I-90 ALLSTON INTERCHANGE
PLACEMAKING STUDY

Boston Redevelopment Authority

Task Force Work Session –
January 20, 2016

The Cecil Group
Stantec
Nelson/Nygaard

Work Session Topics

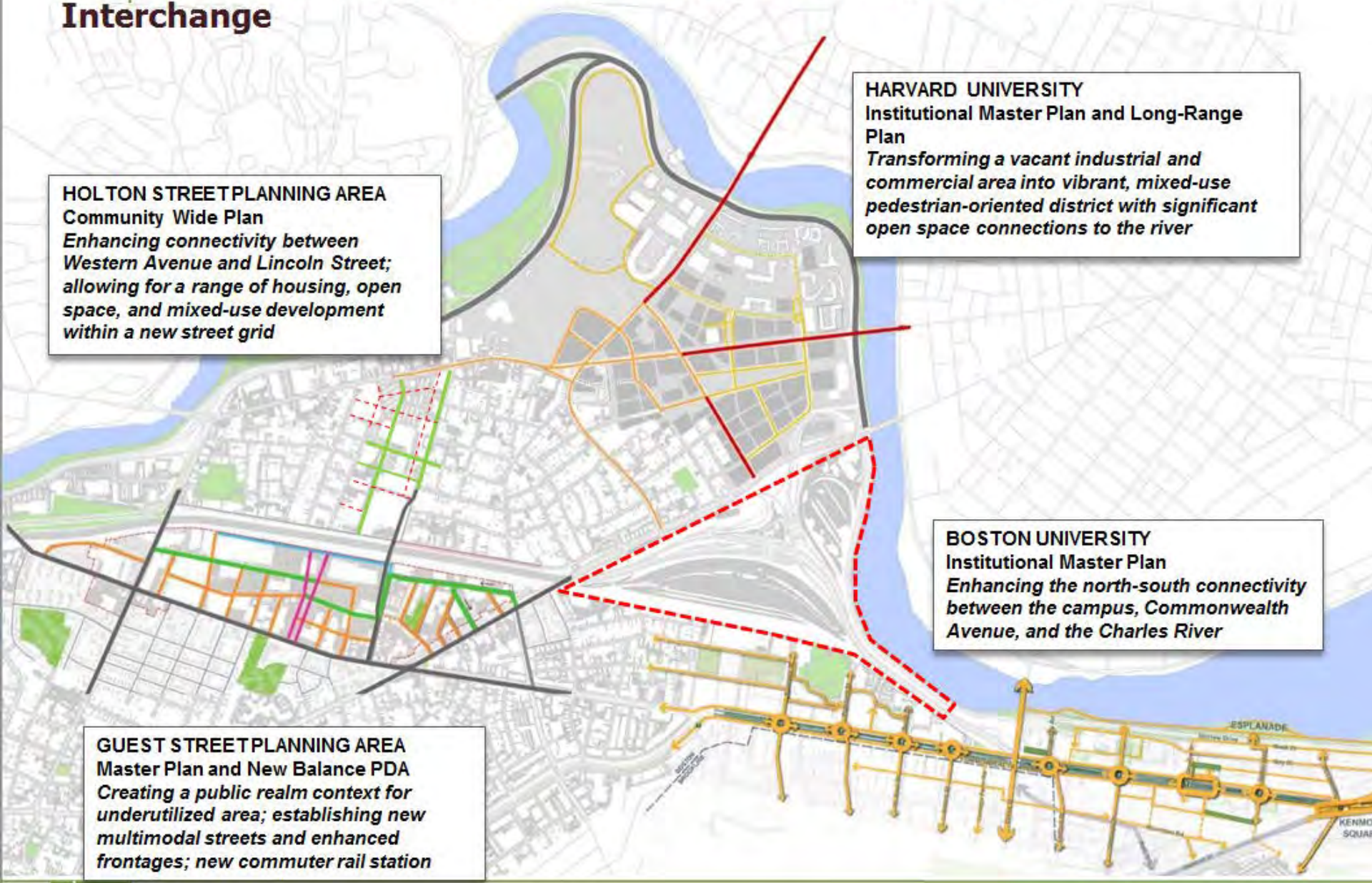
Public Realm/Open Space

- Review of previous work session discussion

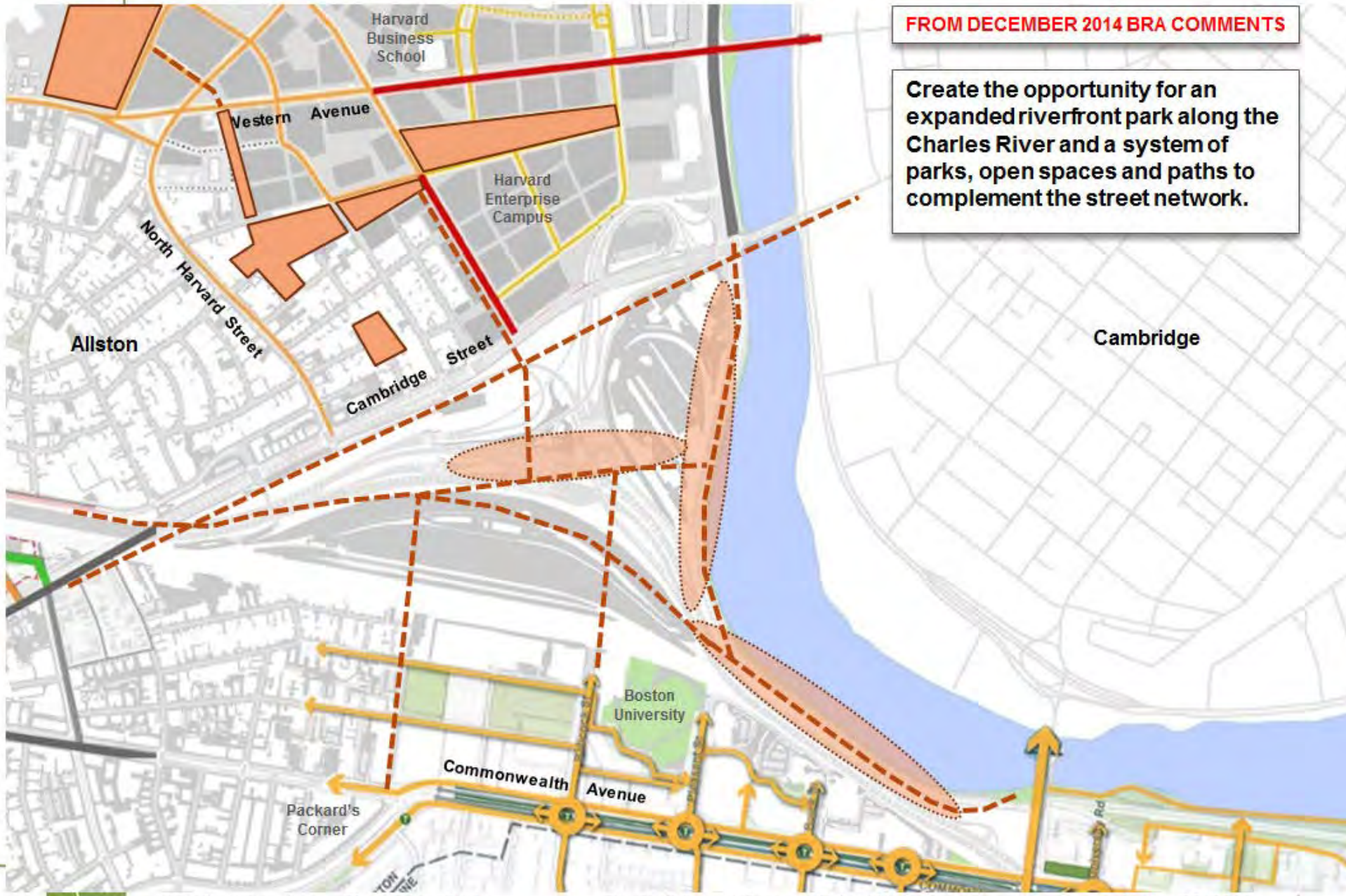
Mobility/Connectivity

- Current design considerations
- Future district considerations

Allston Interchange: Recent planning surrounding the I-90 Interchange



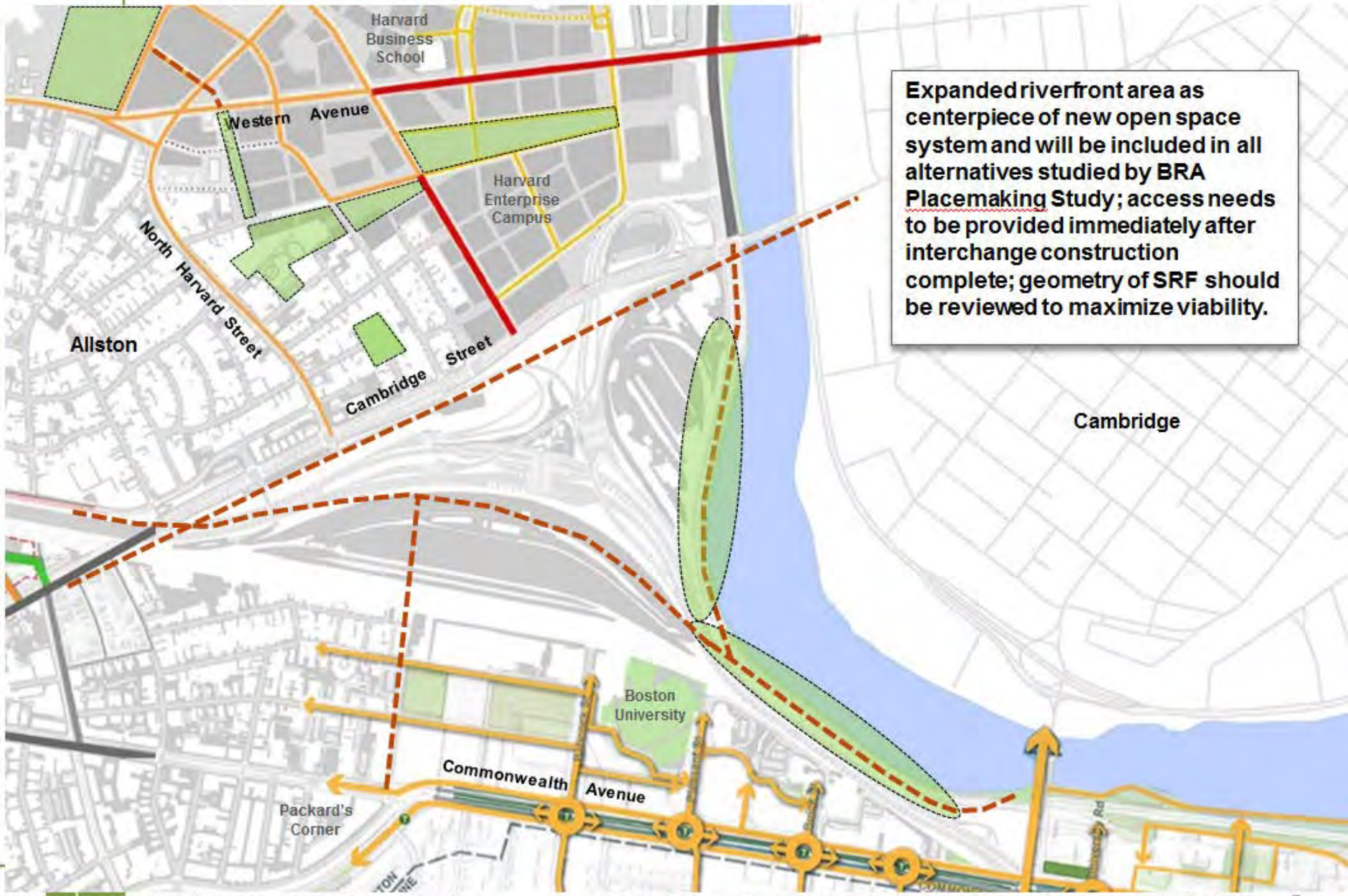
Allston Interchange: Development of open space network



FROM DECEMBER 2014 BRA COMMENTS

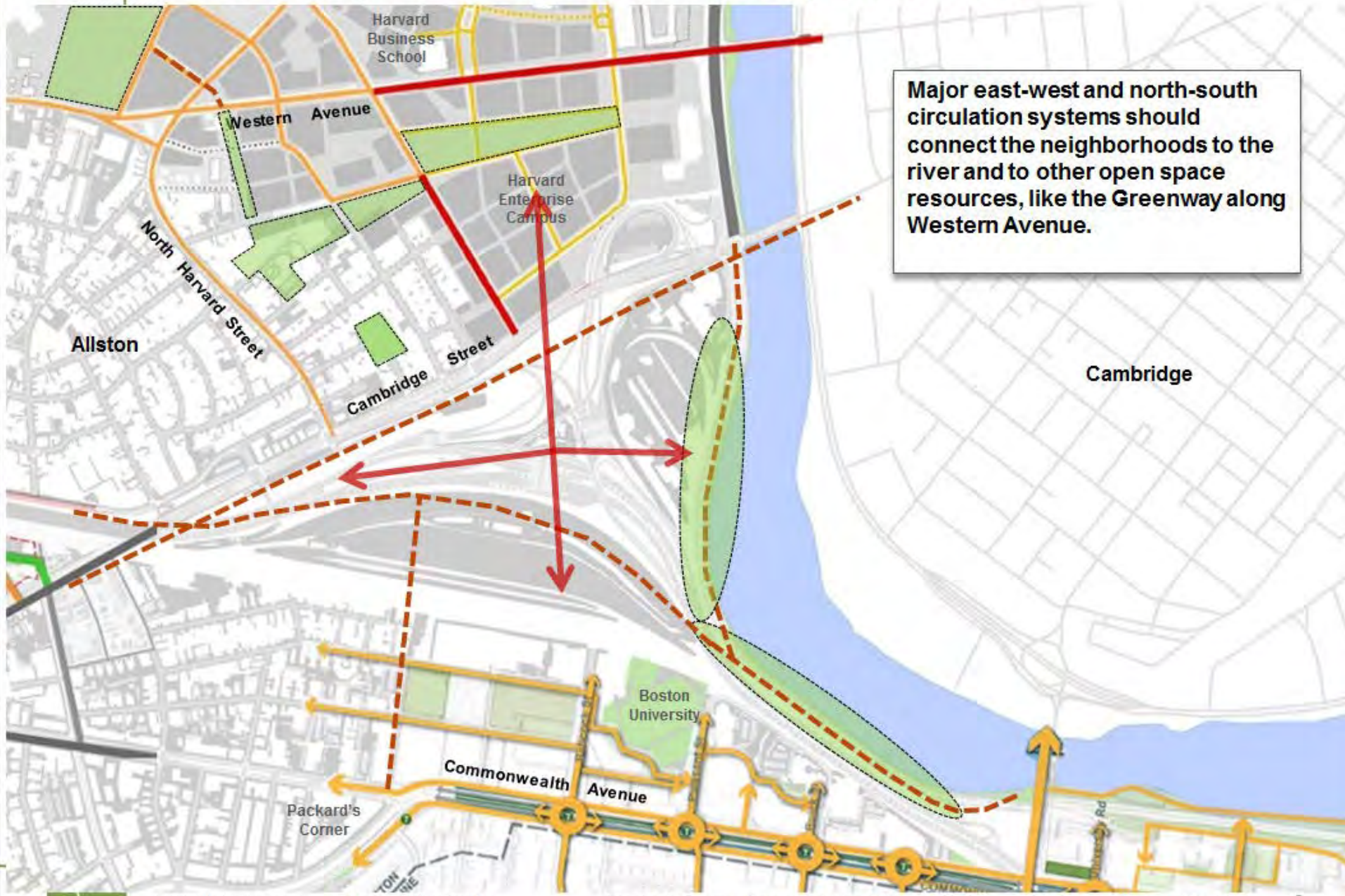
Create the opportunity for an expanded riverfront park along the Charles River and a system of parks, open spaces and paths to complement the street network.

Allston Interchange: Development of open space network



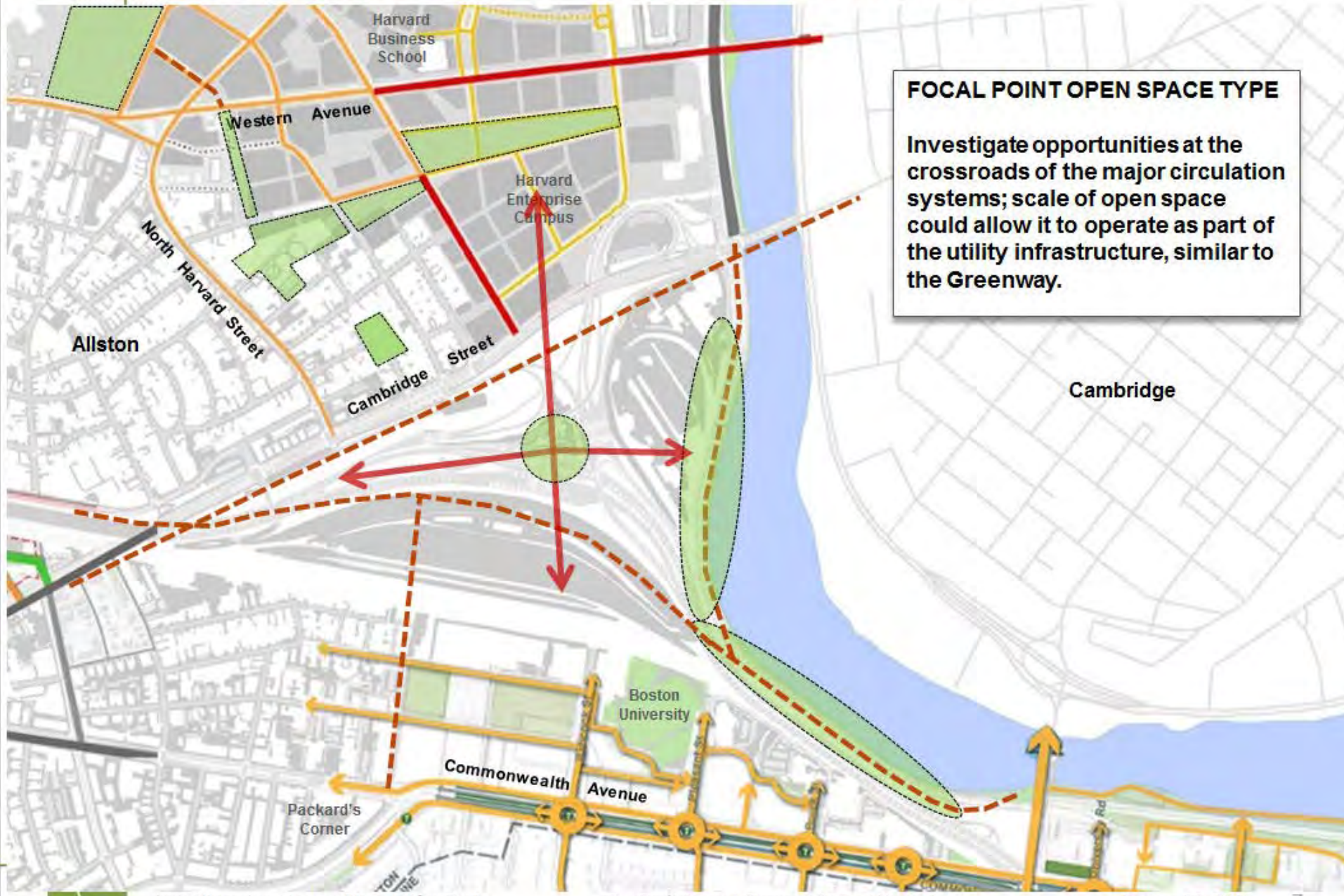
Expanded riverfront area as centerpiece of new open space system and will be included in all alternatives studied by BRA Placemaking Study; access needs to be provided immediately after interchange construction complete; geometry of SRF should be reviewed to maximize viability.

Allston Interchange: Development of open space network



Major east-west and north-south circulation systems should connect the neighborhoods to the river and to other open space resources, like the Greenway along Western Avenue.

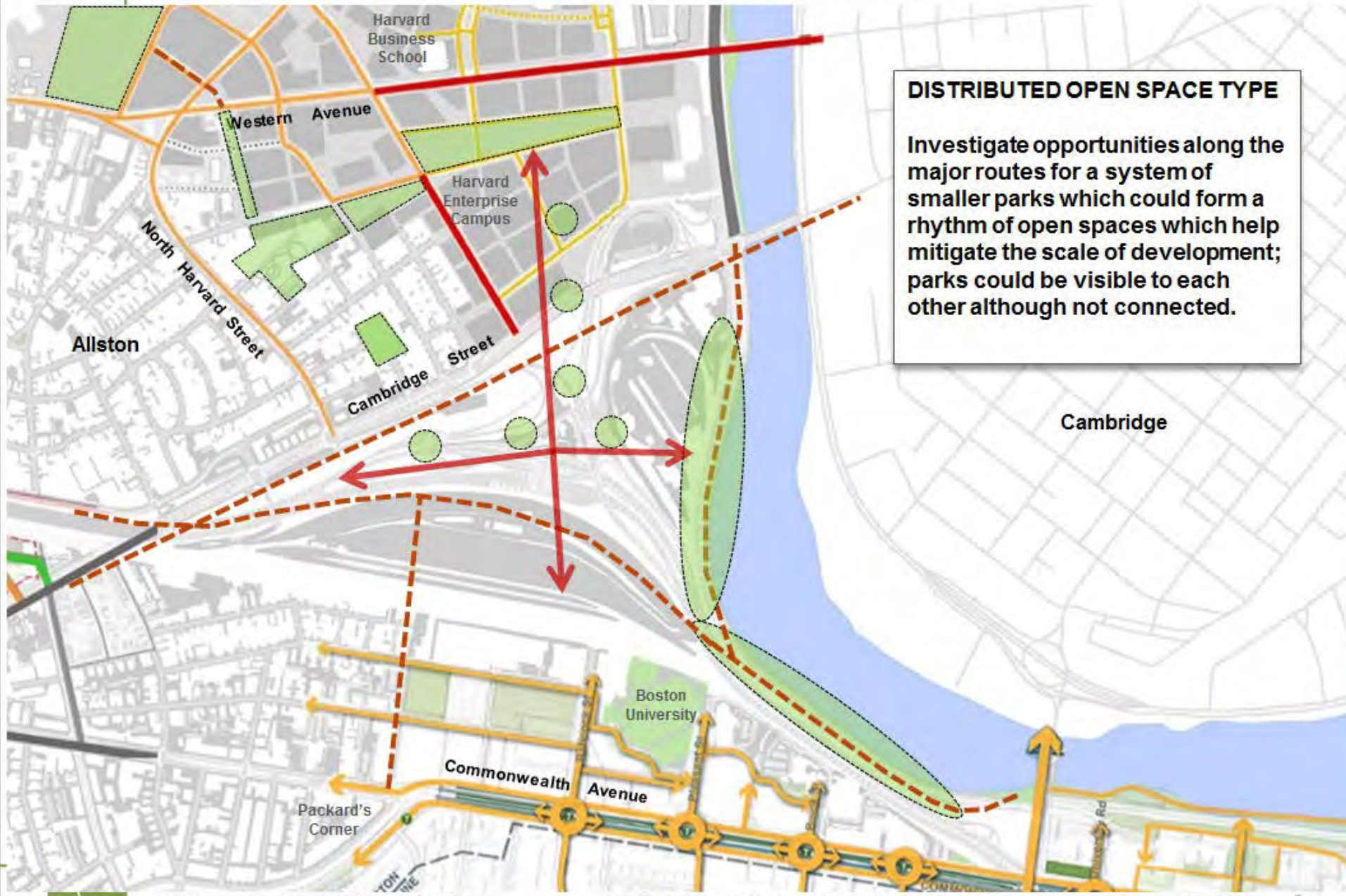
Allston Interchange: Development of open space network



FOCAL POINT OPEN SPACE TYPE

Investigate opportunities at the crossroads of the major circulation systems; scale of open space could allow it to operate as part of the utility infrastructure, similar to the Greenway.

