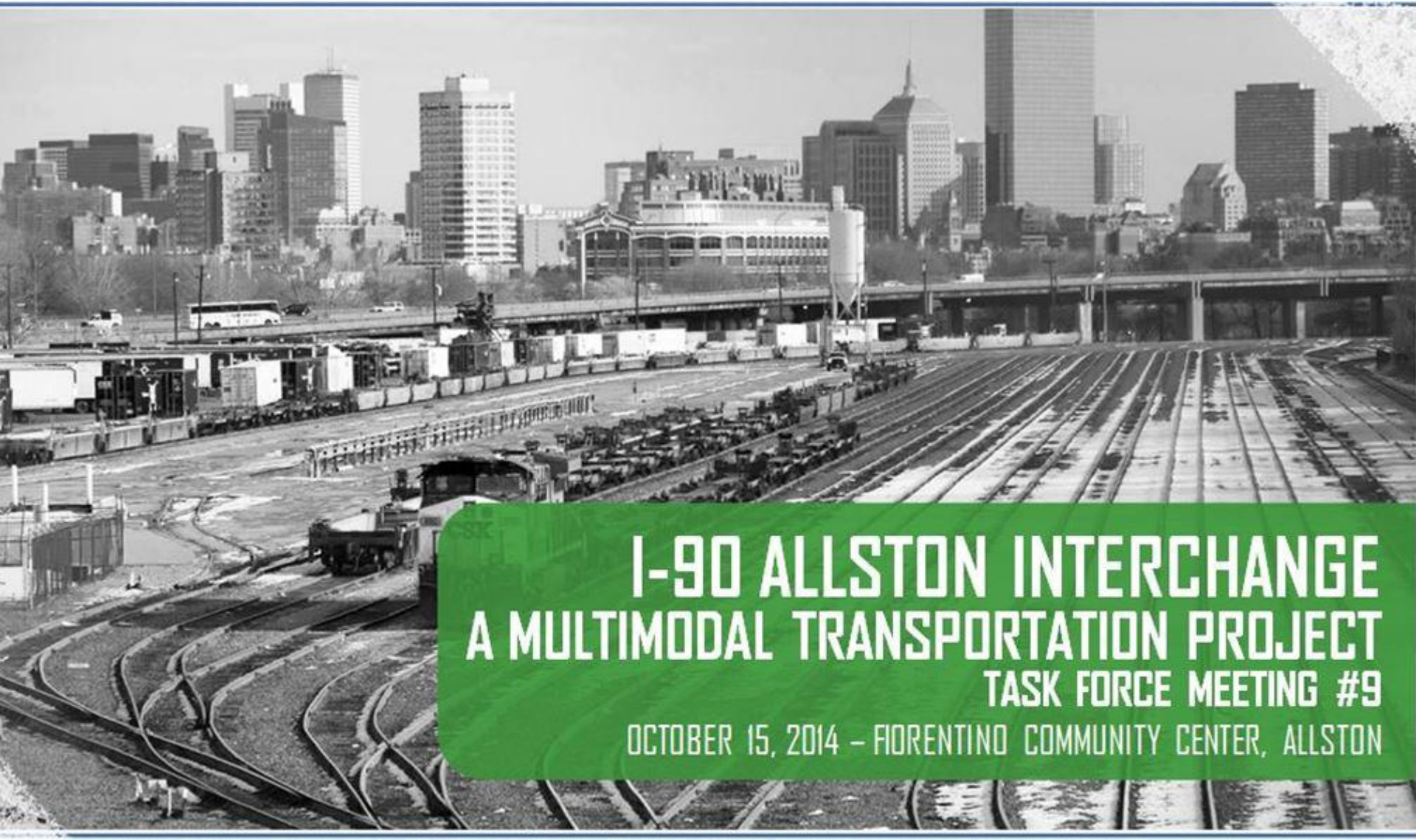
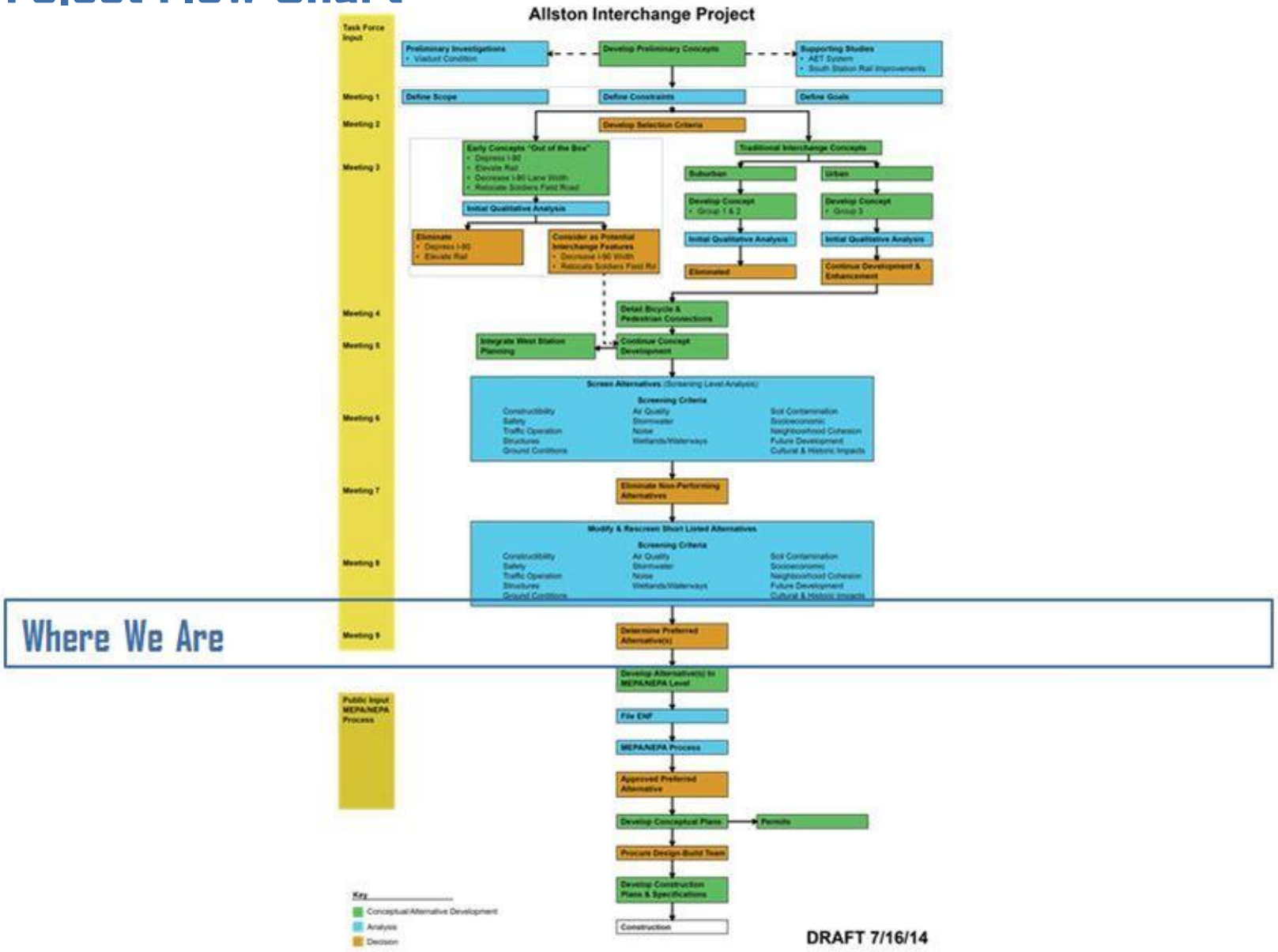
I-90 Allston Interchange
A multimodal transportation project



Task Force Administration

- Minutes
- Project Flow Chart/Task Force Influences
- Update on Meetings with Government Entities and Stakeholders

Project Flow Chart



Task Force Influences on Concept Development

- Overall emphasis on neighborhood cohesion
- Advancement of urban interchange concepts
- Integration and location of West Station into the project
- Incorporation of a shared use path providing a route from North Allston to the Charles River
- Inclusion of bicycle and pedestrian connections throughout the project including connections to the Charles River waterfront, Cambridge, West Station and the Boston University area
- Flexibility for future land use development opportunities

Task Force Influences on Concept Development (cont.)

- Importance of a traffic design which discourages cut-through traffic on residential streets
- Defining the scale of Cambridge Street and including sidewalks, cycle tracks, and on-street parking to create an urban streetscape.
- Focus on reducing the impact of the interchange roadways on the surrounding neighborhood.

I-90 Allston Interchange Improvement Project

Rail Program Development

What is in the Rail Program?

- West Station
- Layover/Maintenance Facility
- Other factors

All components to be identified in ENF, but with minimal design advancement.

West Station – Key Questions

- What is it similar to?
- What does it look like?
- How is it accessed?

West Station – What is it similar to?

