I-90 ALLSTON INTERCHANGE PROJECT

PLACEMAKING STUDY

City of Boston

Task Force Meeting

June 27, 2016

Task Force Agenda

- Placemaking Study: Purpose and Process
- Placemaking Standards: Draft Recommendations

Placemaking Study: Purpose and Process

"Provide a critical evaluation of the proposed MassDOT I-90 roadway and transit infrastructure to ensure that it does not preclude a range of successful urban design, economic development and neighborhood planning outcomes in the future."

- ✓ **Task 1:** Analysis of existing planning and development context
- ✓ **Task 2:** Identification of urban design and planning principles
- ✓ **Task 3:** Compatibility of current MassDOT design with placemaking principles and economic opportunities
- ✓ **Task 4:** Creation and testing of alternative open spaces and development patterns

Current Focus

- **Task 5:** Analysis of multi-modal systems and connections to transit
- **Task 6:** Creation of planning framework

City Goals

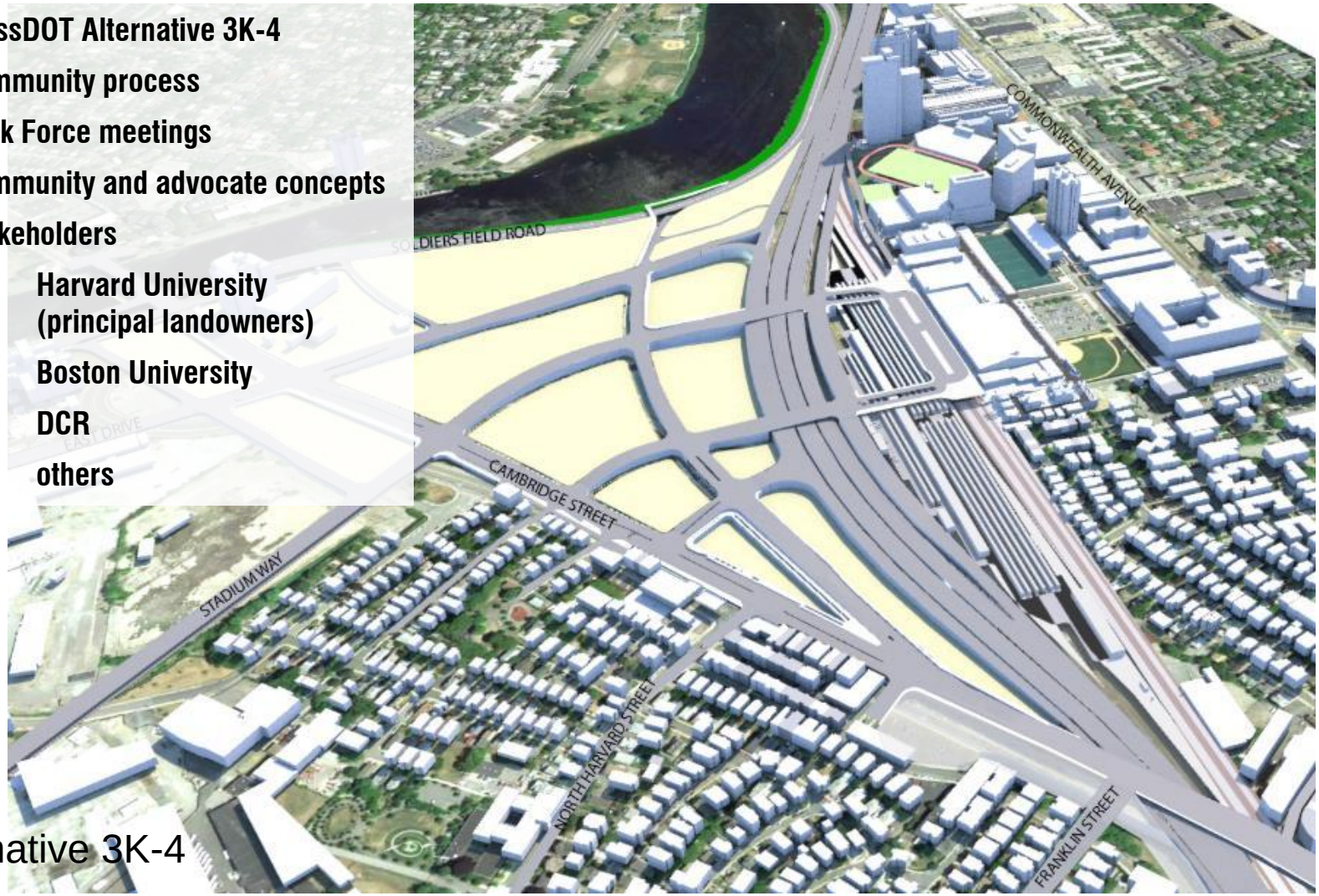
1. Creation of a dynamic, mixed-use TOD district
   - Walkable and human scaled
   - Connections to Charles River
   - Links to surrounding neighborhoods
   - Supportive of mixed use development
2. Significant expansion of regional transit service
   - Creation of West Station as a regional transportation hub
   - Multiple transit choices: BRT, DMUs, buses, shuttles and commuter rail
3. Enhancement of Interstate reliability
   - Replace obsolete viaduct
   - Improve alignments
   - ITS technology and information enhancements

Study Area


SOLDIERS FIELD ROAD
COMMONWEALTH AVENUE
EAST DRIVE
CAMBRIDGE STREET
STADIUM WAY
NORTH HARVARD STREET
FRANKLIN STREET

Study Context

- MassDOT Alternative 3K-4
- Community process
- Task Force meetings
- Community and advocate concepts
- Stakeholders
  - Harvard University (principal landowners)
  - Boston University
  - DCR
  - others



Alternative 3K-4

Key Community Placemaking Issues

A **Integrated open space** network with **expanded riverfront park**

B **Shared use path** connection to Charles River, Cambridge, Memorial Drive via Grand Junction Bridge

C **Quality of West Station** as a landmark and transit-oriented district center with safe and inviting access from all directions

D **Alternatives for highway/rail alignments** at the “throat”

E **Walkability and pedestrian environment** relative to roadway width

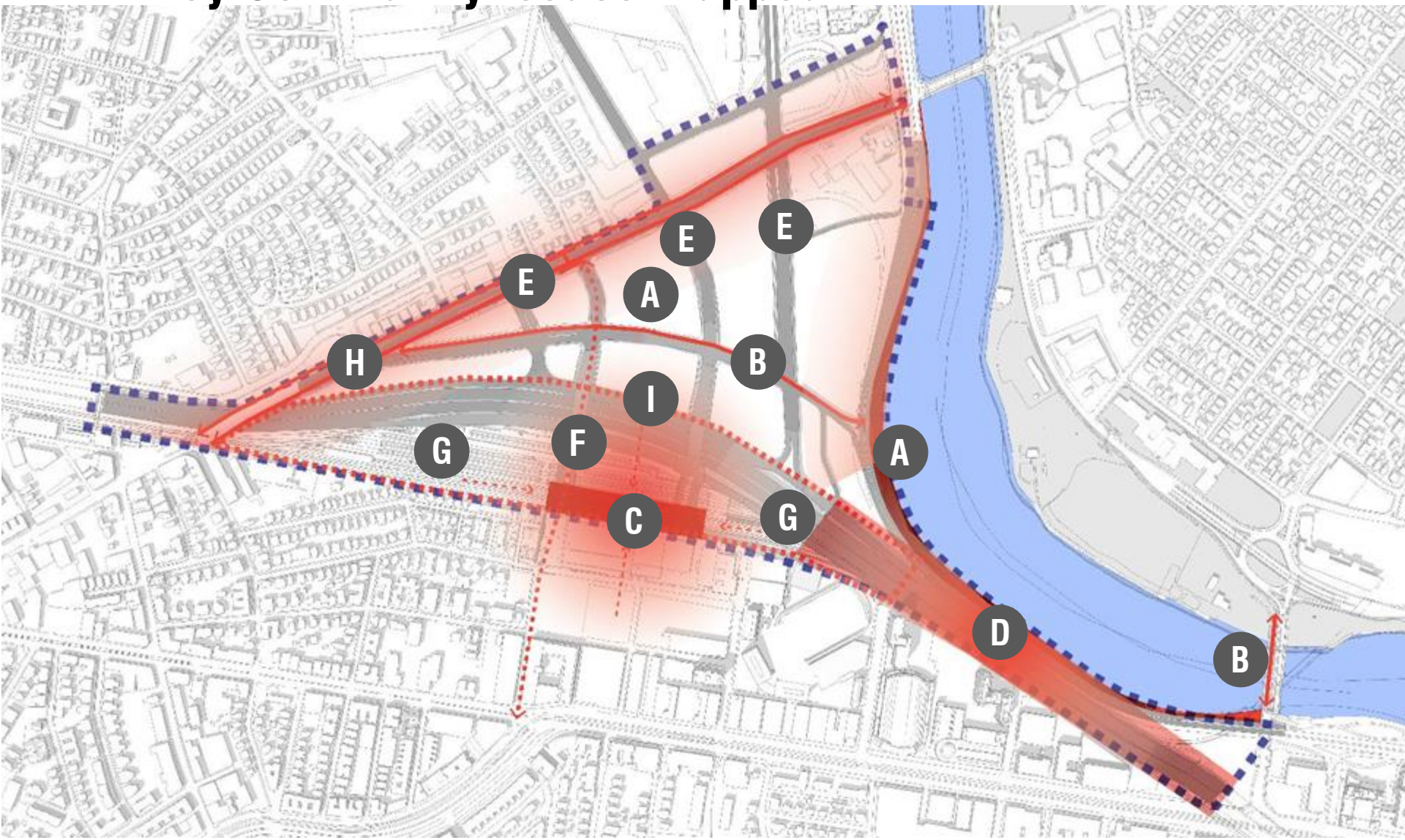
F **Unite Allston’s north and south neighborhoods** by connecting Cambridge Street and Commonwealth Avenue