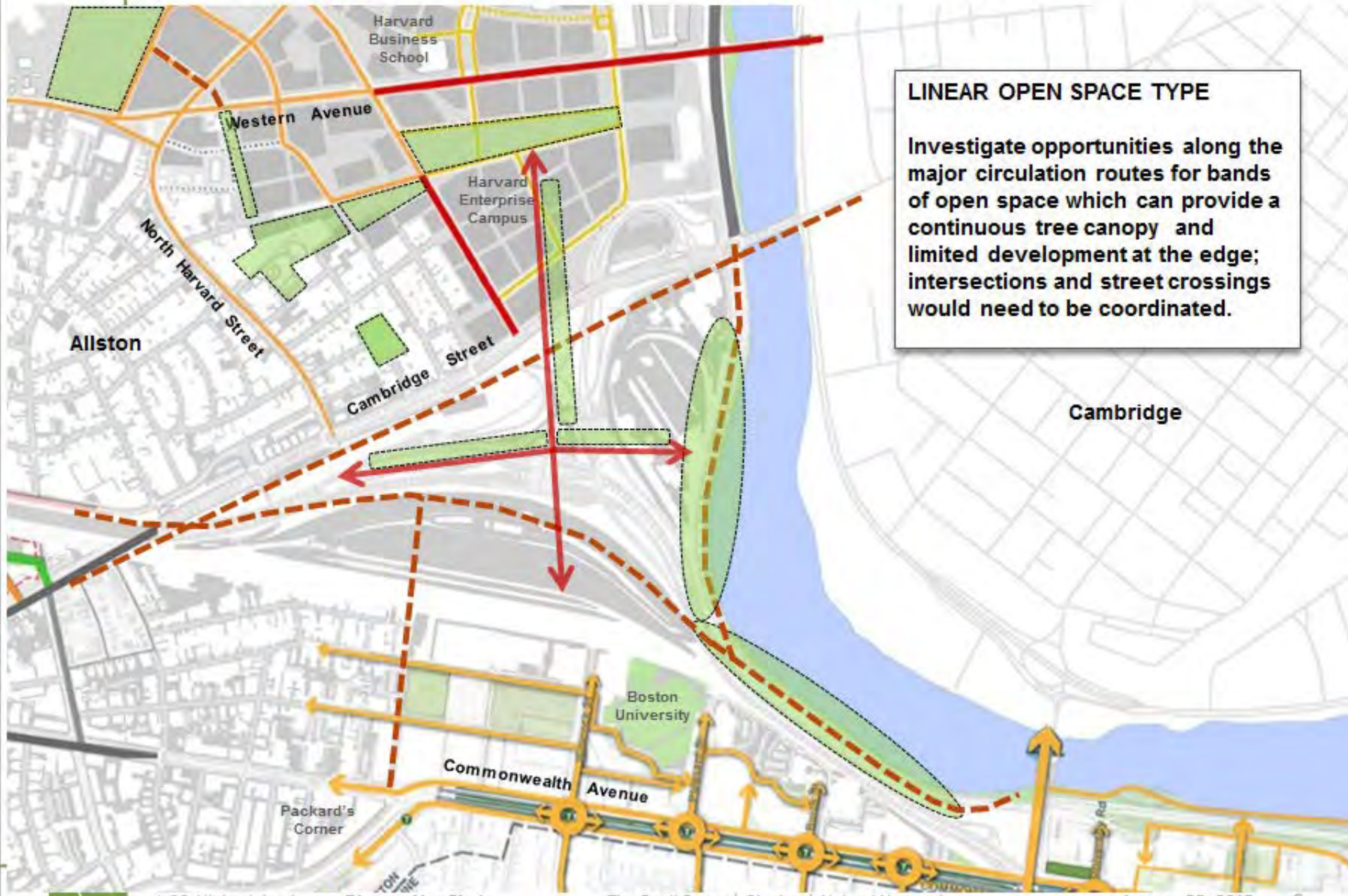
Allston Interchange: Development of open space network



DISTRIBUTED OPEN SPACE TYPE

Investigate opportunities along the major routes for a system of smaller parks which could form a rhythm of open spaces which help mitigate the scale of development; parks could be visible to each other although not connected.

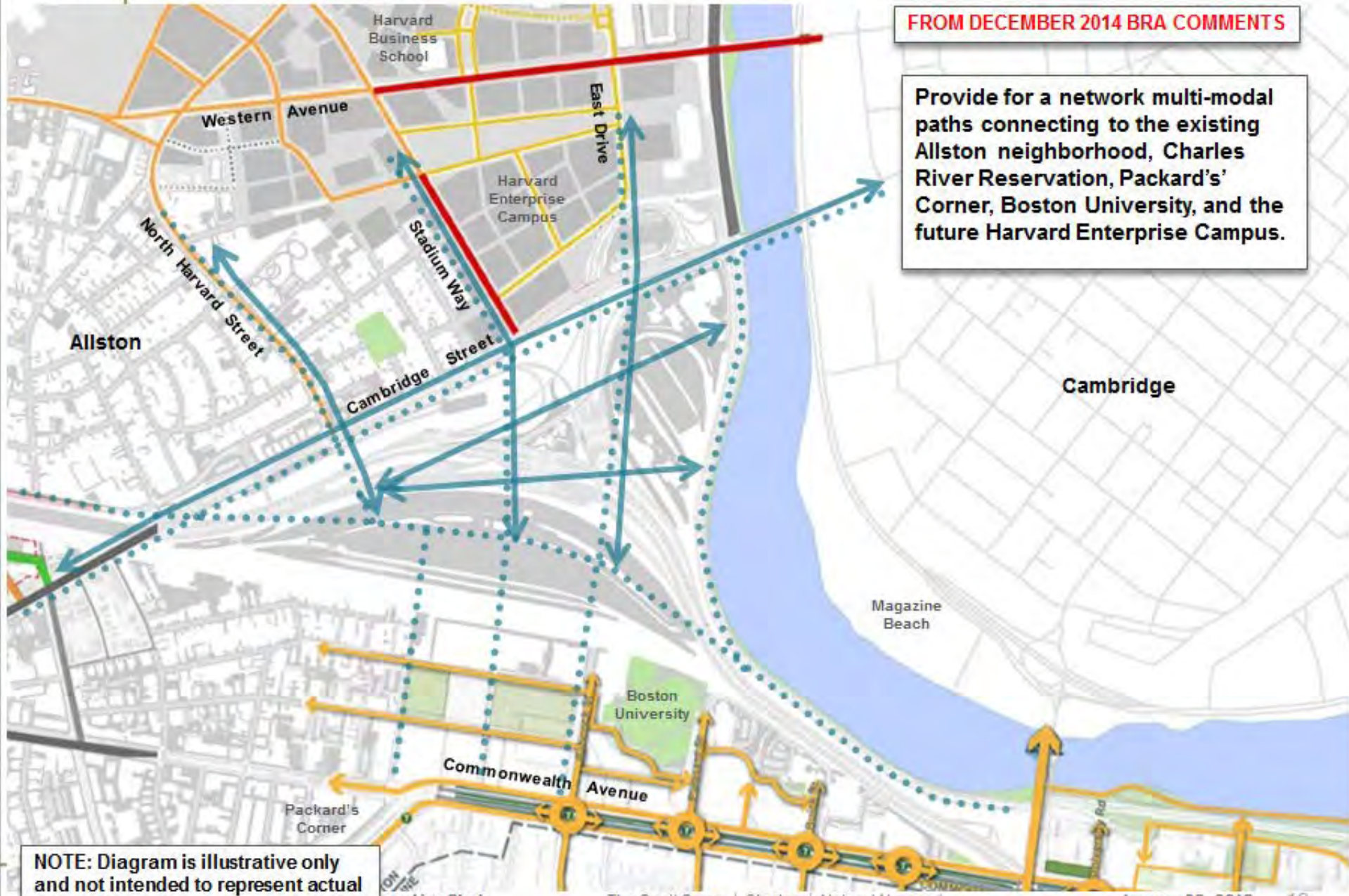
Allston Interchange: Development of open space network



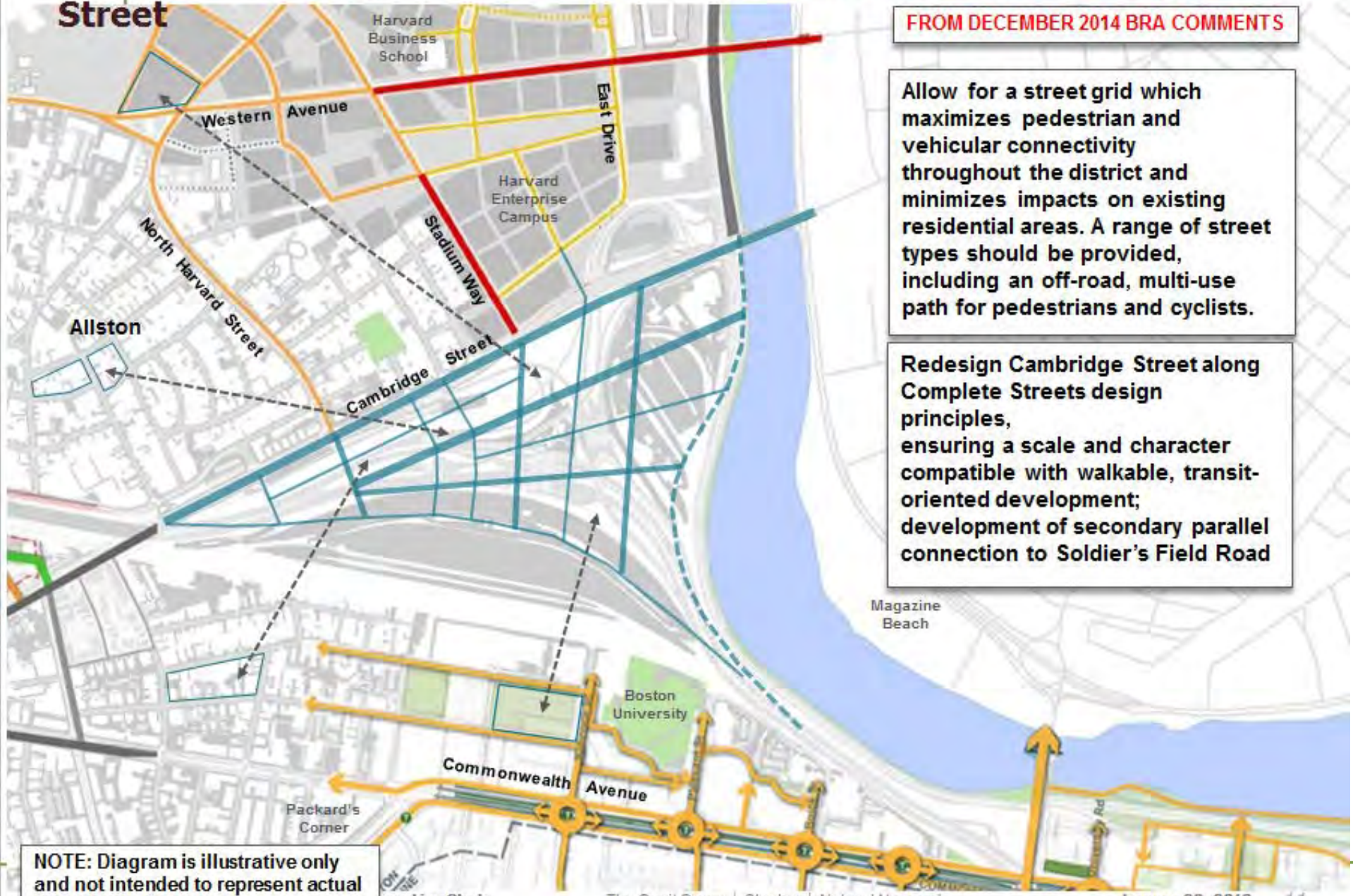
LINEAR OPEN SPACE TYPE

Investigate opportunities along the major circulation routes for bands of open space which can provide a continuous tree canopy and limited development at the edge; intersections and street crossings would need to be coordinated.

Allston Interchange: Strong connections to surrounding areas



Allston Interchange: Traditional street grid/Revitalized Cambridge Street



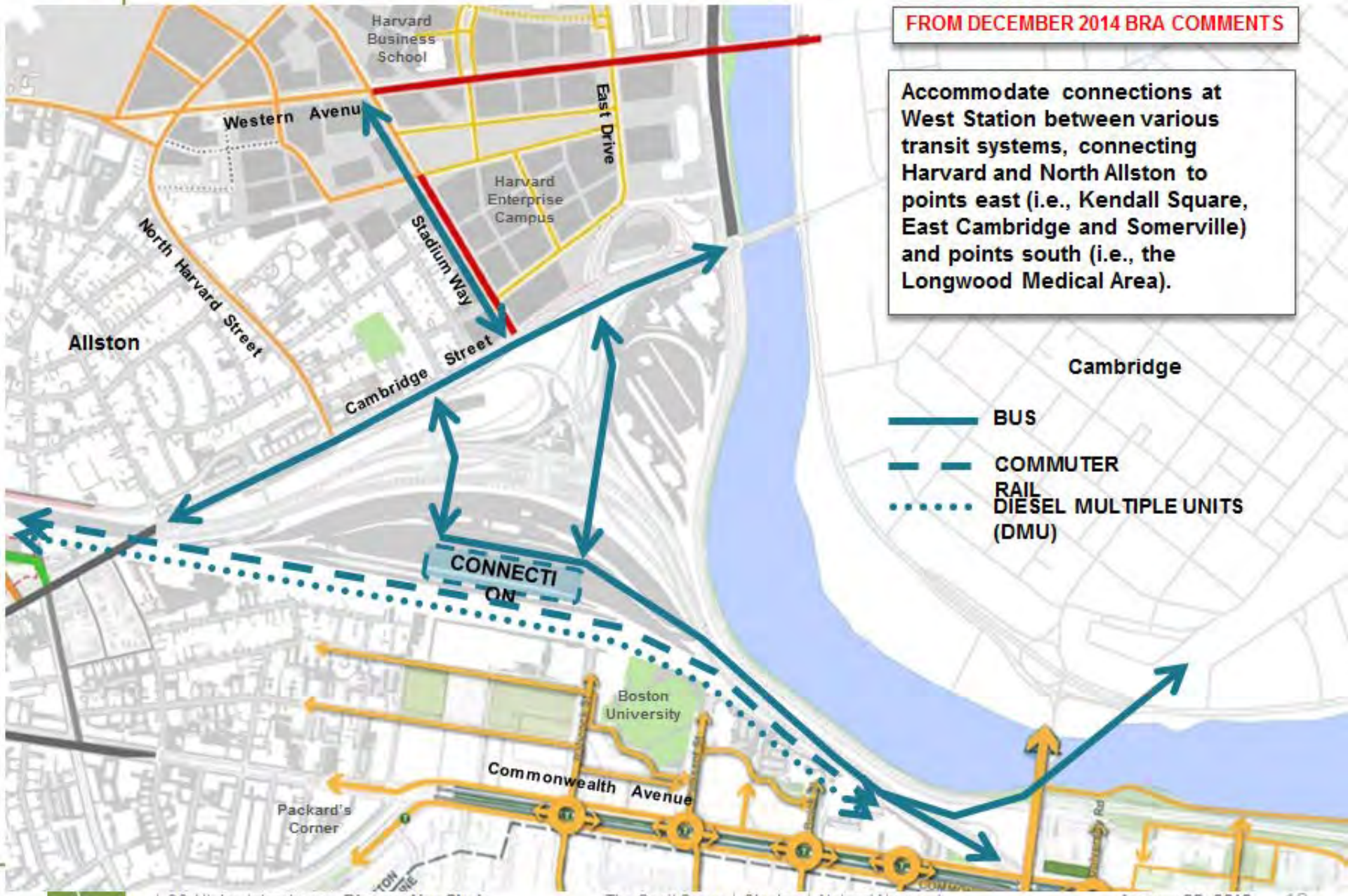
FROM DECEMBER 2014 BRA COMMENTS

Allow for a street grid which maximizes pedestrian and vehicular connectivity throughout the district and minimizes impacts on existing residential areas. A range of street types should be provided, including an off-road, multi-use path for pedestrians and cyclists.

Redesign Cambridge Street along Complete Streets design principles,
ensuring a scale and character compatible with walkable, transit-oriented development;
development of secondary parallel connection to Soldier's Field Road

NOTE: Diagram is illustrative only and not intended to represent actual street layout.

Allston Interchange: Integration of bus and rail transit systems



Works Session Focus: Mobility/Connectivity

Current design considerations:

- *What are we connecting?*
- *What is the street character and width?*
- *What are the crossing and intersection conditions?*

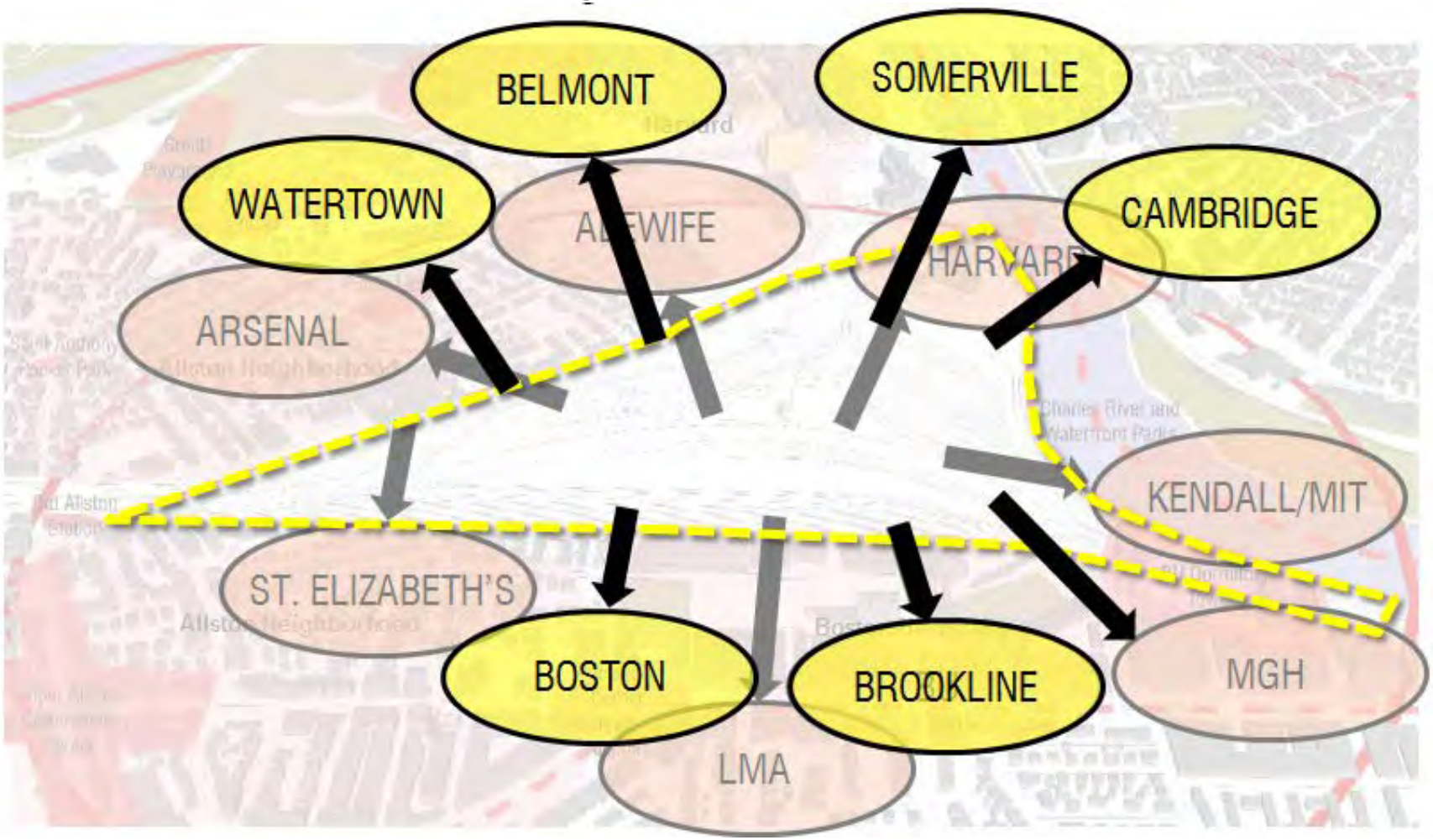
Works Session Focus: Mobility/Connectivity

Current design considerations:

- *What are we connecting?*
  - Ped/bike connectivity to Charles River
  - Multi-modal connectivity to West Station
  - Connectivity between SFR and I-90
  - Connectivity between North and South Allston neighborhoods
  - Others?

Discussion Topic: Mobility/Connectivity

What are we connecting?



Discussion Topic: Mobility/Connectivity

Ped/bike connectivity to Charles River

Discussion Topic: Mobility/Connectivity

Ped/bike connectivity to Charles River

Discussion Topic: Mobility/Connectivity

Multi-modal connectivity to West Station

Discussion Topic: Mobility/Connectivity

Multi-modal connectivity to West Station

Stadium Way Options – November 2015 Status Report

Option 1
Transit Priority Corridor (Long-Term)

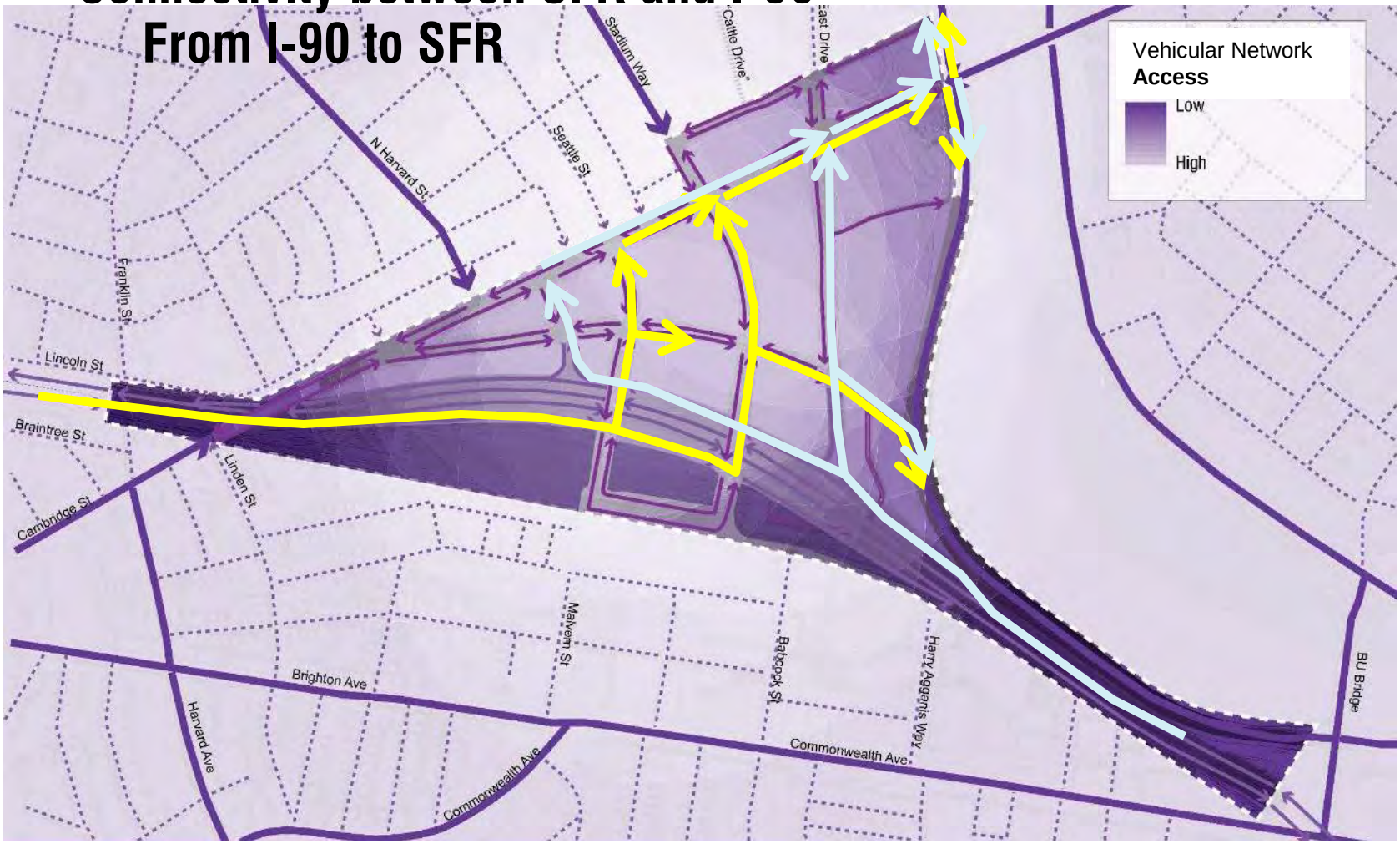
Option 2
One-Way Pair (Long-Term)

Option 3
Two-Way Corridor (Long-Term)