- Tracks below passenger access
  - Orange Line – Southwest Corridor (Mass Ave and south)
  - JFK/UMass
- Multiple platforms to access
  - Ruggles
  - JFK/UMass
  - Yawkey
- Station site serves as local connector
  - Ruggles
  - Airport Station
  - JFK/UMass, North Quincy, Wollaston, Quincy Center

West Station – Similar stations lessons learned

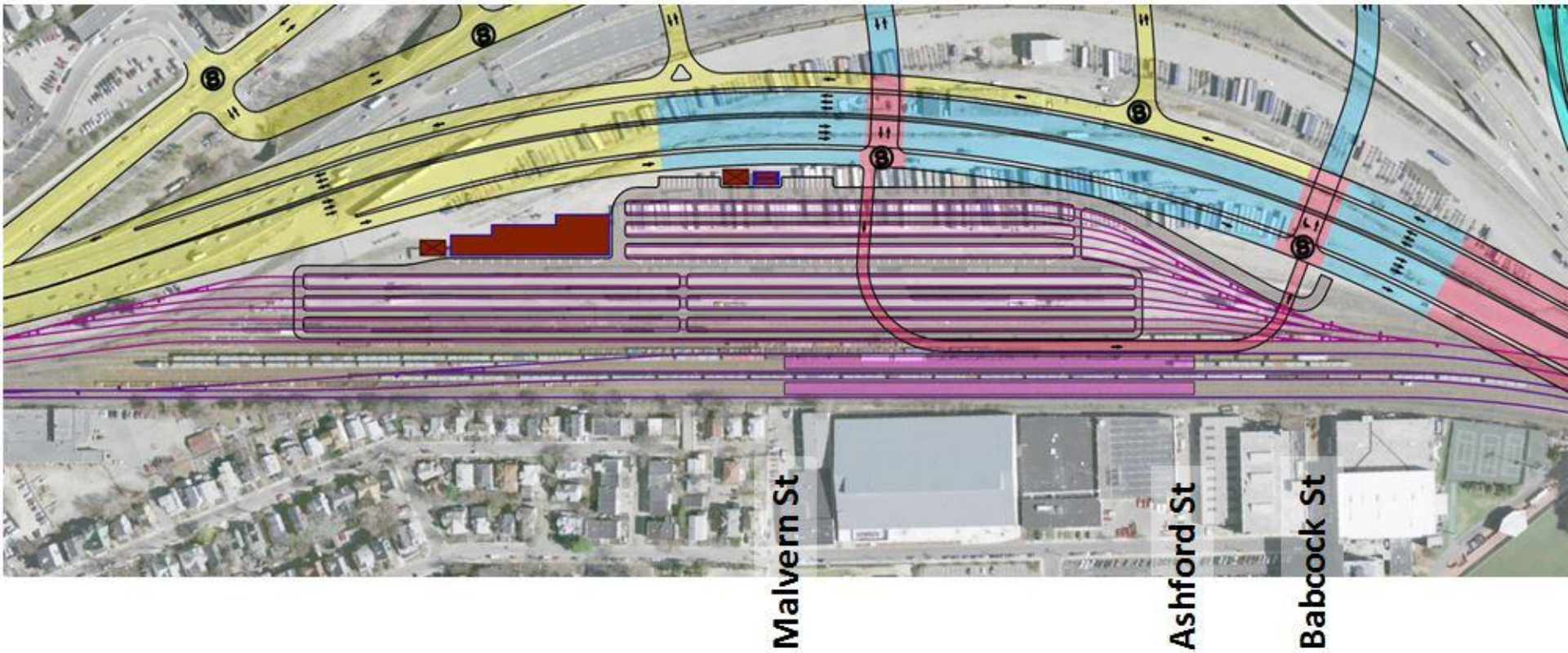
- Simplify layout and modal connections
- Minimize connection distances
- Distinct track uses, or prominent passenger information
- Local connection made without direct station access
- Sensitive to local context and non-transit connections

West Station – What does it look like?

- Multiple levels, multiple tracks, local connection

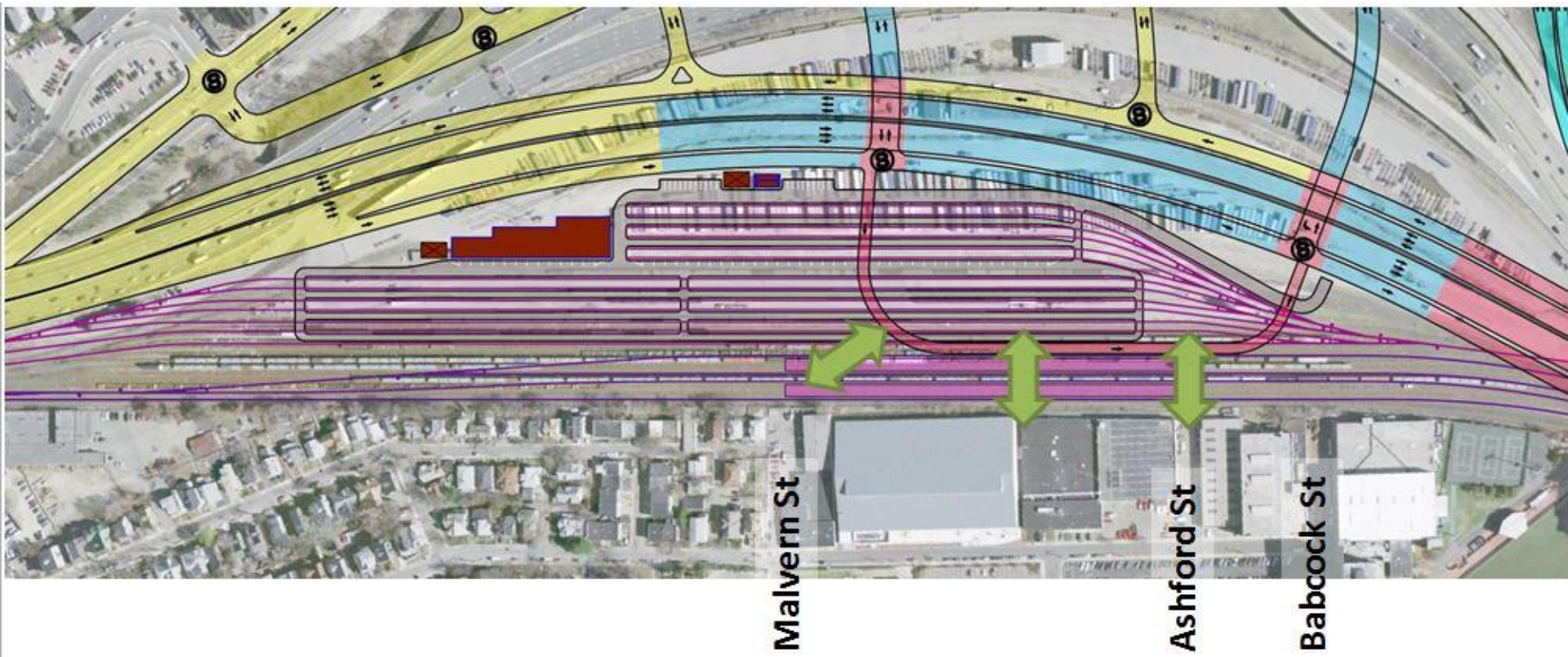
West Station – How it is accessed? – part 1

- Connections from loop road (elevated, but level)
- Connections from south side roadways (vertical circulation)
- Connection to shared-use path



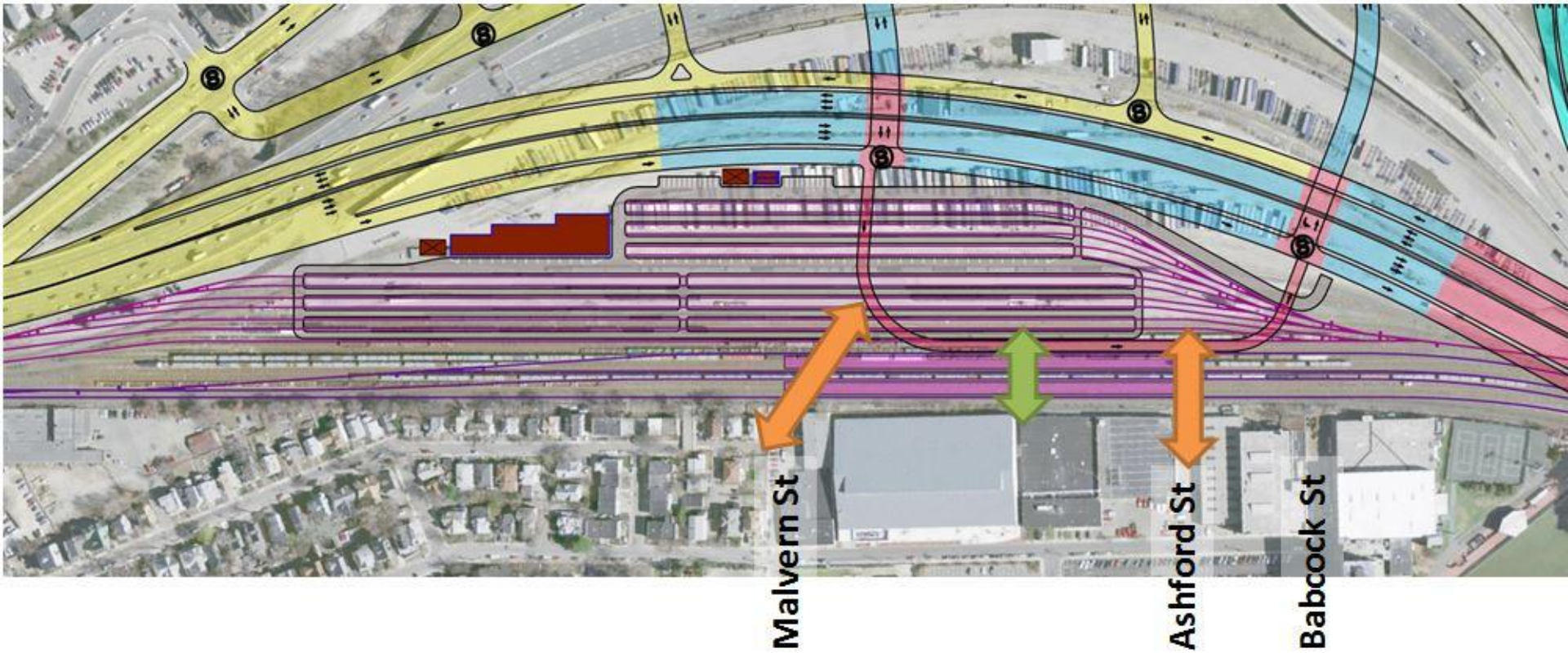
West Station – How it is accessed? – part 2