G **Decking over the highway** and railyards to reduce noise and air pollution and create a place for buildings, parks and connections

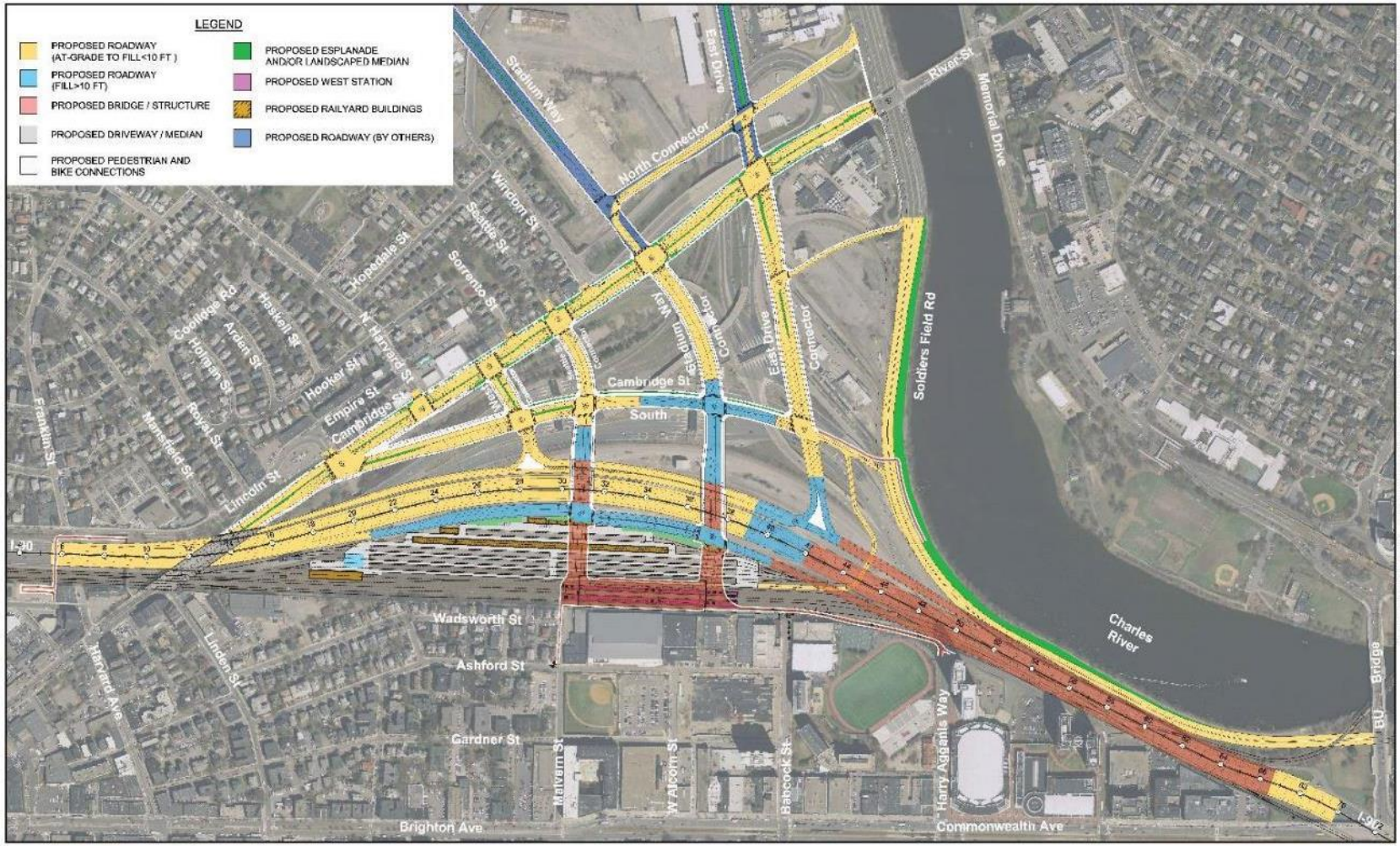
H **Transformation of Cambridge** Street into a vibrant neighborhood street with protected bike lanes

I **Interim conditions and phasing** of infrastructure and development

Key Community Issues Mapped



Evolution of the I-90 Interchange Design



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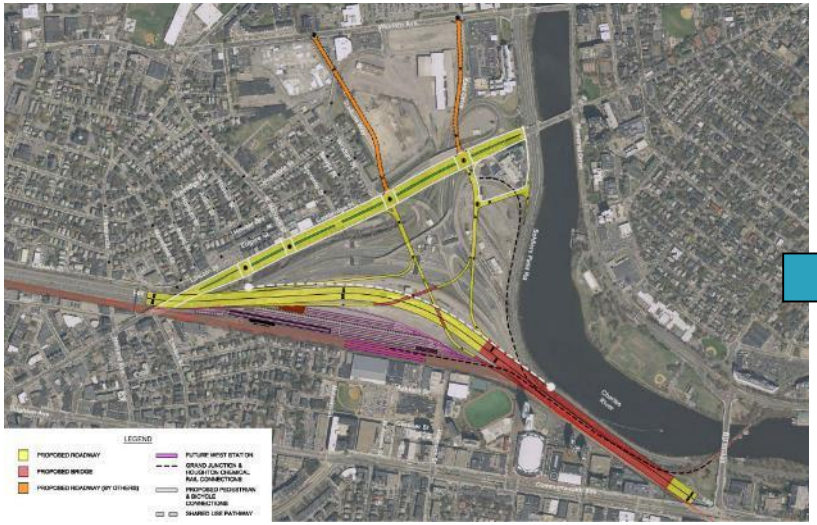