Discussion Topic: Mobility/Connectivity

Connectivity between SFR and I-90

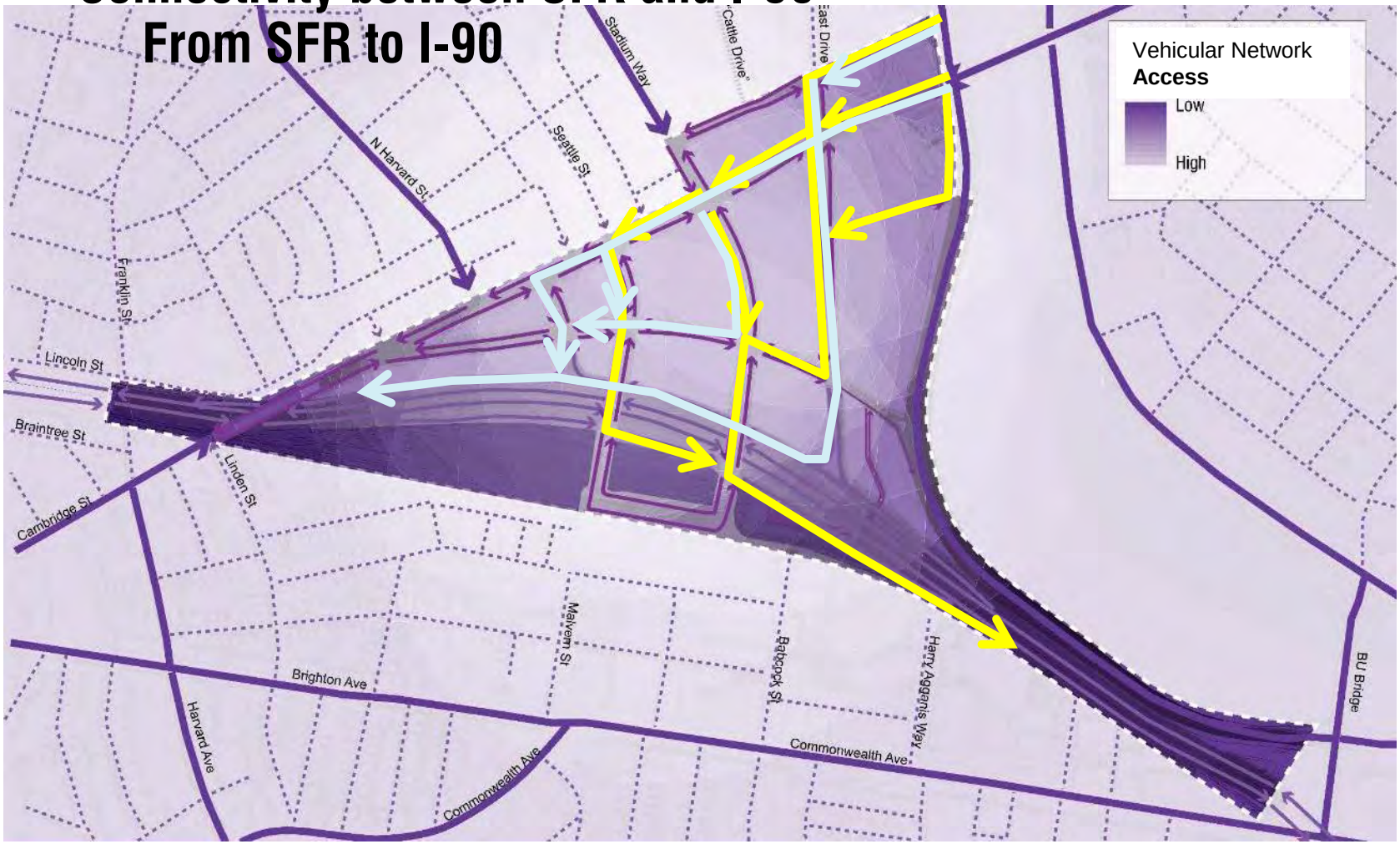
From I-90 to SFR



Discussion Topic: Mobility/Connectivity

Connectivity between SFR and I-90

From SFR to I-90



Discussion Topic: Mobility/Connectivity

Connectivity between SFR and I-90

Discussion Topic: Mobility/Connectivity

Connectivity between North and South Allston neighborhoods

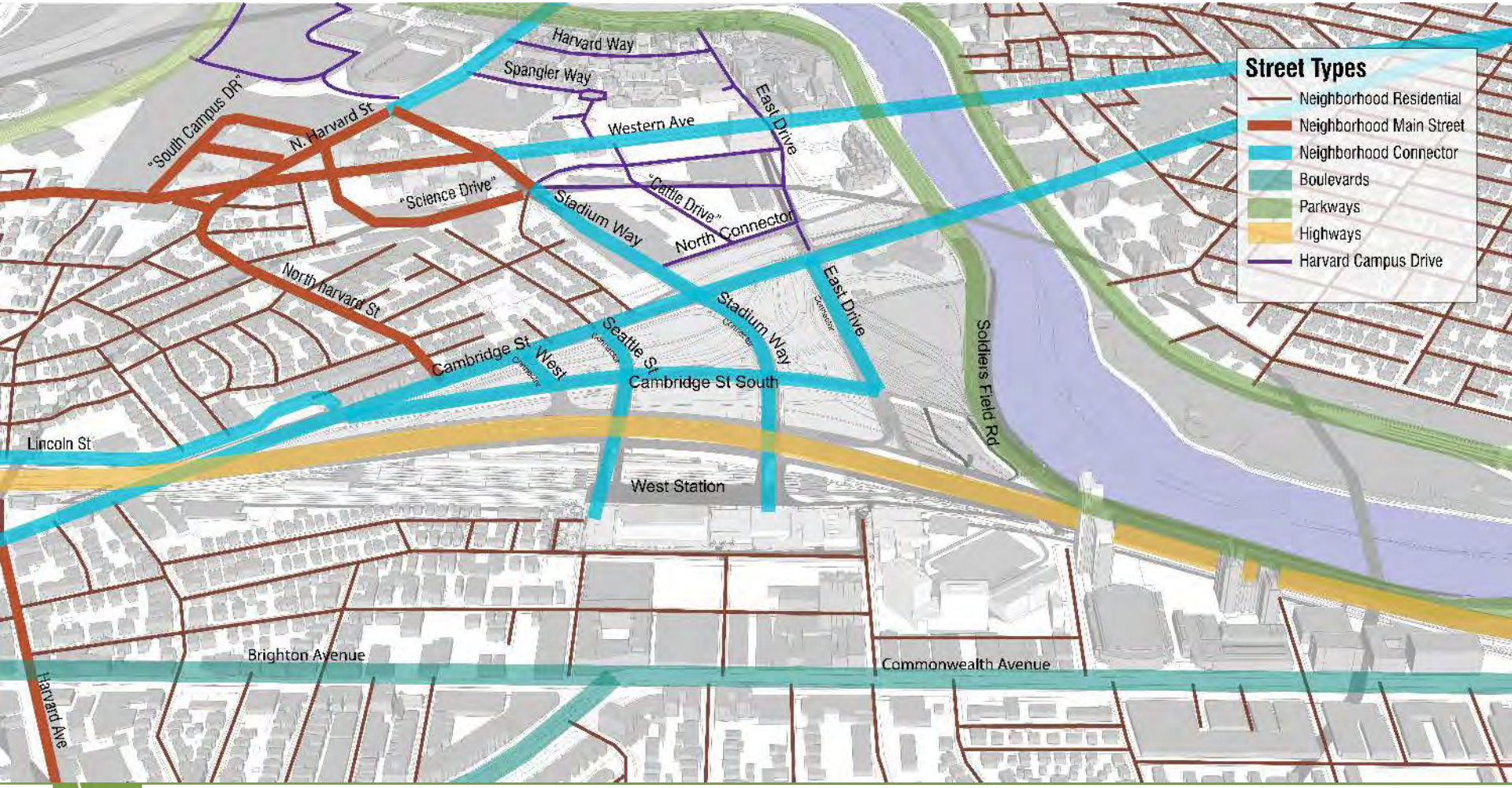
Works Session Focus: Mobility/Connectivity

Current design considerations:

- *What is the street character and width?*
  - Street hierarchy and widths
  - Function/Character of Cambridge Street
  - Mobility Considerations of “throat” alternatives
  - Others?

Discussion Topic: Mobility/Connectivity

Street hierarchy – Context



Works Session Focus: Mobility/Connectivity

Future district considerations:

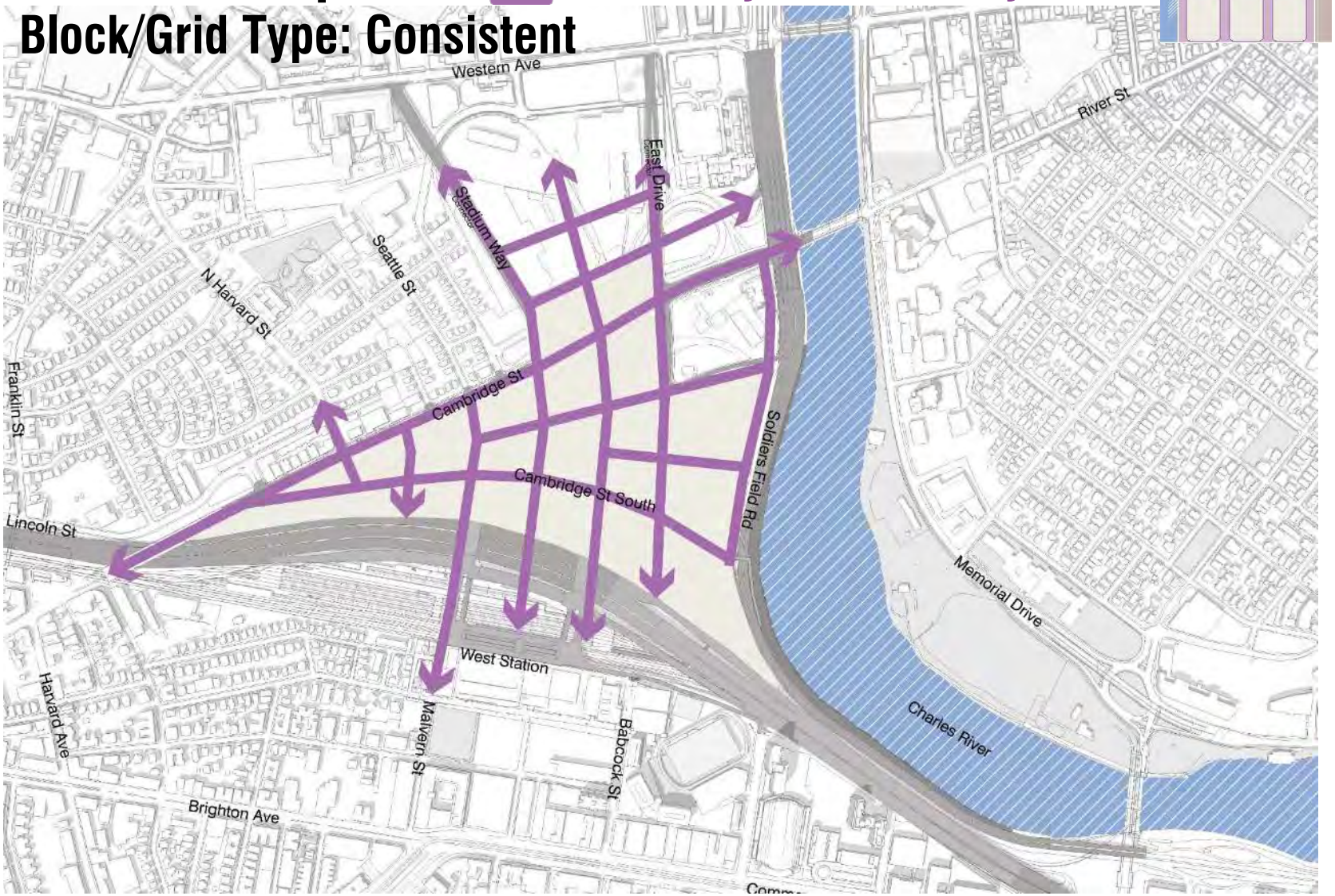
- Exploration of grid/street/block typologies
- Further definition of street hierarchy
- Build-out of secondary street connections/grid
- Accommodation of enhanced transit service
- Others?

Discussion Topic: District Wide Block/Grid Types

Open Space Type	Consistent	Hierarchical	Focal Street or Streets	Disconnected	Secondary Multi-modal	Others?
Open Space Type Diagram						
Characteristics	• Consistent block dimensions • Consistent street widths • Typically parallel streets and perpendicular intersections	• Relatively consistent block dimensions, some variation with hierarchy • Street widths vary according to hierarchy	• Block dimensions may vary with focus • Focal streets typically widest and may vary from grid geometry	• Less evident grid • Intersections may not align • Street widths may vary with location	• Overlay secondary system of bike and pedestrian circulation • Two systems may have patterns that vary	• ?
Infrastructure Considerations	• Provides flexibility • Offers multiple choices and connecting routes	• Provides additional capacity for specific routes • Offers priority and direction for connecting most important routes	• Focal street or streets may create direct connection between critical points	• May not provide convenient access or direct connections • May encourage other routes to critical points	• Intersections and crossings between systems must be coordinated • Two systems may operate relatively independently to meet needs	• ?
Development Considerations	• Provides flexibility • Provides consistent frontage and lot sizes • Variation created with consistent structure	• May be closely linked with variation in land uses • Characteristics of street frontages, visibility and congestion vary	• May be closely linked with variation in land uses • Characteristics of street frontages, visibility and congestion vary	• Depending on use, may or may not be advantageous for development • Frontage and lot sizes may vary	• Secondary system may impose limits on development locations • Secondary system may also create additional valued frontage	• ?
Other Considerations	• May require variation to integrate natural features	• May provide enhanced connections to other hierarchical systems	• Streets reinforce district structure and provide clear indication of focus	• May provide unique or memorable district characteristics	• May create direct connections to surrounding destinations and natural assets	• ?
Examples						
	 • South Boston	 • Back Bay	 • South End	 • North End	 • Harvard Allston Campus	• ?

