

# SL – Extension

## Alternatives Analysis

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Working Group #3

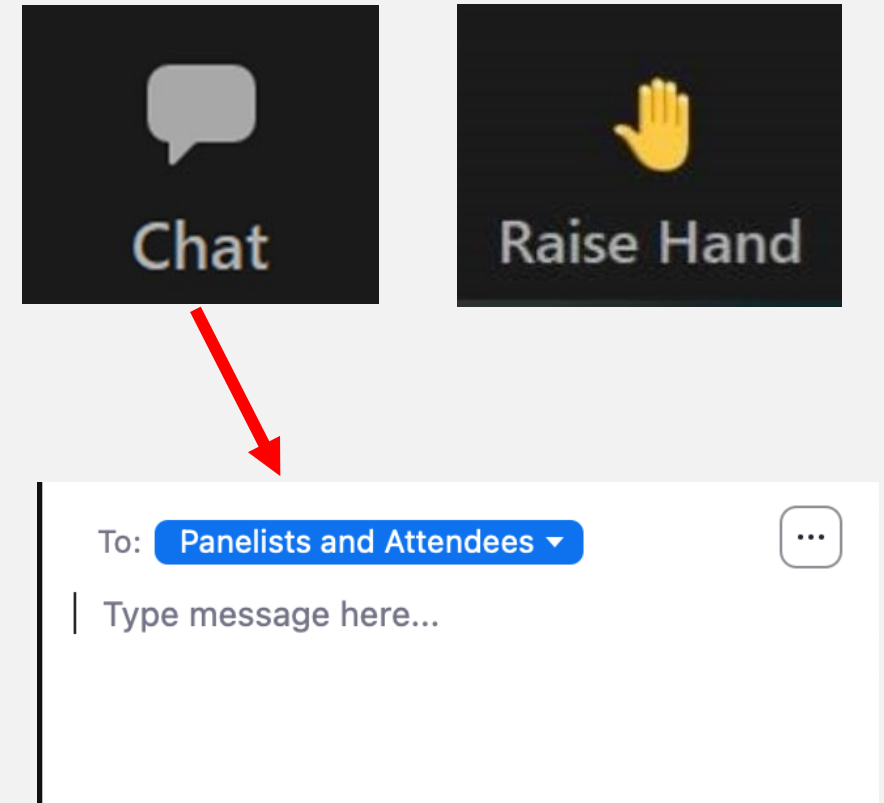
September 14, 2021



# WORKING GROUP PARTICIPATION

- Press the **Raise Hand** button. Please wait for the moderator to recognize you before unmuting yourself and speaking.
- During the discussion of alignments, please share typed feedback in the **Chat** feature. Be sure to select **To: Panelists and Attendees**.  
***Attendees.***

*Note: if you are not using the latest software of Zoom, you may have to click the **Participants** button to access the **Raise Hand** feature.*



# AGENDA

01| Updates Since Last Meeting

02| Tier 1 Analysis Findings

03| Tier 2 Alternatives

04| Upcoming Outreach

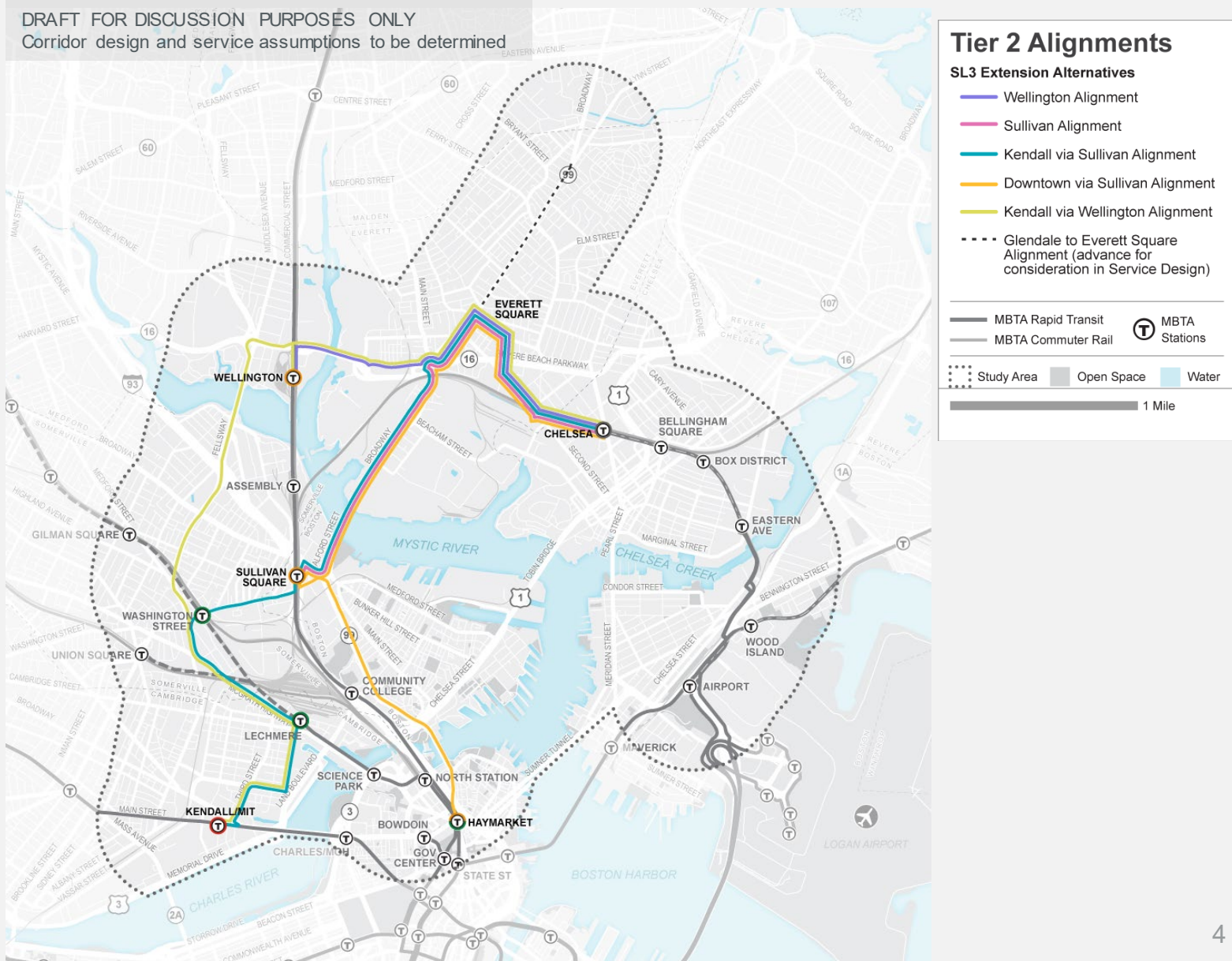
## Meeting Purpose

We have a lot to discuss today!

The purpose of today's meeting is to review the findings from the Tier 1 analysis and discuss the potential alternatives moving into the next phase, the Tier 2 analysis

# A Preview of our Draft Tier 2 Alternatives

- Alternative 1:** to Wellington
- Alternative 2:** to Sullivan
- Alternative 3:** to Kendall via Sullivan
- Alternative 4:** to Downtown via Sullivan
- Alternative 5:** to Kendall via Wellington



# Project Purpose

The ***purpose*** of the Silver Line Extension Alternatives Analysis is to assess the feasibility, utility, and cost of various alignment and service frequency options of an extension of the Silver Line, providing high quality transit from Chelsea through Everett and on to Somerville, Cambridge and/or Boston.

This project's overarching **objective** is to add transit service capacity and connectivity that will knit together Chelsea and Everett with nearby communities that are not currently well connected with high-quality transit.

- Existing transit service is not competitive with driving for many types of trips being made to and from Chelsea and Everett.
- Despite the lack of competitiveness, bus ridership in Chelsea and Everett during the pandemic has been more durable than in other communities.
- Chelsea, Everett, Somerville, and Cambridge are experiencing rapid growth in housing and employment in areas that are not currently well served by transit.
- There are existing transit connections in Chelsea, Everett, and nearby communities that could be leveraged and improved into a high-quality cohesive network.

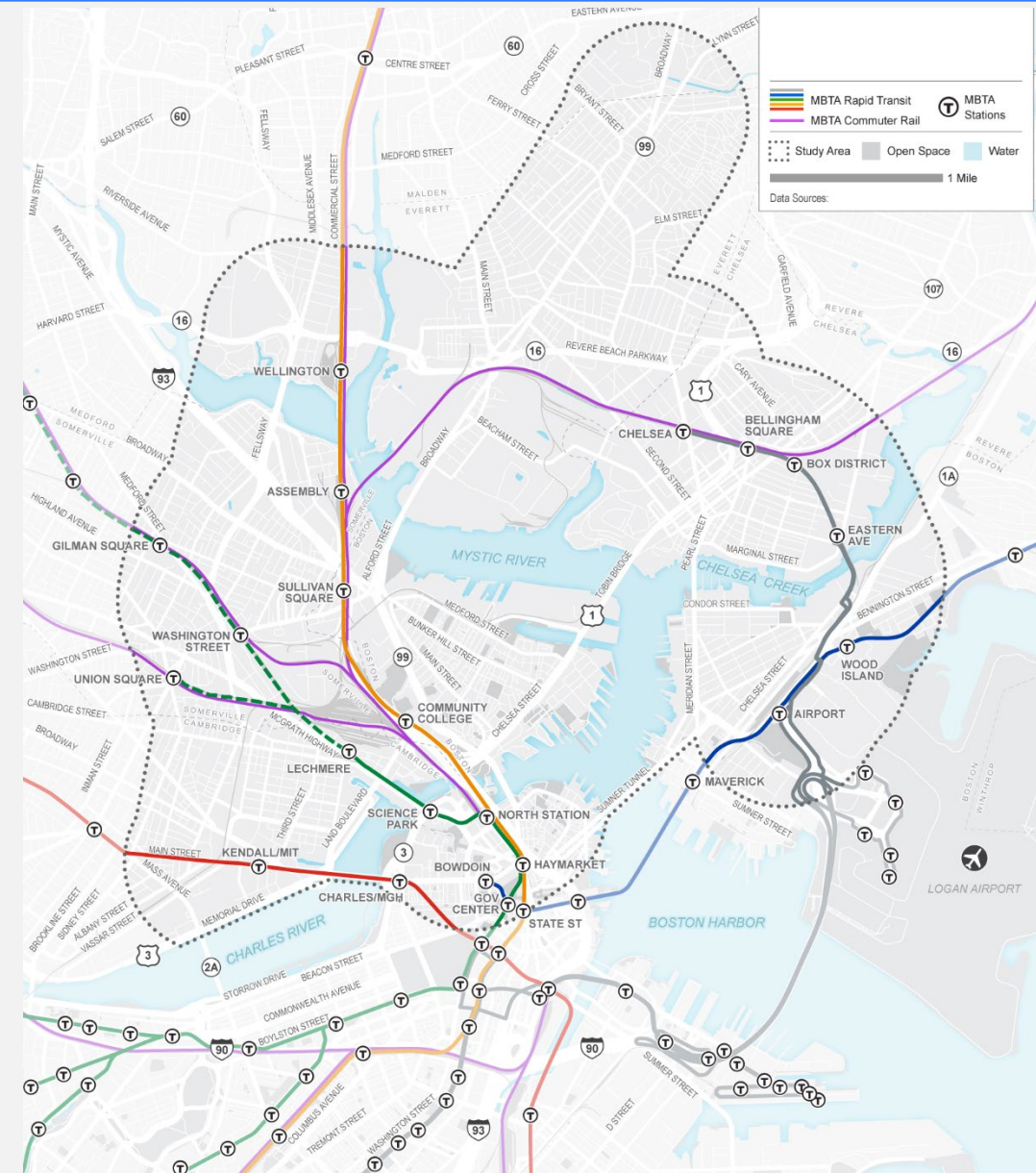
# Project Coordination

We recognize that our project is happening at the same time as other projects that are important to our region and transit network. We are actively working with staff from these efforts to ensure they are coordinated:

- Bus Transformation (includes Bus Network Redesign)
- Wellington Circle Study
- McGrath Boulevard Project