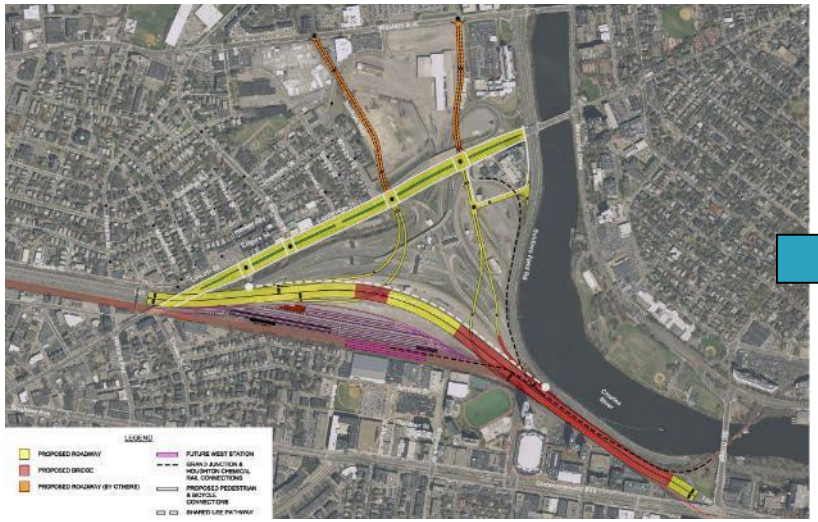

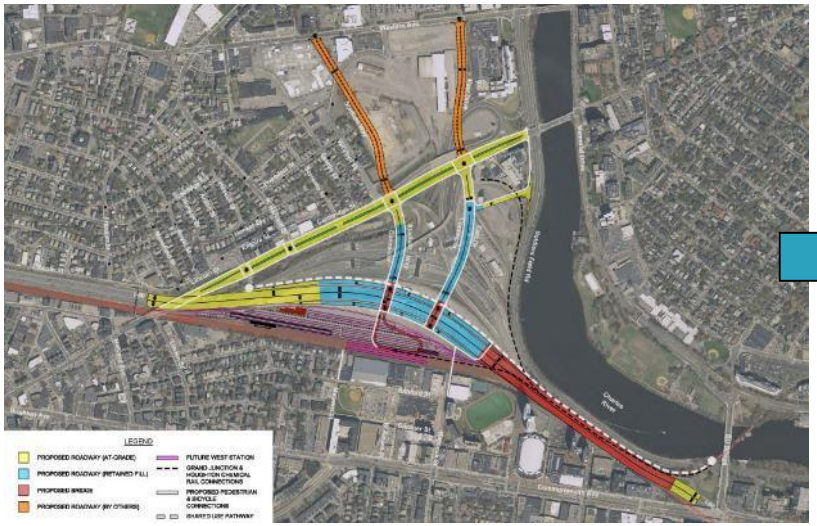

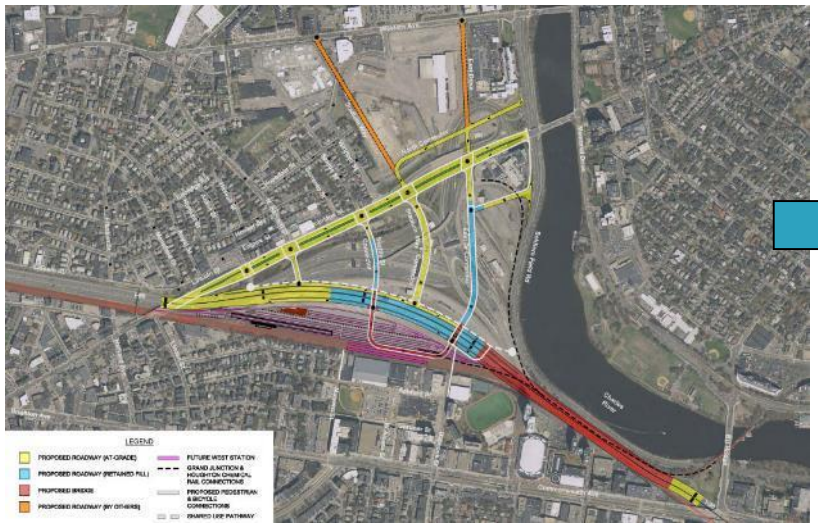

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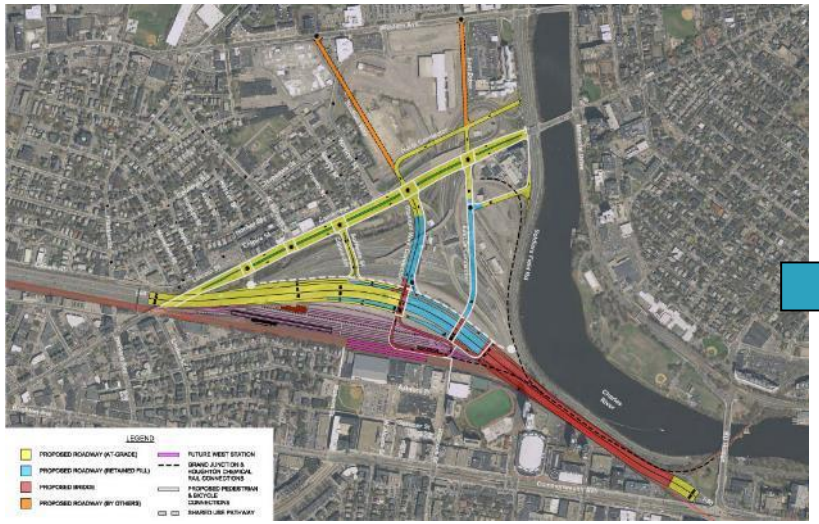
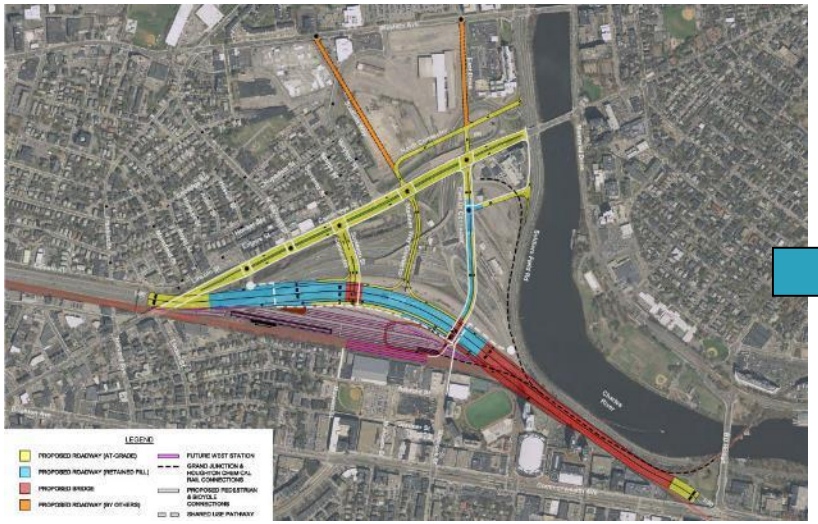
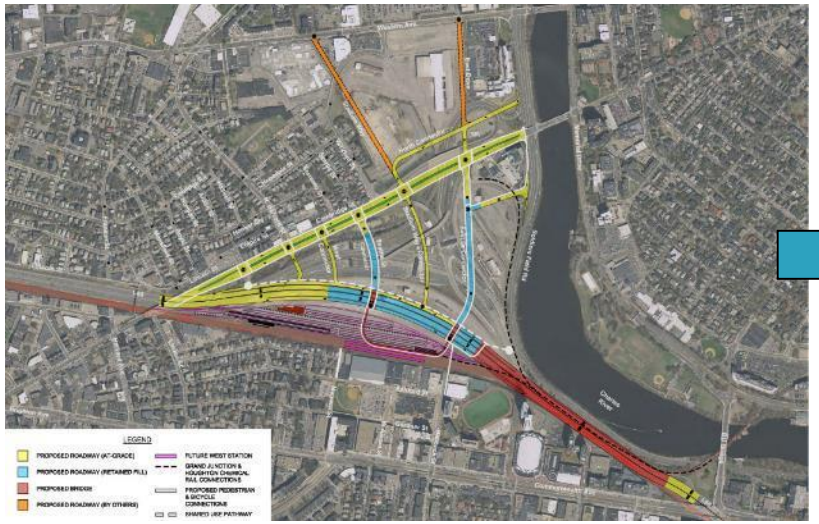
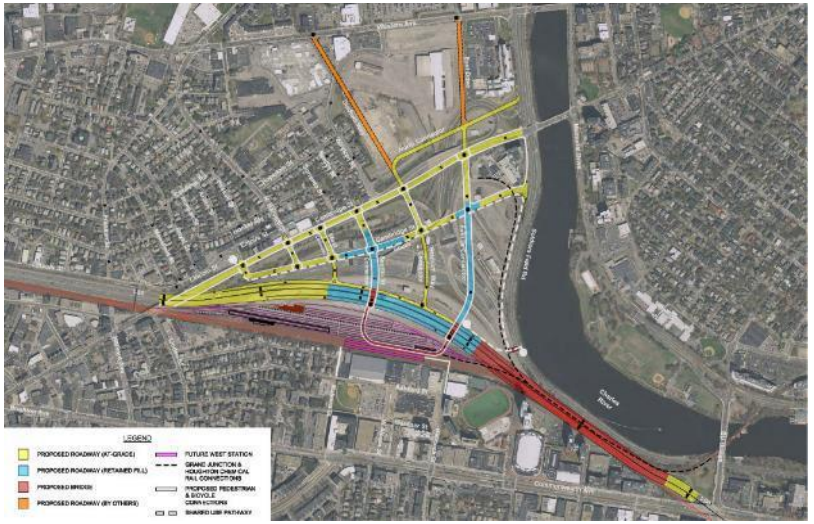








Evolution of I-90 Interchange Design

The Placemaking Study acknowledges the significant evolution of Alternative 3K-4 in responding to the community and stakeholders. These include:

- Compact design approximating traditional street grid
- Provision for multi-modal streets, including application of Boston's Complete Streets guidelines and MassDOT's Separated Bicycle Lane Planning and Design Guide standards
- Inclusion of robust West Station as integral component of project design and permitting
- Multi-modal connection to Charles River
- Preservation of the Grand Junction Railway connection and rail transit adaptability on the Framingham/Worcester line

Evolution of I-90 Interchange Design

The Placemaking Study acknowledges the significant evolution of Alternative 3K-4 in responding to the community and stakeholders. These include:

- Reconstruction of the Franklin Street Pedestrian Bridge
- Provision of additional parkland along the Dudley White Path
- Significant movement towards creating street pattern that will support mixed use development
- Provision for future air rights development

Draft Placemaking Standards

- Intended to ensure that the infrastructure does not preclude opportunities for great placemaking
- Provide direct recommendations for the project design and environmental impact evaluations (MEPA filing)
- Provide considerations for future master planning
- Serve as evaluation tools for future infrastructure design, placemaking and master plan.