- **Connections from loop road (elevated, but level)**
- Connections from south side roadways (vertical circulation)
- Connection to shared-use path



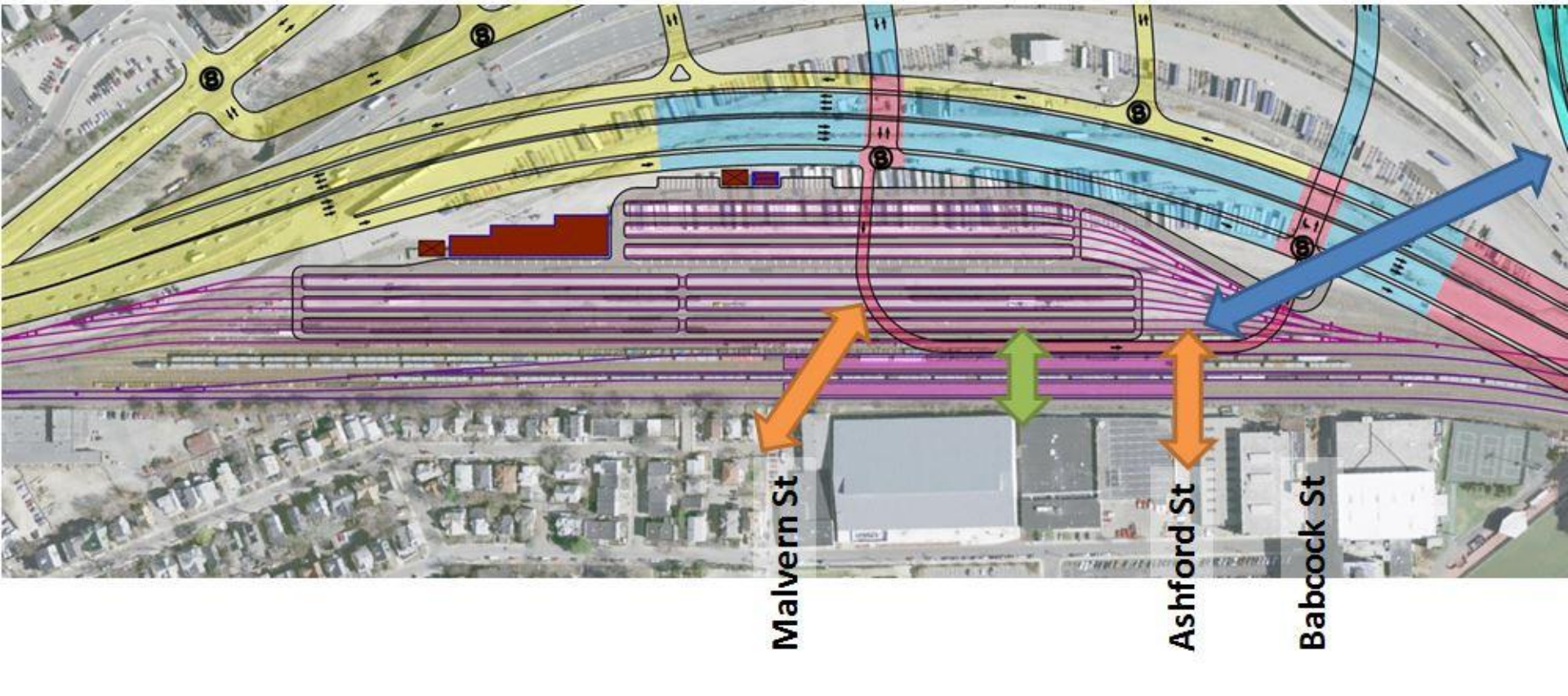
West Station – How it is accessed? – part 3

- **Connections from loop road (elevated, but level)**
- **Connections from south side roadways (vertical circulation)**
- Connection to shared-use path

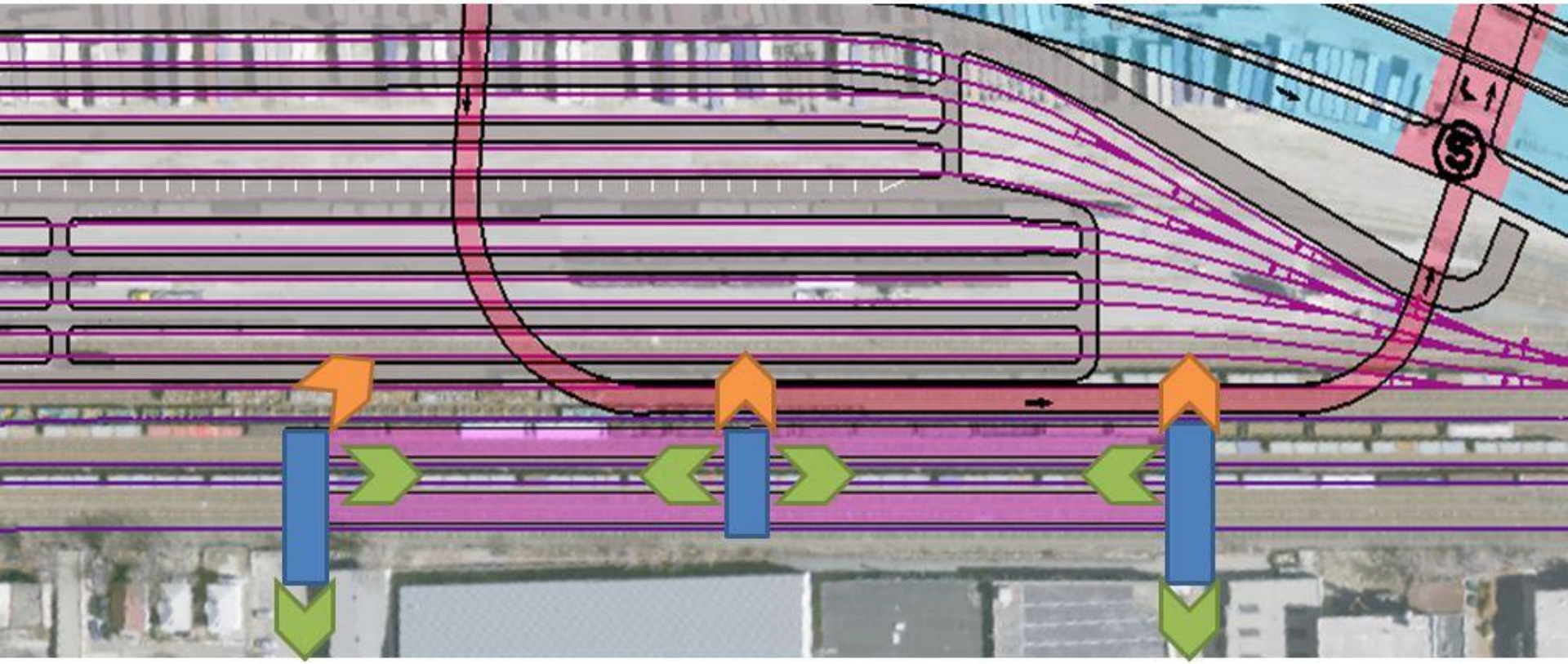


West Station – How it is accessed? – part 4

- Connections from loop road (elevated, but level)
- Connections from south side roadways (vertical circulation)
- Connection to shared-use path

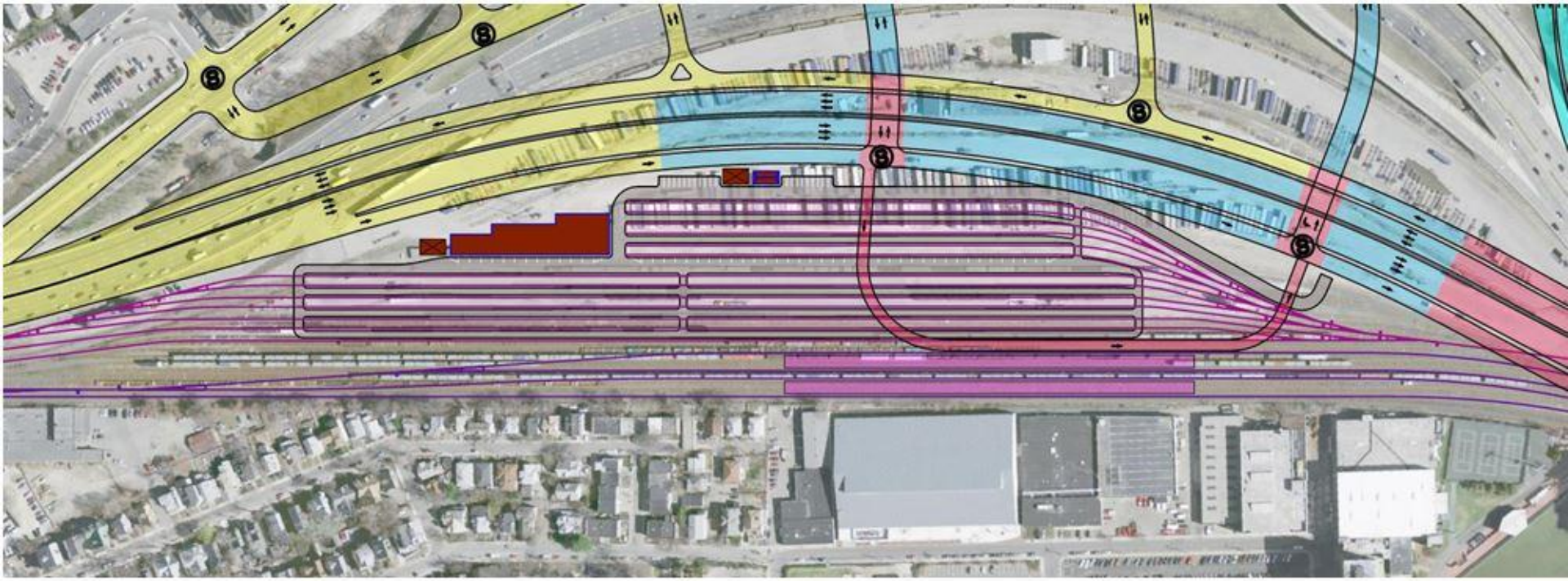


West Station – How it is accessed? – part 5



Layover/Maintenance Facility – part 1

- Rail vehicle storage
  - Space for 14-20 consists (eight coaches & one locomotive)
  - *Infrastructure required: layover tracks, crew quarters, parking*