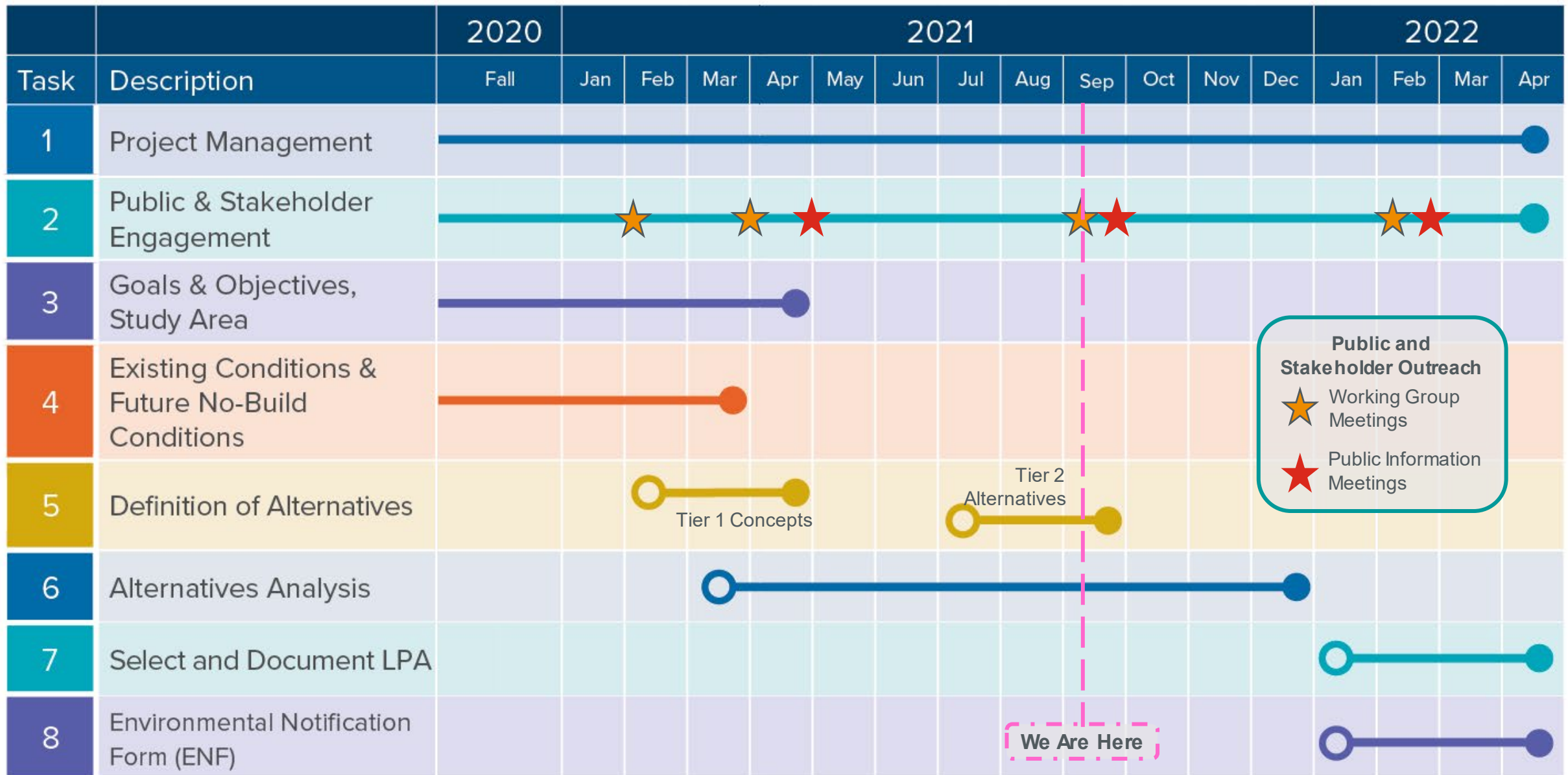
# Our Study Area

The study area was developed to encompass likely study alignments that would meet the project's purpose, with a reasonable buffer to reflect uncertainty.





# Project Schedule



# Project Update

What we've been up to since our last meeting

# Progress Since Last Meeting

We last met with this group in April 2021. Since that time, we have:

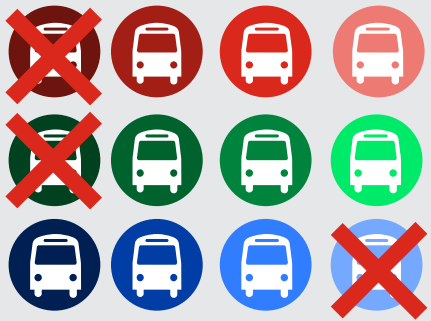
- Held our 1<sup>st</sup> Public Open House (April)
- Opened an Online Feedback Form which received over 100 responses (April-May)
- Updated our Goals and Objectives to reflect what we heard from this group and the public (May-June)
- Refined our Tier 1 alignment concepts (May)
- Conducted analysis on those Tier 1 alignment concepts (June-July)
- Prepared preliminary Tier 2 alternatives (August)

# Tier 1 Analysis

What we looked at, and what we found

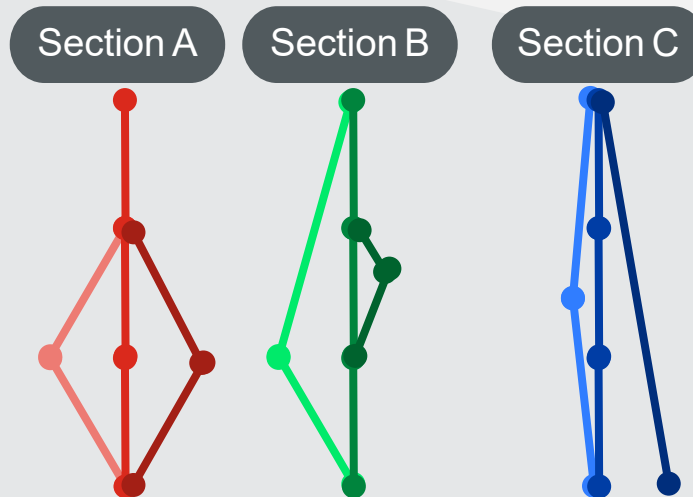
# Project Evaluation Process

## Screening



Review a wide host of ideas and remove all those that don't meet the project's purpose

## Tier 1 Evaluation



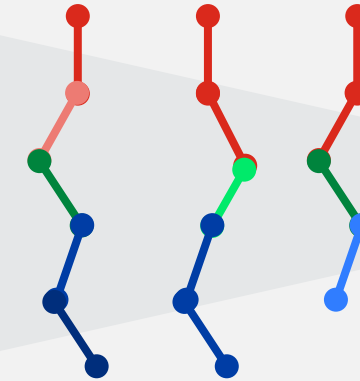
Test different alignments within each section

NOTE: Alignments shown above are illustrative, and not intended to represent any specific alignments!

We Are Here

## Tier 2 Evaluation

Entire Route



Test best alignments as complete route

LPA

# Our Goals and Objectives (pg 1 of 2)

Goal Area	Objectives	Tier 1 Metrics
Expand Mobility and Access	<ul style="list-style-type: none"> <li>• Connect residents directly with jobs, services, and other daily activities</li> <li>• Provide reliable transit service at or near rapid-transit levels to communities not currently served by rapid-transit</li> <li>• Provide transit service that takes a similar amount of time or is faster than driving</li> <li>• Maximize new connections with other transit services</li> <li>• Provide transit connections to existing and planned affordable housing</li> <li>• Use investments to improve existing transit services in the study area</li> <li>• Serve High Demand Areas identified by the Bus Network Redesign effort currently underway</li> </ul>	<ul style="list-style-type: none"> <li>• Total employment (existing or projected) within ½ mile</li> <li>• Total trips beginning, ending, or passing through area served by alternative</li> <li>• Number and quality of transfer opportunities</li> <li>• Provides service within one or more of the Bus Network Redesign’s identified High Priority Corridors</li> <li>• Number of affordable housing units within ½ mile</li> </ul>
Advance Equity	<ul style="list-style-type: none"> <li>• Provide new transit service for people who already rely on transit to get around</li> <li>• Make sure people who are likely to rely on transit have transit that matches how much service they need and when</li> <li>• Make improvements to existing transit service used by people who are likely to rely on transit</li> </ul>	<ul style="list-style-type: none"> <li>• Proportion of transit critical population (people of color, low income households, zero vehicle households)</li> </ul>

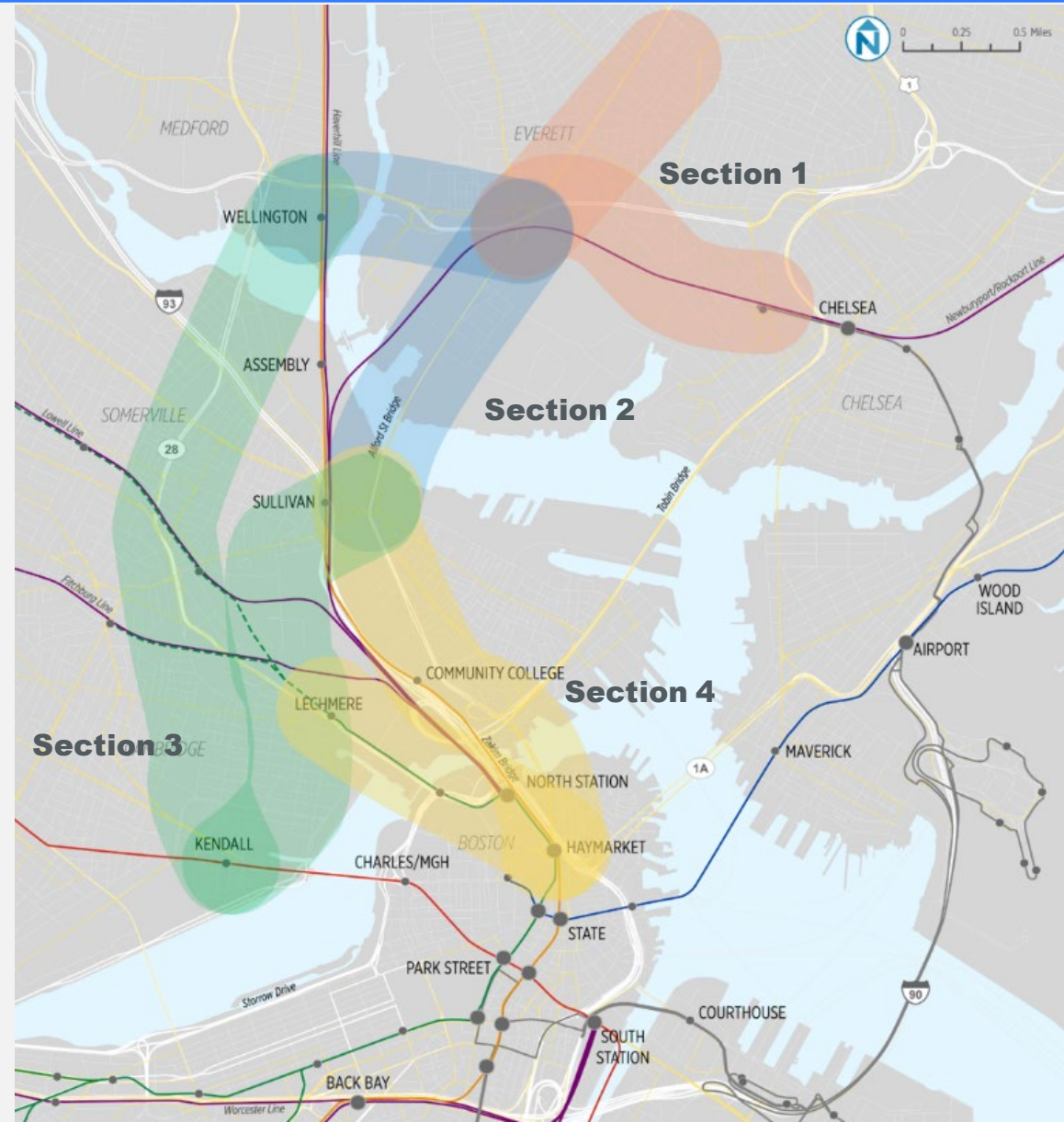
# Our Goals and Objectives (pg 2 of 2)

Goal Area	Objectives	Tier 1 Metrics
Improve Safety	<ul style="list-style-type: none"> <li>Provides safe, comfortable, and accessible pedestrian access to and from stations</li> <li>Address identified transportation safety issues at intersections along the project corridors</li> </ul>	<ul style="list-style-type: none"> <li>Existing or potential for accessible pedestrian path</li> <li>Existing or potential bicycle connections</li> <li>Ability to address known safety issues</li> </ul>
Support Climate Change Resilience and Sustainability	<ul style="list-style-type: none"> <li>Increase transit mode share and reduce dependence on cars for trips within the study area</li> <li>Reduce GHG Emissions from SOV trips within the study area</li> <li>Address climate change vulnerabilities of transit infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Ability to remain outside known areas of climate change vulnerability OR ability to construct alignment so that it would withstand climate change vulnerability</li> </ul>
Advance Feasible and Implementable Solutions (added as a result of our last public process)	<ul style="list-style-type: none"> <li>Ability to phase concept over time</li> <li>Extent to which concept provides stand-alone value of transit service, within this section alone</li> <li>Ability for concept to fit within existing roadway footprint</li> <li>Extent to which investment could be included within other efforts upcoming or currently underway</li> <li>Extent of known municipal support for concept alignment and service assumptions</li> <li>Minimize the number of major cost items within concept alignment while maintaining benefit</li> </ul>	<ul style="list-style-type: none"> <li>Proportion of alignment that could support dedicated transit facilities (sketch analysis) – on entire alignment AND alignment segments w/ MBTA bus service</li> <li>Extent of active planning efforts on identified corridors</li> <li>Extent of known community support</li> <li># and extent of known major cost items</li> <li># and extent of new connections between major activity centers</li> </ul>