Placemaking Analysis

Public Realm/Open Space

Open space types and typical dimensions; frequency and distribution of open space; average distance to open space; characteristics of public realm conditions; width of public realm

Mobility/Connectivity

Street types and characteristics; pedestrian circulation network; bicycle circulation network; transit network and access; vehicular circulation network

Development Potential/Flexibility

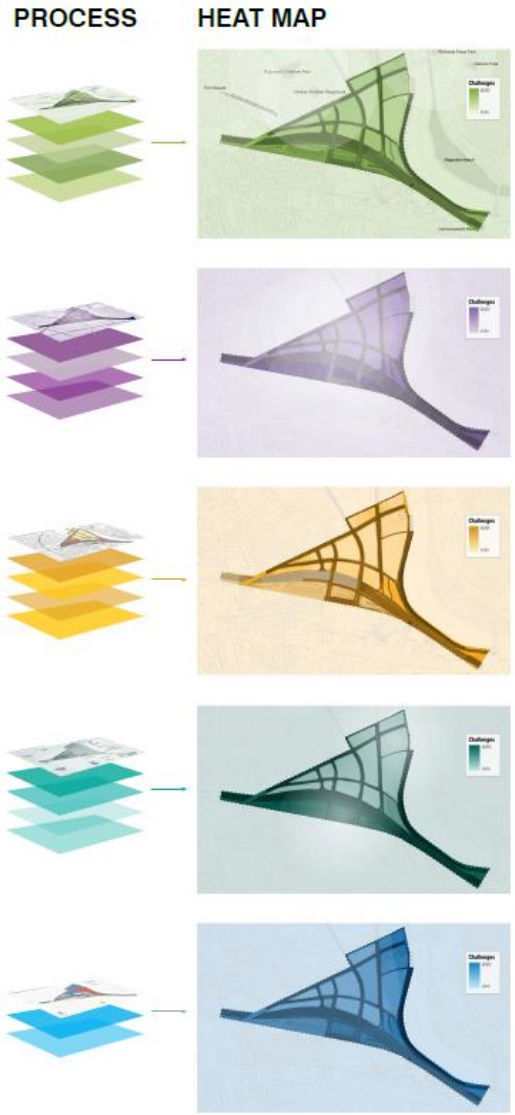
Building typologies and dimensions; block size/geometry; air rights block size/geometry; block access/flexibility; location desirability

Distinctive Place/Context Sensitive

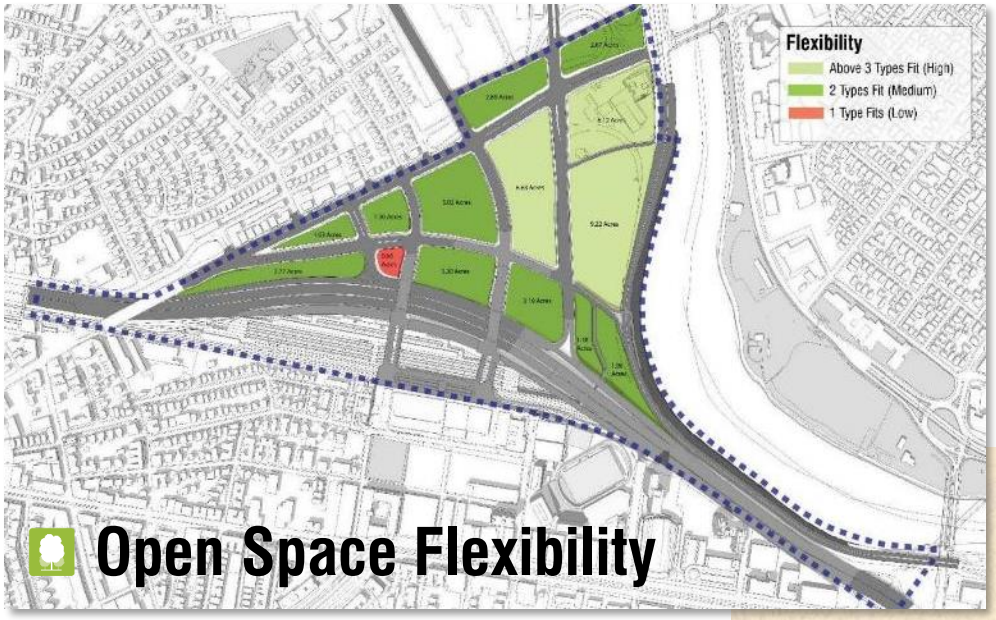
Placemaking character/features; land use and building typologies; block size and geometry; street typologies and transit nodes; elevation of roadways

Energy Efficiency/Sustainability

Utilities and district-wide infrastructure; solar orientation, wind, shadow; resiliency/flood considerations



Analysis Examples: “Heat Maps”



Open Space Flexibility

Development Flexibility

Placemaking Principles

Public Realm/Open Space

- Enhance access to useable open space
- Reinforce connections to existing resources – Charles River
- Provide active and generous street edges

Mobility/Connectivity

- Reinforce walkable and pedestrian friendly scale
- Enhance multi-modal connections and convenience
- Strengthen connections between adjacent neighborhoods and districts

Development Potential/Flexibility

- Maintain flexible accommodation of a wide variety of building types
- Integrate old and new with context-sensitive, compatible approach with transitions
- Strengthen ability to deck over the highway and rail yards

Distinctive Place/Context Sensitive

- Destination with range of uses and densities
- Maximize opportunities to extend Boston's urban fabric
- Define a network of recognizable places and centers of activity

Energy Efficiency/Sustainability

- Enhance the ability for energy efficient and sustainable district design
- Anticipate climate change, sea-level rise and infrastructure needs

Types of Placemaking Standards

** **Transformative Standards**: These standards require modifications or refinements in the 3K-4 alternative. The design alterations would become part of the entire project and would be integrated into the initial construction, with several noted exceptions where subsequent phasing may be appropriate.

* **Other Placemaking Standards**: These standards can be met by the current 3K-4 Alternative or any reasonable variation.

Organizing the Placemaking Standards

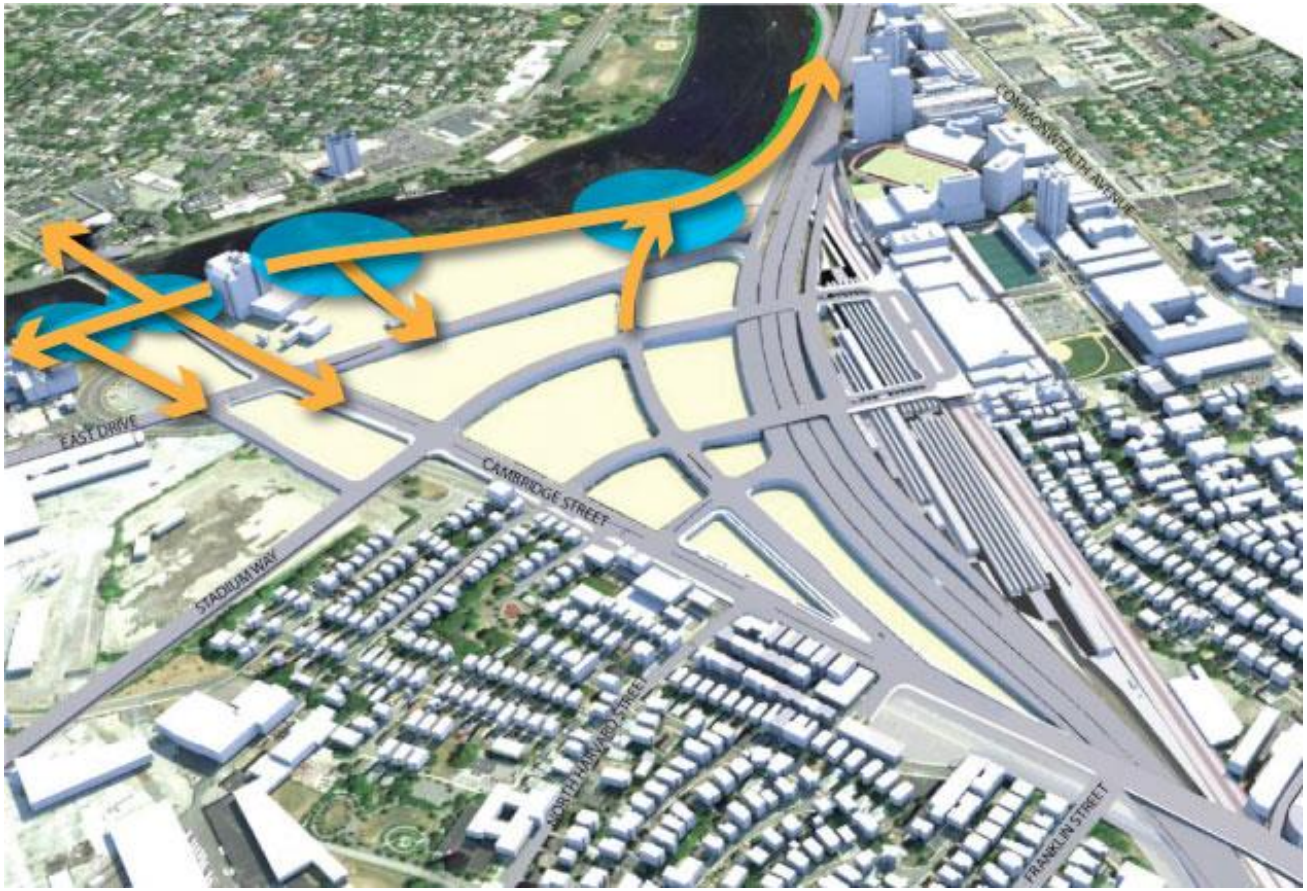
- Charles River Edges and Connections
- Areas Along and Above the Highway and Rail Alignment
- Cambridge Street and Connections to the North
- Areas within the New District
- Area-Wide Standards
- Guidelines for Future Master Planning