Layover/Maintenance Facility – part 2

- Inspection activities
  - Required by law over certain durations
  - Multiple locations allows for improved performance
  - *Infrastructure required: pit track*
- Service activities
  - Multiple locations allows for improved performance
  - Sample activities: cleaning (interior & exterior), component swap, wheel alignment
  - *Infrastructure required: storage shed, car wash & wheel truing enclosures*

Other factors

- Maintain rail connection to Houghton Chemical
- Design for multiple tracks to Cambridge
- Allow for future service plans, future development
- Protect abutting homes
  - Noise walls (Pratt & Wadsworth Sts)
  - Ballast mats
  - Indirect lighting
  - Station abutting non-residential uses

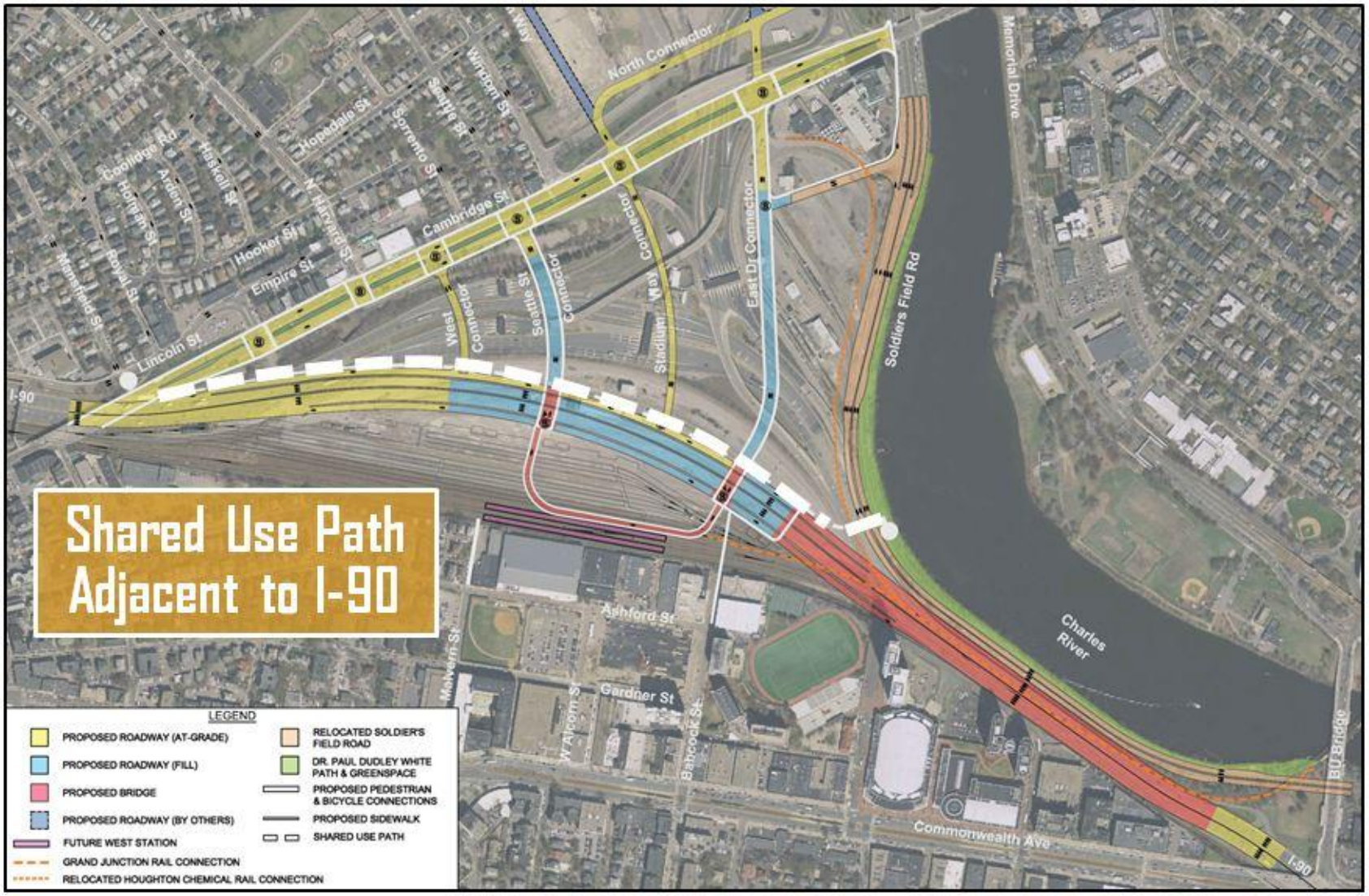
Urban Interchange Option 3J: Preferred Concept for ENF

- Alternative Identified for further Analysis in EA/EIR.
  - Traffic Analysis completed with data from CTPS modeling
- 3 Variants of 3J will be Evaluated
  - 3J-1 (Cambridge St. Two-way)
  - 3J-2 (Cambridge St., Cambridge St. South: One-Way Pair)
  - 3J-3 (Cambridge St., Cambridge St. South: Two-Way Pair)
- Alternative still subject to modifications/refinements
- Design details developed with Public Input

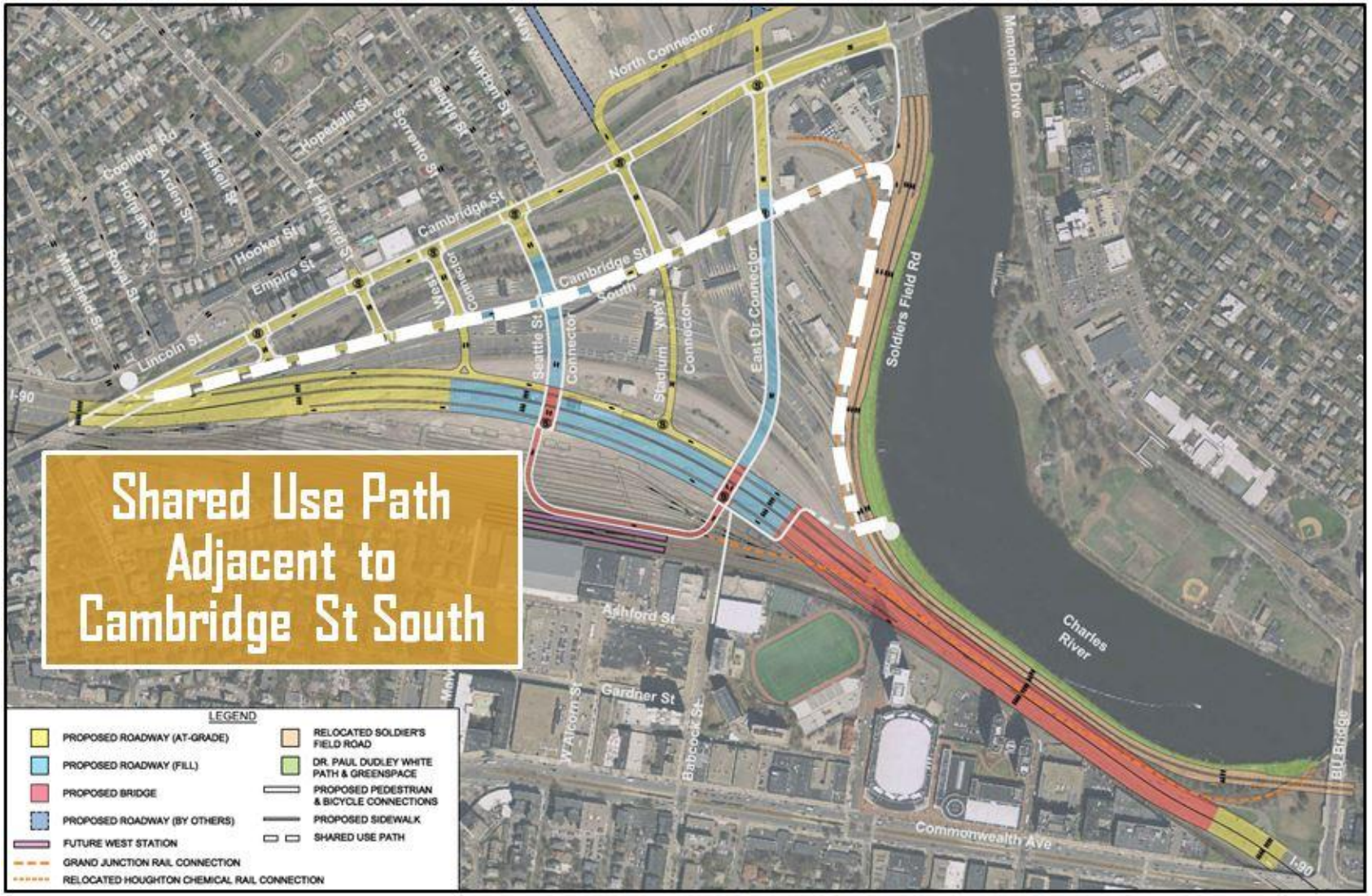
Urban Interchange Option 3J: Common Key Design Features

- Re-alignment of Soldiers Field Road – increased open space
- New direct connection to S.F. Rd. from EB off-ramp
- New parallel roadway north of Cambridge Street
- Grade separation of EB and WB ramps
- 4 Connection points between ramps & Cambridge Street
- Minimum of 2 route choices to/from EB & WB ramps
- Shared Use Path (Multi-Treadway)