# How we Approached the Tier 1 Evaluation

The Tier 1 analysis was conducted at a geographic level, by section

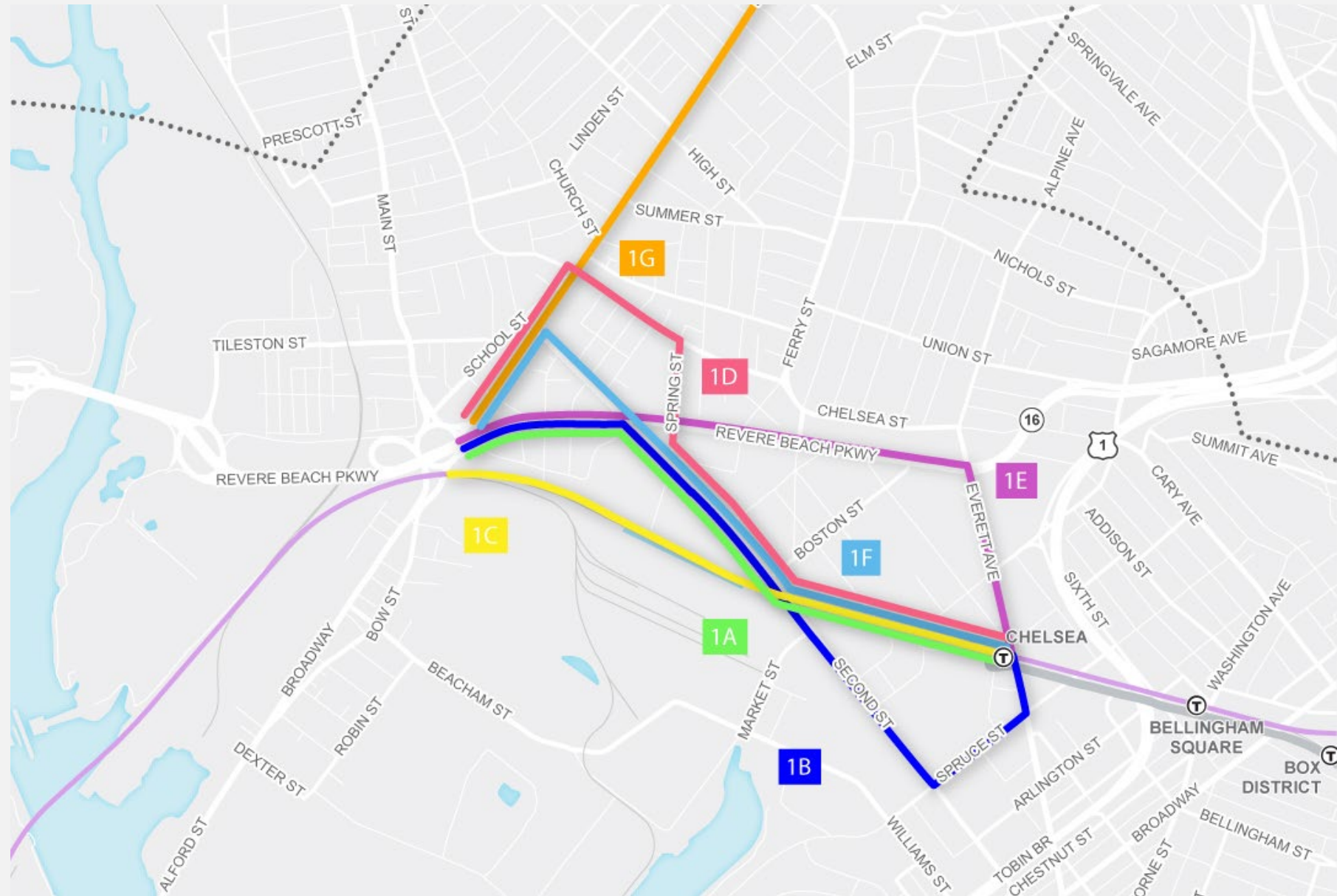
- Section 1: Chelsea to Everett
- Section 2: Everett to Orange Line
- Section 3: Orange Line to Kendall
- Section 4: Orange Line to Boston





# Tier 1 Concepts: Section 1

- 1A Commuter Rail Right-of-Way (CR ROW)/Second/Route 16
- 1B Spruce/Second/Route 16
- 1C CR ROW
- 1D CR ROW/Second/Spring/Chelsea/Broadway
- 1E Everett/Route 16
- 1F CR ROW/Second/Broadway
- 1G Upper Broadway



# Tier 1 Evaluation Results: Section 1

Goal	1A	1B	1C	1D	1E	1F	1G
Mobility and Access	Light Green	Dark Green	Light Green	Light Green	Light Green	Light Green	Light Red
Equity	Dark Green	Dark Green	Dark Green	Light Green	Light Green	Light Green	Light Orange
Safety	Light Red	Light Orange	Light Red	Light Green	Light Green	Light Red	Light Green
Climate Resiliency	Dark Green	Dark Green	Dark Green	Dark Green	Dark Green	Dark Green	Dark Green
Implementable Solutions	Light Orange	Light Green	Dark Red	Dark Green	Light Orange	Light Orange	Light Green

Keep an option not relying on commuter rail ROW

Serving Everett Square is critical

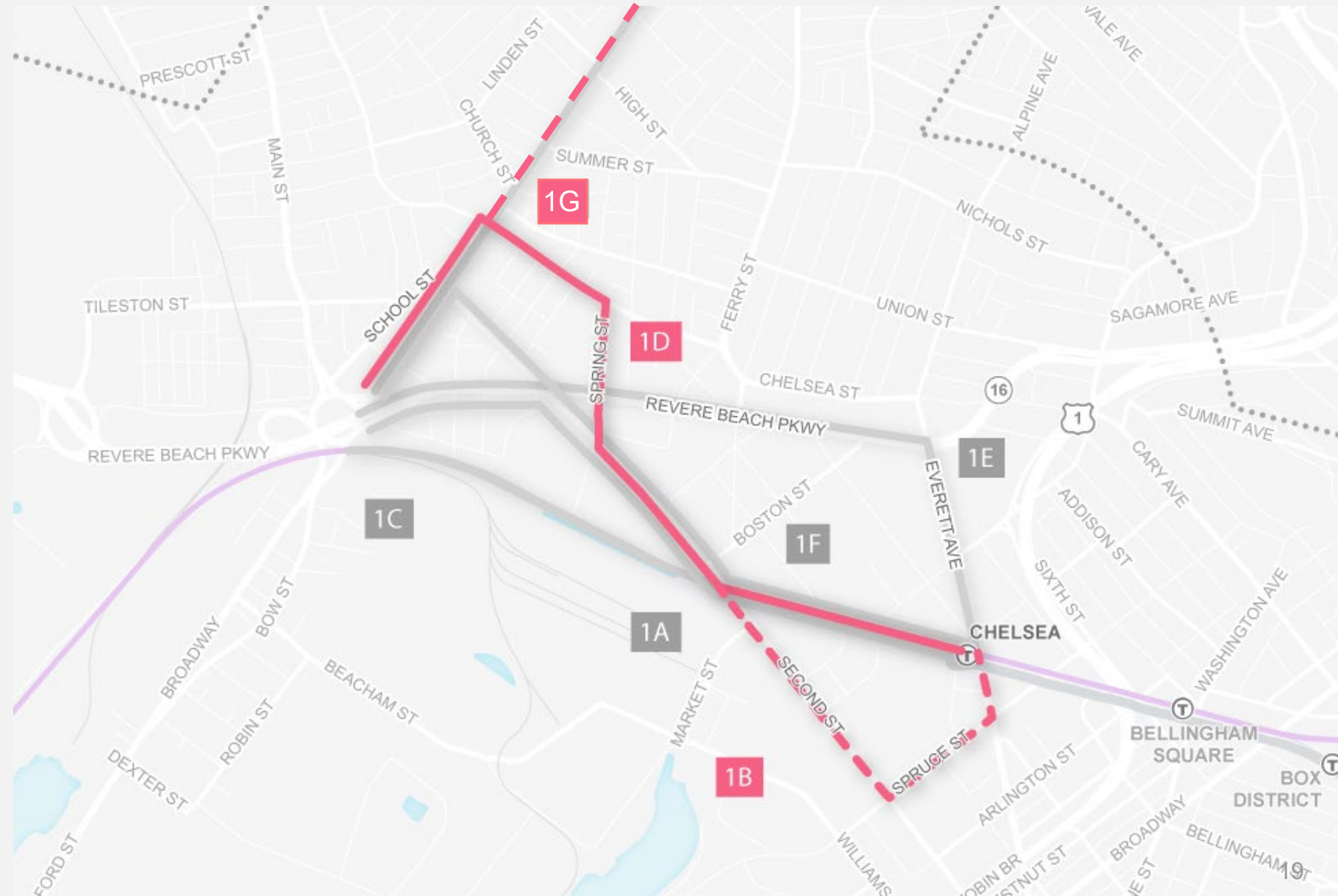
Possibly consider service starting at Glendale Sq

**Legend**

Poor ← → Good

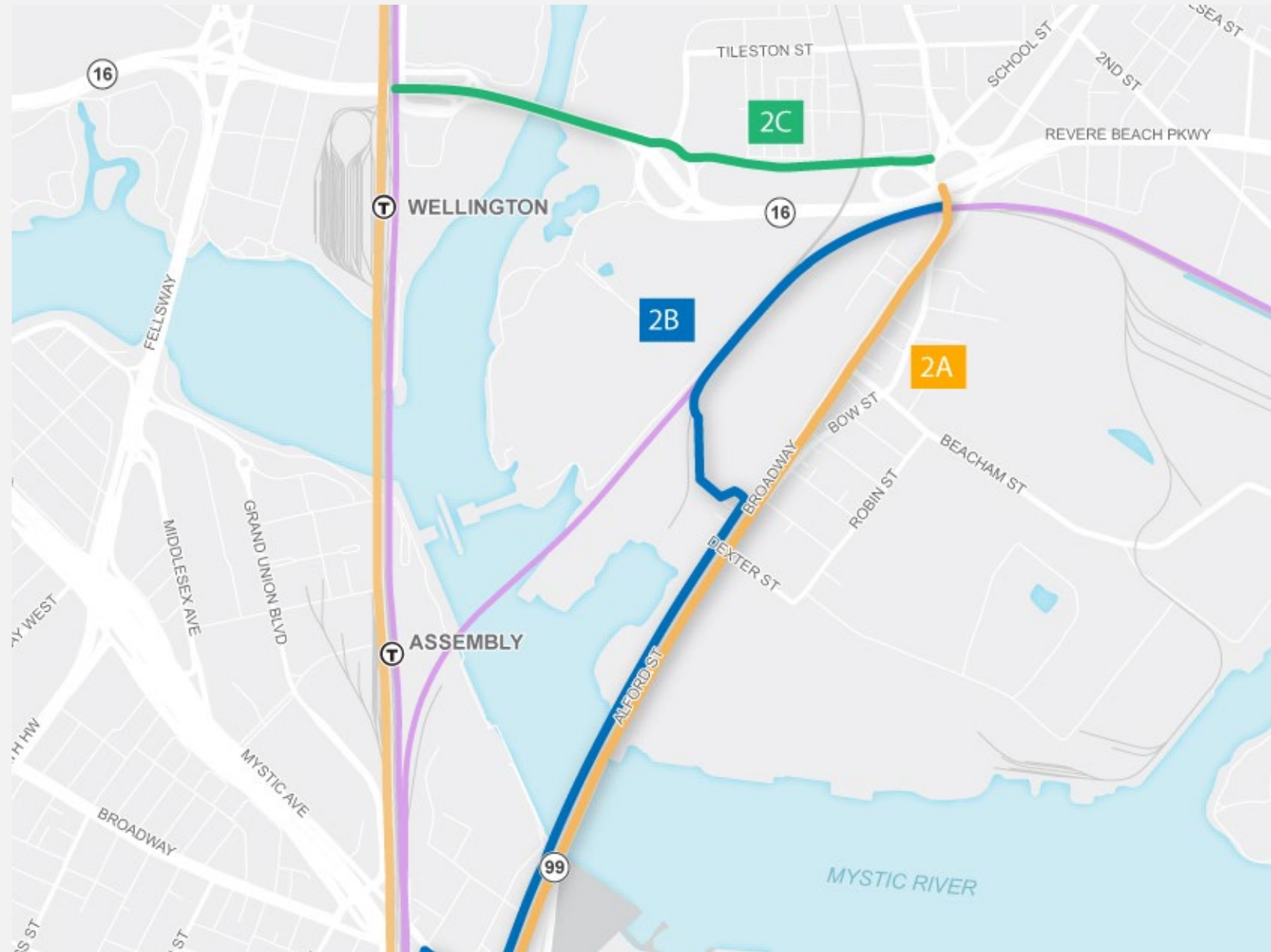
# Moving into Tier 2: From Section 1

- 1A CR ROW/Second/  
Route 16
- 1B Spruce/Second/ Route  
16 (alignment option)
- 1C CR ROW
- 1D CR ROW/Second/  
Spring/Chelsea/  
Broadway
- 1E Everett/Route 16
- 1F CR ROW/Second/  
Broadway
- 1G Upper Broadway  
(service planning  
option)



# Tier 1 Concepts: Section 2

- 2A Lower Broadway
- 2B CR ROW to Lower Broadway
- 2C Route 16 to Wellington (via Santilli Connector)



# Tier 1 Evaluation Results: Section 2

## Goal

Mobility and Access

Equity

Safety

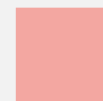
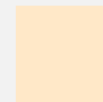
Climate Resiliency

Implementable Solutions

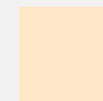
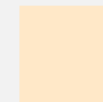
## 2A