Placemaking Standards
Charles River Edges and Connections

1. Add I-90 and Soldiers Field Road connections

*Provide additional access between Soldiers Field Road and new streets leading to the I-90 ramps, in order to reduce vehicular traffic on Cambridge Street and within the new district; this will also help support new development. ***

Soldiers Field Road access points, Concept 3K-4



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Additional, reorganized access points can be created

1. Add I-90 and Soldiers Field Road connections

*Provide additional access between Soldiers Field Road and new streets leading to the I-90 ramps, in order to reduce vehicular traffic on Cambridge Street and within the new district; this will also help support new development. ***

- **The intersection of Cambridge St. at River St. is simplified**
- **The Paul Dudley White Path can be widened near River St.**
- **The land in the "corner" near the Charles River will be more adaptable to various types of uses**

2. Realign portions of Soldiers Field Road along the River

*Soldiers Field Road can be pulled further away from the Charles River, creating more useable open space, public access and pedestrian/bicycle connectivity. ***

Realignment will require new solutions to access to Houghton Chemical and the MBTA maintenance facility.

3. Create Park Space on the Charles

*Provide the space for a new park along the Charles River with revisions to the Soldiers Field Road alignments.***

The space along the Charles will expand the Esplanade and be a neighborhood and district destination.

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Existing Conditions, Soldiers Field Road and Charles River Edge

The Esplanade and Charles River Reservation include a sequence of park nodes connected by narrower corridors along the River's edge.

Realignment of Soldiers Field Road will enable the creation of a similar park.

1. Nashua Street Park, Esplanade, Boston

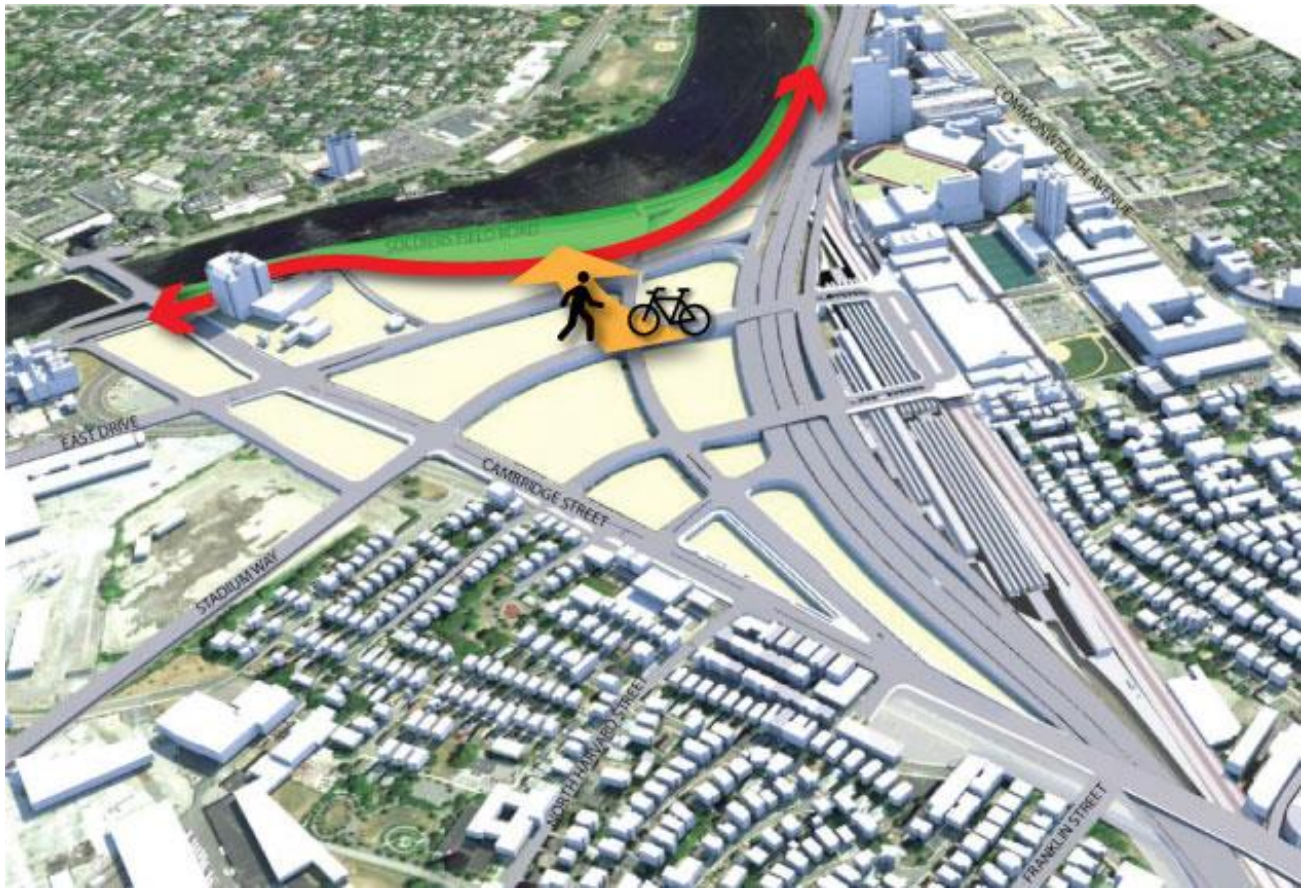
2. Charles River Reservation, West of Harvard Athletic Field and South of Eliot Bridge

3. Park space at Community Boating, Esplanade, Boston

4. Provide a primary, at-grade pedestrian and bicycle connection to the Charles River edge

*As part of the roadway interchange and intersection design along Soldiers Field Road, provide a connection to the open space along the River for pedestrians and bicyclists. ***

Depressing a section of Soldiers Field Road will create the opportunity for the continuation of at-grade pedestrian and bicycle links directly into the new river edge park land.



Additional Standards

5. Consolidate supporting infrastructure to reduce barriers for new streets, open space and development *
6. Improve non-motorized paths along the Charles River Basin *
7. Maximize the quality of constrained open space in 'throat' area *

Placemaking Standards
Areas Along and Above the Highway and Rail Alignment

9. Provide for an additional east/west street connection between Cambridge Street and the West Station Area

*Provide for a direct street connection with bicycle and pedestrian accommodations at or near the Cambridge Street Bridge over I-90 and the West Station area, using air rights. ***

The design of the project should anticipate future, phased construction of a new street above the rail and highway alignment that will link West Station area and Cambridge Street near its bridge over I-90.

15. Provide a north/south link for shuttles and buses

*Provide a north/south transit link for buses and shuttles between the North Allston/Harvard Area, West Station, and areas to the east and south, including Kendall Square and the Longwood Medical Area.***

Buses and shuttles should not terminate their routes at West Station, but should be able to continue across the I-90 and rail alignment. The project should establish feasible ways to accomplish this north/south link by evaluating potential routes and alignments.