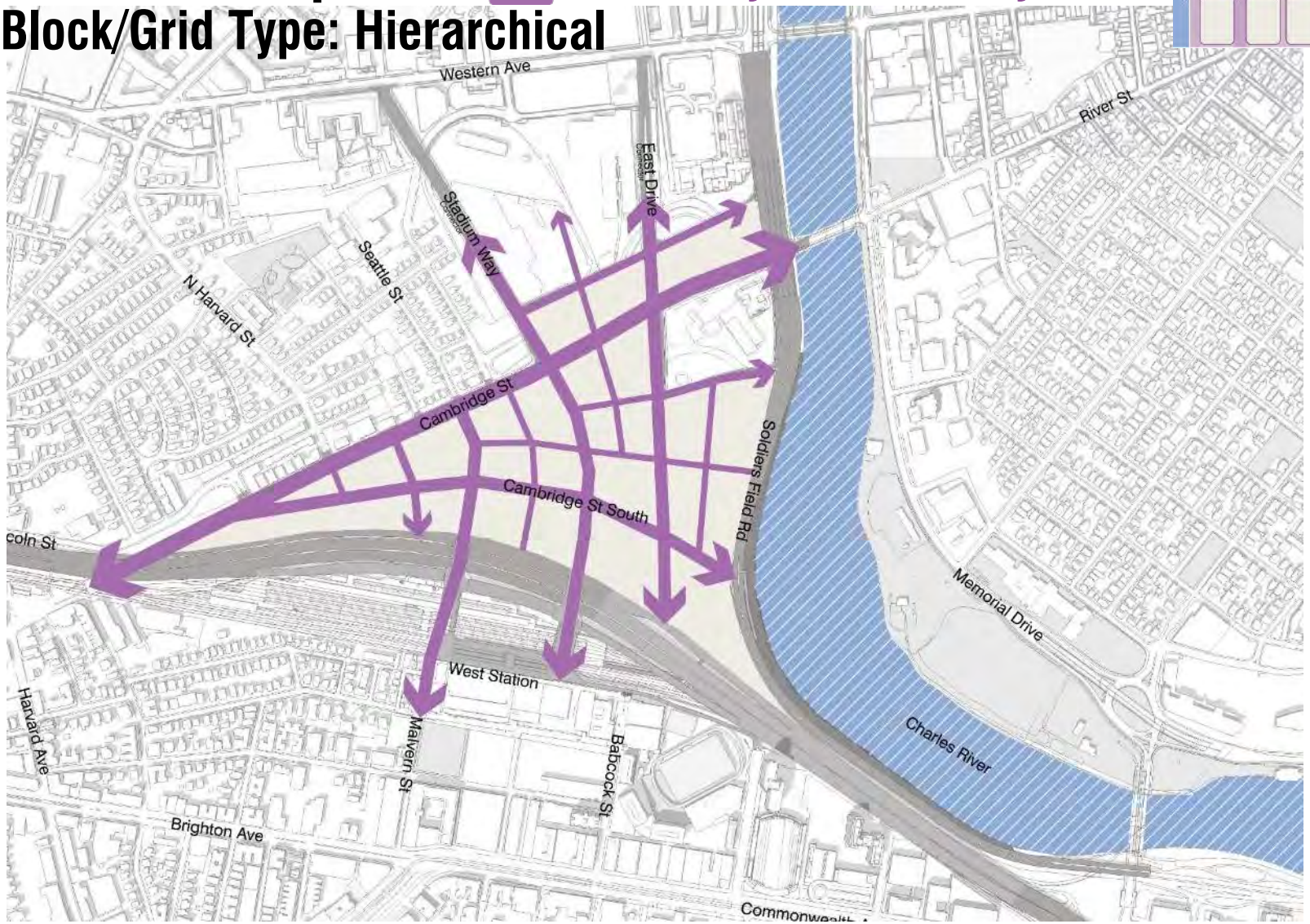
Discussion Topic: Mobility/Connectivity

Block/Grid Type: Consistent



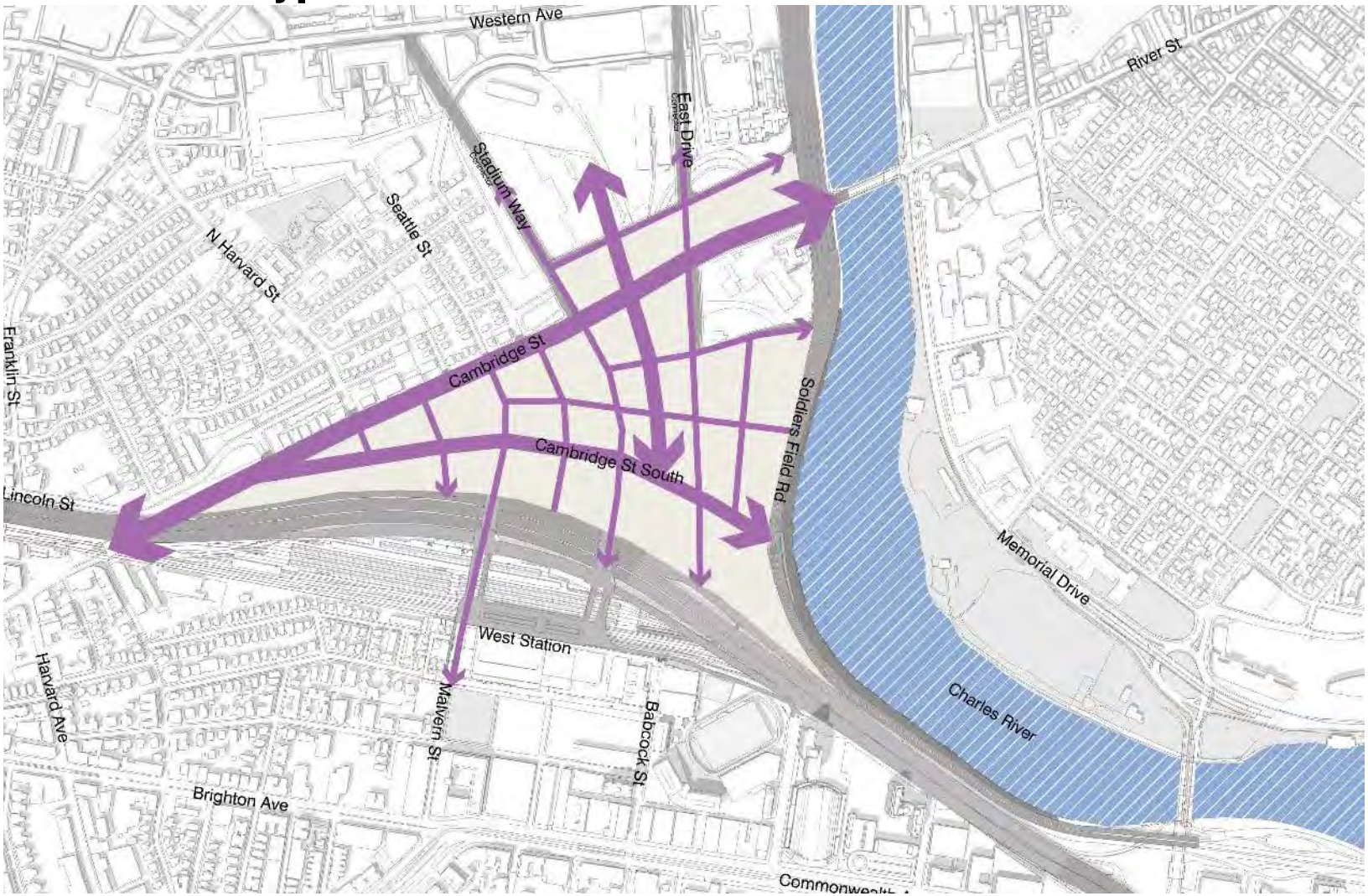
Discussion Topic: Mobility/Connectivity

Block/Grid Type: Hierarchical



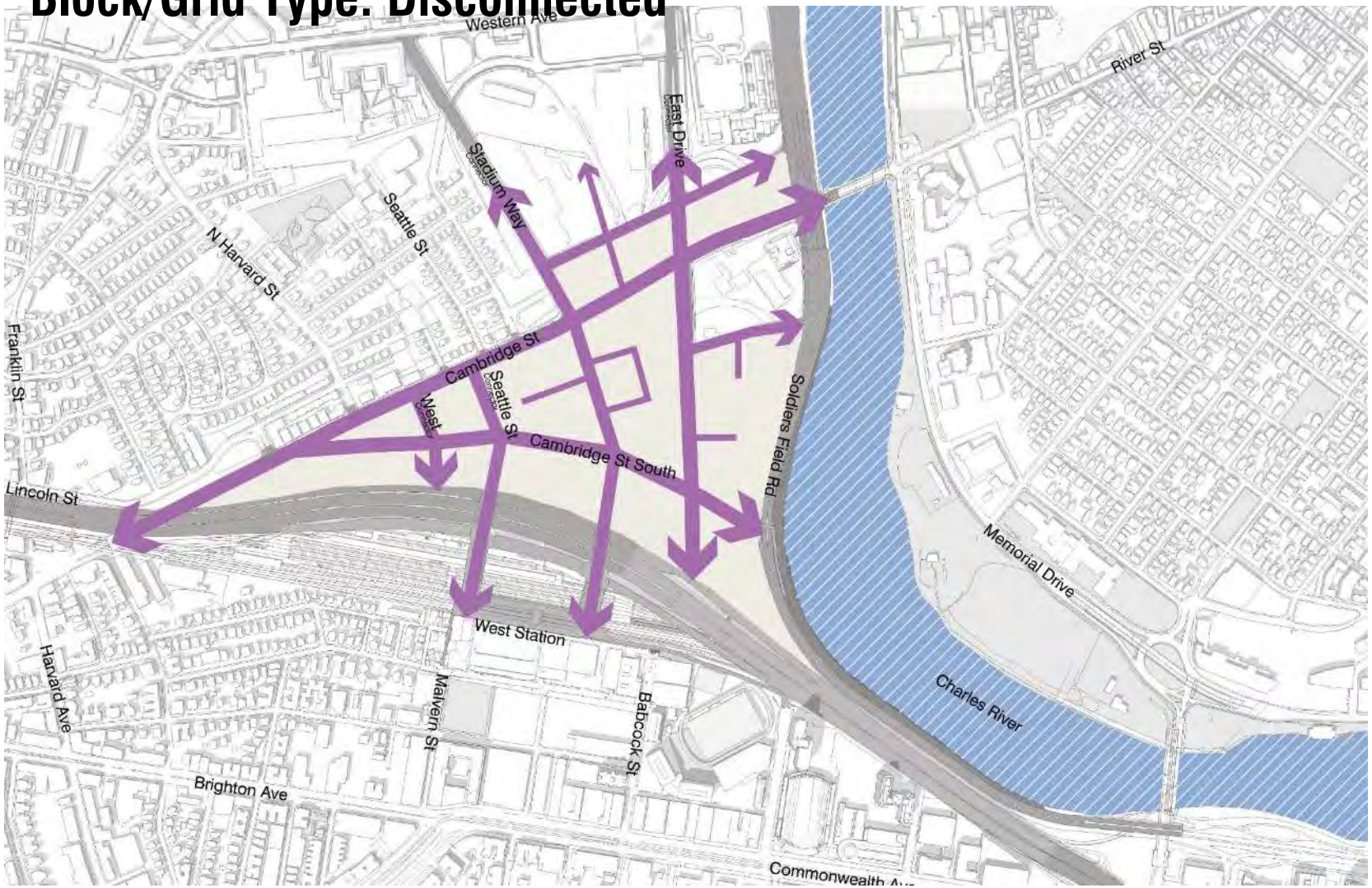
Discussion Topic: Mobility/Connectivity

Block/Grid Type: Focal Street or Streets



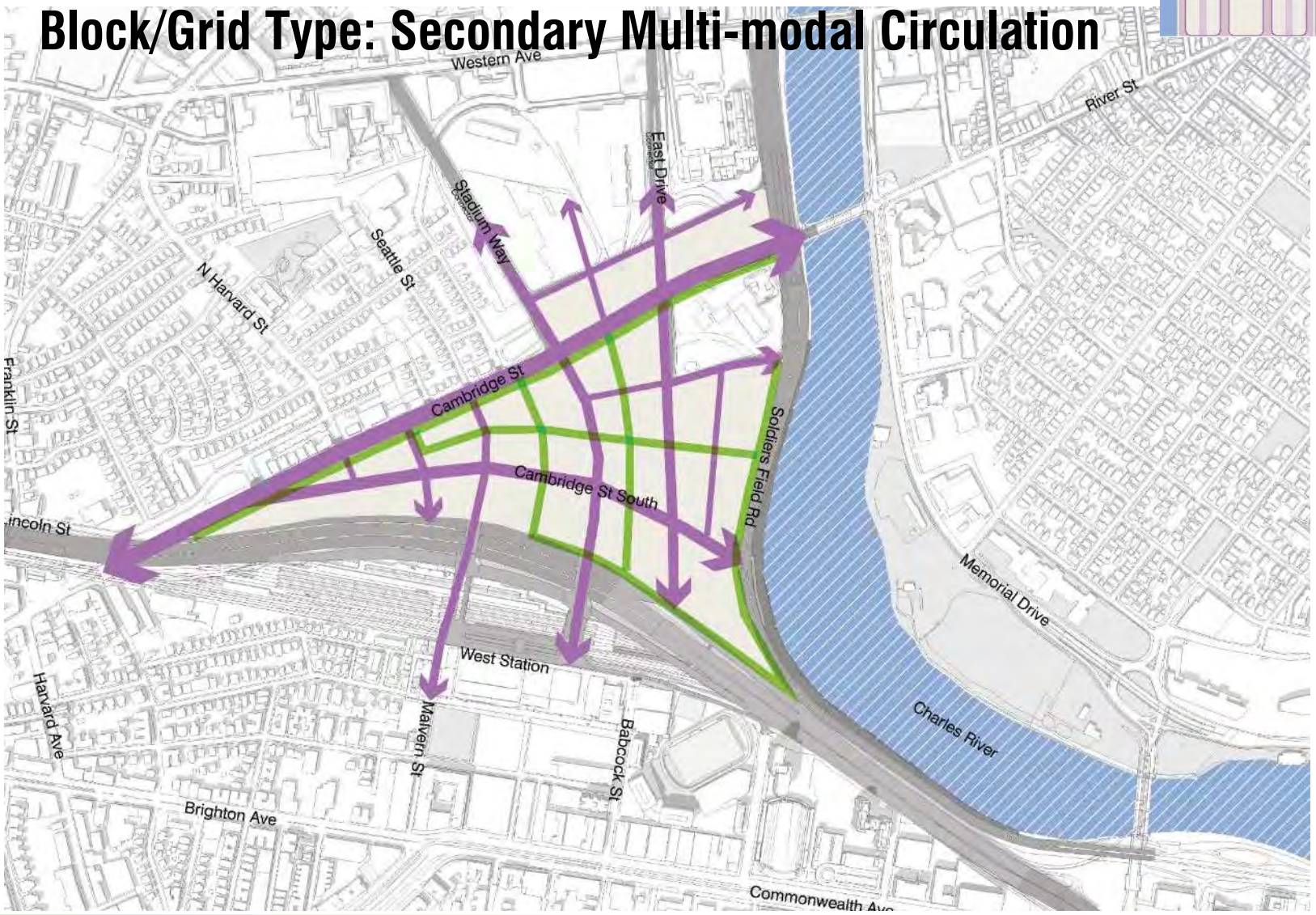
Discussion Topic: Mobility/Connectivity

Block/Grid Type: Disconnected



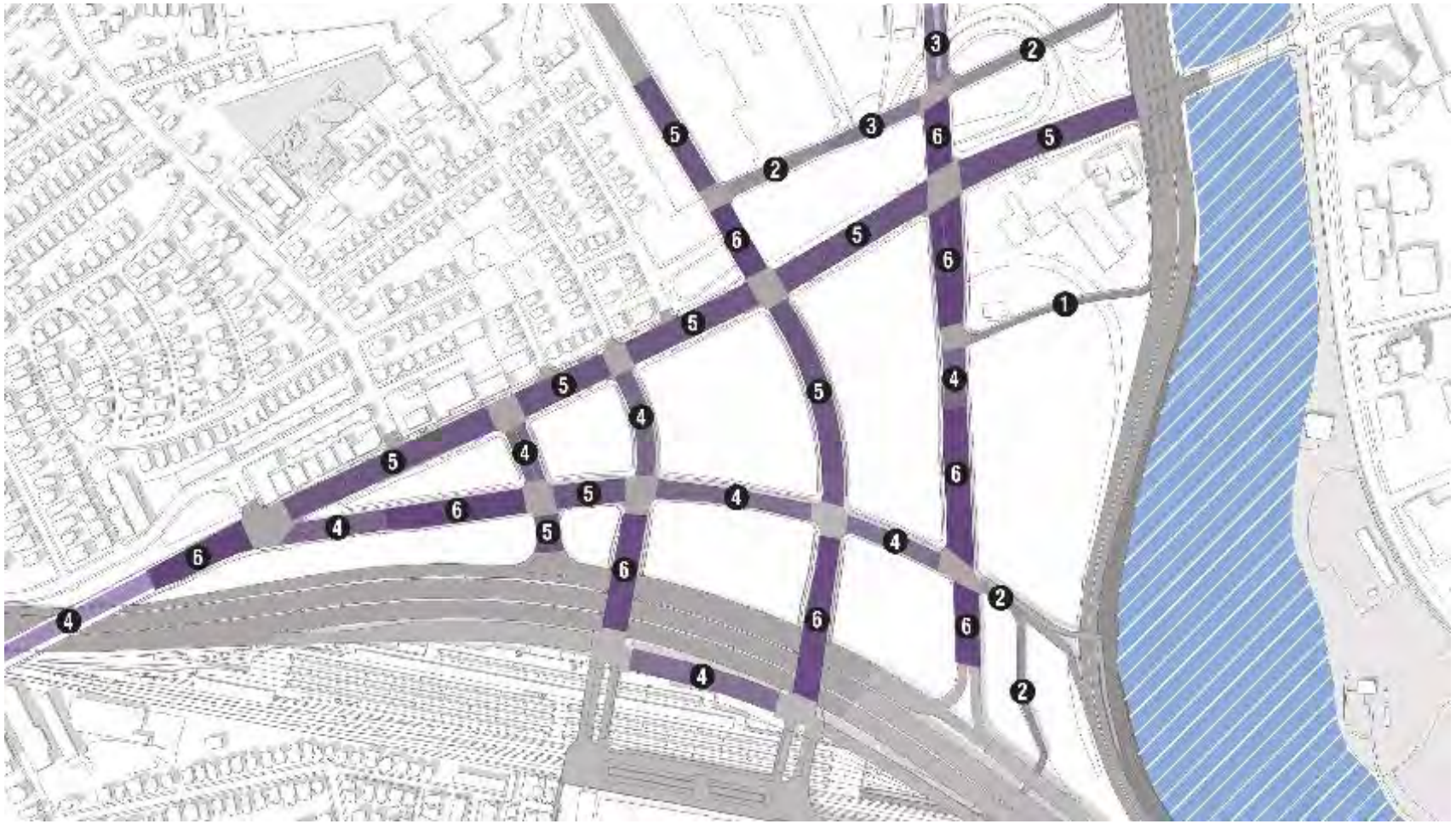
Discussion Topic: Mobility/Connectivity

Block/Grid Type: Secondary Multi-modal Circulation



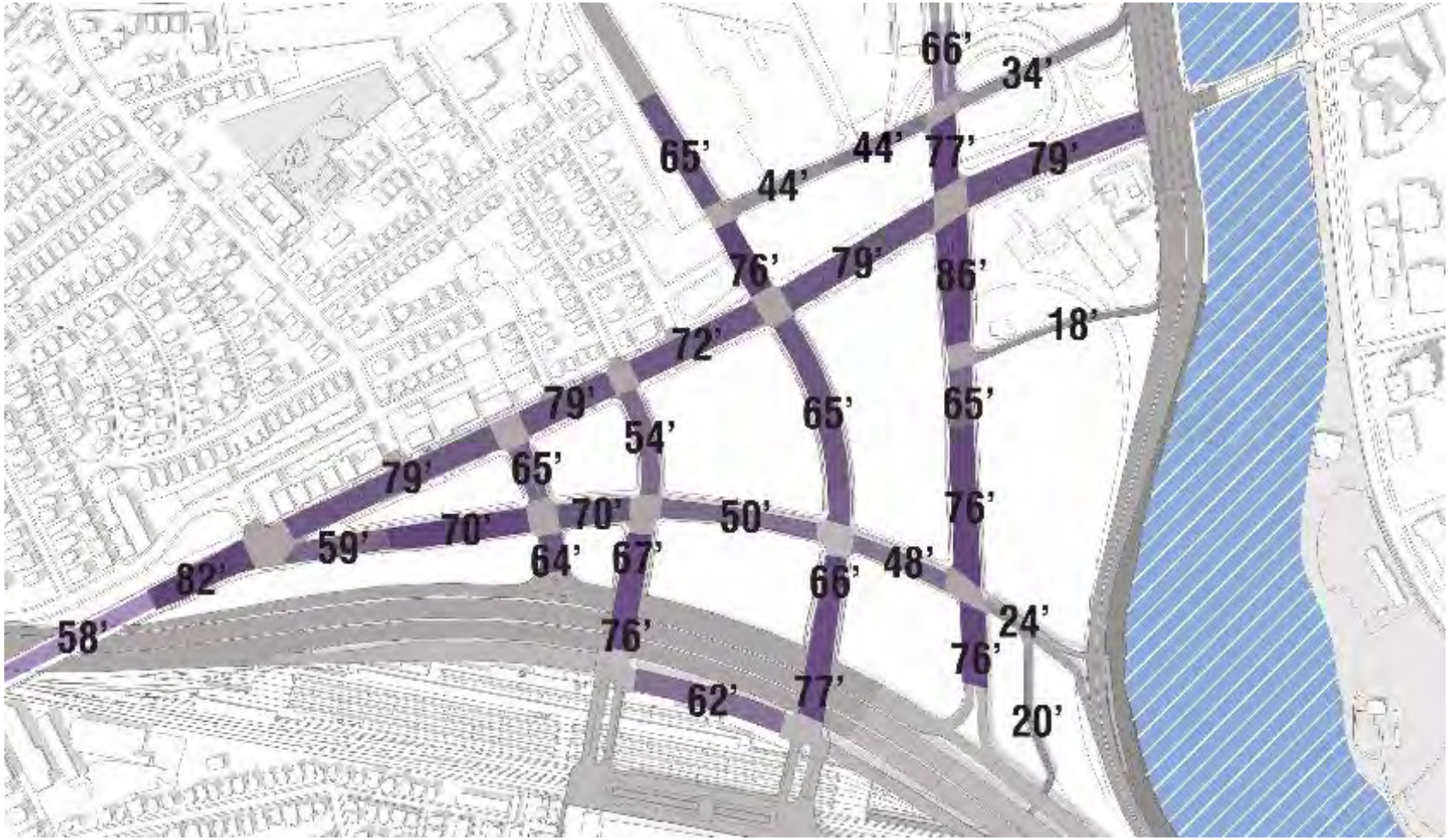
Discussion Topic: Mobility/Connectivity

Street hierarchy – Function/number of Vehicular Lanes



Discussion Topic: Mobility/Connectivity

Street widths – Curb to curb distance (feet)



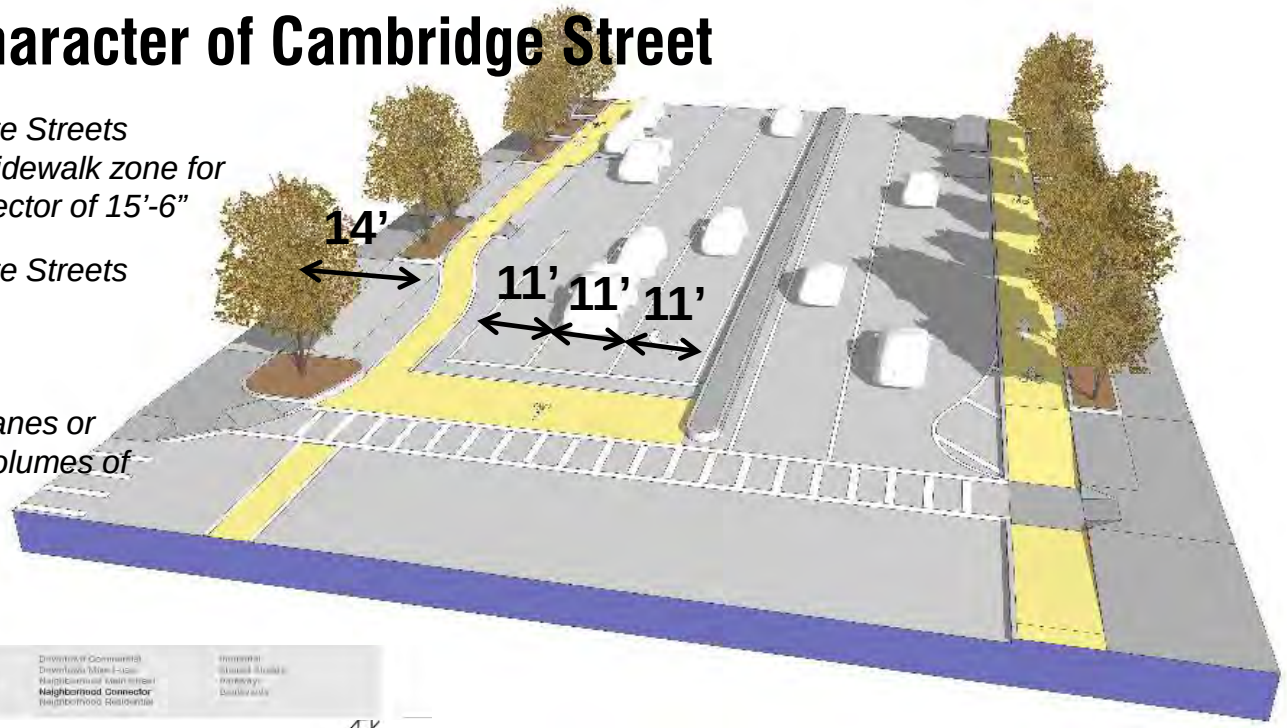
Discussion Topic: Mobility/Connectivity

Function/Character of Cambridge Street

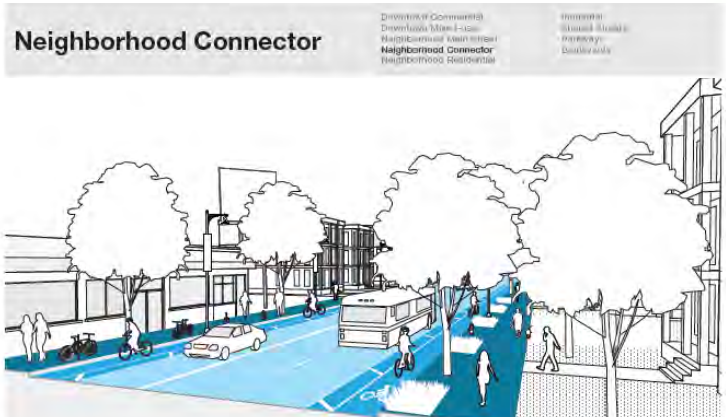
Compare to Complete Streets preferred width for Sidewalk zone for Neighborhood Connector of 15'-6"

Compare to Complete Streets 10' minimum widths

Wider lanes may be appropriate for bus lanes or locations with high volumes of heavy vehicles