## 2B



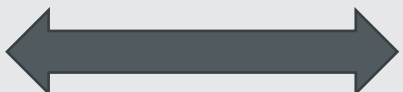
## 2C



## Legend



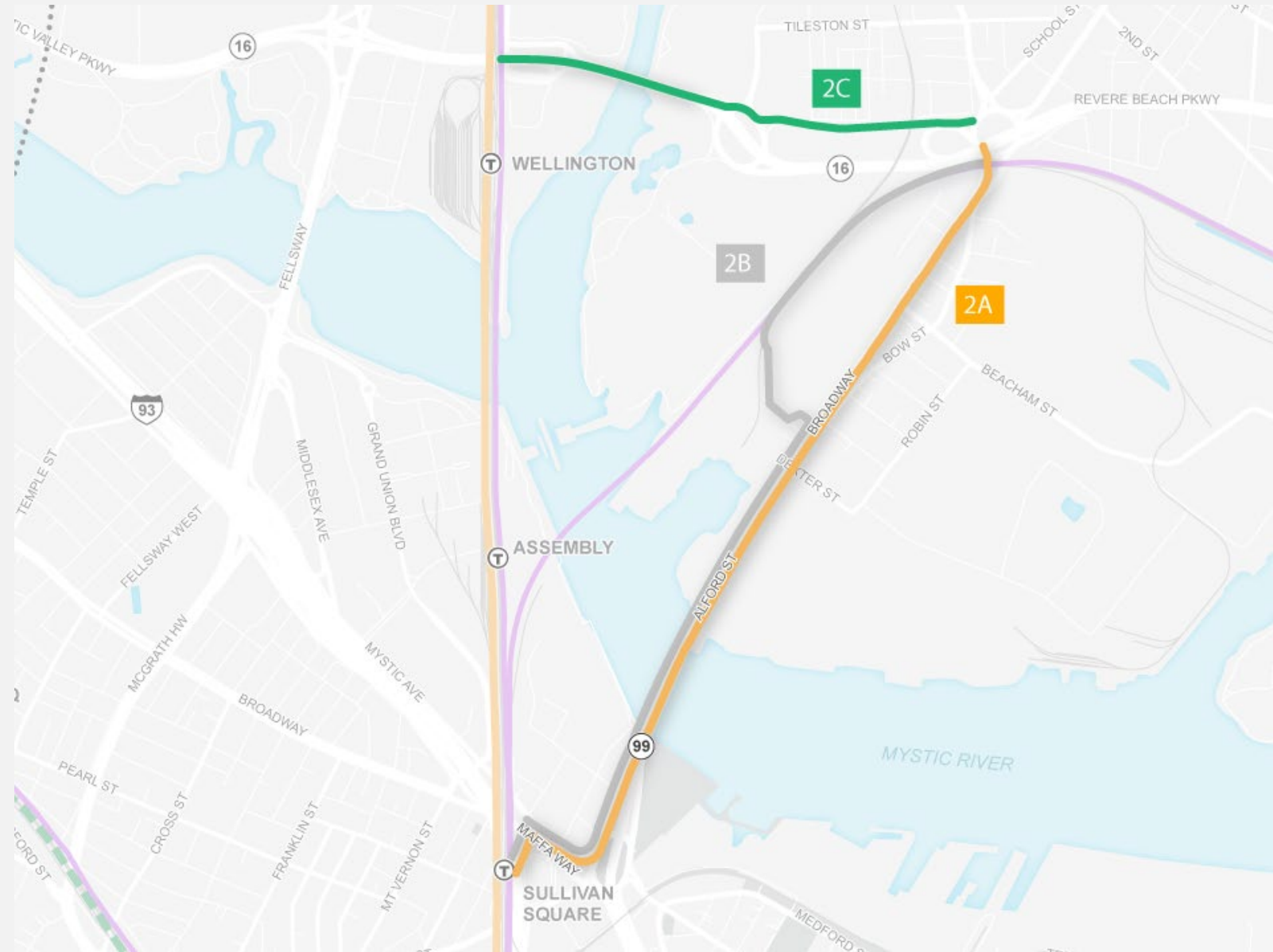
Poor



Good

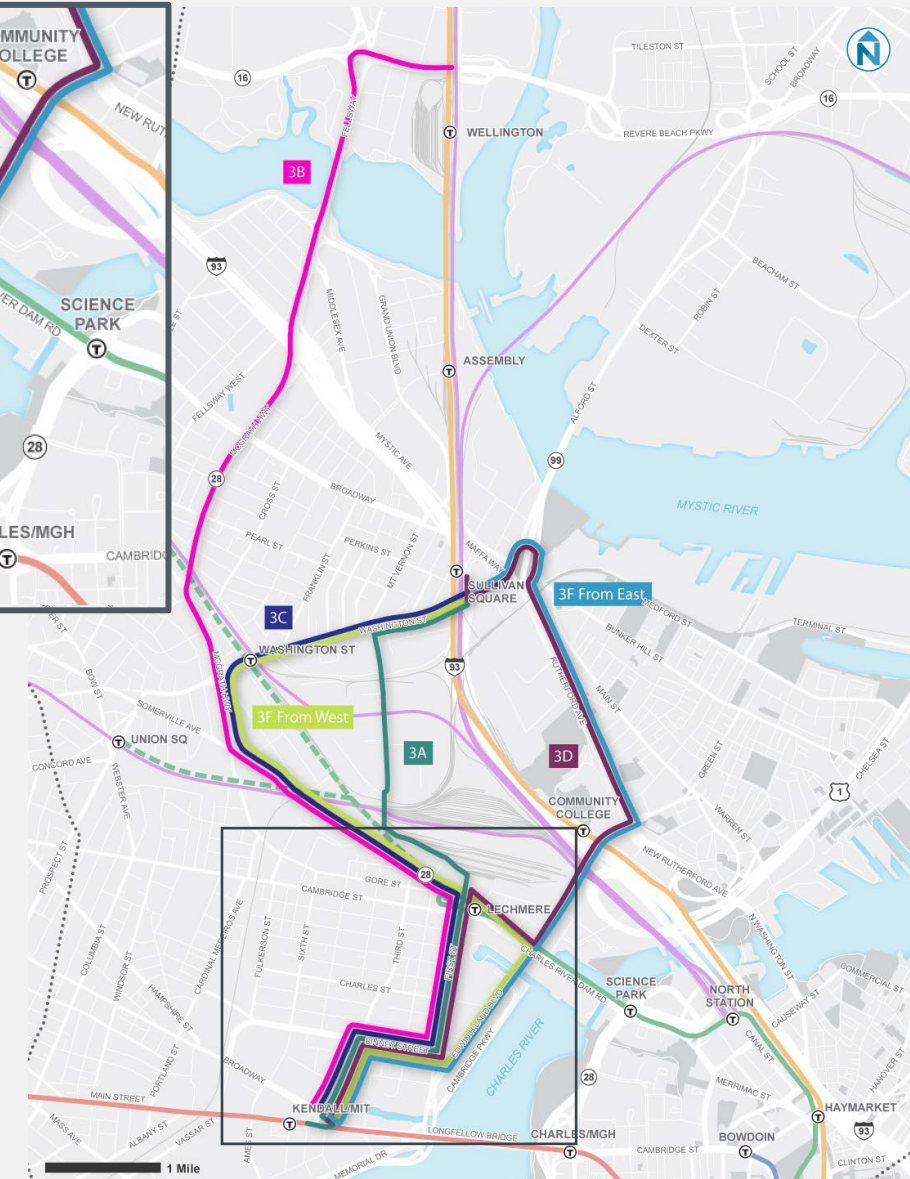
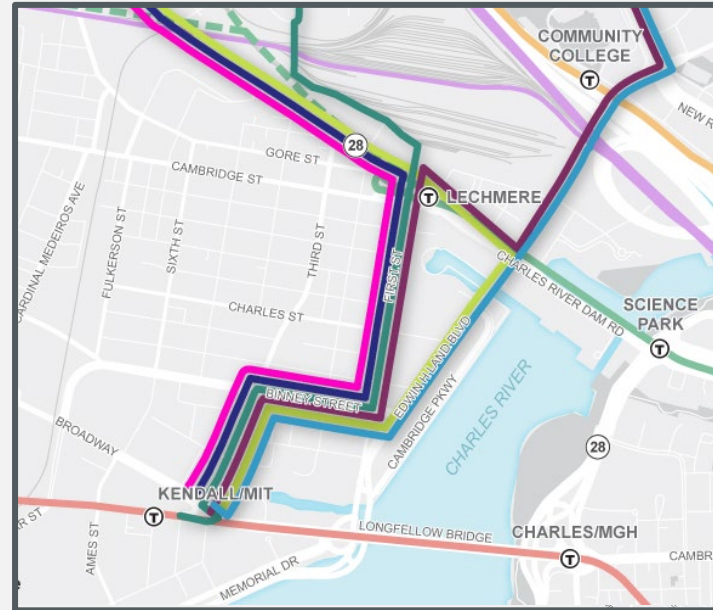
# Moving into Tier 2: From Section 2

- 2A Lower Broadway
- 2B CR ROW to Lower Broadway
- 2C Route 16 to Wellington (via Santilli Connector)



# Tier 1 Concepts: Section 3\*

- 3A Inner Belt Road
- 3B From Wellington
- 3C Washington to McGrath
- 3D Rutherford Avenue to Gilmore Bridge
- 3F East Rutherford Avenue to Land Boulevard
- 3F West Washington/McGrath/Land Boulevard



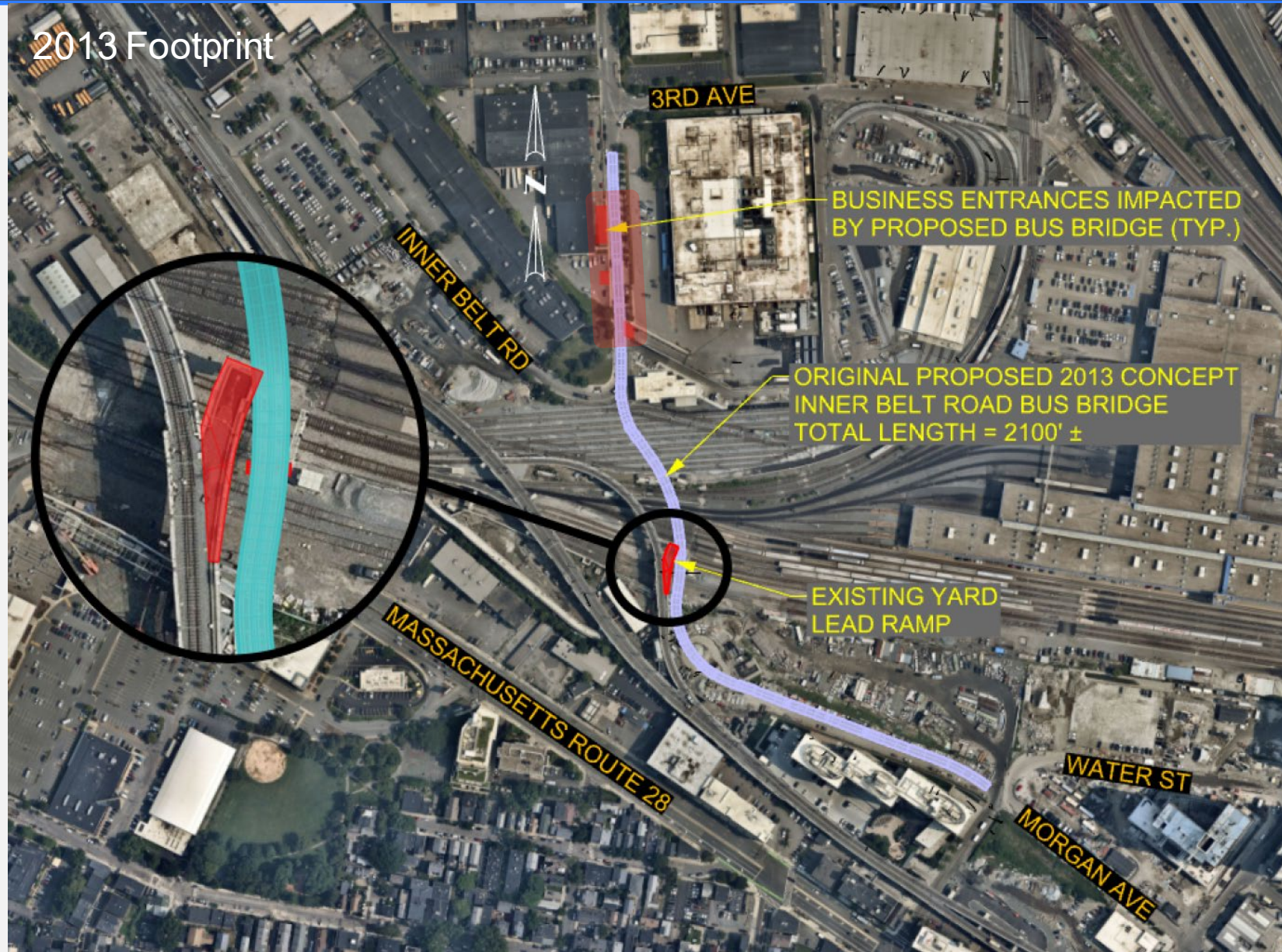
\* Concepts 3E and 3G were eliminated during the screening process

# Inner Belt Road Bus Bridge Original Concept

This map shows the footprint from the original plan for the Inner Belt Road Bus Bridge over the GLX tracks (from 2013).