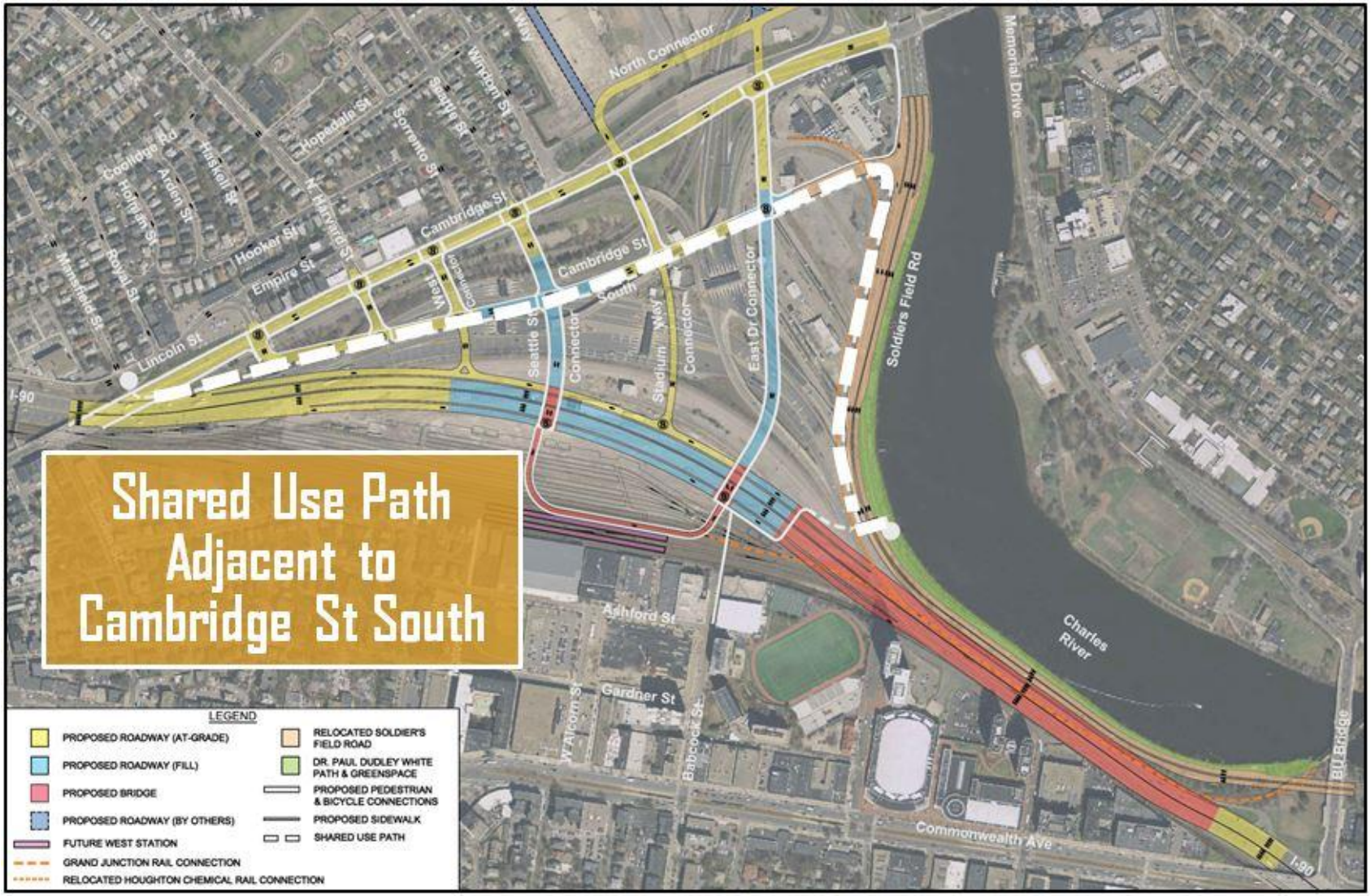
Urban Interchange Option 3J-1
Cambridge Street Two-Way



Urban Interchange Option 3J-2
Cambridge St. South: One-Way Pair



Urban Interchange Option 3J-3
Cambridge St. South: Two-Way Pair



Elements That Will Be Further Detailed As Project Advances into Design Phase

- Shared use path location, width, features, etc.
- Replacement of pedestrian bridge over I-90
- Sidewalk and cycle treatment along Cambridge St & other facilities
- Travel lanes/intersection layout for Cambridge Street
- Other roadways; Stadium, East, parallel road north and south
- Location of pedestrian bridge over SFR
- Extent of relocation of SFR
- Allocation of open space within area of relocated SFR
- State Highway "No Access" limits on connecting roadways

Elements That Will Be Further Detailed As Project Advances into Design Phase (cont.)

- West Station including connections to the north and south
- Rail yard configuration and operations
- Viaduct configuration
- Approach streets to West Station
- Incorporate CTPS regional traffic study
- Noise and air quality analysis
- Feasibility of two track line over Grand Junction
- Stormwater treatment
- Construction staging concepts

Urban Interchange Evaluation Matrix – part 1

	GROUP 3 - URBAN TYPE									
	OPTION 3A	OPTION 3B	OPTION 3C	OPTION 3D	OPTION 3E	OPTION 3F	OPTION 3G	OPTION 3H	OPTION 3I	OPTION 3J
Traffic Operation										
Safety	⊖	⊖	⊖	⊖	⊖	⊕	⊖	⊕	⊕	⊕
Travel Time/LOS	○	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
Intersection Connectivity	○	○	○	○	○	⊕	○	○	⊕	⊕
Multi-Modal Connectivity										
Safety	⊕	⊕	⊕	⊕	○	⊕	⊕	○	⊕	⊕
Pedestrian Routes	⊕	○	○	○	⊖	⊕	○	○	⊕	⊕
Bicycle Routes	⊕	○	○	○	⊖	⊕	○	○	⊕	⊕
Bus/Rail Access	⊕	⊖	○	○	○	⊕	⊕	⊕	⊕	⊕
Streetscape	○	○	○	○	○	○	○	○	○	○
Environmental										
Drainage and Stormwater	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
Historic Impacts	○	○	○	○	○	○	○	○	○	○
Wetlands	○	○	○	○	○	○	○	○	○	○
Noise	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
Parks/Open Space	○	○	○	○	○	○	○	○	○	○
Contaminated Soils	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
Air Quality	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
Land Use										
Accommodate Future Development	⊕	⊕	⊖	⊖	○	⊕	○	○	⊕	⊕
Community Cohesion	⊖	⊖	⊖	⊕	○	⊕	○	⊕	⊕	⊕
Construction										
Logistics	○	○	○	○	○	○	○	○	○	○
Construction Phase Impacts	○	○	○	○	○	○	○	○	○	○
Cost/Schedule										
Construction Cost	○	○	○	○	○	⊖	○	○	⊖	○
Construction Schedule	○	○	○	○	○	○	○	○	○	○
Maintenance/Life Cycle Cost	⊕	⊕	⊕	⊕	○	⊕	○	⊕	⊕	⊕
Meets Purpose & Need	○	⊖	⊖	⊕	○	⊕	○	○	⊕	⊕

Positive ⊕ Neutral ○ Negative ⊖

Urban Interchange Evaluation Matrix – part 2

	GROUP 3 - URBAN TYPE									
	OPTION 3A	OPTION 3B	OPTION 3C	OPTION 3D	OPTION 3E	OPTION 3F	OPTION 3G	OPTION 3H	OPTION 3I	OPTION 3J
Traffic Operation										
Safety	⊖	⊖	⊖	⊖	⊖	⊕	⊖	⊕	⊕	⊕
Travel Time/LOS		⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
Intersection Connectivity	○	○	○	○	○	⊕	○	○	⊕	⊕
Multi-Modal Connectivity										
Safety	⊕	⊕	⊕	⊕	○	⊕	⊕	○	⊕	⊕
Pedestrian Routes	⊕	○	○	○	⊖	⊕	○	○	⊕	⊕
Bicycle Routes	⊕	○	○	○	⊖	⊕	○	○	⊕	⊕
Bus/Rail Access	⊕	⊖	○	○	○	⊕	⊕	⊕	⊕	⊕
Land Use										
Accommodate Future Development	⊕	⊕	⊖	⊖	○	⊕	○	○	⊕	⊕
Community Cohesion	⊖	⊖	⊖	⊕	○	⊕	○	⊕	⊕	⊕
Cost/Schedule										
Construction Cost	○	○	○	○	○	⊖	○	○	⊖	○
Construction Schedule	○	○	○	○	○	○	○	○	○	○
Maintenance/Life Cycle Cost	⊕	⊕	⊕	⊕	○	⊕	○	⊕	⊕	⊕
Meets Purpose & Need	○	⊖	⊖	⊕	○	⊕	○	○	⊕	⊕

Positive ⊕ Neutral ○ Negative ⊖

Urban Interchange Evaluation Matrix – part 3

	GROUP 3 - URBAN TYPE			
	OPTION 3F	OPTION 3H	OPTION 3I	OPTION 3J
Traffic Operation				
Safety	+	+	+	+
Travel Time/LOS	+	+	+	+
Intersection Connectivity	+	○	+	+
Multi-Modal Connectivity				
Safety	+	○	+	+
Pedestrian Routes	+	○	+	+
Bicycle Routes	+	○	+	+
Bus/Rail Access	+	+	+	+
Land Use				
Accommodate Future Development	+	○	+	+
Community Cohesion	+	+	+	+
Cost/Schedule				
Construction Cost	−	○	−	○
Construction Schedule	○	○	○	○
Maintenance/Life Cycle Cost	+	+	+	+
Meets Purpose & Need	+	○	+	+