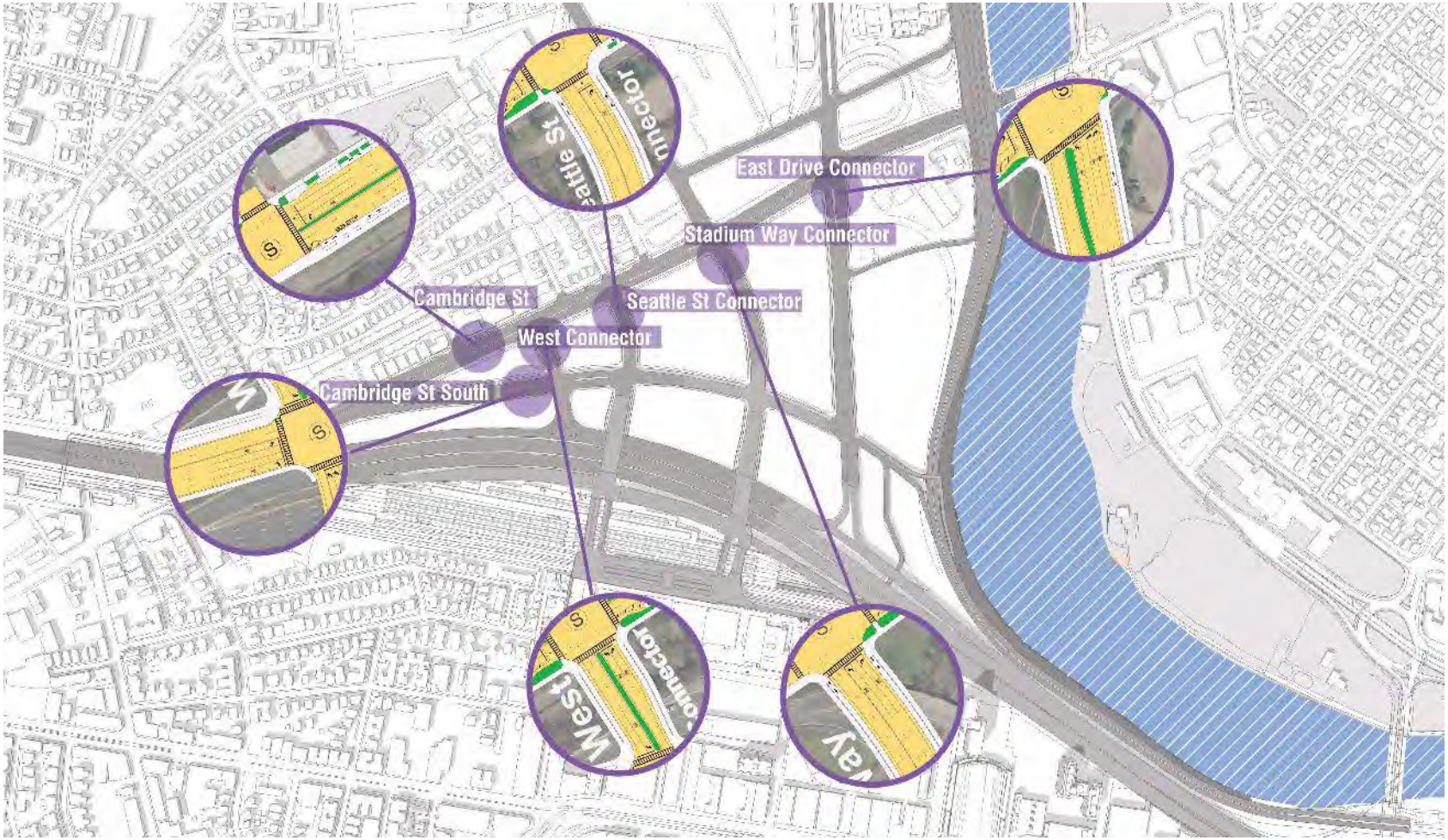
Proposed Cambridge Street



Street Type identifying Cambridge Street (Allston/Brighton) as example street

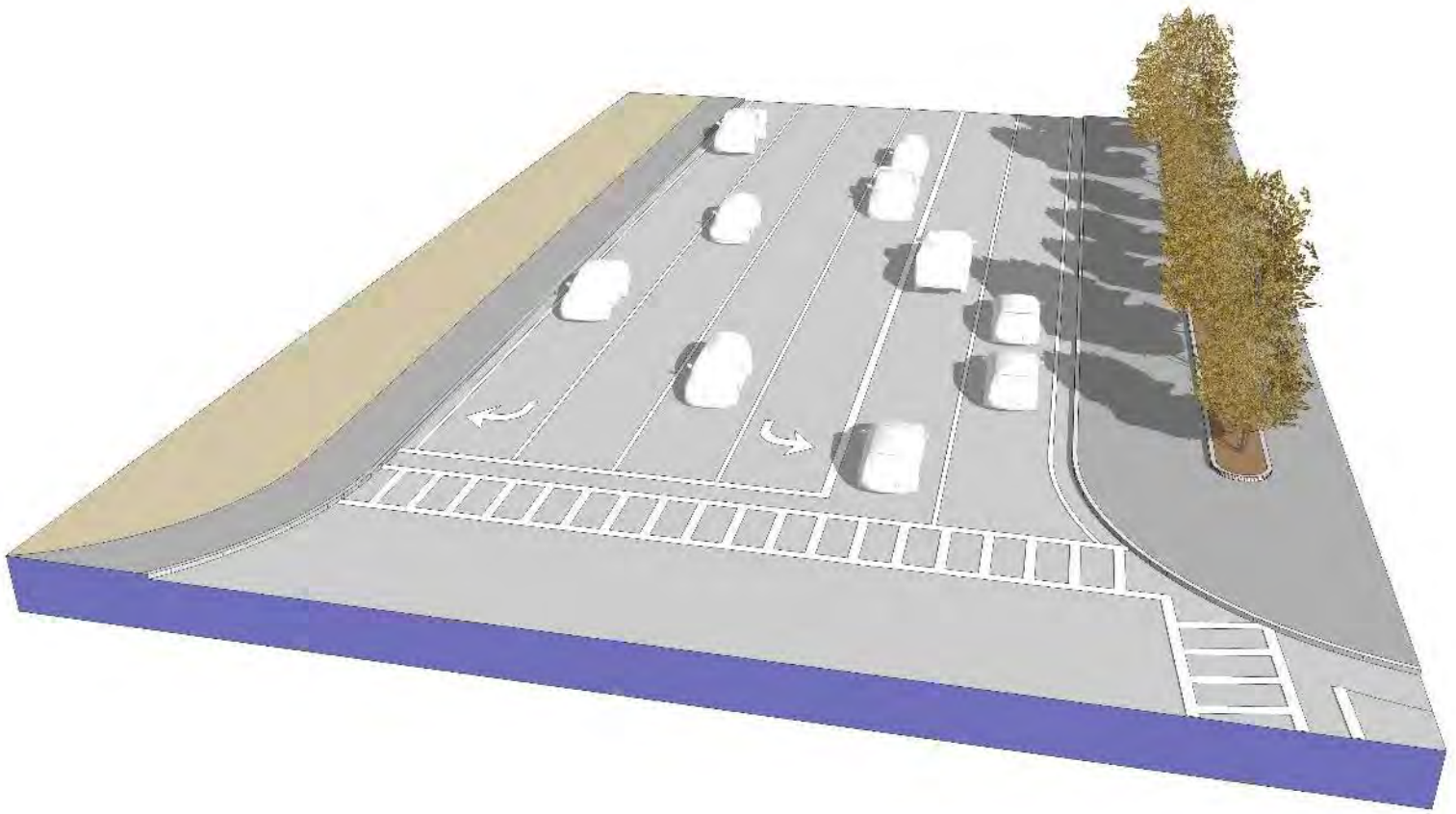
Discussion Topic: Mobility/Connectivity

Street Illustration Locations



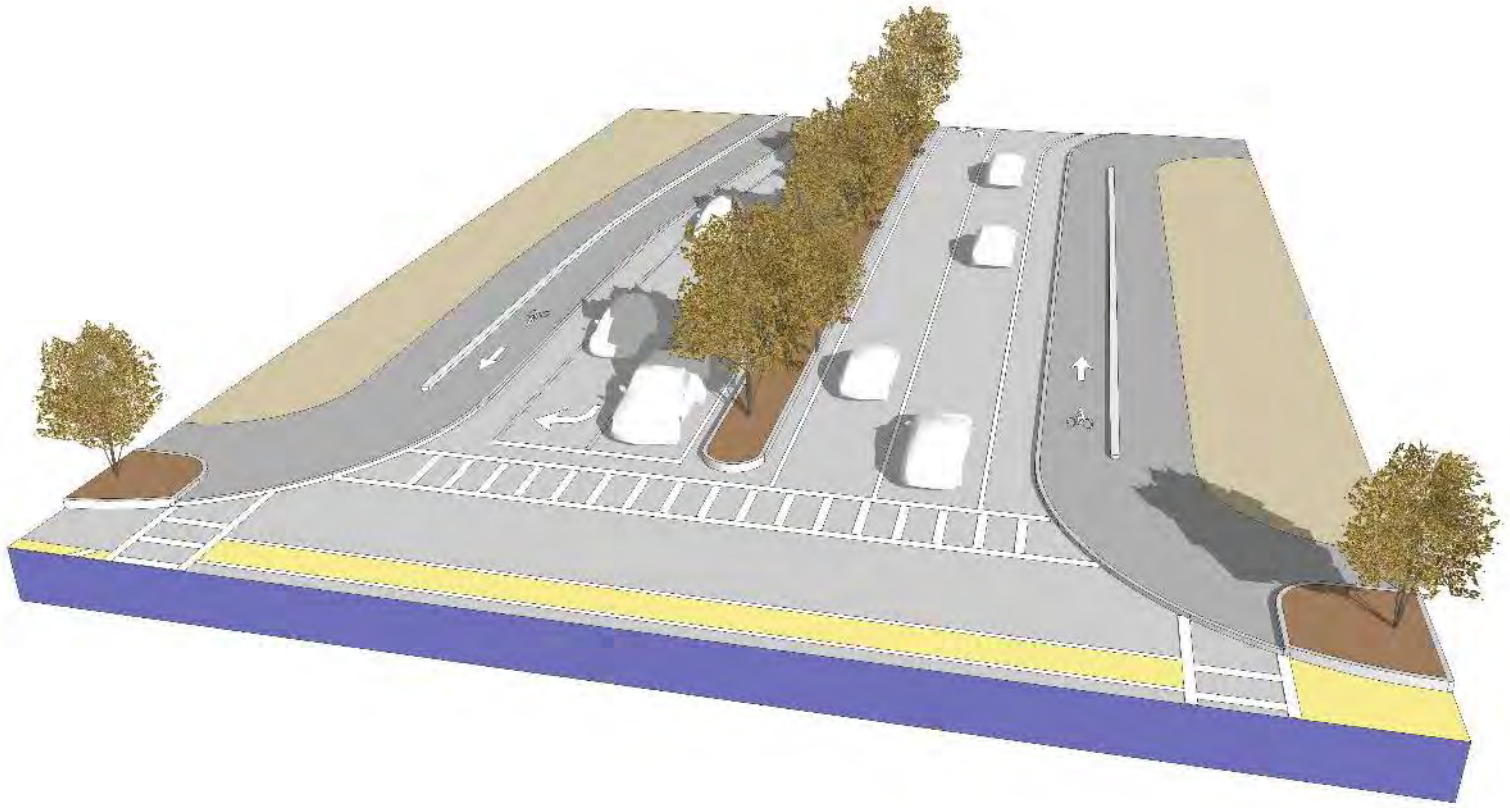
Discussion Topic: Mobility/Connectivity

Function/Character of Cambridge Street South



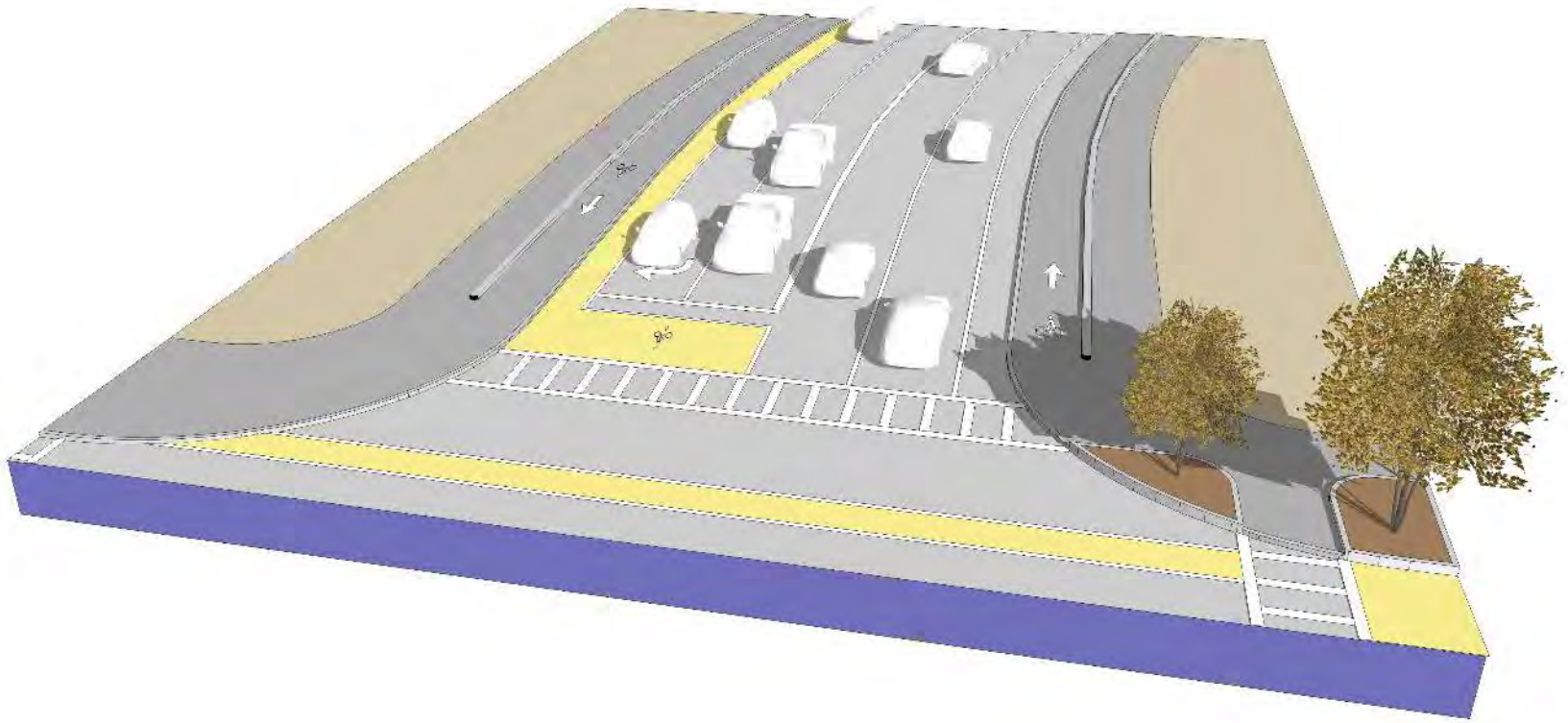
Discussion Topic: Mobility/Connectivity

Function/Character of West Connector



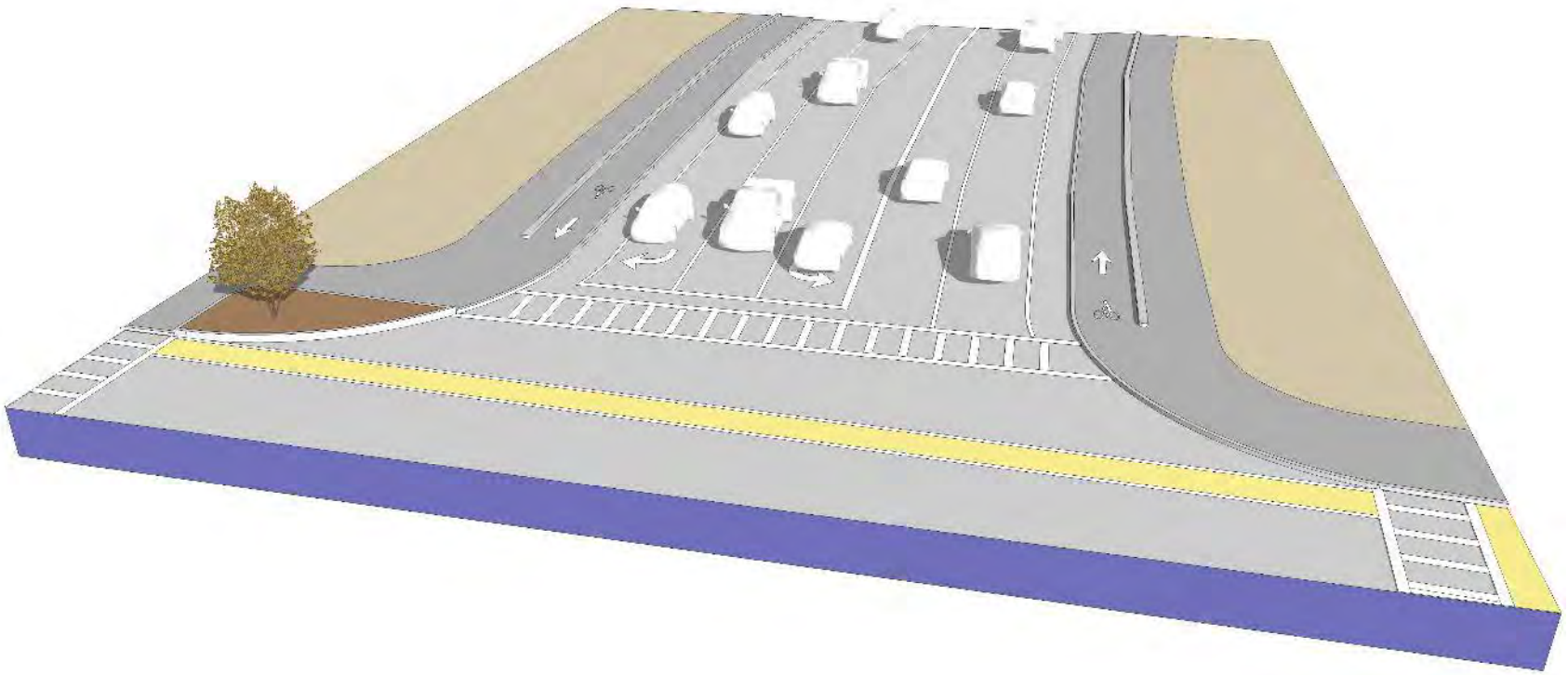
Discussion Topic: Mobility/Connectivity

Function/Character of Seattle Street Connector



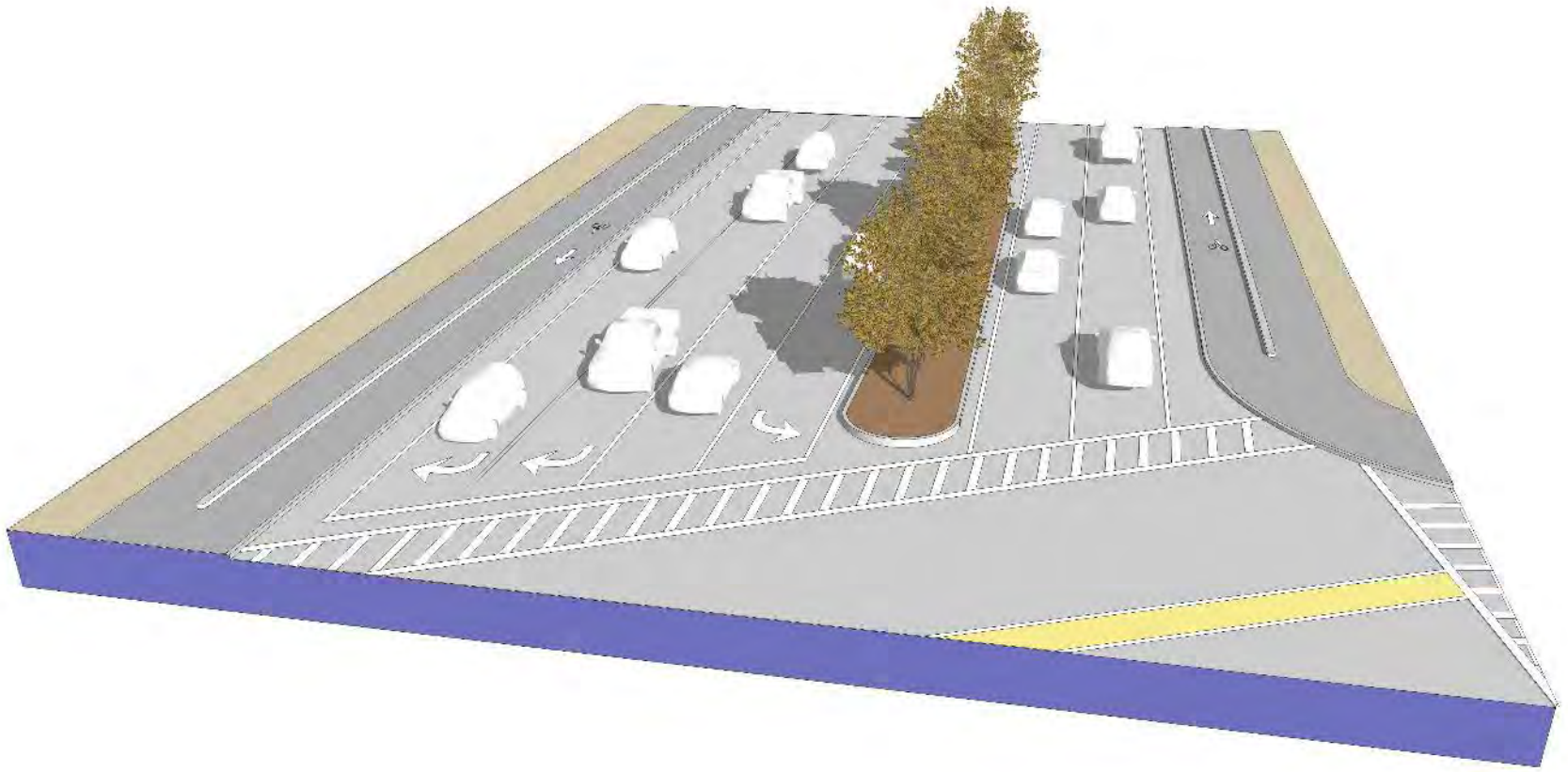
Discussion Topic: Mobility/Connectivity

Function/Character of Stadium Way Connector



Discussion Topic: Mobility/Connectivity

Function/Character of East Drive Connector



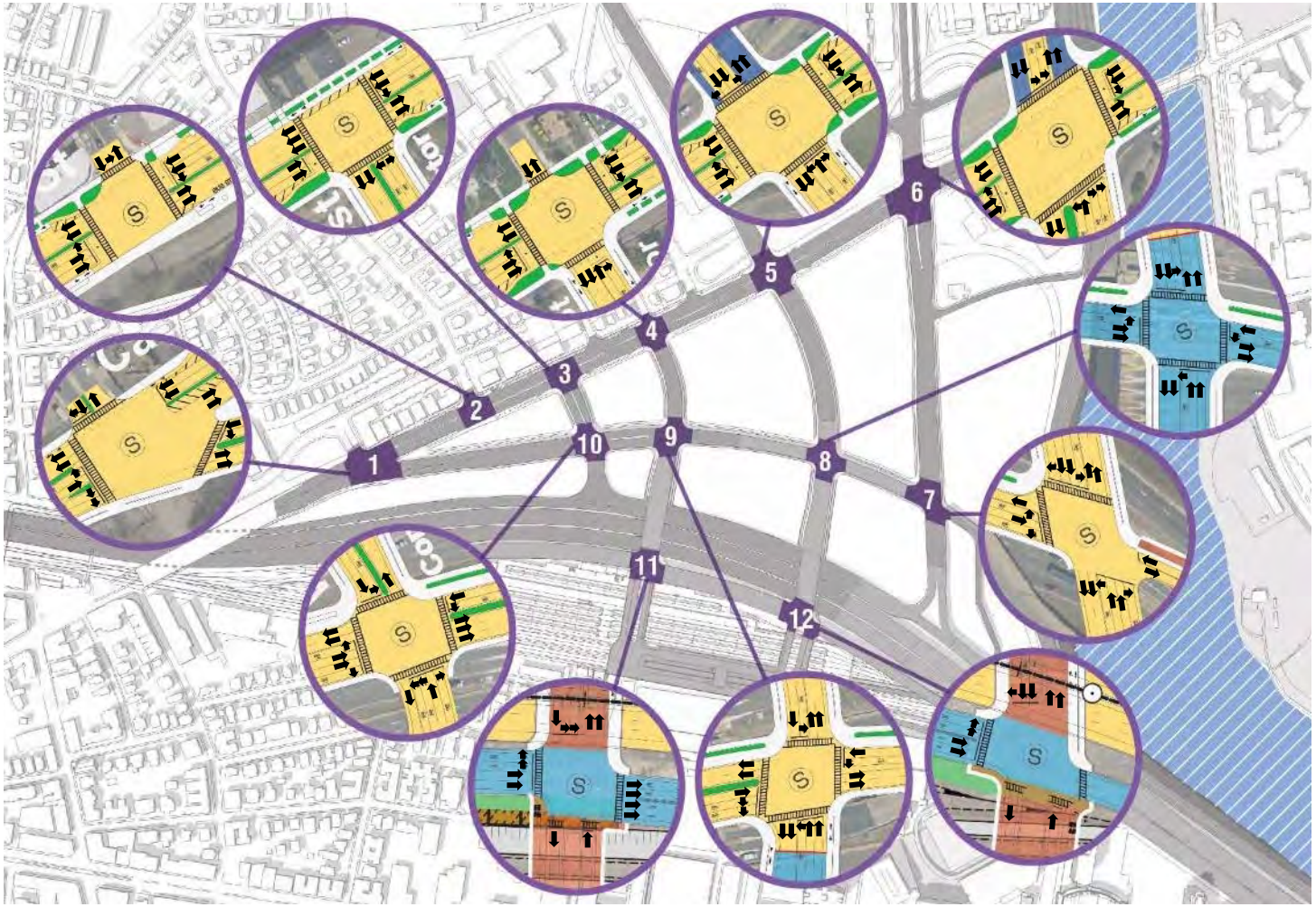
Works Session Focus: Mobility/Connectivity

Current design considerations:

- *What are the crossings and intersection conditions?*
  - Intersections
  - Transition from highway to city street network
  - Others?

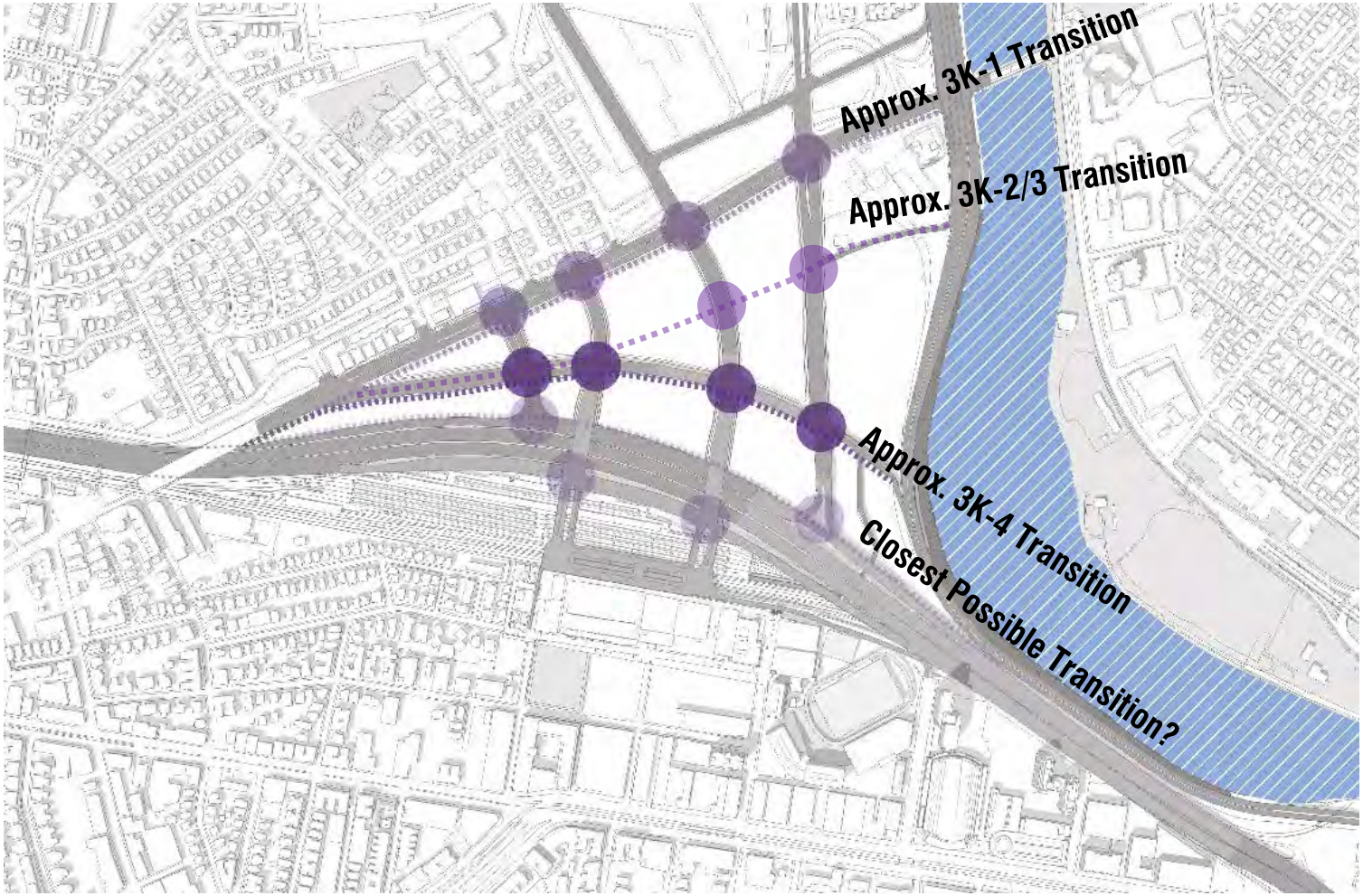
Discussion Topic: Mobility/Connectivity

Intersections



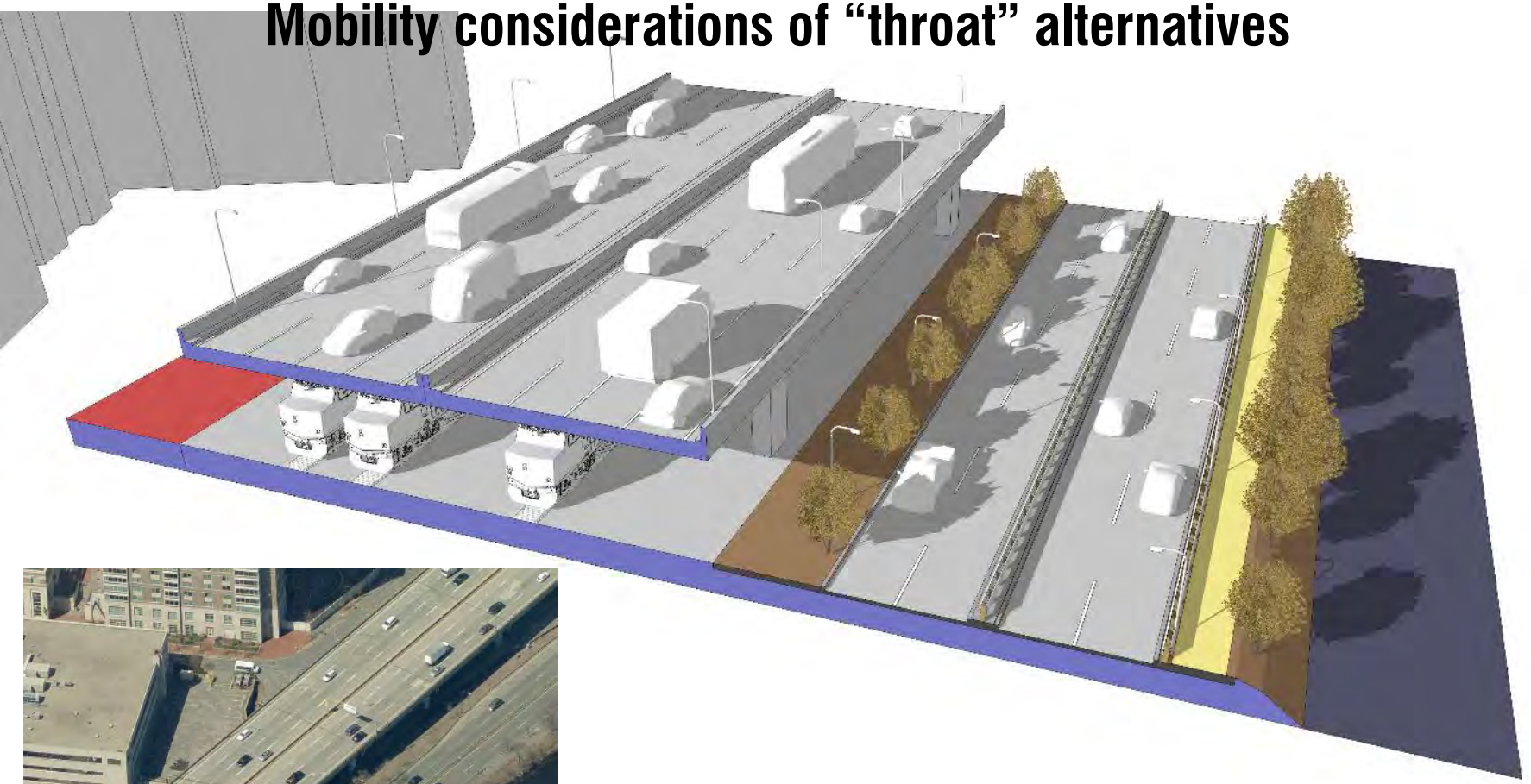
Discussion Topic: Mobility/Connectivity

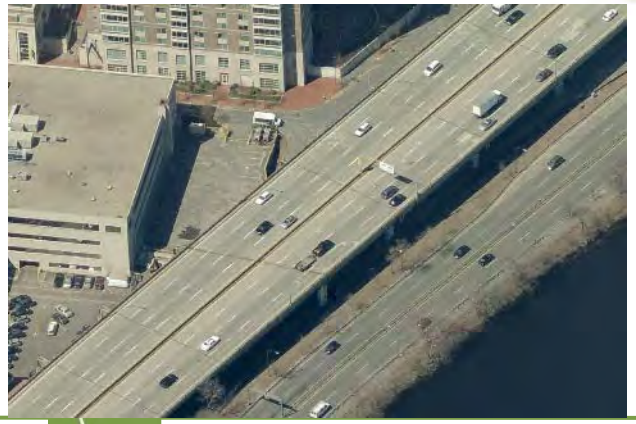
Transition from Highway to City Street Network