There exists a conflict between the elevation of the proposed superstructure and the existing GLX Yard Lead Flyover (YLF) structure

These were shown to directly intersect one another at the same deck elevation



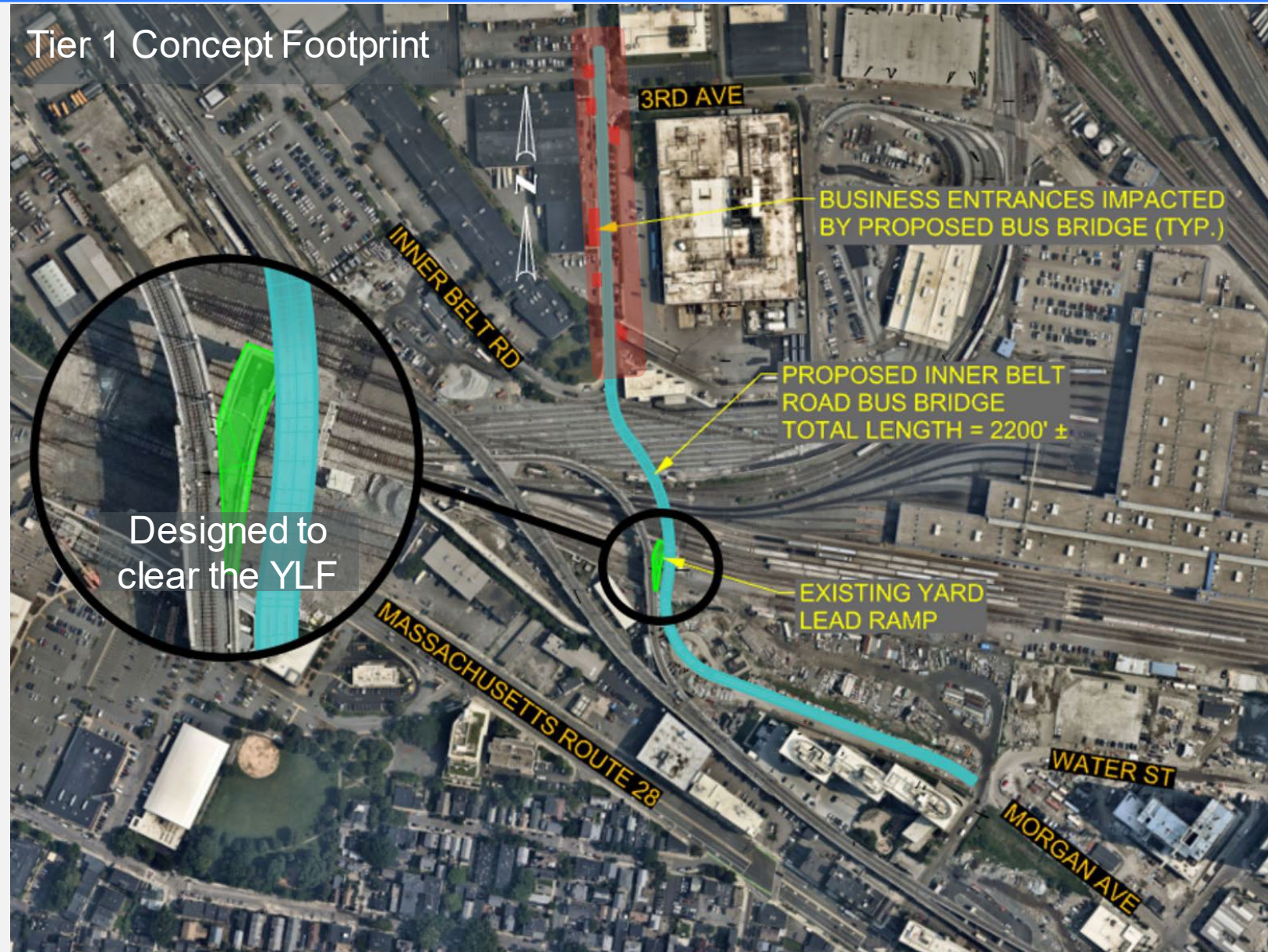


# Inner Belt Road Bus Bridge – Tier 1 Concept

To avoid this conflict, the elevation of the proposed Bus Bridge main span was raised by approximately 25' to clear the Yard Lead Flyover (YLF).

This extends the footprint of the Bus Bridge north of 3<sup>rd</sup> Avenue and increases access conflicts.

Furthermore, additional piers would be needed in the bridge span, which would be difficult to place due to track locations



# Tier 1 Evaluation Results: Section 3

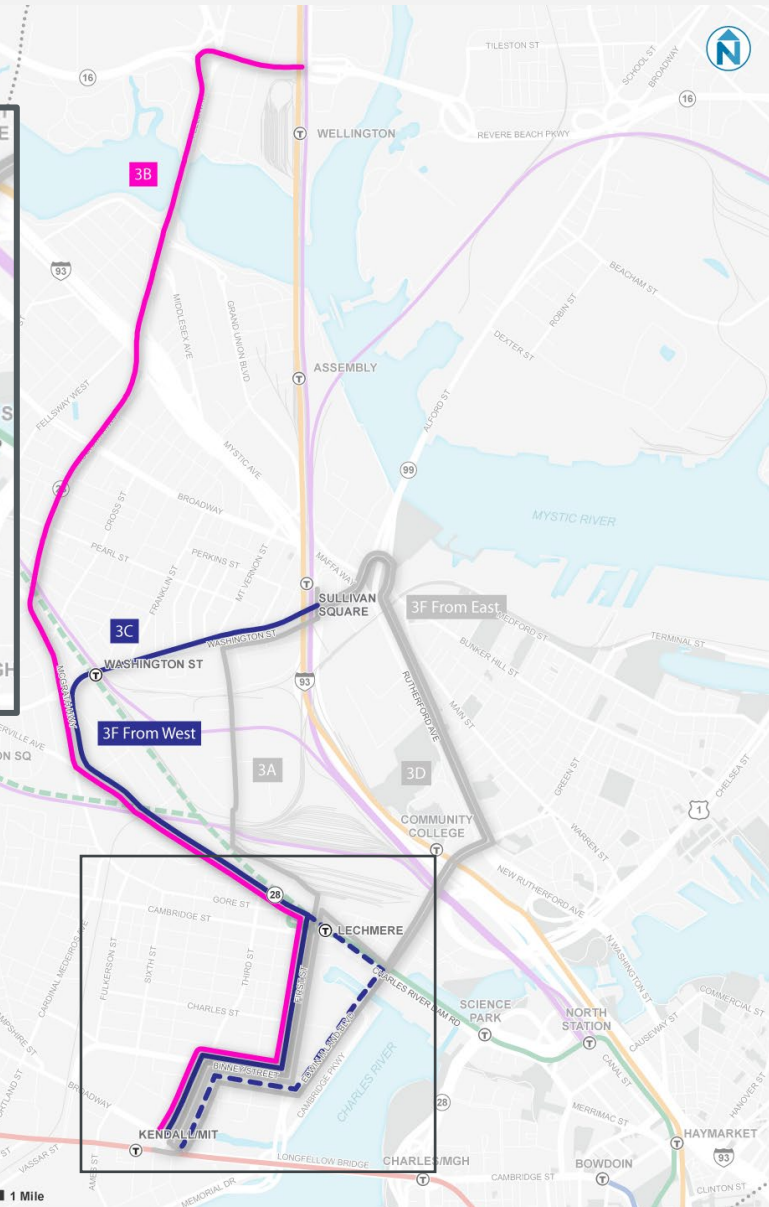
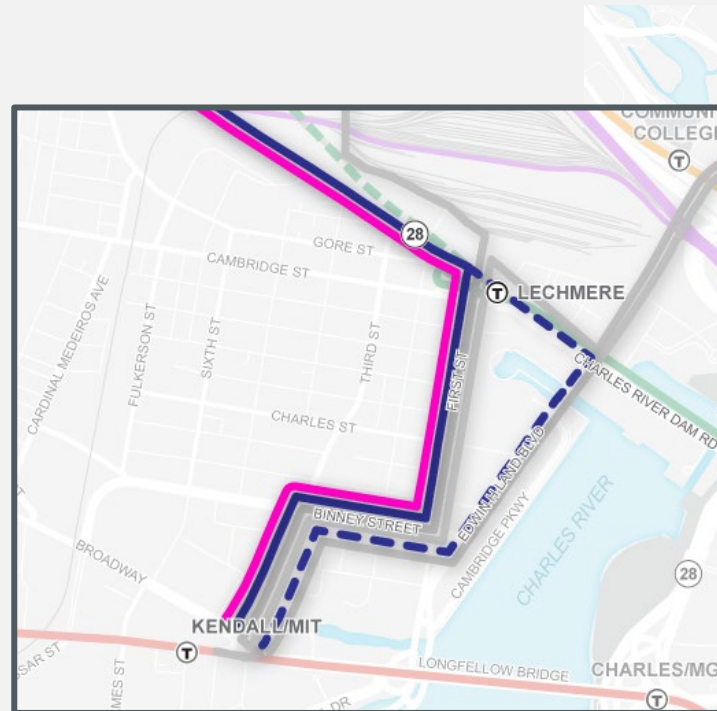
Goal	3A	3B	3C	3D	3F - East	3F - West
Mobility and Access	Dark Red	Dark Green	Light Green	Light Red	Light Red	Light Green
Equity	Light Green	Light Orange	Light Green	Light Red	Light Red	Light Green
Safety	Dark Green	Light Green	Light Green	Light Orange	Light Orange	Light Orange
Climate Resiliency	Light Red	Light Orange	Light Orange	Light Red	Light Red	Light Orange
Implementable Solutions	Dark Red	Light Red	Light Green	Light Orange	Light Orange	Light Green

**Legend**

Poor ← → Good

# Moving into Tier 2: From Section 3

- 3A Inner Belt Road
- 3B From Wellington
- 3C Washington to McGrath
- 3D Rutherford Avenue to Gilmore Bridge
- 3F East Rutherford Avenue to Land Boulevard
- 3F West Washington/McGrath/Land Boulevard



Kendall Square circulation to be determined

# Tier 1 Concepts: Section 4

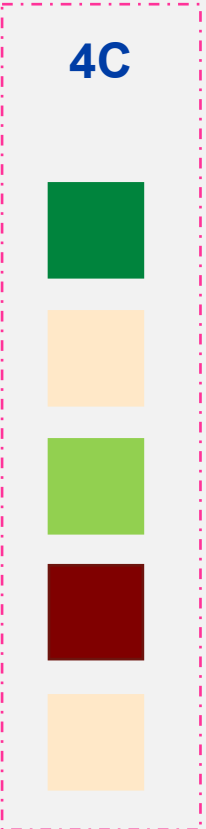


- 4A Rutherford to North Station
- 4B Lechmere to North Station
- 4C Rutherford to Haymarket
- 4D Lechmere to Haymarket



# Tier 1 Evaluation Results: Section 4

Goal	4A	4B	4C	4D
Mobility and Access	Orange	Orange	Dark Green	Orange
Equity	Orange	Light Green	Orange	Light Green
Safety	Dark Green	Orange	Light Green	Orange
Climate Resiliency	Dark Red	Dark Red	Dark Red	Dark Red
Implementable Solutions	Light Red	Light Red	Orange	Orange



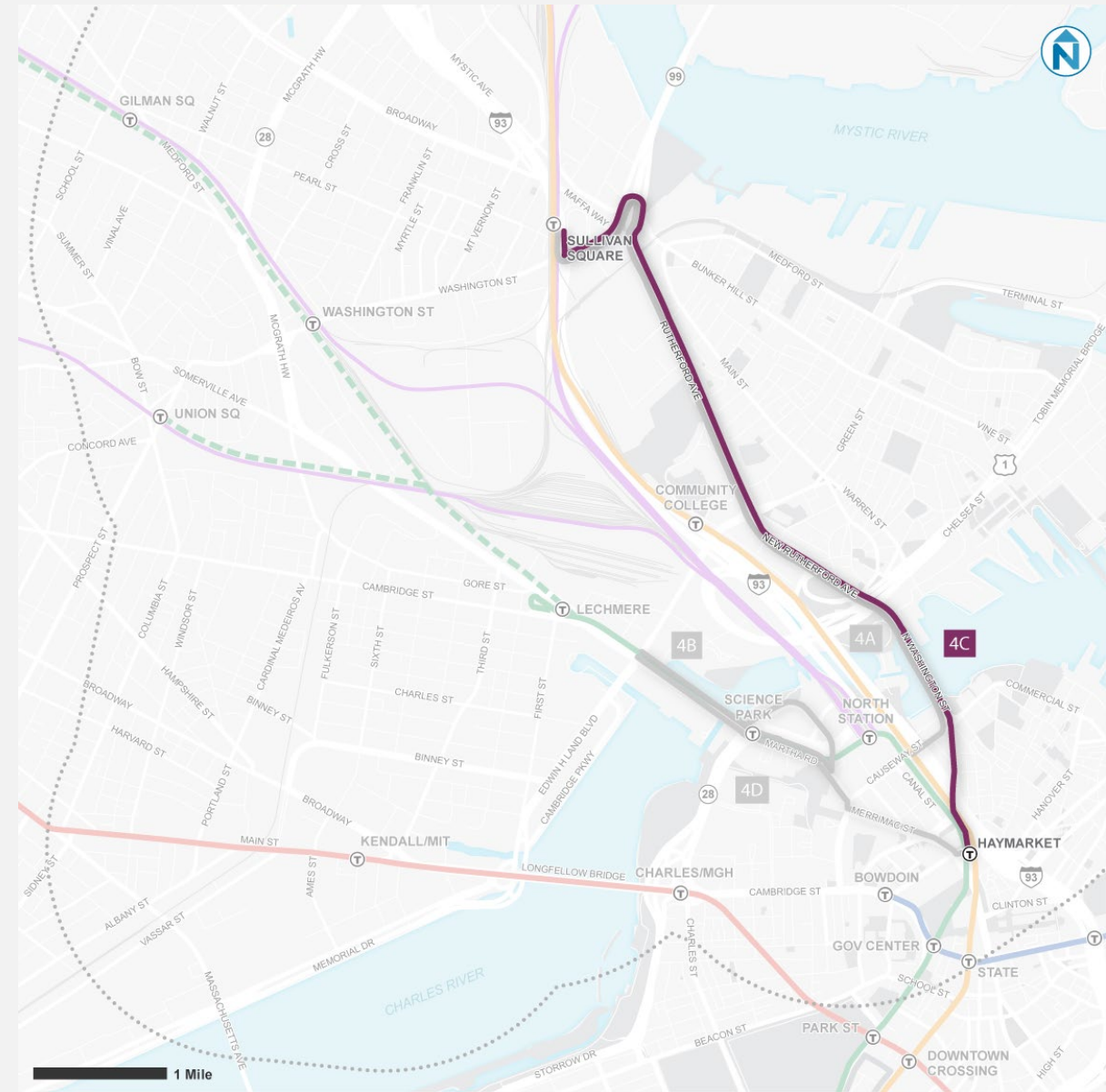
Legend

Poor ← → Good

# Moving into Tier 2: From Section 4

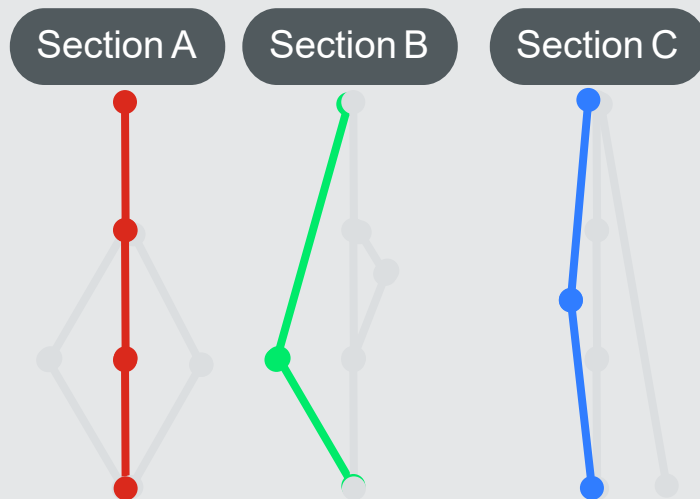
- 4A Rutherford to North Station
- 4B Lechmere to North Station
- 4C Rutherford to Haymarket
- 4D Lechmere to Haymarket

Downtown circulation to be determined



# Transitioning from Tier 1 into Tier 2

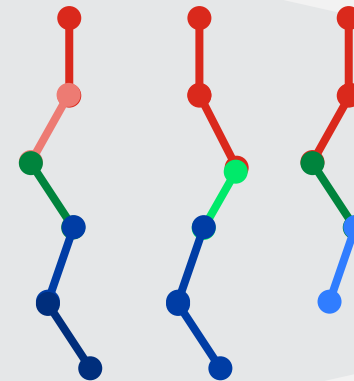
## Tier 1 Evaluation



Tier 1 tested various alignments that shared common end points. The best performing concepts move into Tier 2.