16. Provide added width to the connecting bridges to West Station

*Provided added dimension (such as landscaped aprons) to the bridges that span above the highway and rail alignment to provide visual and landscape amenities to support a pleasant pedestrian and bicycle environment.**

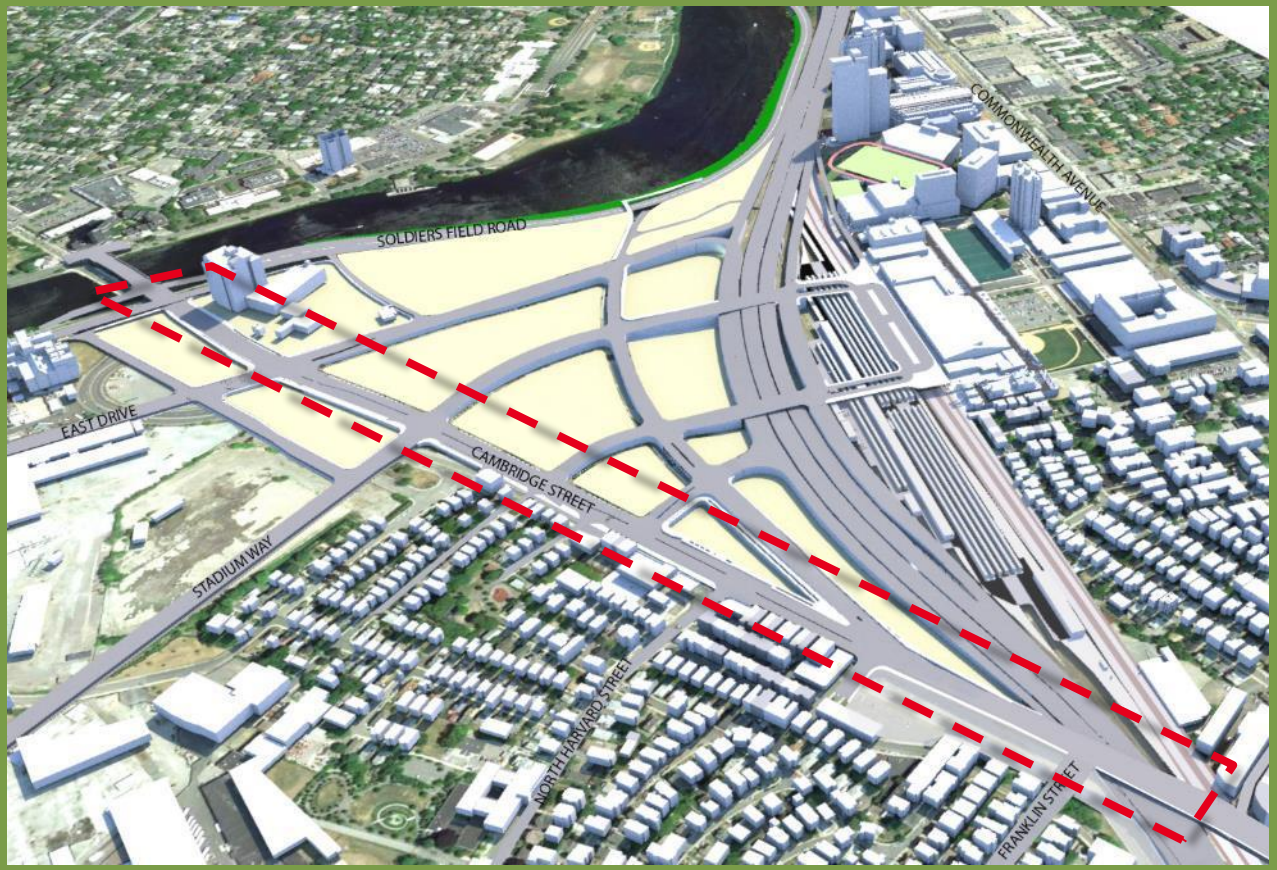
The Long Street Bridge in Columbus, Ohio is an award-winning solution that widens a highway bridge to create a pedestrian-friendly, landscaped crossing

MKSK Landscape Architects

Additional Standards

8. Retain the fundamental urban interchange approach developed in Alternative 3K4 *
10. Connect West Station to the River *
11. Reinforce air rights potential *
12. Provide visual and sound barriers to limit impacts on adjacent, developed parcels *
13. Ensure that West Station design includes usable public open space *
14. Do not preclude the potential for a future street connection to the south of West Station *
17. Allow a systematic method for locating and constructing air rights development *

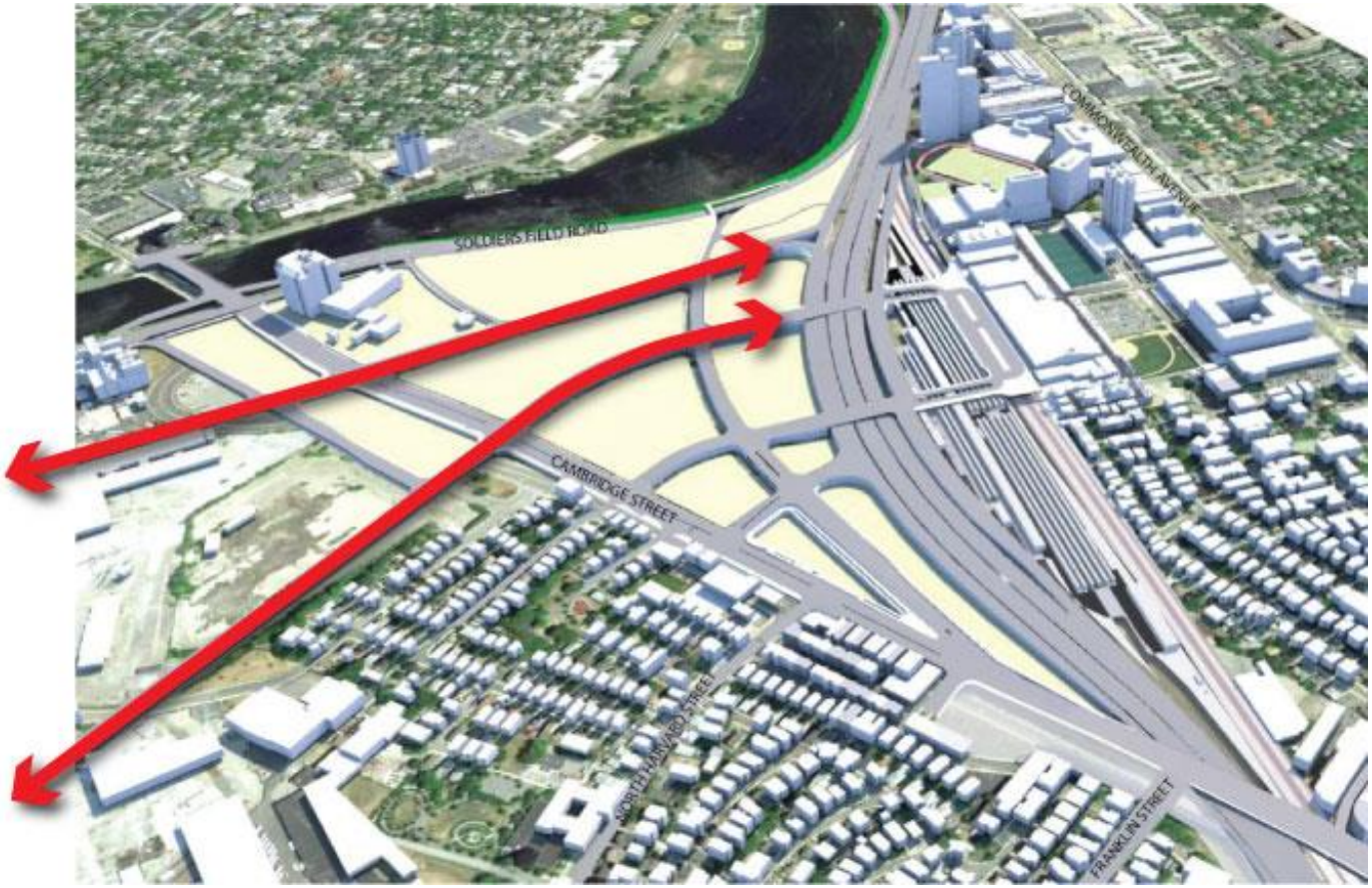
Placemaking Standards
Cambridge Street and Connections to the North



18. Provide a third north/south arterial Street

*Provide three north-south arterial streets across Beacon Yards aligned with three north-south streets now being planned for the Harvard Institutional Master Plan (IMP) area.***