Discussion Topic: Mobility/Connectivity

Mobility considerations of “throat” alternatives





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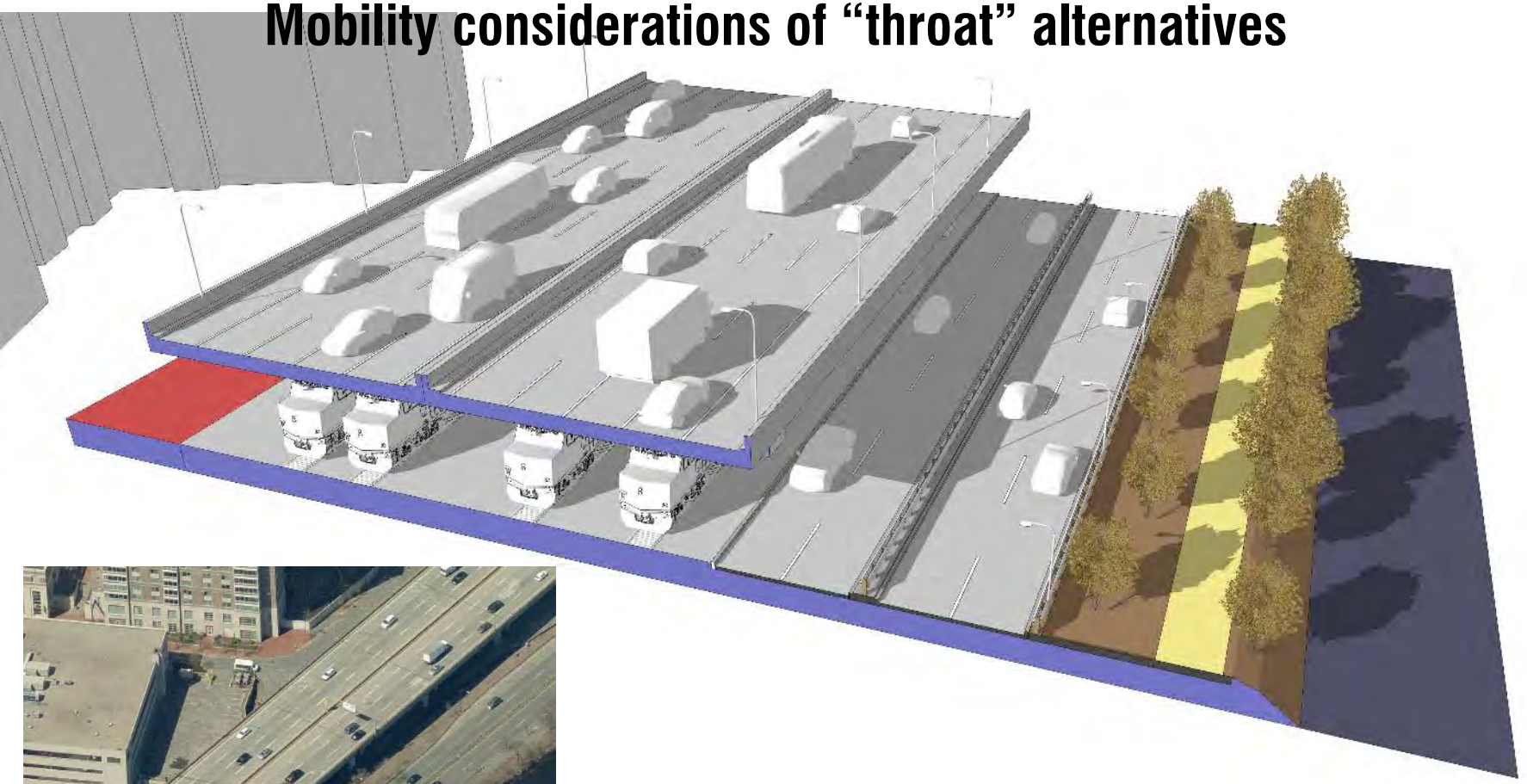

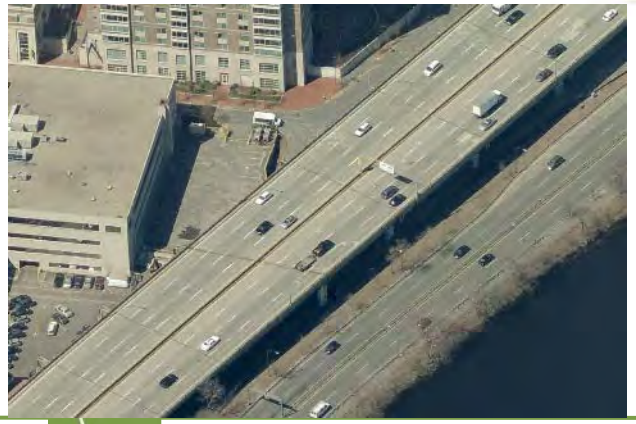

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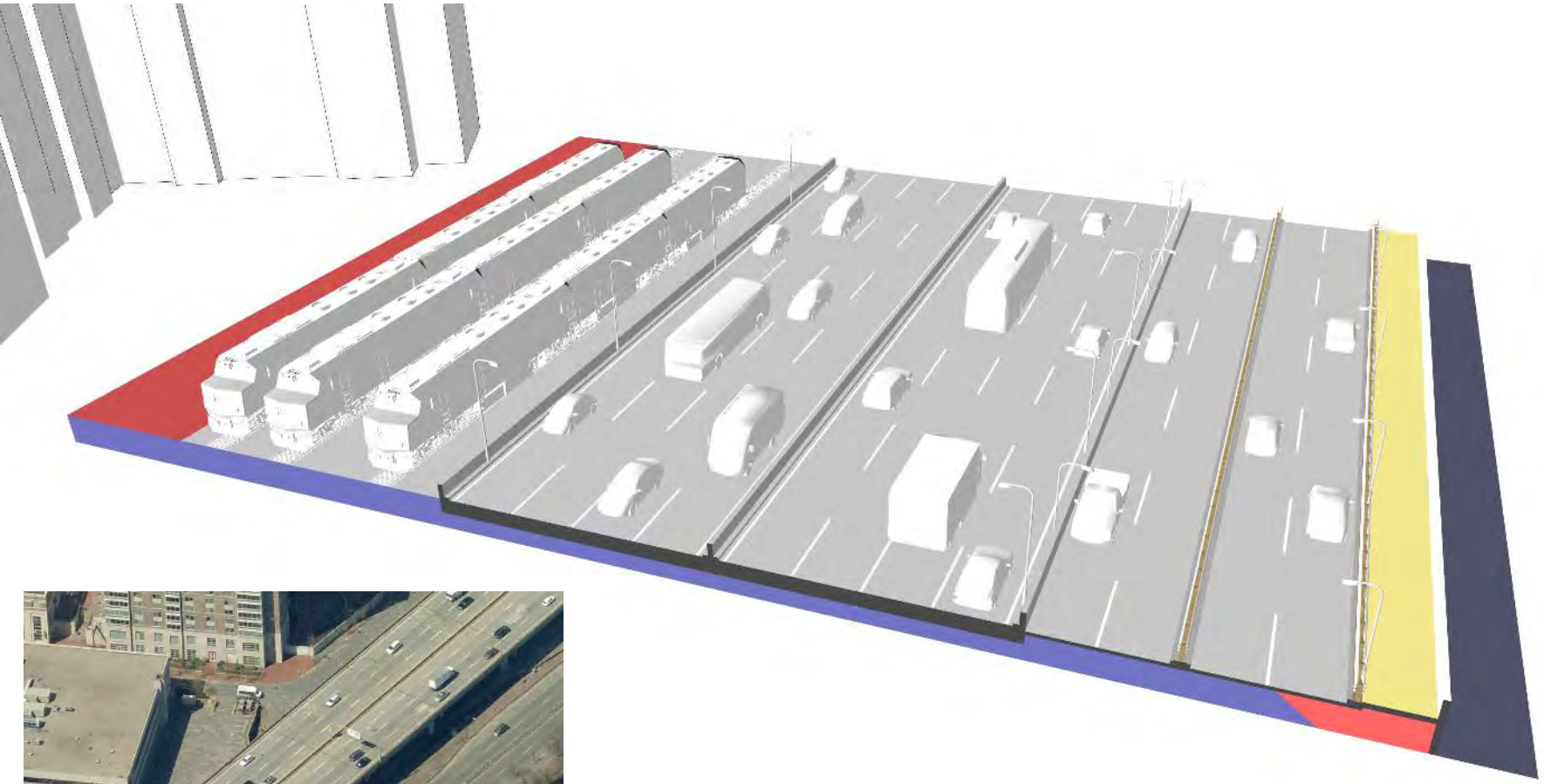

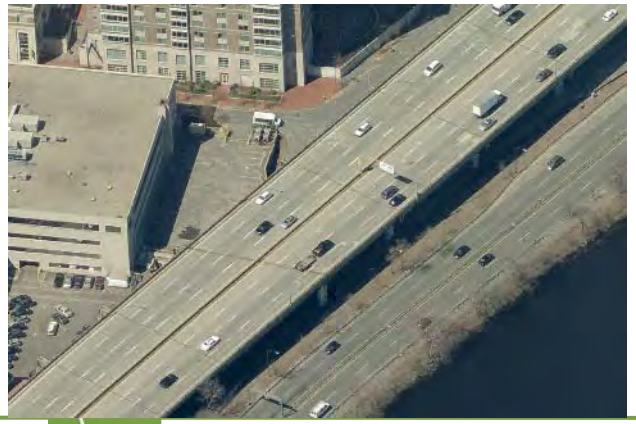

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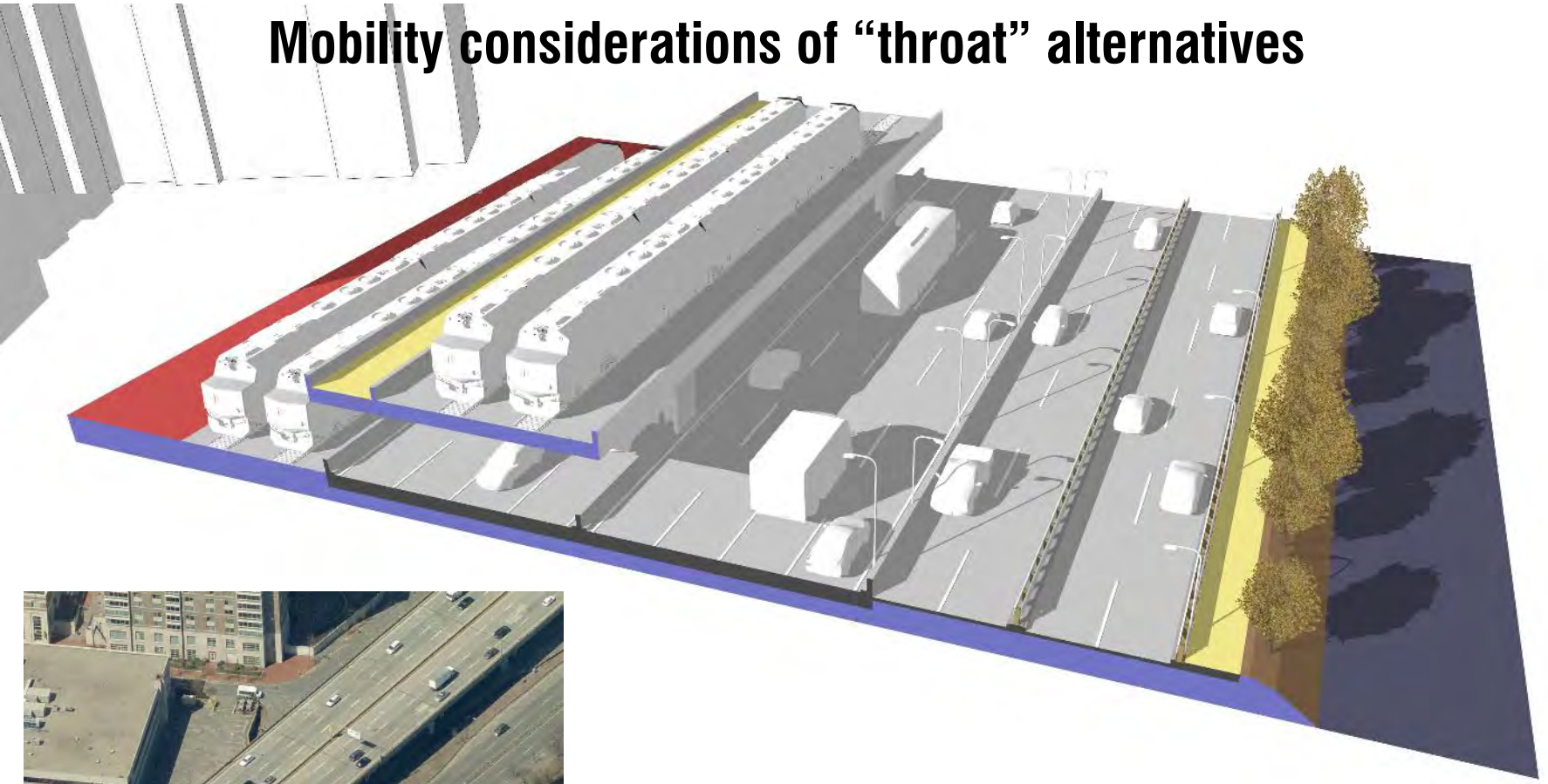
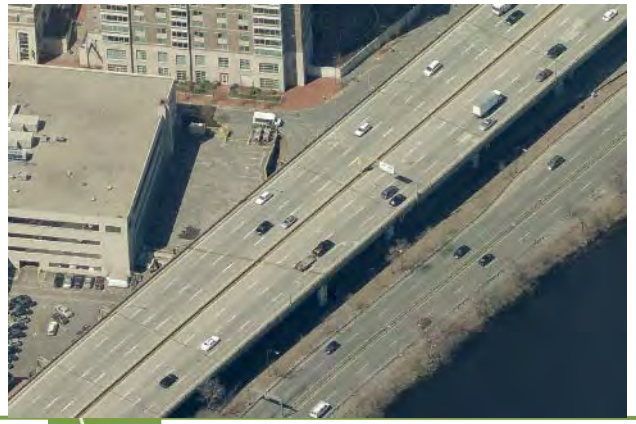
Mobility considerations of “throat” alternatives





Next Work Session Topics

Mobility/Connectivity

- Review of previous work session discussion

Development Potential/Flexibility

Distinctive Place/Context Sensitive

- Current design considerations
- Future district considerations

I-90 ALLSTON INTERCHANGE
PLACEMAKING STUDY

Boston Redevelopment Authority

Task Force Work Session –
January 20, 2016

The Cecil Group
Stantec
Nelson/Nygaard

Study Scope and Schedule

Phase 1

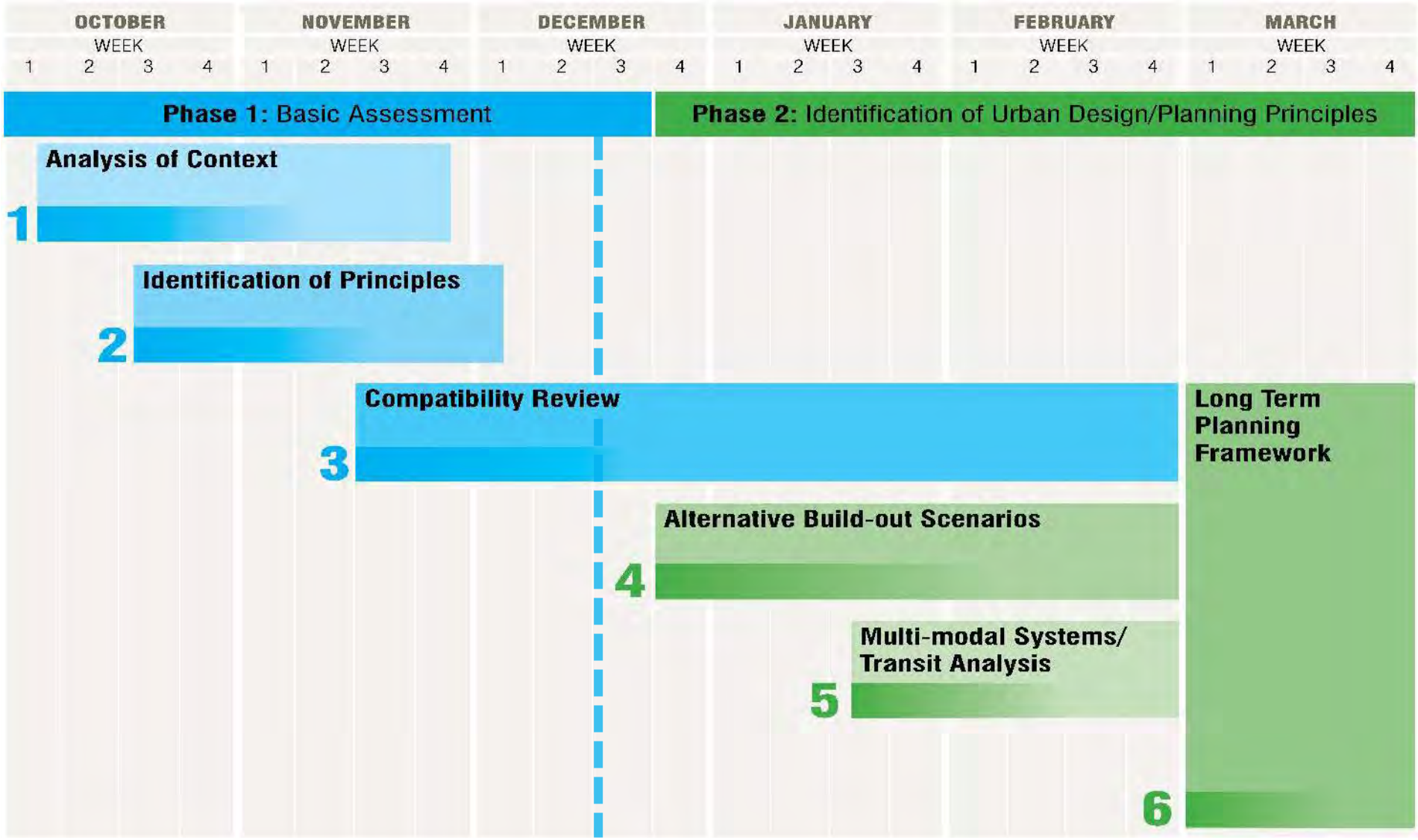
- **Task 1:** Analysis of existing planning and development context
- **Task 2:** Identification of urban design and planning principles
- **Task 3:** Compatibility of current MassDOT design with placemaking principles and economic opportunities

Phase 2

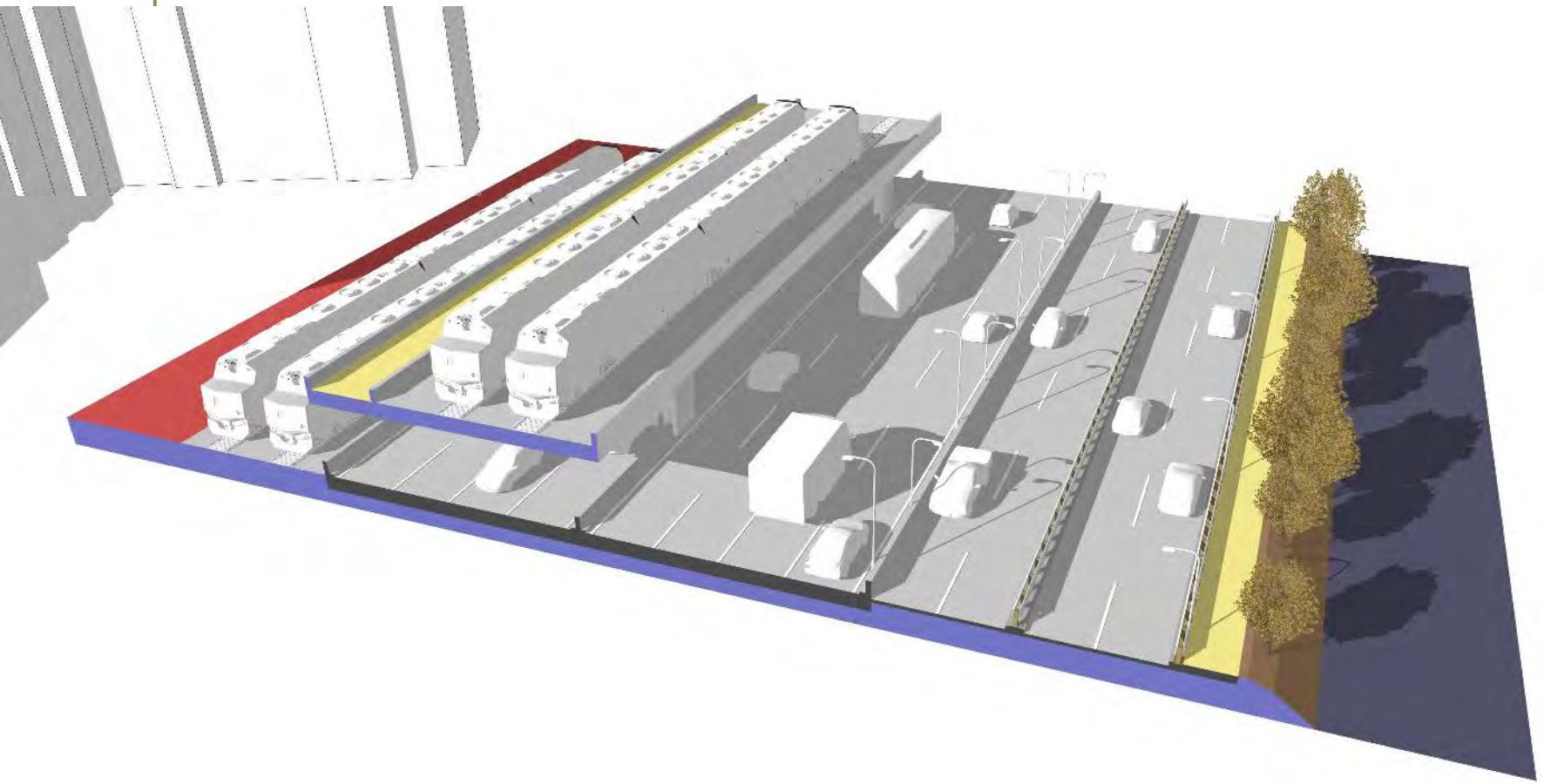
- **Task 4:** Creation and testing of alternative build-out scenarios
- **Task 5:** Analysis of multi-modal systems and connections to transit
- **Task 6:** Creation of long term planning framework diagrams

"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."