## Tier 2 Evaluation

### Entire Route



Tier 2 is a more robust analysis on a shortlist of alternatives. This effort includes ridership forecasts from CTPS, centered on the entire route, testing various terminus points.

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# WORKING GROUP DISCUSSION

1. Do you think that this process missed anything?
2. Are you surprised by any of these findings?
3. Is there anything you think we should have looked at differently?

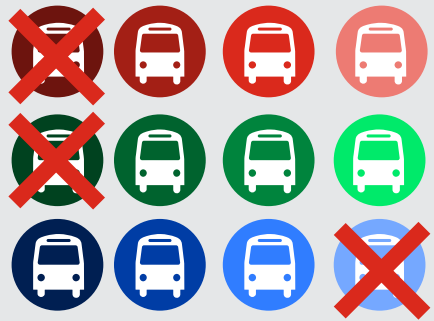


# Tier 2 Alternatives

Begin-to-end service alternatives

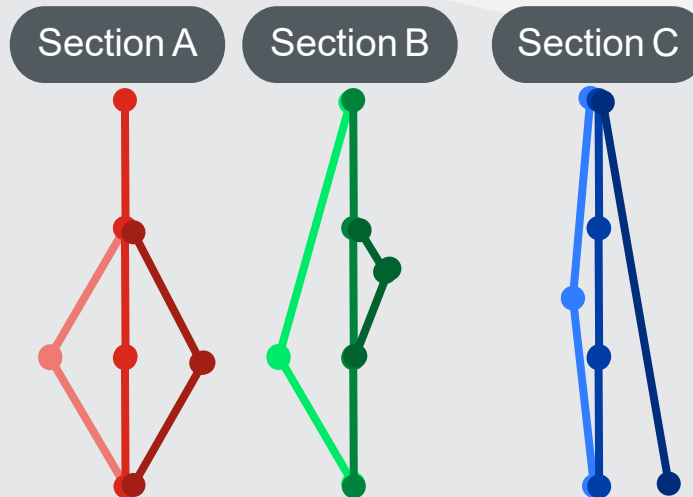
# The Tier 2 Process

## Screening



Review a wide host of ideas and remove all those that don't meet the project's purpose

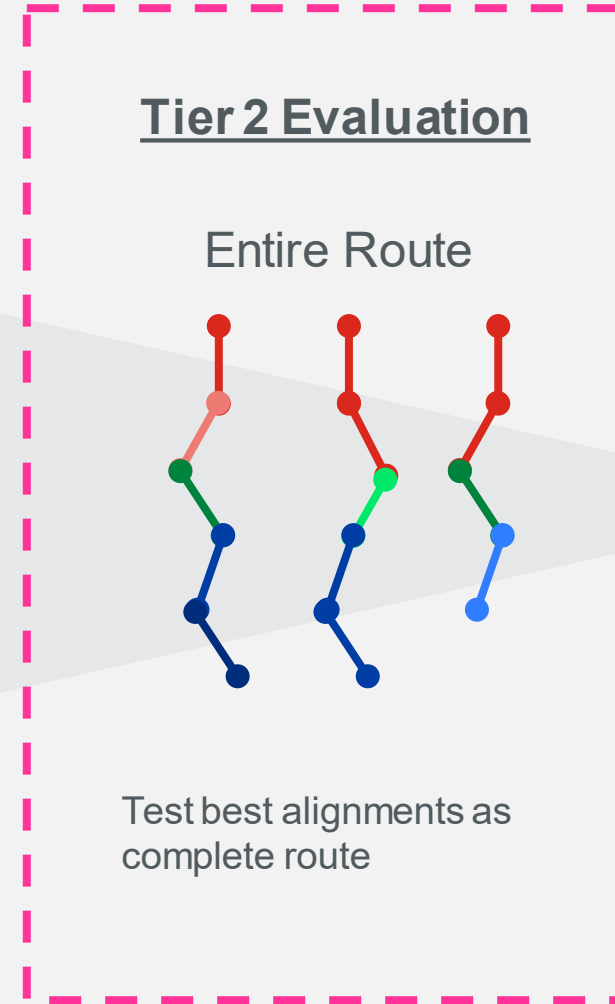
## Tier 1 Evaluation



Test different alignments within each section

NOTE: Alignments shown above are illustrative, and not intended to represent any specific alignments!

## Tier 2 Evaluation



Test best alignments as complete route

LPA

# The Tier 2 Process, cont.

- Tier 2 is a more robust analysis conducted on a shortlist of the most promising concepts coming out of the screening and Tier 1 process
- In Tier 1 we looked at broad corridors. In Tier 2, we will refine our design assumptions and develop service plans for the alternatives
- CTPS will run ridership and air quality analyses on up to five end-to-end alternatives
- Through August and September, we continue to work with stakeholders to nail down circulation and cross-section assumptions (and resultant tradeoffs to congestion, parking, and ROW impacts)

# Tier 2 Metrics

Goal Area	Objectives	Tier 2 Metrics (Draft)
Expand Mobility and Access	<ul style="list-style-type: none"> <li>• Connect residents directly with jobs, services, and other daily activities</li> <li>• Provide reliable transit service at or near rapid-transit levels to communities not currently served by rapid-transit</li> <li>• Provide transit service that takes a similar amount of time or is faster than driving</li> <li>• Maximize new connections with other transit services</li> <li>• Provide transit connections to existing and planned affordable housing</li> <li>• Use investments to improve existing transit services in study area</li> <li>• Serve High Demand Areas identified by the Bus Network Redesign effort currently underway</li> </ul>	<ul style="list-style-type: none"> <li>• Total daily riders</li> <li>• Total potential market</li> <li>• Access to jobs via 30-, 45-, or 60-minute transit commute</li> <li>• Additional trips made by transit critical populations served by high-frequency transit service</li> <li>• Transit travel time, ratio of transit time to drive time</li> <li>• Number of other services that can be transferred to within an Alternative.</li> <li>• Number of affordable housing units within ½-mile of an Alternative</li> <li>• % of stations served with TOD potential</li> </ul>
Advance Equity	<ul style="list-style-type: none"> <li>• Provide new transit service for people who already rely on transit to get around</li> <li>• Make sure people who are likely to rely on transit have transit that matches how much service they need and when</li> <li>• Make improvements to existing transit service used by people who are likely to rely on transit</li> </ul>	<ul style="list-style-type: none"> <li>• % of total daily riders estimated to be within transit critical populations</li> <li>• % of total potential market estimated to be within transit critical populations</li> <li>• Access to jobs via 30-, 45-, or 60-minute transit commute for transit-critical populations</li> <li>• Number of Top 10 travel flows by transit critical populations served by transit that meets Key Bus Route frequency and span standards</li> <li>• Reduction in daily passenger minutes of delay on existing bus routes (if applicable)</li> </ul>

# Tier 2 Metrics (cont.)

Goal Area	Objectives	Tier 2 Metrics (Draft)
Improve Safety	<ul style="list-style-type: none"> <li>Provides safe, comfortable, and accessible pedestrian access to and from stations</li> <li>Address identified transportation safety issues at intersections along the project corridors</li> </ul>	<ul style="list-style-type: none"> <li>Ability for Alternative to provide a connection to an existing pedestrian and bicycle facility or to retain width for a new facility that is continuous, comfortable, and safe</li> </ul>
Support Climate Change Resilience and Sustainability	<ul style="list-style-type: none"> <li>Increase transit mode share and reduce dependence on cars for trips within study area</li> <li>Reduce GHG Emissions from SOV trips within the study area</li> <li>Address climate change vulnerabilities of transit infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>% change in transit mode split</li> <li>Minimize GHG Emissions from trips within the study area</li> <li>% change in GHG emissions</li> <li>Ability to remain outside known areas of climate change vulnerability OR ability to construct alignment so that it would withstand climate change vulnerability</li> </ul>
Advance Feasible and Implementable Solutions	<ul style="list-style-type: none"> <li>Ability to phase concept over time</li> <li>Extent to which concept provides stand-alone value of transit service, within this section alone</li> <li>Ability for concept to fit within existing footprint</li> <li>Extent to which investment could be included within other efforts</li> <li>Extent of known municipal support for concept alignment and service assumptions</li> <li>Minimize the number of major cost items within concept alignment while maintaining benefit</li> </ul>	<ul style="list-style-type: none"> <li>Proportion of alignment that could support dedicated transit facilities (sketch analysis) – on entire alignment AND alignment segments w/ MBTA bus service</li> <li>Consistency with adopted plans</li> <li>Consistency with active planning efforts on identified corridors</li> <li>Extent of known community support</li> <li># and extent of known major cost items</li> <li># and extent of new connections between major activity centers</li> </ul>

# Some High-Level Assumptions

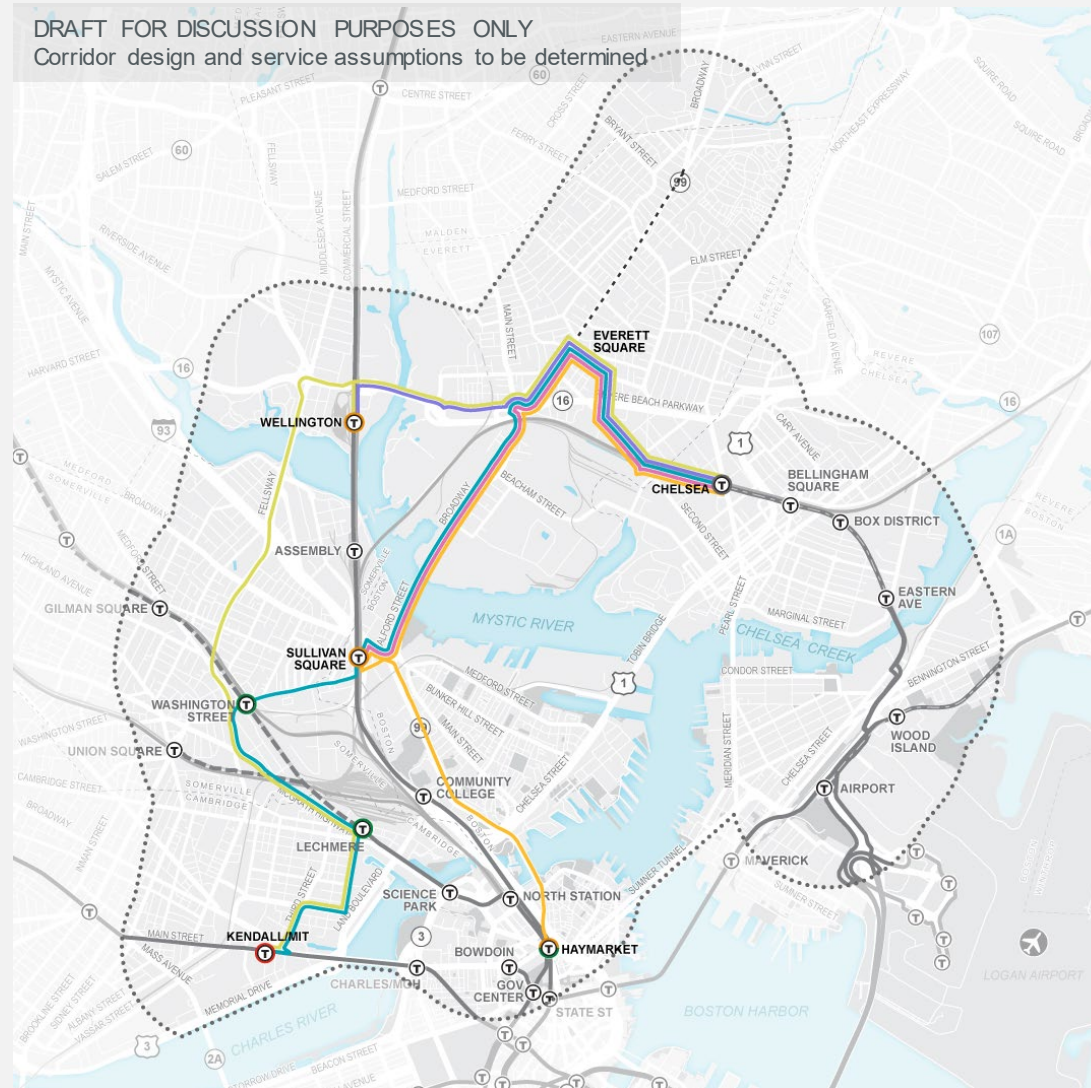
- Silver Line investments provide Bus Rapid Transit-level quality of service
- We seek transit priority wherever possible
  - Where constraints exist, we consider tradeoffs between general traffic and on-street parking with transit priority
  - Where constraints do not exist, we wish to secure transit priority
- Stops will be spaced farther apart than they are for other MBTA bus service
- We are not limited to the current Silver Line vehicle fleet

# Service Plan Assumptions

- Extending SL3 to Cambridge or Downtown would create the longest high frequency bus route in the MBTA network
- Precedent studies assumed the Silver Line Extension would include multiple services (i.e., SL3 extension + something else)
- Proposed Tier II alternatives are designed to support different service options
- Potential service plans will be informed and refined by the Tier II analysis process

# Questions that Our Service Plans Address

- What is the extension of the SL3?
- Are some alternatives really a different SL service (like a SL 6 or SL 7)?
- If so, where would transfers occur?
- Do our SL3 extensions start at Chelsea, at Airport, at South Station?
- Does it make some sense for some alternatives to begin elsewhere?



