)
- “Reasonable” means technically and economically feasible alternatives that satisfy the primary objectives defined in the Purpose and Need statement
- Logical project termini (rational end points) must be considered
- Public involvement in developing range of alternatives
- Avoidance alternatives under Section 4(f) – no “feasible or prudent alternative”
- Avoidance alternatives under Section 106 – avoid adverse effect



## Council on Environmental Quality Regulations

- Explore and objectively evaluate all reasonable alternatives
- For alternatives eliminated, discuss the reasons for elimination
- Consider in detail so reviewers may evaluate comparative merits
- Include the alternative of No Action
- Identify the agency's preferred alternative or alternatives
- Include appropriate mitigation measures not already included in the proposed action or alternatives





## MEPA Regulations

- An analysis of feasible alternatives in light of the objectives of the Proponent
- An analysis of the principal differences among feasible alternatives



## Multi-Modal Connectivity

- Safety
- Pedestrian Routes
- Bicycle Routes
- Rail Access
- Bus Access



Evaluation Criteria





## Traffic Operation

- Safety
- Travel Time/LOS
- Intersection Connectivity



Evaluation Criteria



- Cambridge Street
- Soldiers Field Road
- Future Development Street Network

**Evaluation Criteria**







## Environmental

- Drainage and Stormwater
- Historic Impacts
- Wetlands
- Noise
- Parks/Open Space
- Contaminated Soils
- Air Quality



### Evaluation Criteria



## Land Use

- Accommodate Future Development
- Community Cohesion



**Evaluation Criteria**



## Construction

- Logistics
- Construction Phase Impacts



### Evaluation Criteria



## Cost/Schedule

- Construction Cost
- Construction Schedule
- Maintenance/Life Cycle Cost.







## Meets Purpose and Need

- 



Evaluation Criteria

# Project Alternatives Rating Matrix



|                                 |          | GROUP 1 - SUBURBAN TYPE |           |           |           | GROUP 2 - SUBURBAN TYPE |           | GROUP 3 - URBAN TYPE |           |           |           |           |           |
|---------------------------------|----------|-------------------------|-----------|-----------|-----------|-------------------------|-----------|----------------------|-----------|-----------|-----------|-----------|-----------|
|                                 | NO BUILD | OPTION 1A               | OPTION 1B | OPTION 1C | OPTION 1D | OPTION 2A               | OPTION 2B | OPTION 3A            | OPTION 3B | OPTION 3C | OPTION 3D | OPTION 3E | OPTION 3F |
| <b>Traffic Operation</b>        |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Safety                          |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Travel Time/LDS                 |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Intersection Connectivity       |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| <b>Multi-Modal Connectivity</b> |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Safety                          |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Pedestrian Routes               |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Bicycle Routes                  |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Rail Access                     |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Bus Access                      |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| <b>Streetscape</b>              |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| <b>Environmental</b>            |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Drainage and Stormwater         |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Historic Impacts                |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Wetlands                        |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Noise                           |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Parks/Open Space                |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Contaminated Soils              |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Air                             |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| <b>Land Use</b>                 |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Accommodate Future Development  |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Community Cohesion              |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| <b>Construction</b>             |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Logistics                       |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Construction Phase Impacts      |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| <b>Cost/Schedule</b>            |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Construction Cost               |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Construction Schedule           |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| Maintenance/Life Cycle Cost     |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |
| <b>Meets Purpose &amp; Need</b> |          |                         |           |           |           |                         |           |                      |           |           |           |           |           |

Positive

Neutral

Negative



# Continued Discussion on Preliminary Alternatives



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## Next Meeting

- Schedule
- Agenda Items