Study Scope and Schedule



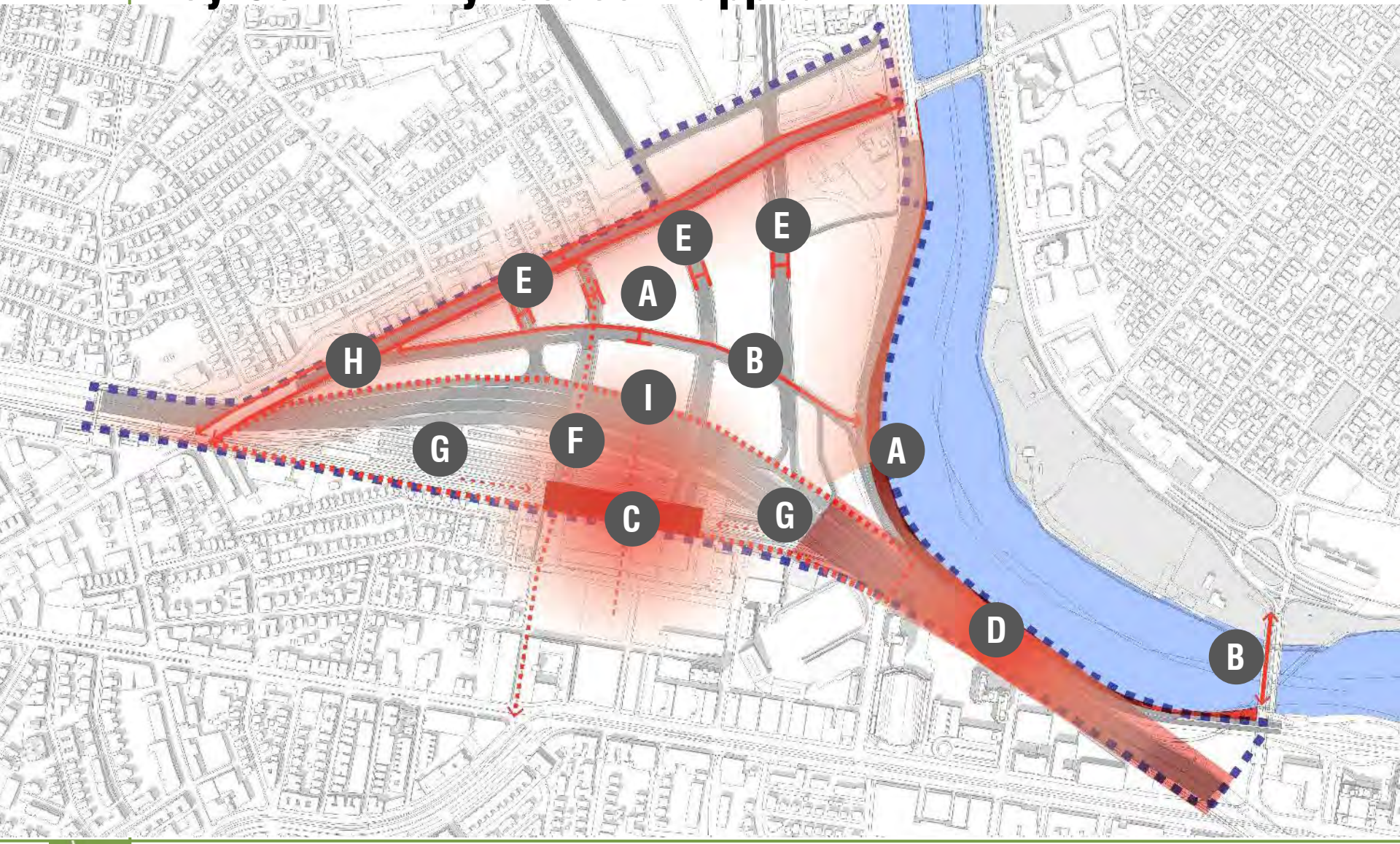
Typical “Throat” Condition – Amateur Planner



Key Community 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** At-grade alternatives for highway/rail alignments – constraints at “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



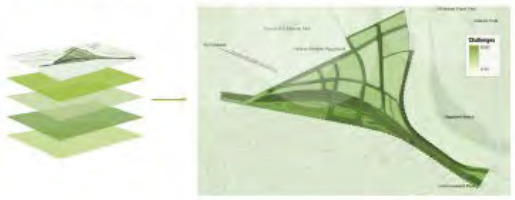
Framework for Analysis and Evaluation

CATEGORY

PROCESS HEAT MAP

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

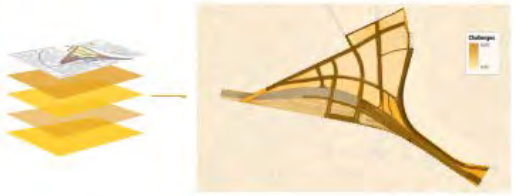


Mobility/Connectivity

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

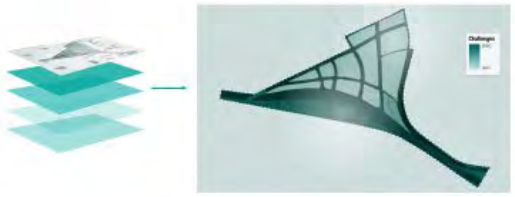
Development Potential/Flexibility

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

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

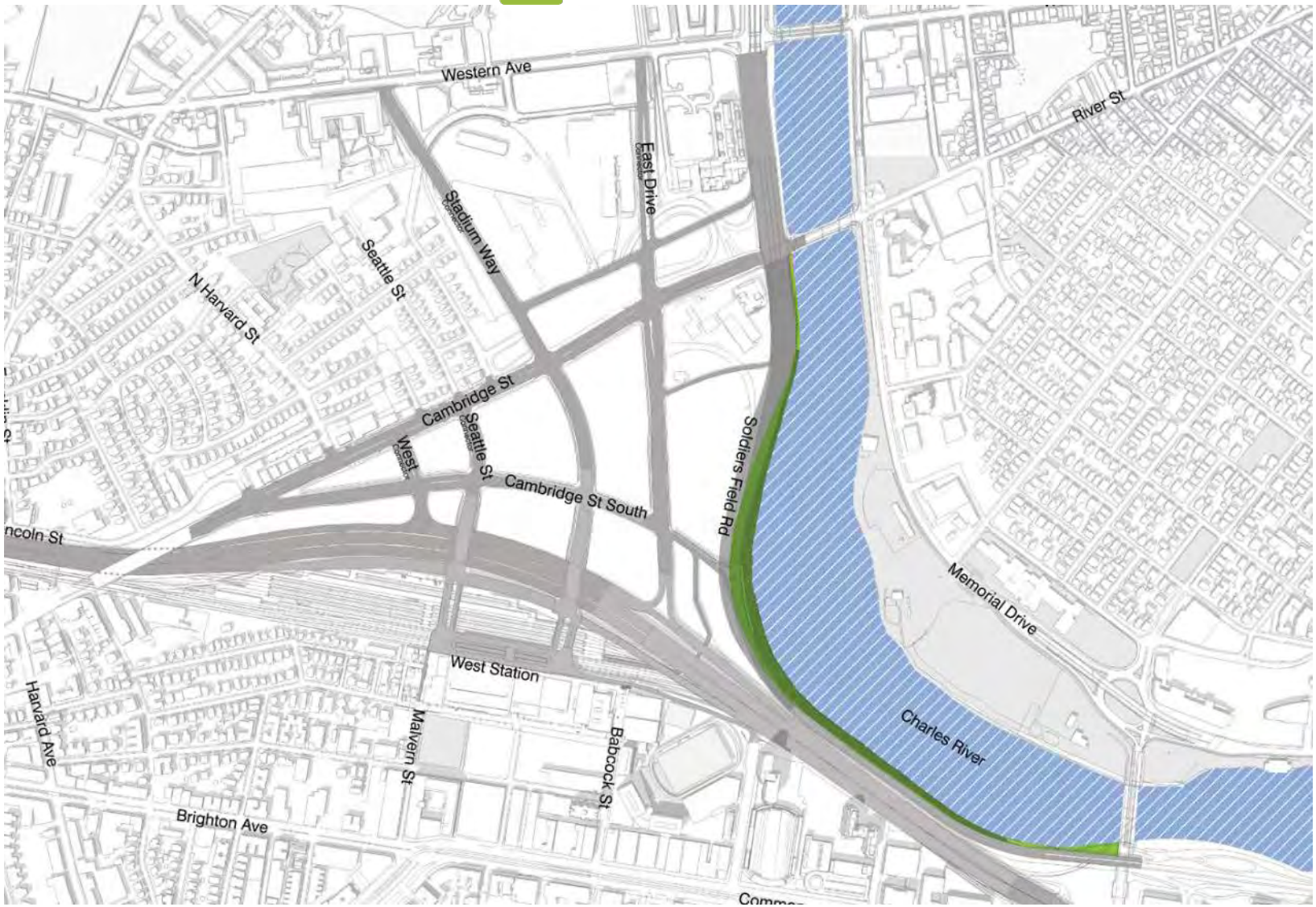
Principles

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

Focus of Analysis

- 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

Discussion Review: Public Realm/Open Space



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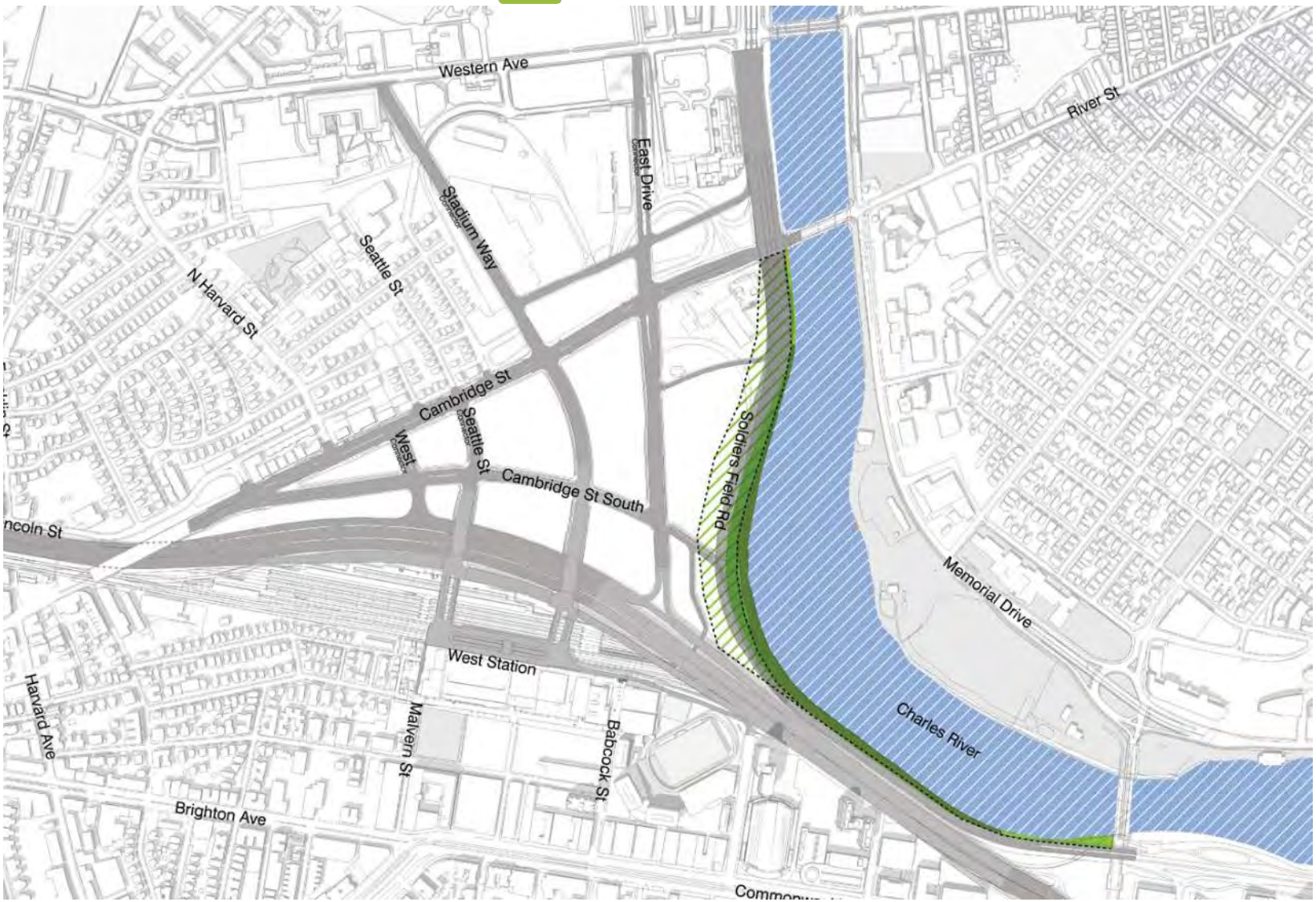

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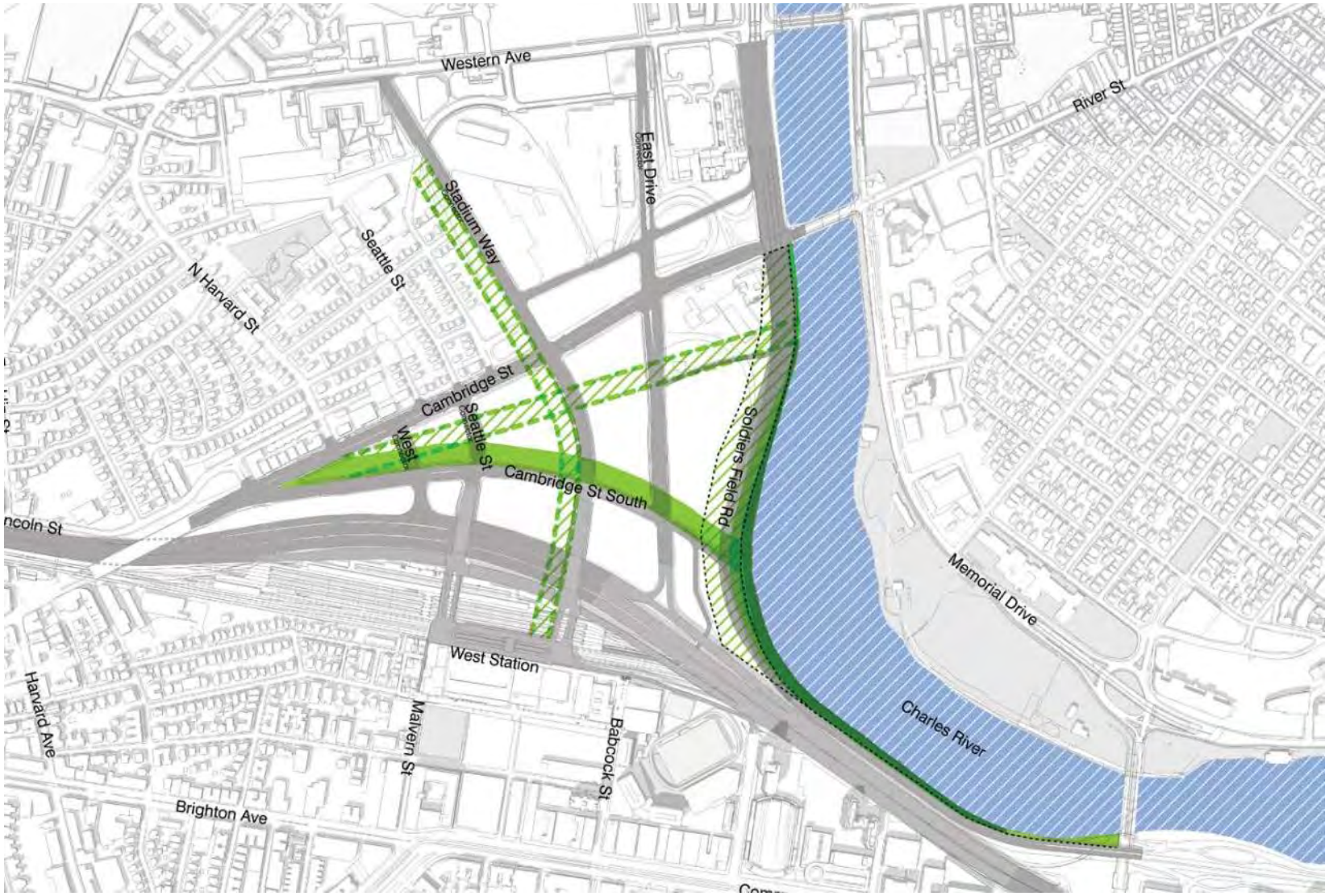
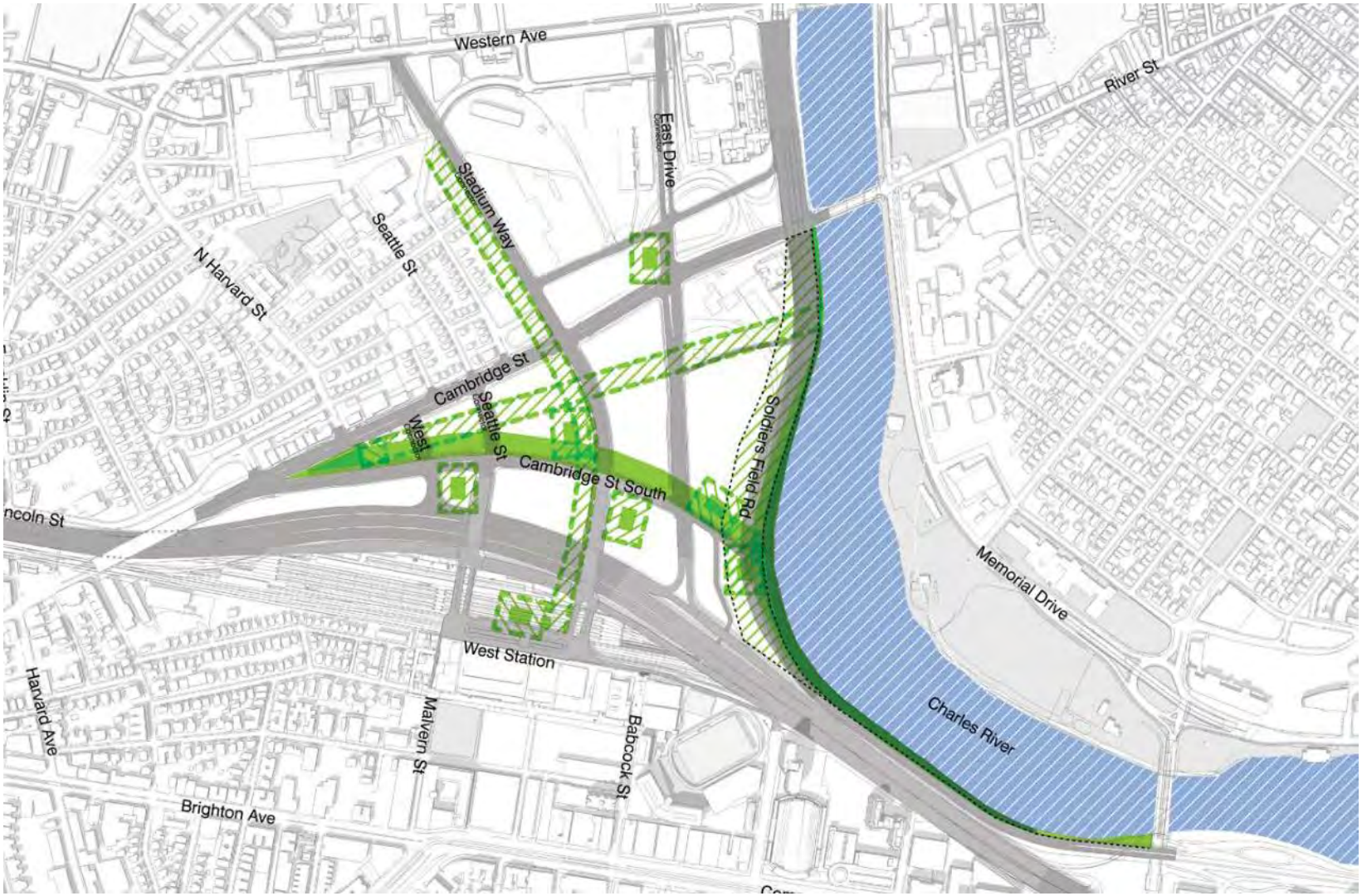


Discussion Review: Public Realm/Open Space

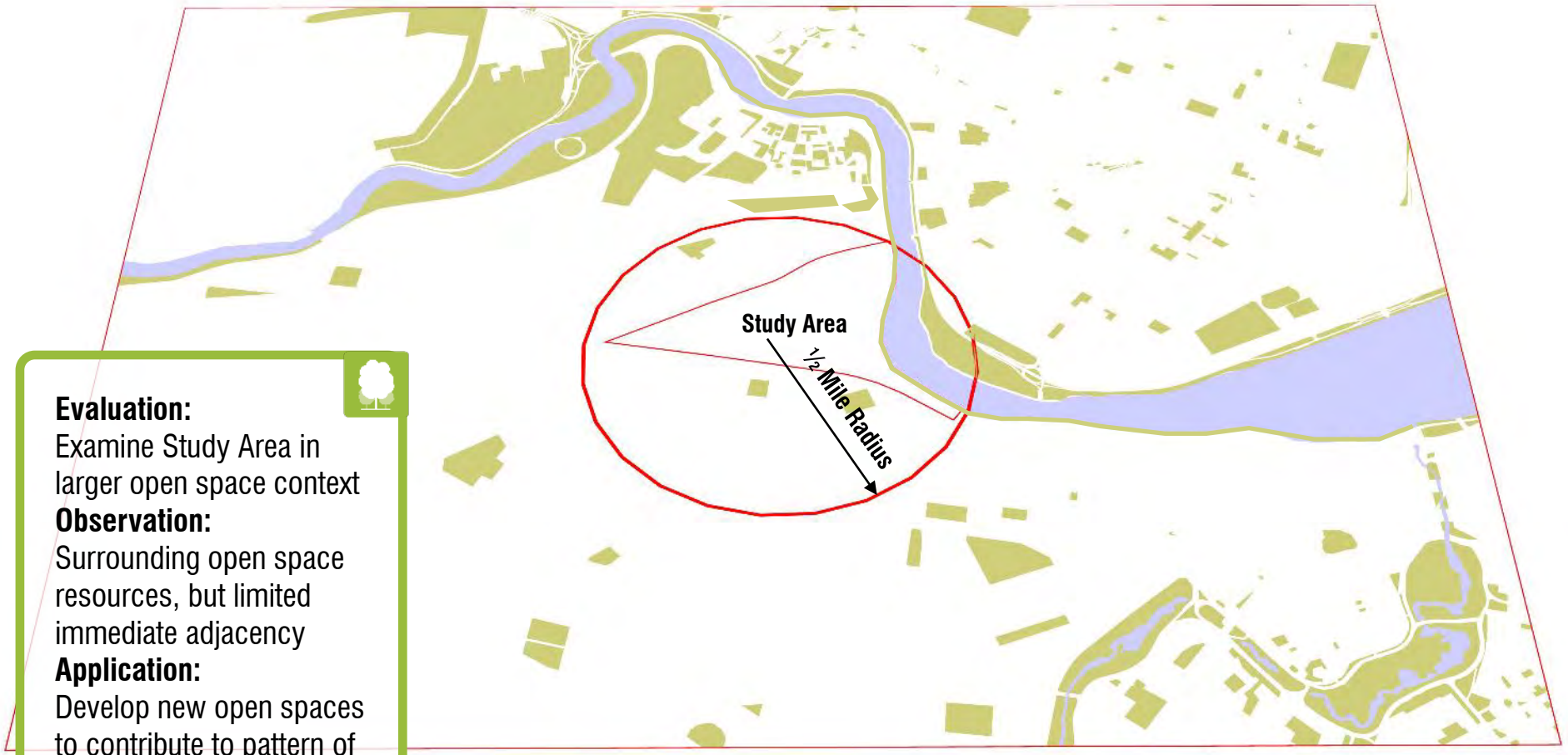


Discussion Review: Public Realm/Open Space

District Wide Open Space Types

Open Space Type	Focal	Natural Feature	Linear	Distributed	Opportunistic	Recreational	Reclaimed/ Invented	Others?
Open Space Type Diagram								
Characteristics	• Located near center of district • Large scale open space, relative to scale of district	• Adjacent to and leveraging existing natural features • Expand public access and amenity at feature	• Connected series of continuous park areas • Often follow natural features or connect desired travel lines	• Smaller, frequent open spaces throughout a district • Often visual connections created from park to park	• Fit open spaces into vacant or underused areas • Randomized and uncoordinated open space pattern	• Amenity/recreational needs of area drive open space • May be larger scale and placed where they could fit	• Expansion of usable open space • Generally elevated, air rights, part of infrastructure or above	• ?
Infrastructure Considerations	• May disrupt/interrupt roadway connections	• May conflict with roadway/ infrastructure locations • May expand difficult geometries created by natural features	• Require coordination for continuity • Crossings may create conflicts for both linear park and roadway network	• Typically can flexibly integrate into most systems	• May provide buffer areas to adjacent infrastructure • Can fit within areas that may otherwise be unused and can flexibly integrate	• May conflict with roadway/ infrastructure locations	• Adjacency and access considerations • Overhead clearances • Ability to span infrastructure	• ?
Development Considerations	• High value real estate frontage • Requires substantial land area	• High value real estate frontage • May offer protection against flooding or other • May add distance from natural asset	• May impact regular layout of blocks • Can integrate with development footprints and layouts	• Typically can flexibly integrate into most development patterns	• Can create value/ opportunity where none exists • Can fit into vacant areas where development may not	• Provides amenity to surrounding development • May not provide enhanced value of frontage	• Can create value/ opportunity where none exists • Can fit into vacant areas where development may not not	• ?
Other Considerations	• Large scale may allow it to service multiple district functions and host a variety of amenities	• May have environmental advantages and support natural systems	• Requires thoughtful sequencing of spaces and amenities • Careful consideration of corridor width	• Frequency and distribution must be calibrated to scale of district	• May not be adequate as an independent strategy	• Often serve an area that expands beyond the district	• May not be adequate as an independent strategy	• ?
Examples	 • Post Office Square, Boston  • Central Park, New York City	 • Back Bay Fens, Boston  • Georgetown Waterfront Park, Washington DC	 • Comm. Ave. Mall, Boston  • Greenway, Boston	 • South End Parks, Boston  • Historic Squares, Savannah	 • Frieda Garcia Park, Boston  • Olympic Sculpture Park, Seattle	 • Rotch Field, Boston  • Brooklyn Bridge Park, NYC	 • Parklets, Many Cities  • High Line, New York City	• ? • ?