## Tier 2 Alignments

### SL3 Extension Alternatives

- Wellington Alignment
- Sullivan Alignment
- Kendall via Sullivan Alignment
- Downtown via Sullivan Alignment
- Kendall via Wellington Alignment
- - - Glendale to Everett Square Alignment (advance for consideration in Service Design)

- MBTA Rapid Transit
- MBTA Commuter Rail
- Ⓣ MBTA Stations
- ⋯ Study Area
- Open Space
- Water
- 1 Mile



# Some High-Level Fleet Assumptions

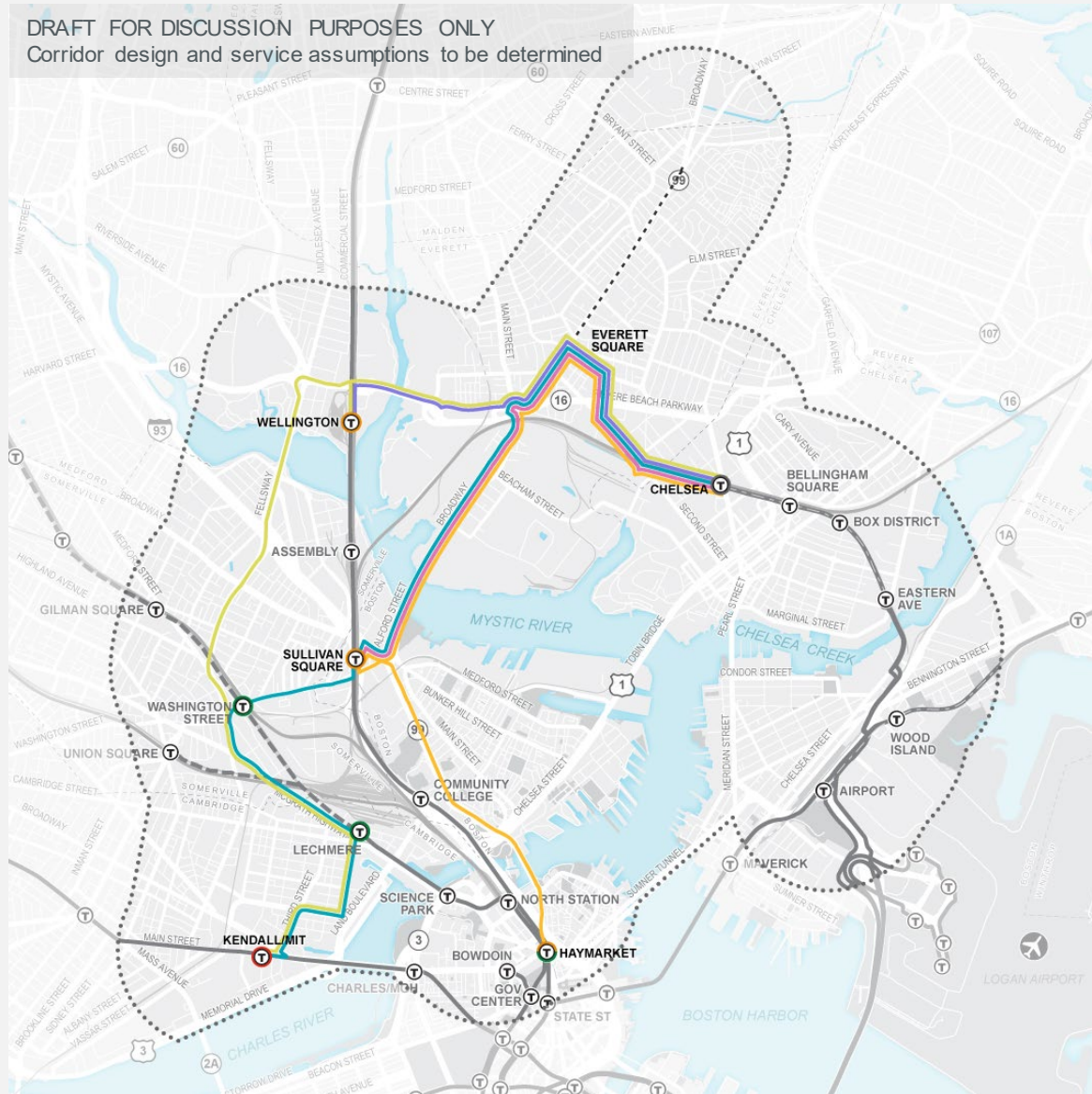
- Project team will project fleet requirements for each alternative
- Travel times based on:
  - Fall 2019 SL3 schedules
  - Fall 2019 scheduled speeds for other MBTA services operating on alternatives corridors, adjusted based on observed impacts of assumed transit priority measures
- 10% minimum layover
- Even cycle times
- 20% spare vehicle ratio

# Some High-Level Design Assumptions

- Maintain existing curb-to-curb widths
- Basis of Design
  - Bus Lane Minimum (center lane): 11'
  - Bus Lane Minimum (curb lane): 12'
  - General Purpose Travel Lane Minimum: 10'
  - Bus Station Platform Width Minimum: 10'
- Commuter Rail Right-of-Way
  - Busway dimension (matches existing busway): 33'
  - Busway spacing (southern rail to southern busway limit): 44'

# Draft Tier 2 Alternatives

- Alternative 1:** to Wellington
- Alternative 2:** to Sullivan
- Alternative 3:** to Kendall via Sullivan
- Alternative 4:** to Downtown via Sullivan
- Alternative 5:** to Kendall via Wellington



### Tier 2 Alignments

**SL3 Extension Alternatives**

- Wellington Alignment
- Sullivan Alignment
- Kendall via Sullivan Alignment
- Downtown via Sullivan Alignment
- Kendall via Wellington Alignment
- - - - Glendale to Everett Square Alignment (advance for consideration in Service Design)

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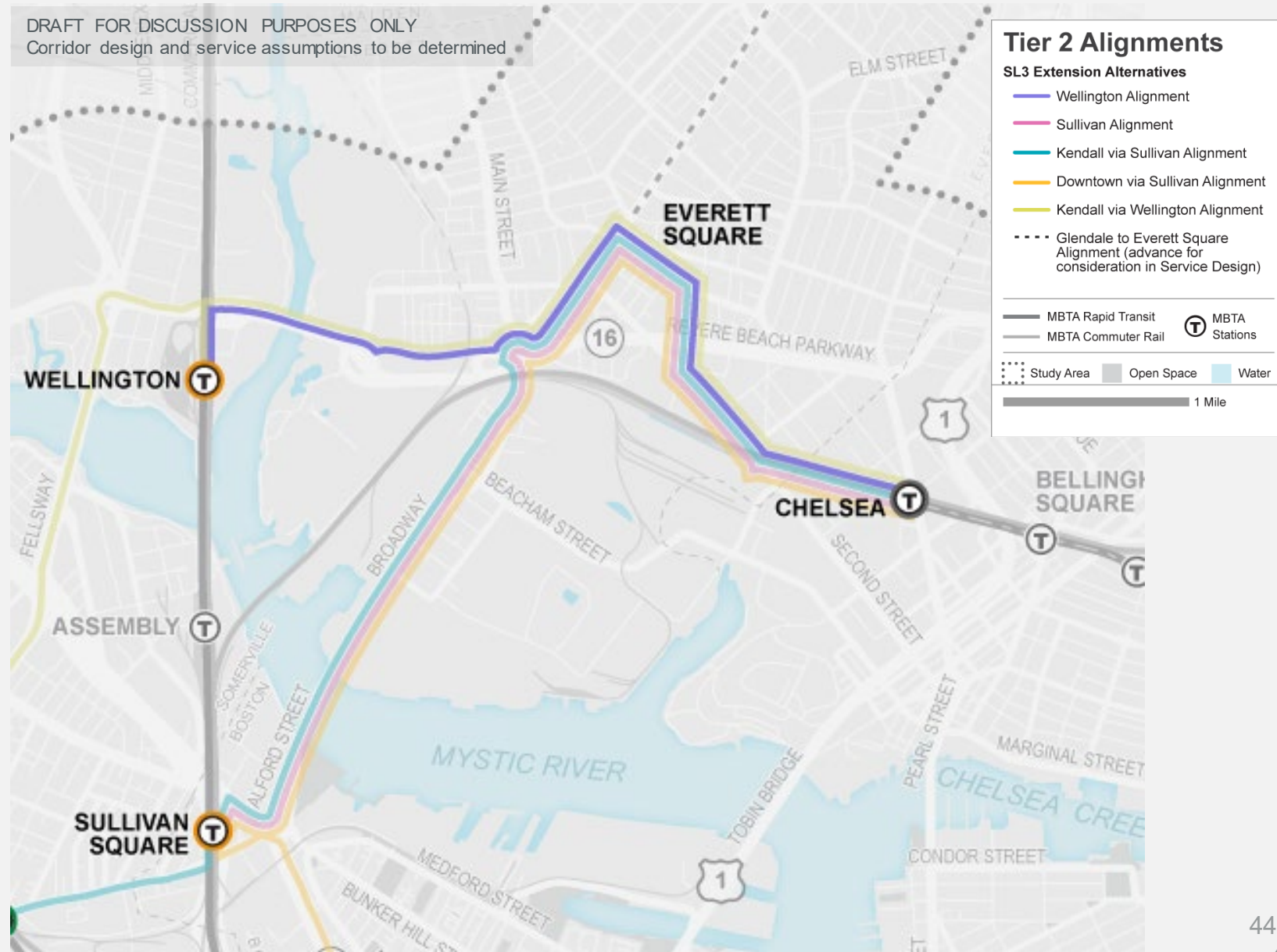
- MBTA Rapid Transit
- MBTA Commuter Rail
- MBTA Stations
- Study Area
- Open Space
- Water

1 Mile

# Tier 2 Alternatives: Alternative 1

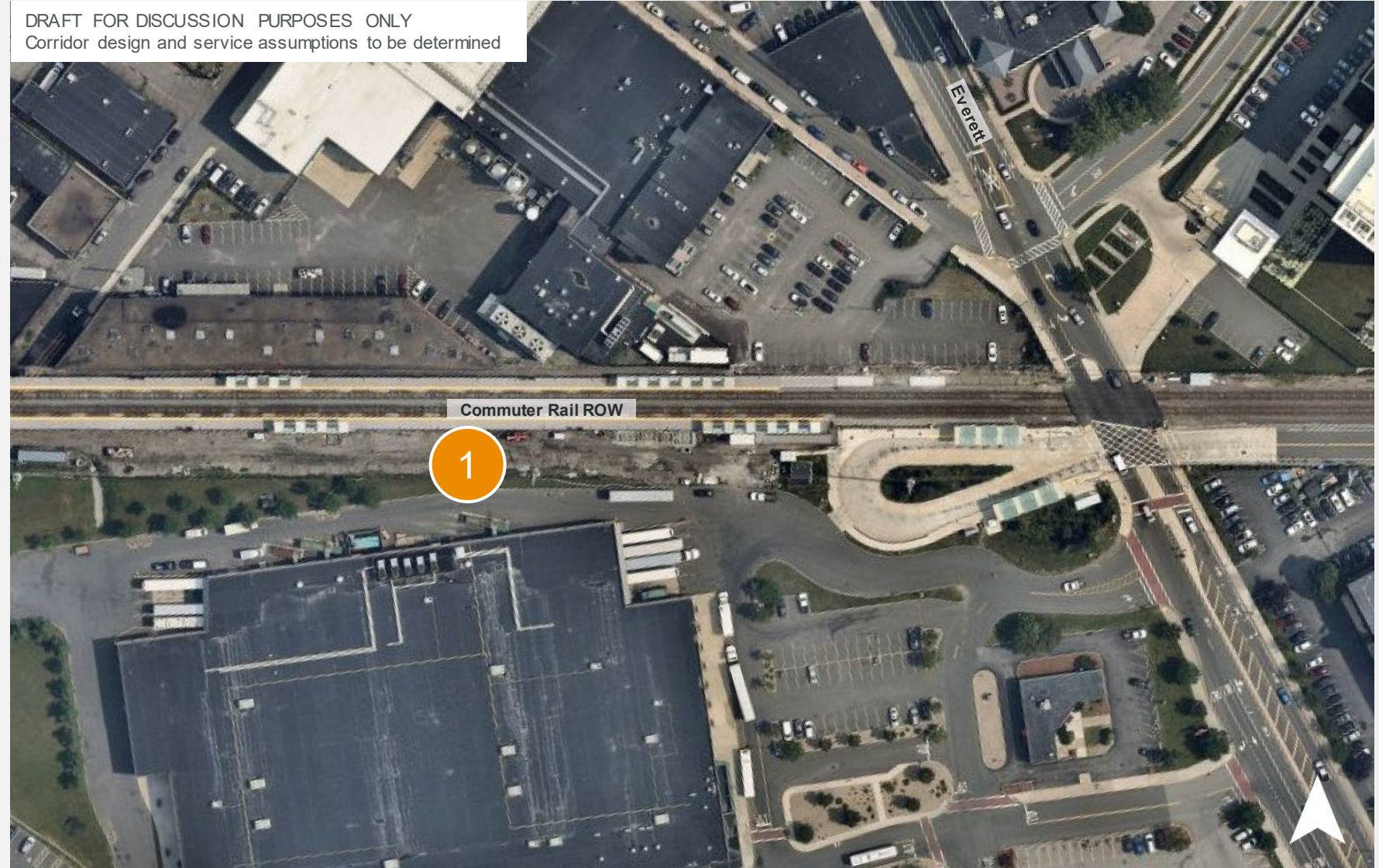
## Chelsea Terminal to Wellington

- CR ROW to Second Street
- Second to Spring to Chelsea to serve Everett Sq.
- Upper Broadway to Sweetser Circle
- Santilli Circle connector
- Santilli Circle to Rte 16
- Terminates at Wellington