Positive +

Neutral ○

Negative −

Alt 3J Meets Shared Priorities

- ✓ *Improve safety for all modes: walking, cycling, driving, transit*
- ✓ Realign I-90
- ✓ Context sensitive design or:
  - ✓ Lessen impact of interchange
  - ✓ Avoid inducing cut-through traffic with new configuration
  - ✓ Reconnect sections of Allston to each other and the River
- ✓ Protect the neighborhood during construction
- ✓ A more vibrant Cambridge Street that serves all modes
- ✓ Accessibility to transit at future West Station

Preliminary 3D Renderings – Concept 3J-3

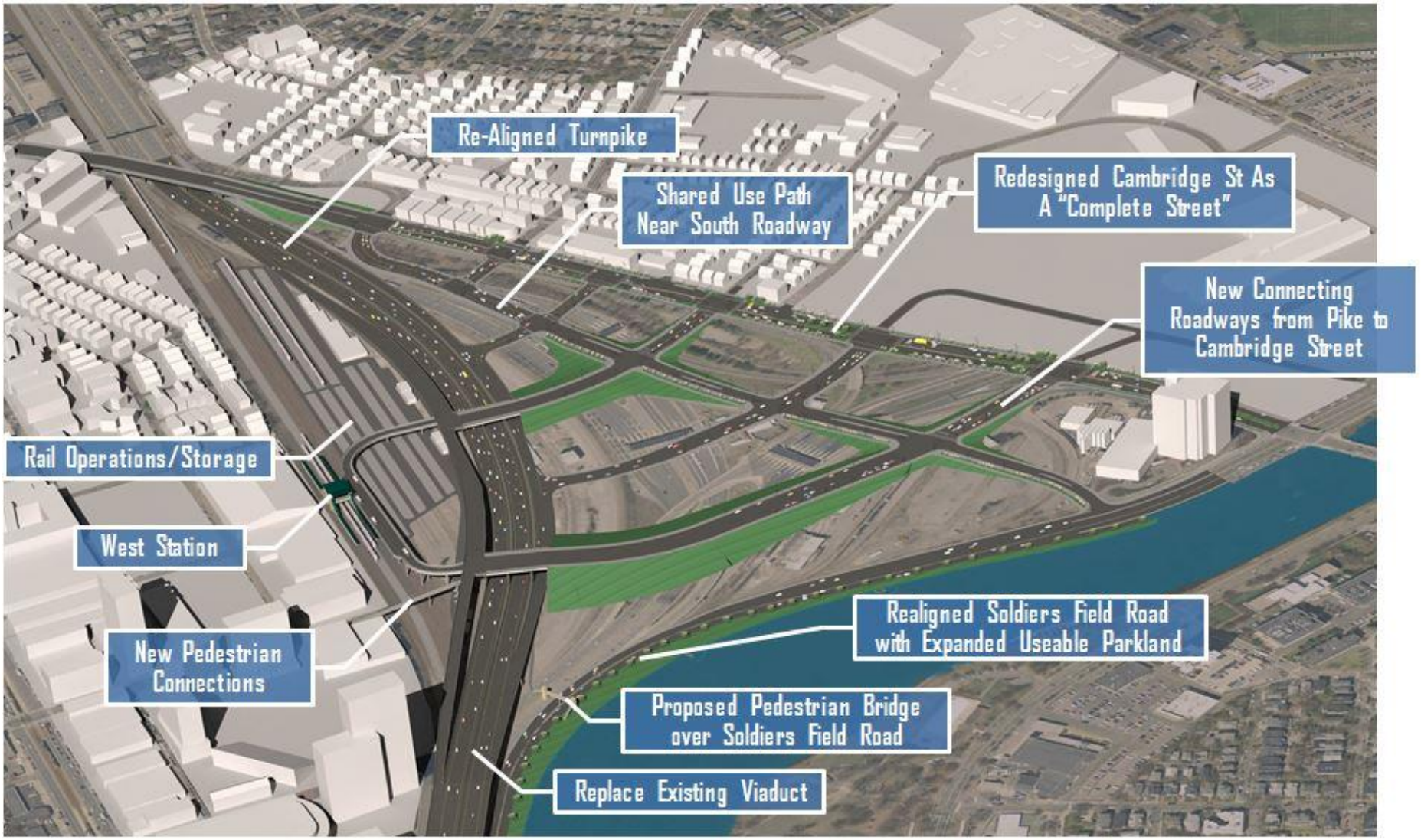
- Early stages of 3D model development
- Model is to scale and based on conceptual geometry
- Some elements more advanced, others still need to be incorporated
- Approach is to add detail as project design is advanced
- Goal is to provide a visual tool for the public

Preliminary 3D Renderings – Concept 3J-3

Existing Aerial

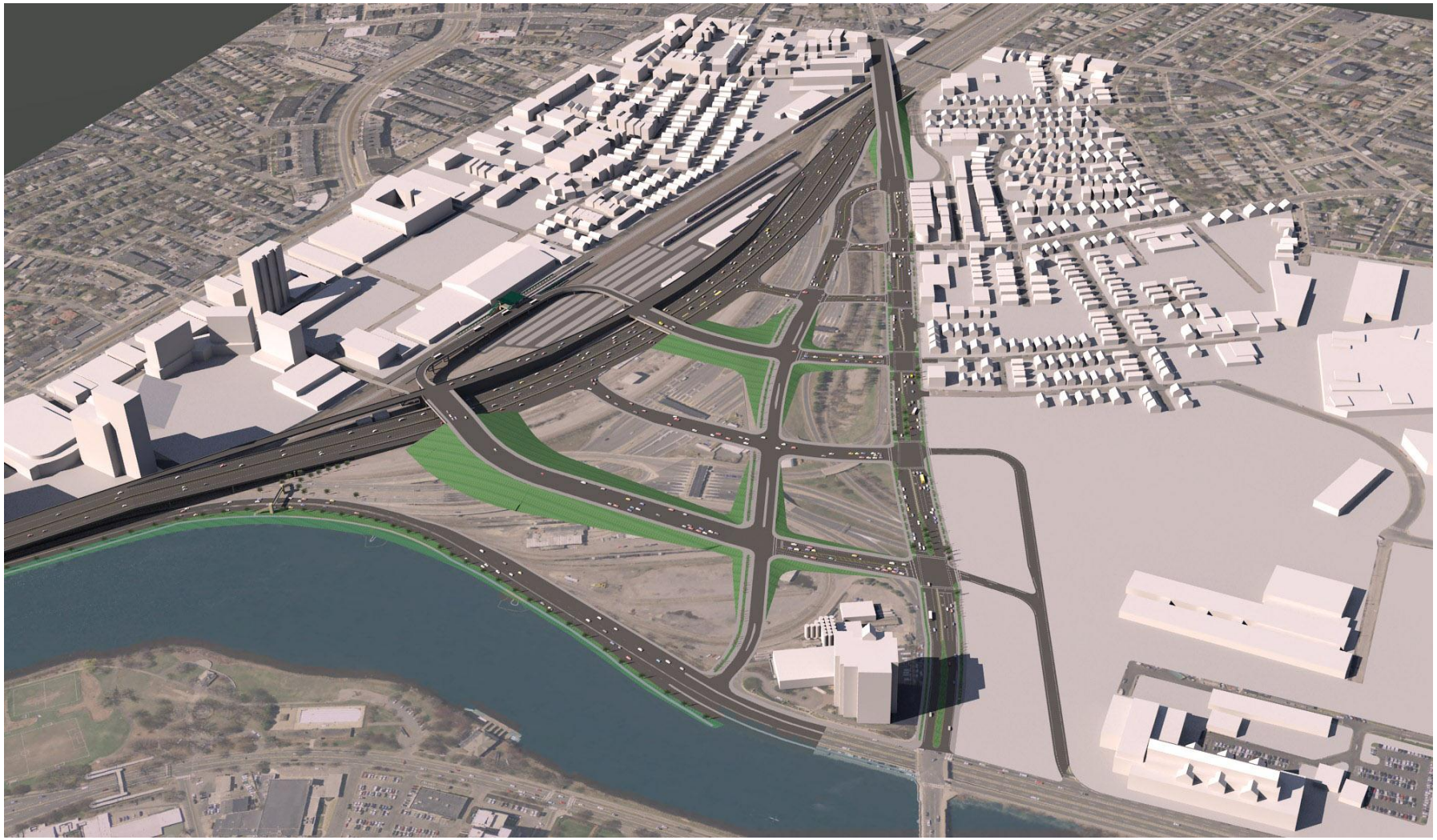
Preliminary 3D Renderings – Concept 3J-3