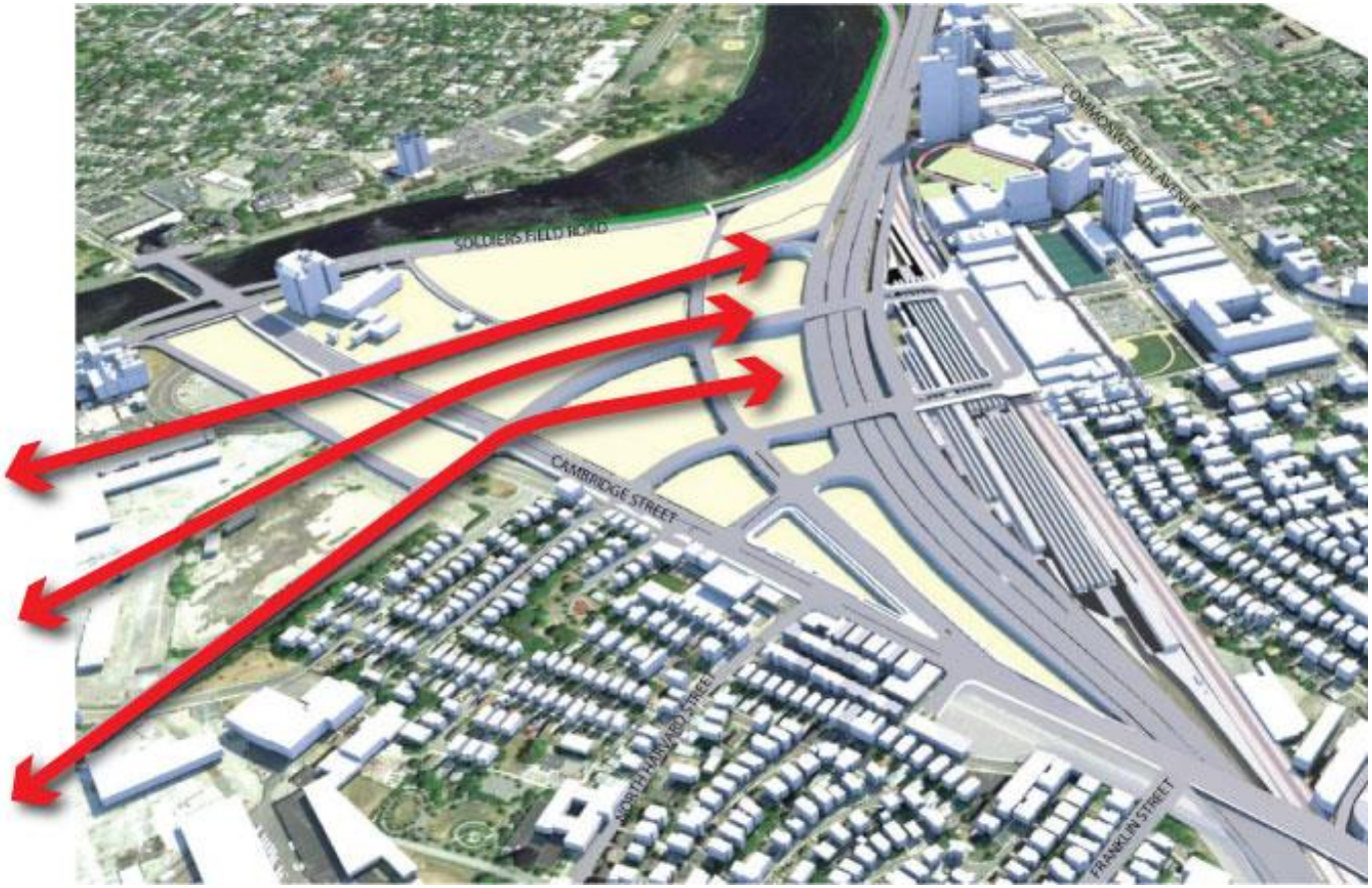
Concept 3K-4 anticipated 2 connecting streets crossing Cambridge Street and linked to Harvard's planned development area



18. Provide a third north/south arterial Street

*Provide three north-south arterial streets across Beacon Yards aligned with three north-south streets now being planned for the Harvard Institutional Master Plan (IMP) area.***

Updated planning will result in 3 connecting streets, better distributing traffic, transit routes and creating better blocks in the new district



20. Consider a direct North Harvard Street intersection alignment

*A more direct intersection between Cambridge Street South and North Harvard Street at Cambridge Street would limit neighborhood impacts and reduce unnecessary turning movements, congestion, and street and intersection widths along Cambridge Street.***

If a simpler intersection and other changes in the street network will reduce impacts on North Harvard Street, then a more direct street alignment should be considered

20. Consider a direct North Harvard Street intersection alignment

*A more direct intersection between Cambridge Street South and North Harvard Street at Cambridge Street would limit neighborhood impacts and reduce unnecessary turning movements, congestion, and street and intersection widths along Cambridge Street.***

If a more direct alignment proves to have fewer impacts, then the odd-shaped blocks in Concept 3K-4 can be reorganized to provide better opportunities for development

21. Strengthen Cambridge Street for early redevelopment along its southern edges

*Provide the opportunity for an improved Cambridge Street as an early phase redevelopment target. ***

Creating an active and developed edge along Cambridge Street will occur better and sooner if the blocks are well proportioned and have adequate depth for retail uses

Additional Standards

19. Design and build Cambridge Street and its intersections with the minimum necessary general purpose travel lanes, at the minimum necessary lane widths *

22. Minimize impact of highway access on active street frontage and pedestrian connectivity *

23. Avoid creating medians were possible *

24. Keep the pedestrian crossings short along Cambridge Street *

25. Protect bicyclists as they approach and cross intersection *

Placemaking Standards
Areas within the New District

31. Limit slopes of new streets and associated sidewalks and bike facilities

*Limit the maximum slopes for the new roadway network to less than 5%.**

Slopes with grades less than 5% accommodate easy walking, people in wheel chairs and bicyclists.

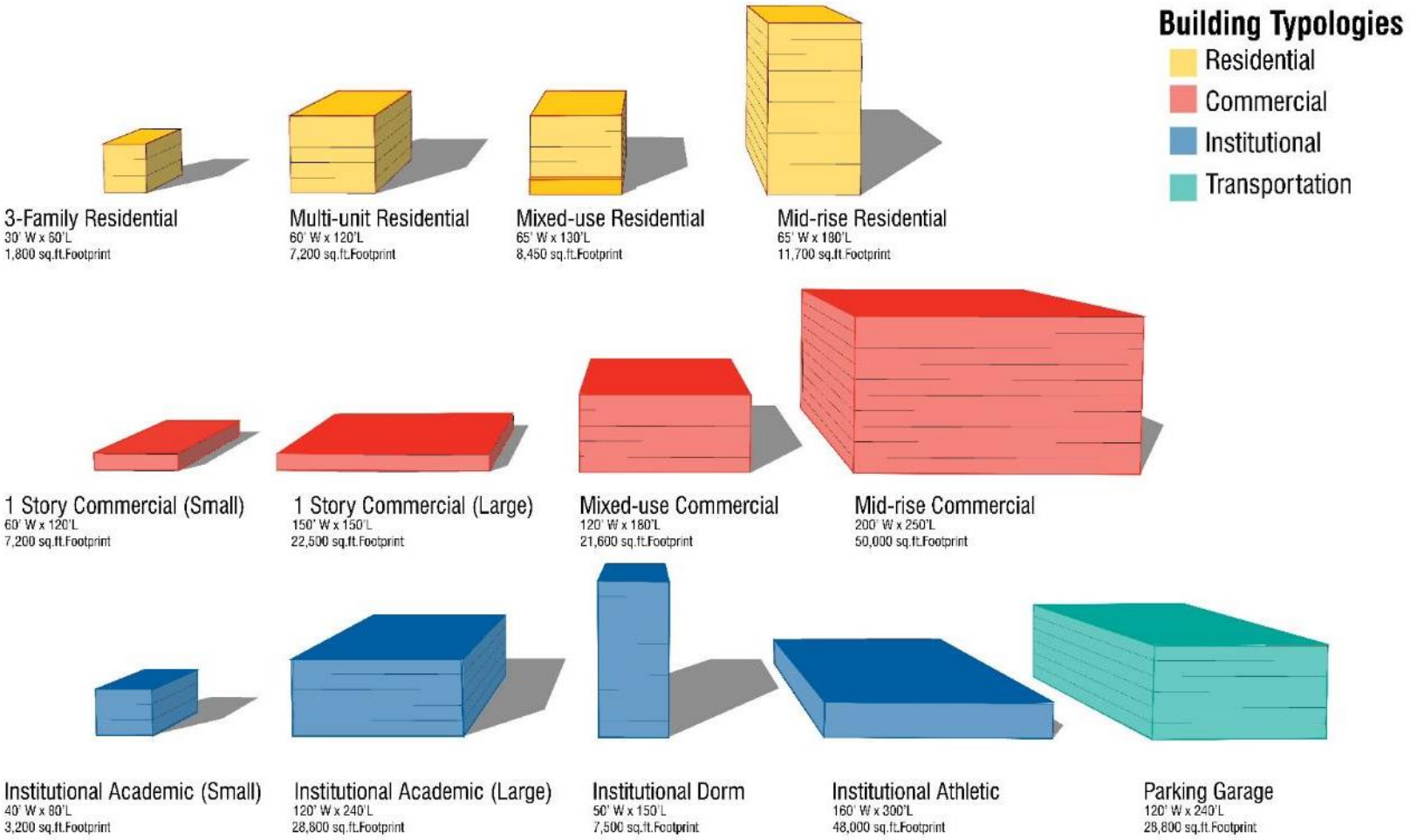
32. Organize streets to create blocks that can be flexibly and efficiently developed

*Provide a street grid that defines blocks that are scaled consistently and provide continuity of block width and length. ***

The placemaking standards for street alignment and connectivity will lead to better proportioned blocks that can be adapted to a wide variety of development and open space solutions.