Existing Open Space Context



Evaluation:
Examine Study Area in larger open space context

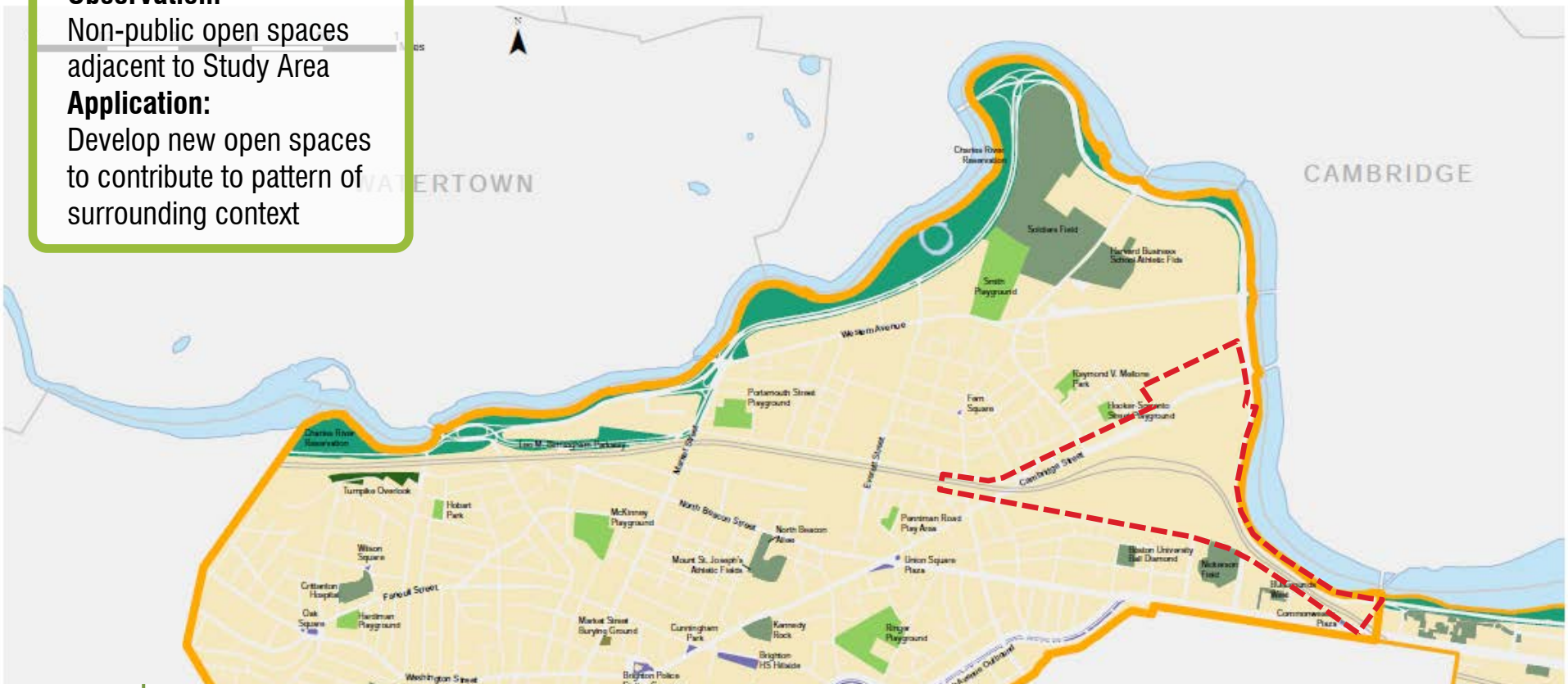
Observation:
Surrounding open space resources, but limited immediate adjacency

Application:
Develop new open spaces to contribute to pattern of surrounding context

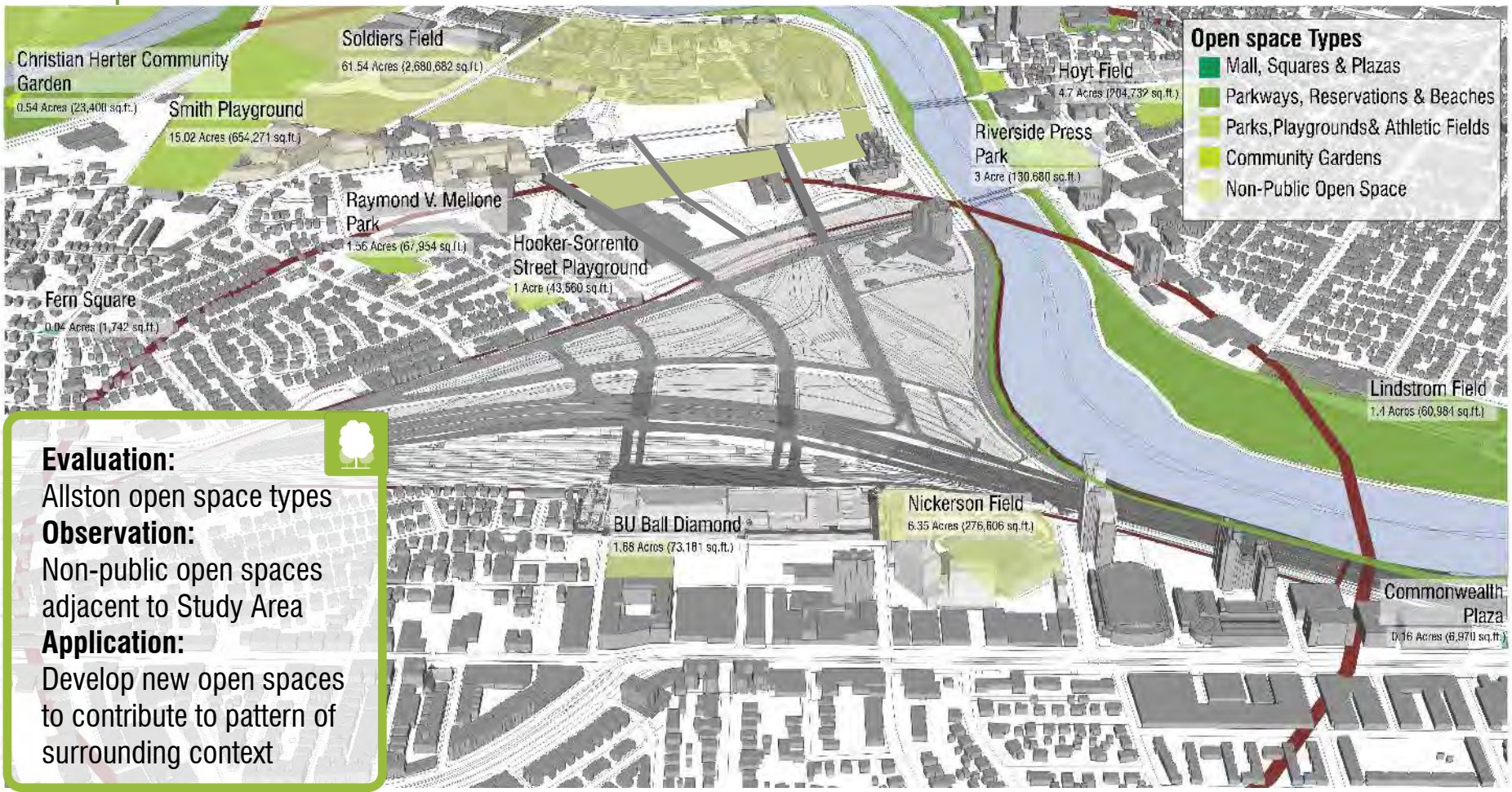
Existing Open Space Context

(Open Space & Recreation Plan 2015-2021)

Evaluation:
Allston open space types
Observation:
Non-public open spaces adjacent to Study Area
Application:
Develop new open spaces to contribute to pattern of surrounding context



Existing Open Space Context

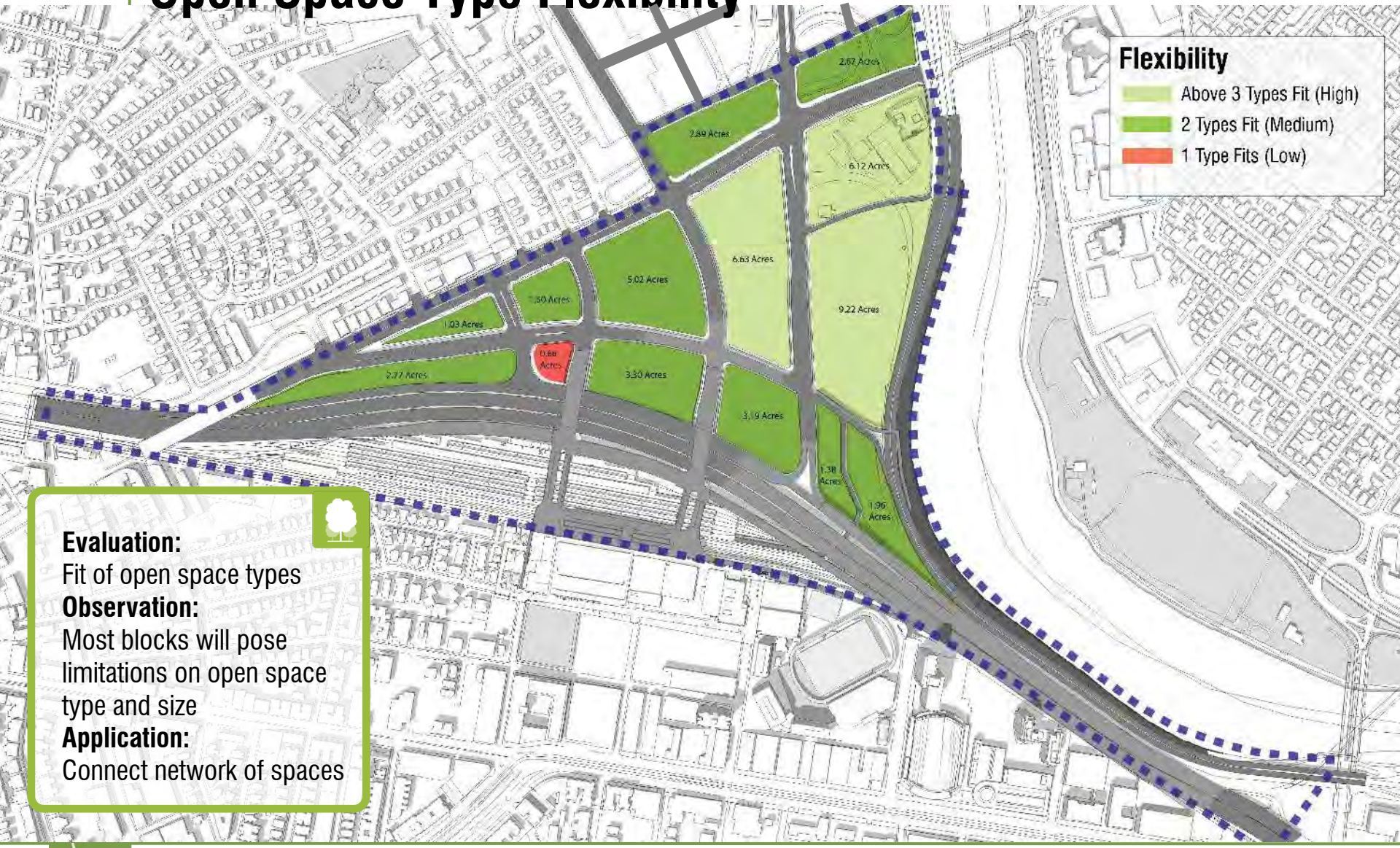


Evaluation:
Allston open space types
Observation:
Non-public open spaces adjacent to Study Area
Application:
Develop new open spaces to contribute to pattern of surrounding context

Open Space Types

Evaluation:
Typical open space types
Observation:
Service areas relative to park type and size
Application:
Open space type and service area contribute to calculation of access

Open Space Type Flexibility



Evaluation:
Fit of open space types
Observation:
Most blocks will pose limitations on open space type and size
Application:
Connect network of spaces

Access to Open Space

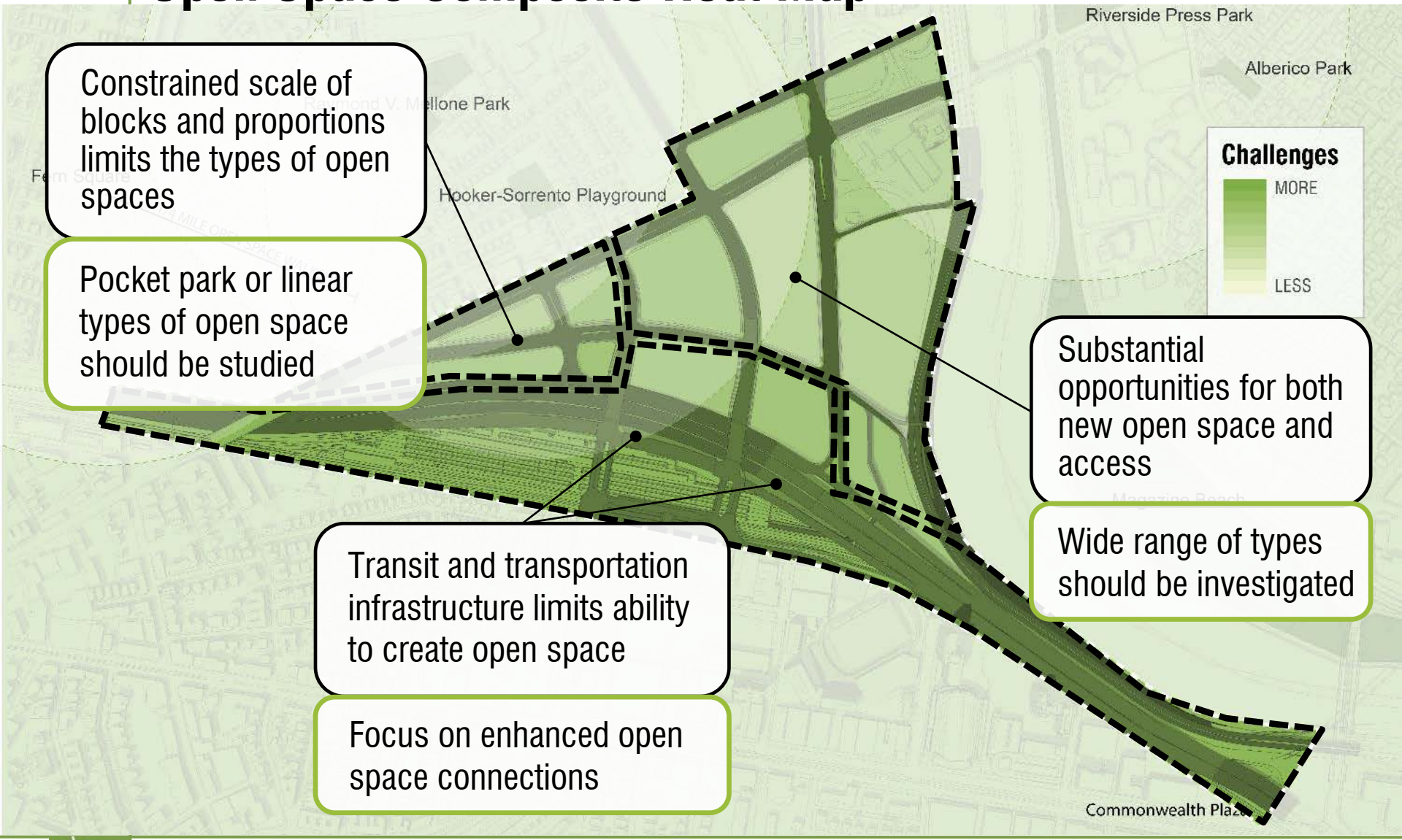
(Open Space & Recreation Plan 2015-2021)

Evaluation:
Areas served by parks in Allston

Observation:
Study Area is largely not served by parks

Application:
Optimize park locations to expand park service areas

Open Space Composite Heat Map



Constrained scale of blocks and proportions limits the types of open spaces

Pocket park or linear types of open space should be studied

Substantial opportunities for both new open space and access

Wide range of types should be investigated

Transit and transportation infrastructure limits ability to create open space

Focus on enhanced open space connections

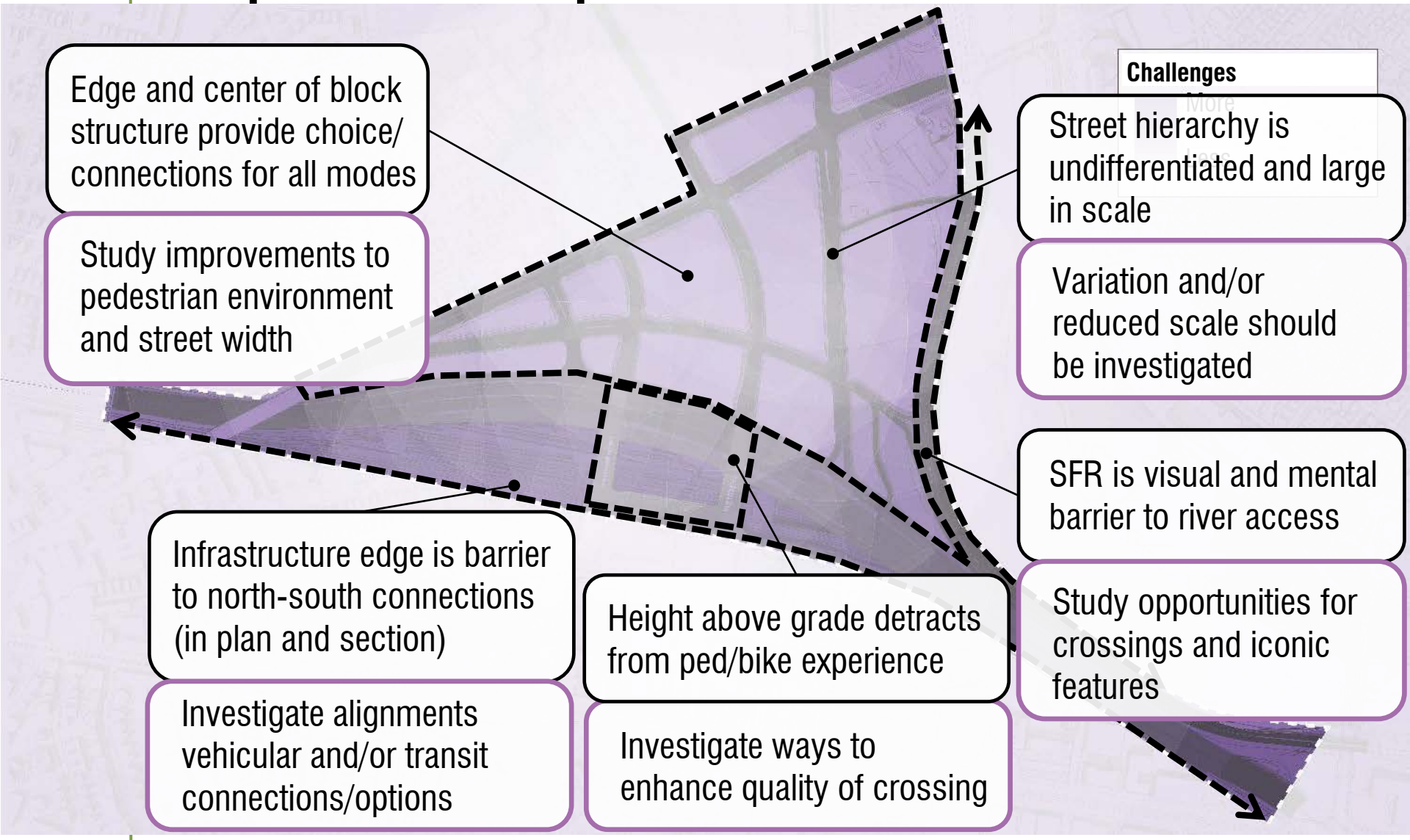
Principles

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

Focus of Analysis

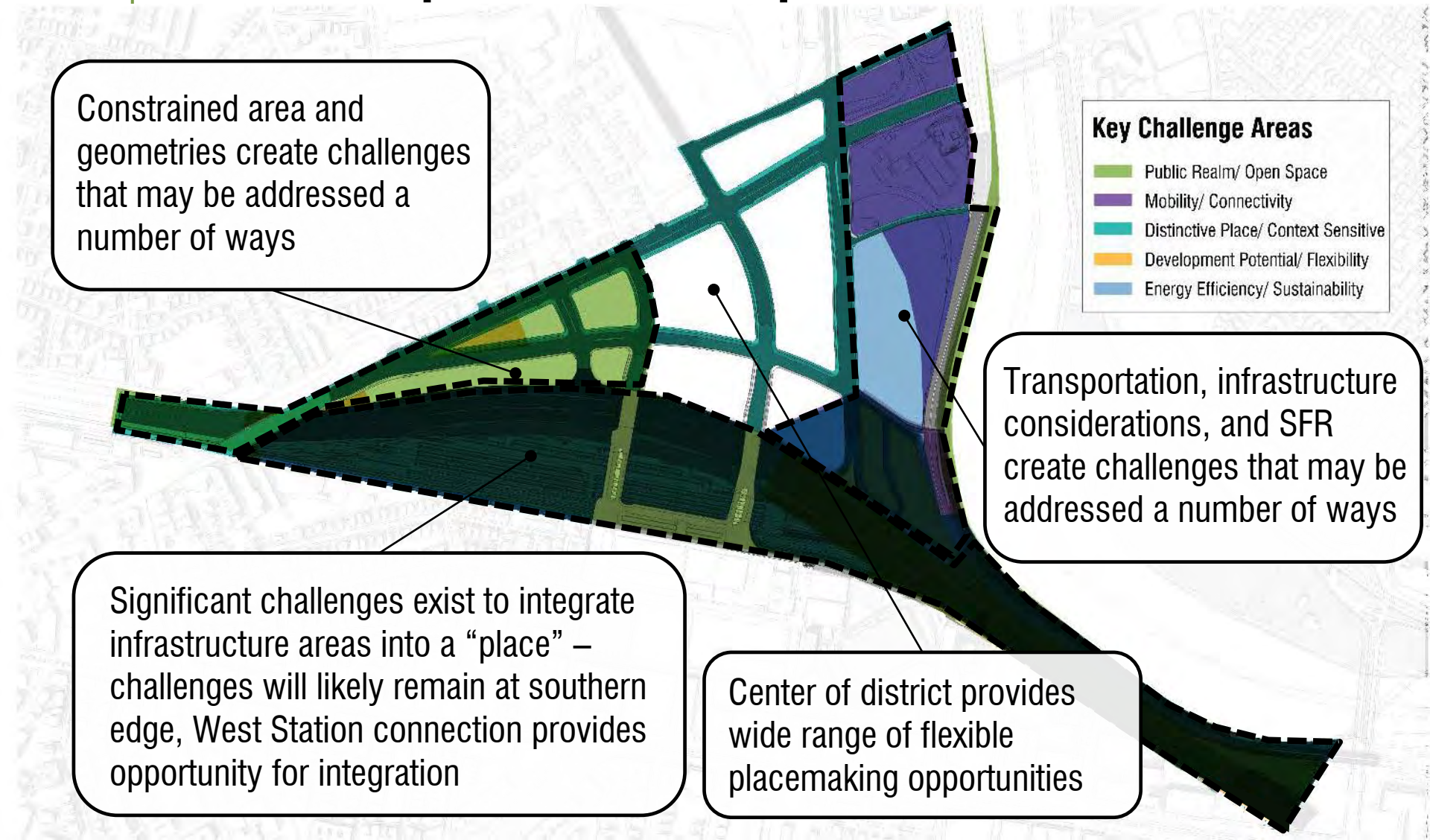
- Street types and characteristics
- Pedestrian circulation network
- Bicycle circulation network
- Transit network and access
- Vehicular circulation network

Composite Heat Map



Overall Composite "Heat Map"

Overall Composite "Heat Map"



Constrained area and geometries create challenges that may be addressed a number of ways

Transportation, infrastructure considerations, and SFR create challenges that may be addressed a number of ways

Significant challenges exist to integrate infrastructure areas into a "place" – challenges will likely remain at southern edge, West Station connection provides opportunity for integration

Center of district provides wide range of flexible placemaking opportunities

Key Community Issues Overlay