Existing Aerial with Proposed Interchange



Preliminary 3D Renderings – Concept 3J-3

Aerial with Proposed Interchange

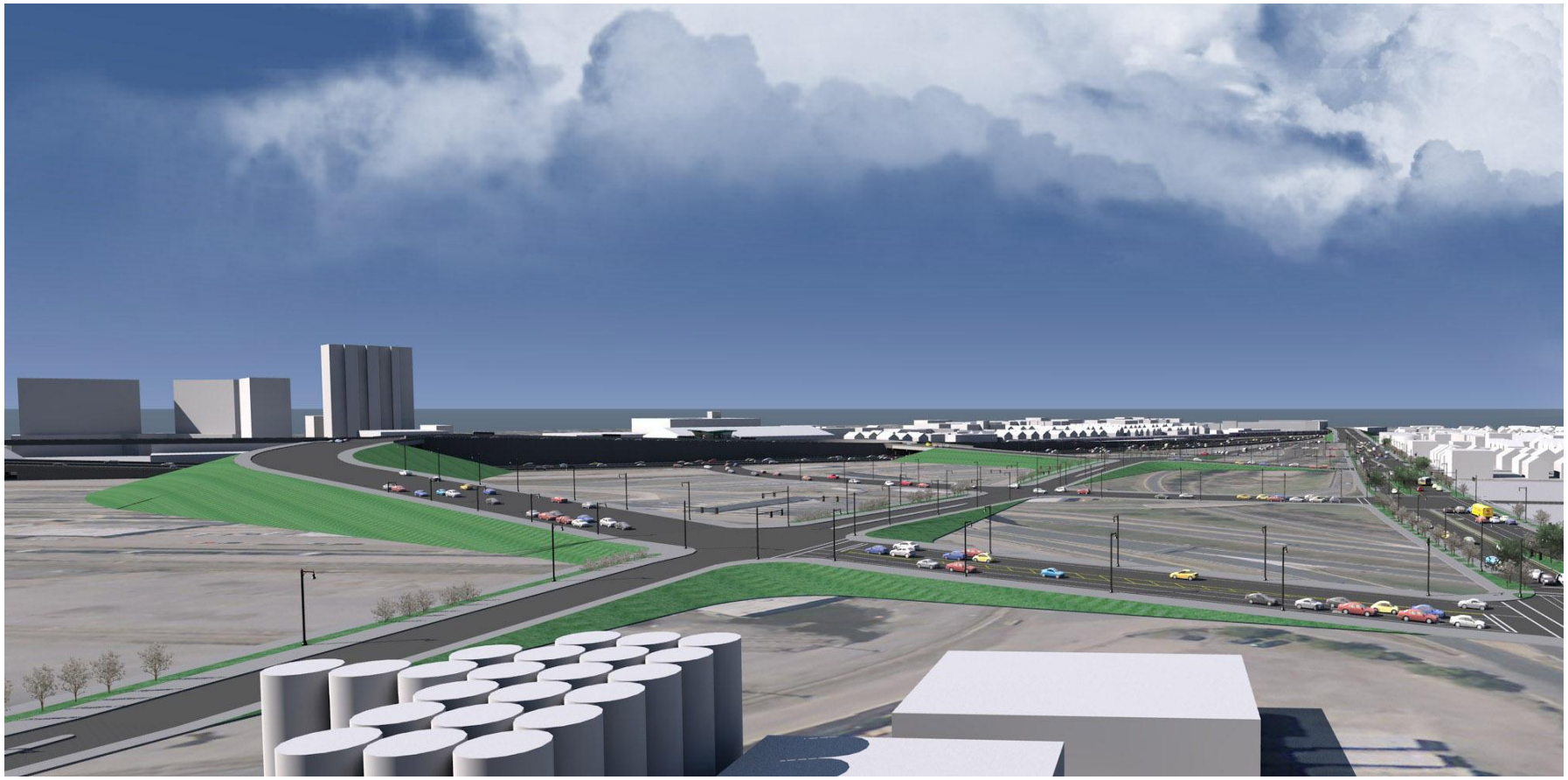


Preliminary 3D Renderings – Concept 3J-3

Aerial with Proposed Interchange and Buildings

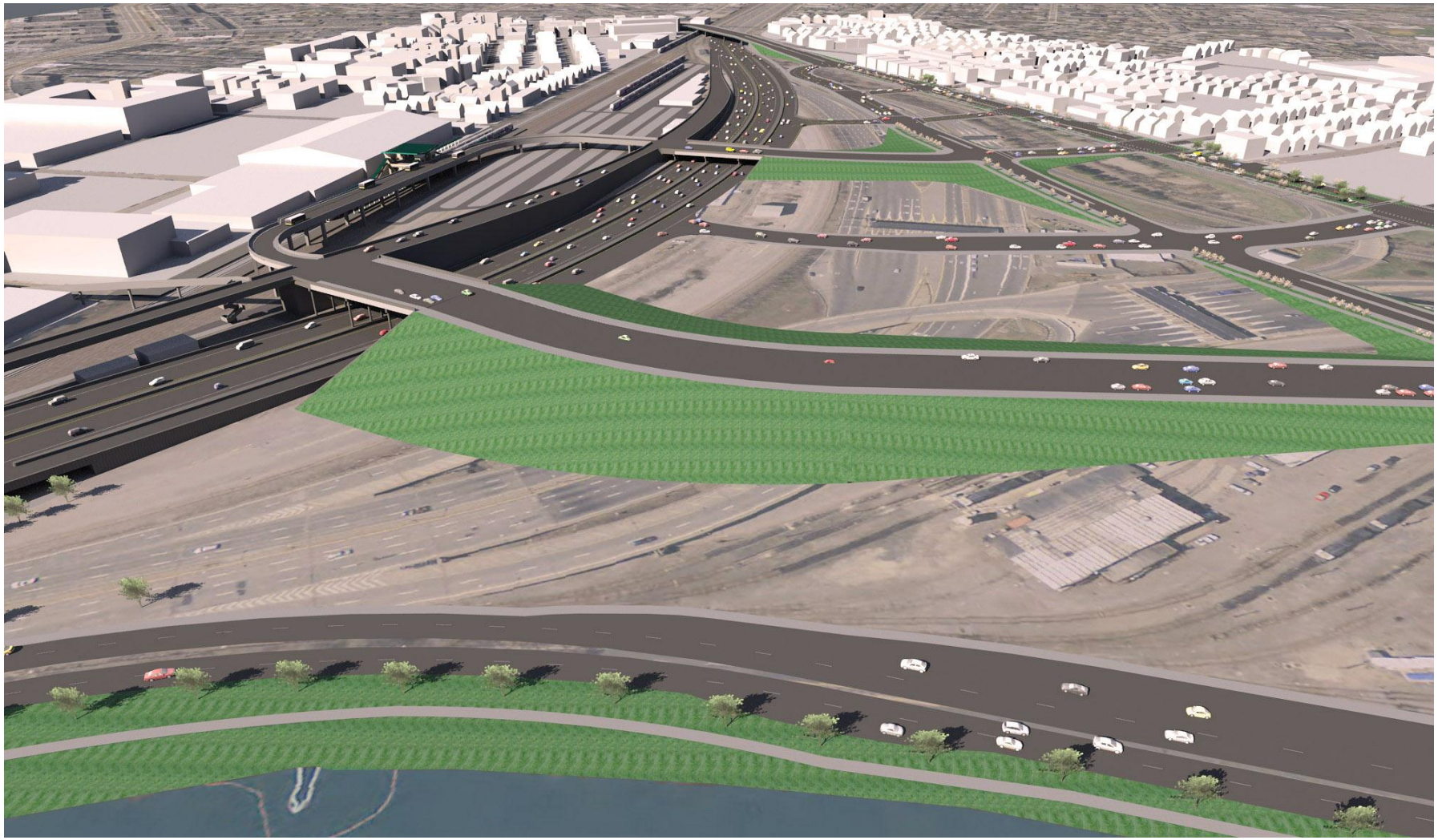
Preliminary 3D Renderings – Concept 3J-3