37. Create a framework for adaptable and well sized blocks

*The street layout should allow block sizes and dimensions that can be adapted to a broad range of building and use types.***



Additional Standards

26. Create a street hierarchy *

27. Use a maximum design speed of 30 mph for parkways and neighborhood collectors

28. Assume a network of Internal secondary streets *

29. Phase street and intersection improvements *

30. Use multiple methods for efficient traffic distribution *

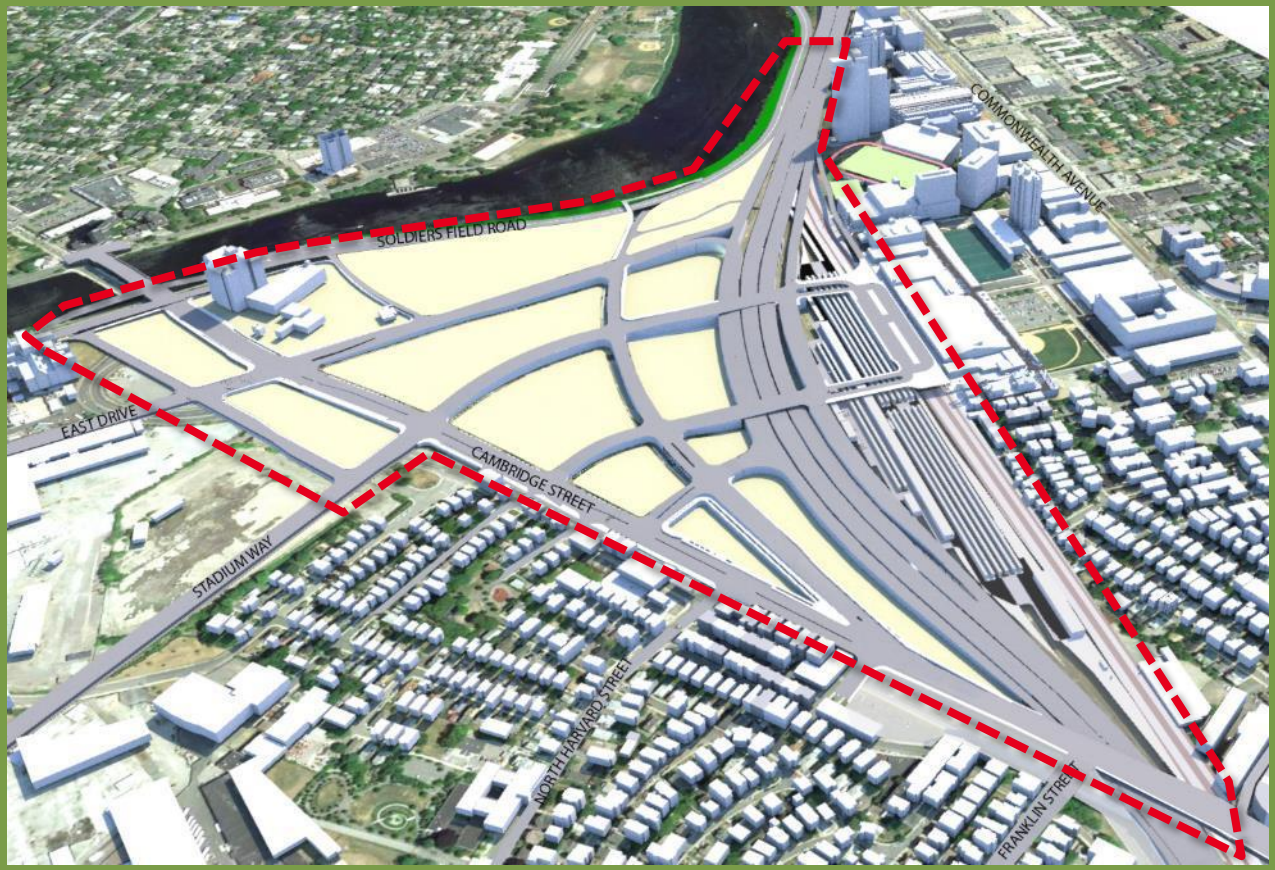
33. Enable active block frontages *

34. Provide streetscape and landscaping at the perimeter of any vacant future development parcels *

35. Provide permanent streetscape and landscape amenities where future redevelopment is not anticipated *

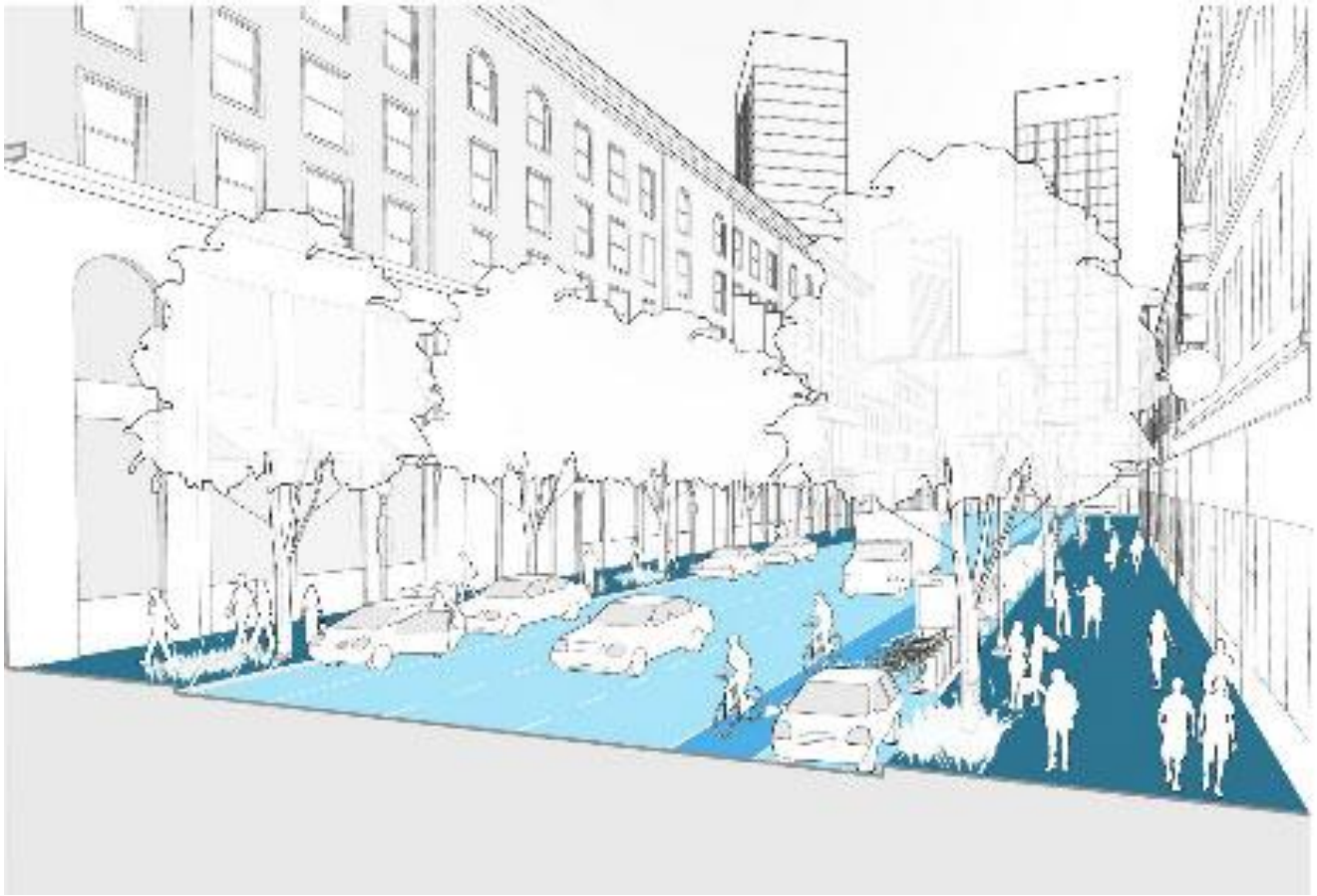
36. Plan for integration of roadway and district stormwater solutions *

Placemaking Standards
Area-Wide Standards



39. Follow MassDOT and City of Boston Complete Streets Guidelines

*The future streets should implement the State and City policies for Complete Streets.**



Additional Area-Wide Standards

38. Constrain design and operational speeds *
40. Provide quality transit accommodations on transit routes *
41. Employ smart curbside principles *
42. Incorporate Intelligent Transportation Systems into the design *
43. Allow for designated truck routes and truck-restricted streets *
44. Provide stormwater solutions that will not impact surrounding areas *
45. Identify options for robust local and regional transit service in the future *
46. Plan adequate capacity for future utility corridors *
47. Anticipate District Energy Systems *

Placemaking Study
Considerations for Future Master Planning

Considerations for Future Master Planning

48. Create a coordinated balance of open space and buildings that reflect the character of an urban district
49. Support an east/west green corridor
50. Create a linked network of open spaces
51. Plan for future Hubway stations
52. Conceal parking supplies
53. Optimize orientation of buildings to define district and retain views
54. Use the primary streets as visual corridors
55. Reinforce context-sensitive development on Cambridge Street
56. Reinforce air rights development potential
57. Integrate buildings, energy facilities and open space networks with potential flood and stormwater management needs
58. Address sea level rise as part of a broader area solution
59. Provide District Energy systems and solutions
60. Follow best-practice Transportation Demand Management strategies for all new development
61. Provide comfortable, attractive connections for pedestrians and bikes above I-90

Next Steps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