View Looking Southwest - 1



Preliminary 3D Renderings – Concept 3J-3

View Looking West - 1



Preliminary 3D Renderings – Concept 3J-3

View Looking East - 1

Preliminary 3D Renderings – Concept 3J-3

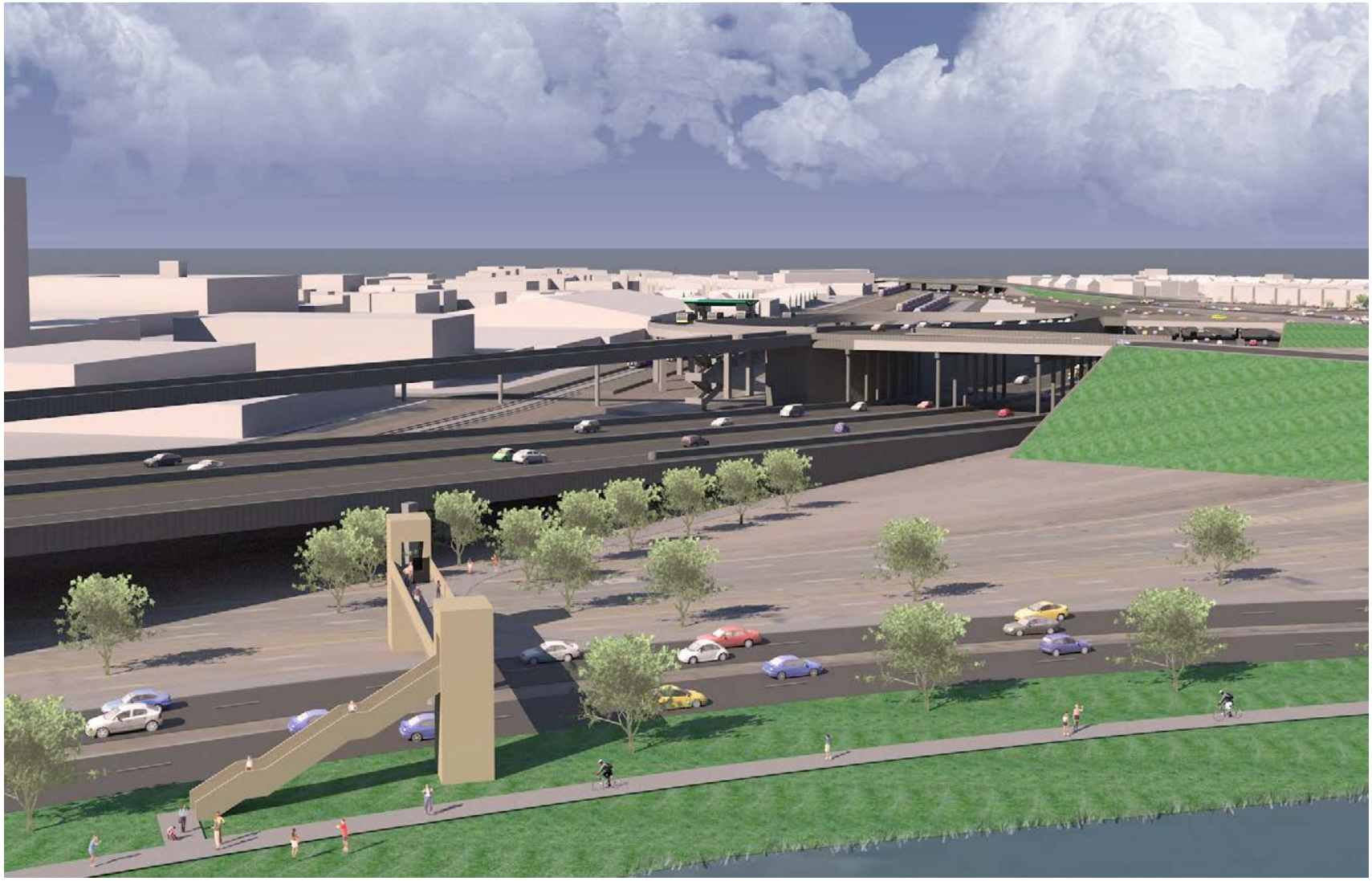
View Looking West - 2

Preliminary 3D Renderings – Concept 3J-3

View Looking East - 2

Preliminary 3D Renderings – Concept 3J-3

View Looking Southwest - 2



Preliminary 3D Renderings – Concept 3J-3

View Looking Northeast

Preliminary 3D Renderings – Concept 3J-3

View of East Drive Connector Looking South

Preliminary 3D Renderings – Concept 3J-3

View of Seattle Street Connector Looking South

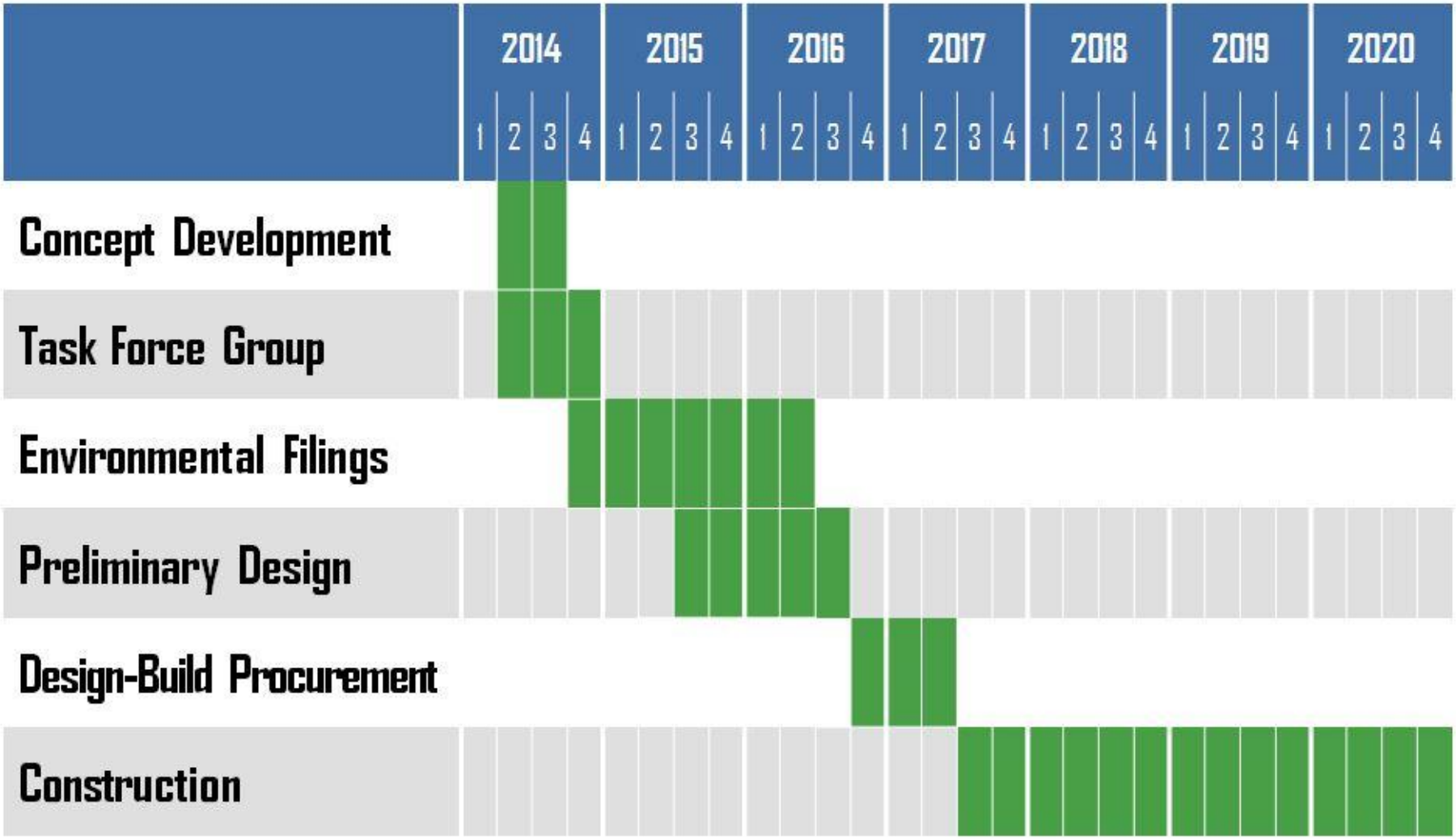
Preliminary 3D Renderings – Concept 3J-3

View of Cambridge Street Looking Southwest

Project Next Steps

- MEPA/NEPA Process and Schedule
- Design Process
- Quarterly Public Meetings
- Open Dialogue with the Project Team

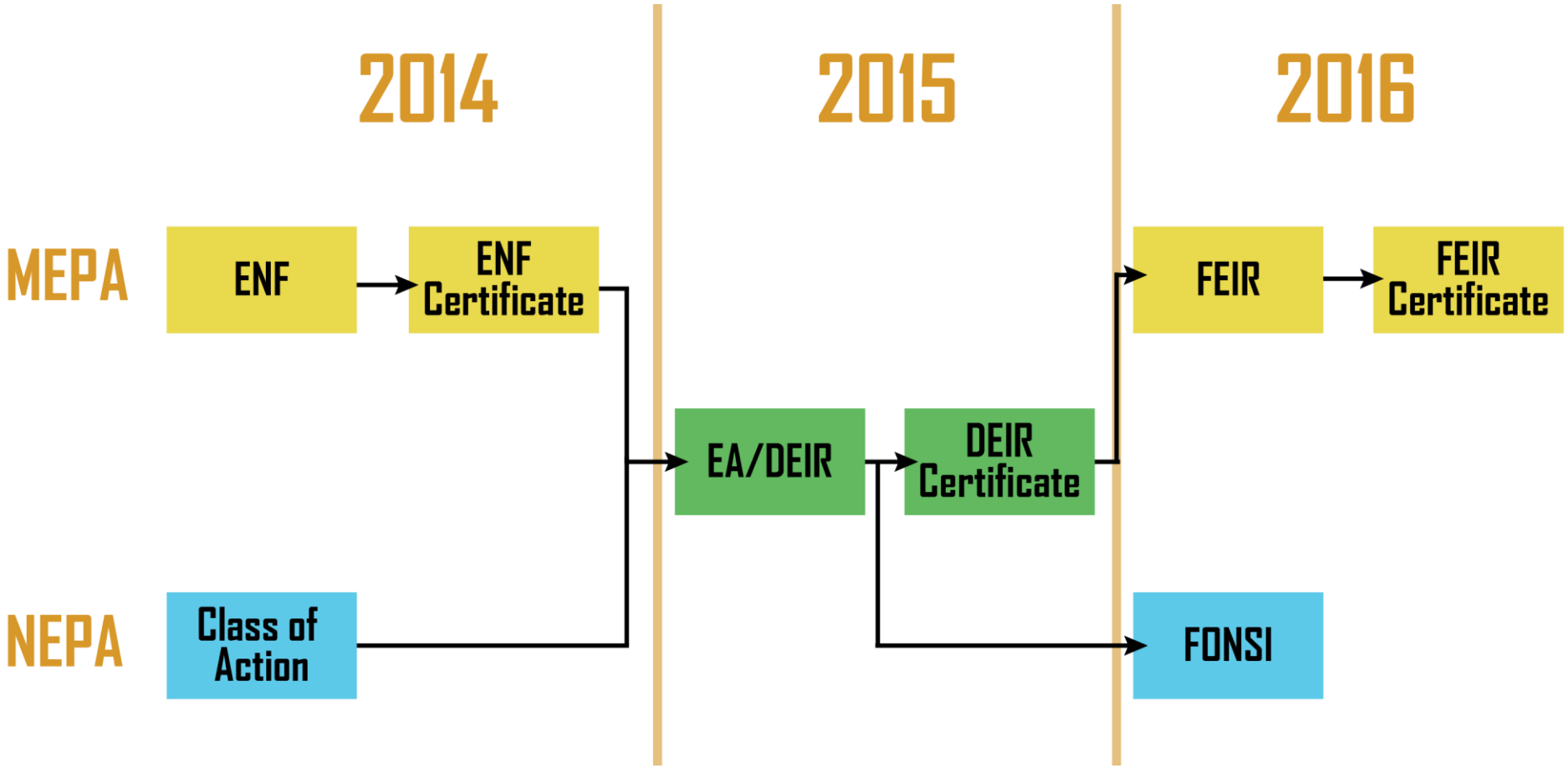
Preliminary Project Timeline



MEPA/NEPA Process – part 1

- Two Separate Processes to be Combined
- First Steps:
  - MEPA: Environmental Notification Form to be filed October 31; Mandatory EIR with ENF Certificate issued in December
  - NEPA: Class of Action Determination complete
- Next Step:
  - Combined EA/DEIR to be Prepared; Public Review and Comment
- Future Steps:
  - MEPA FEIR for Public Review and Comment
  - NEPA Finding of No Significant Impact (FONSI) Issued by FHWA

MEPA/NEPA Process – part 2



Discussion

Next Meeting:

November 5, 2014 – Fiorentino Community Center