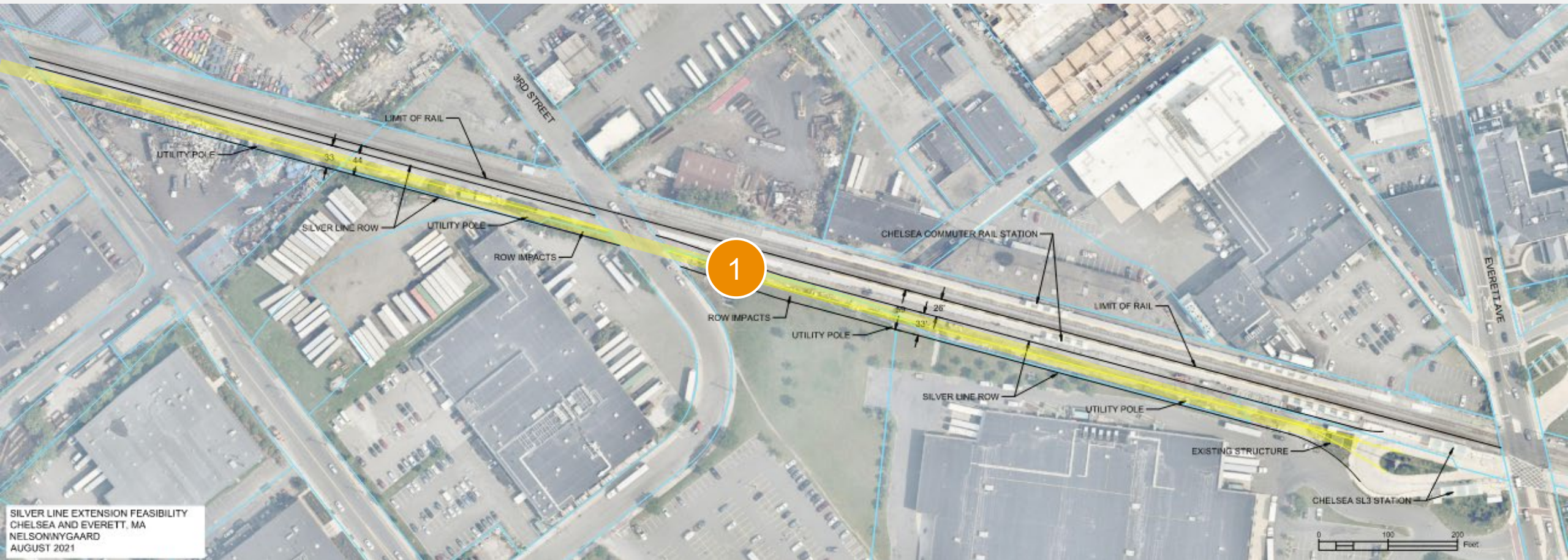
# Design Assumptions

- 1) 33' busway cross-section from Everett Avenue to 2<sup>nd</sup> Street
- 2) Electrical Load Center, Communications Enclosure, Maintenance Shed and Permanent Comfort Station for Chelsea CR Station Project are being preemptively relocated to accommodate future SL busway



# Design Assumptions – Chelsea to Everett Sq.

- 1) 33' busway cross-section from Everett Avenue to 2<sup>nd</sup> Street



# Design Assumptions – Chelsea to Everett Sq.

DRAFT FOR DISCUSSION PURPOSES ONLY  
Corridor design and service assumptions to be determined

- 1) 33' busway cross-section from Everett Avenue to 2<sup>nd</sup> Street
- 2) 32' curb-to-curb, 50' R/W, 65' R/W at permitted developments
  - Near term: Bus in mixed flow
  - Future: Side running bus lanes built out with development
- 3) Install transit signal to facilitate EB left turn after station



# Partnering with Municipalities

- Second Street curb-to-curb and ROW width is currently constrained
- City of Everett is actively working with developers to provide setbacks to widen Second Street and facilitate transit priority
- Currently three development projects have each committed to a 15' setback from 2nd Street
- The City of Everett intends to develop a 25% Design for 2nd Street and require developers to adhere to it

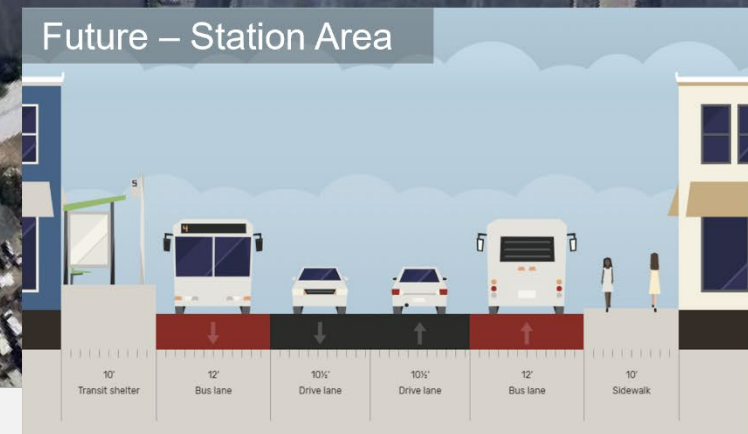
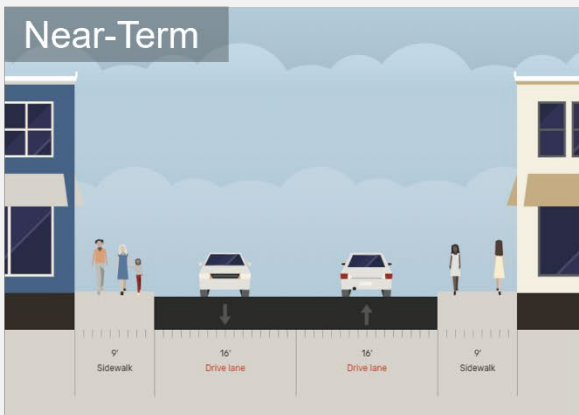
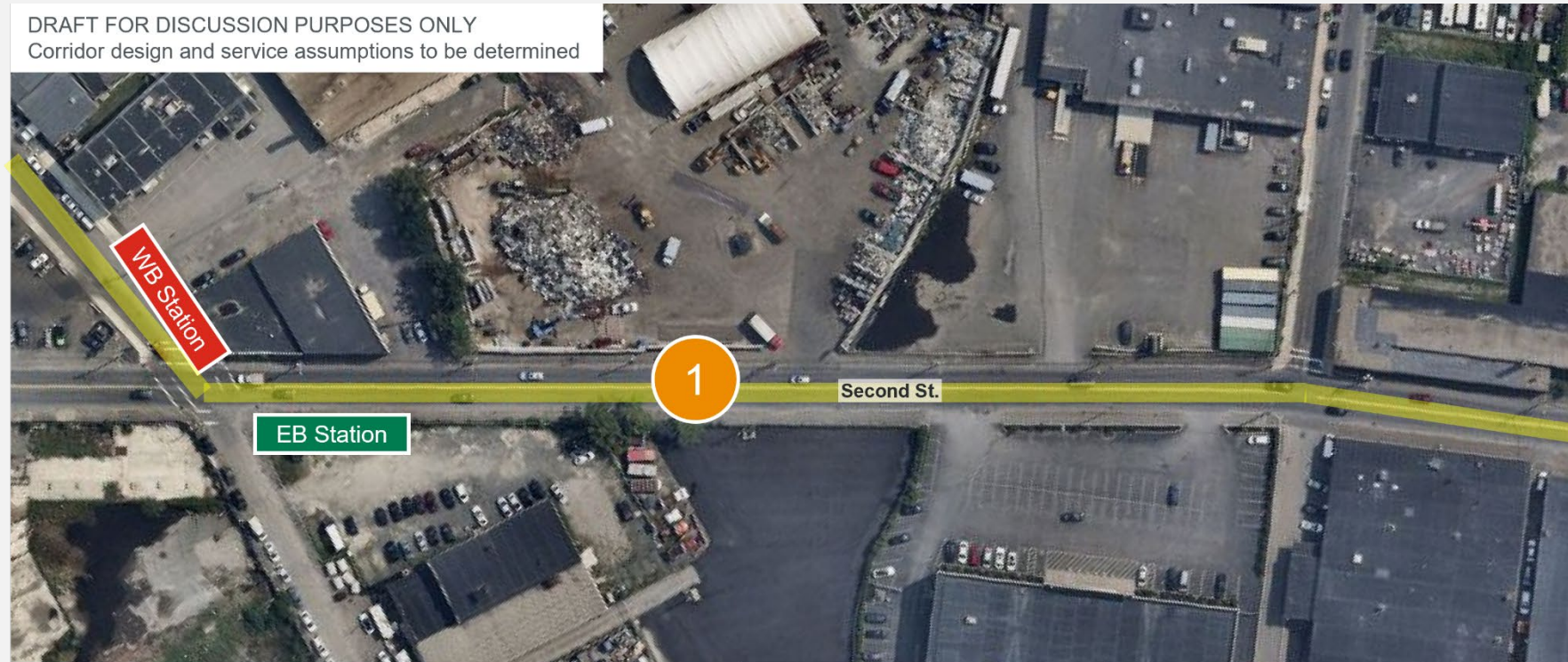


# Design Assumptions – Chelsea to Everett Sq.

1) 32' curb-to-curb, 50' R/W, 65' R/W at permitted developments

- Near term: Bus in mixed flow
- Future: Side running bus lanes built out with development

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Corridor design and service assumptions to be determined



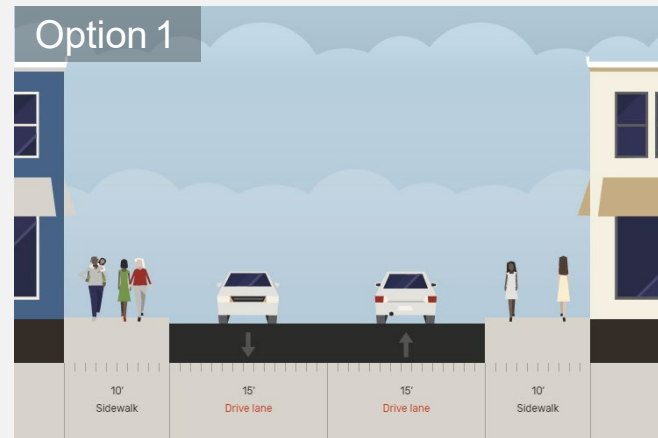
# Design Assumptions – Chelsea to Everett Sq.

- 1) 30' curb-to-curb, 50' R/W
  - Option 1: Bus in mixed-flow general purpose lanes
  - Option 2: Make Spring Street between Second Street and Revere Beach Parkway transit only. City of Everett has expressed interest; property access would need to be addressed.

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Corridor design and service assumptions to be determined



Option 1



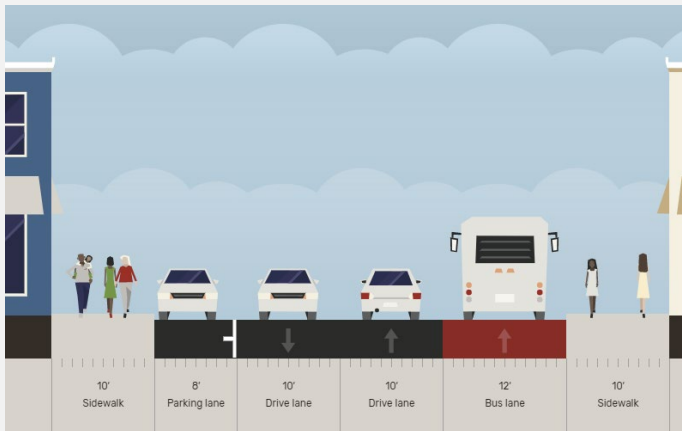
Option 2



# Design Assumptions – Chelsea to Everett Sq.

- 1) 40' curb-to-curb, 60' R/W – Remove WB parking and bike lane to provide WB bus in curbside bus lane, EB bus in mixed-flow general purpose lane.

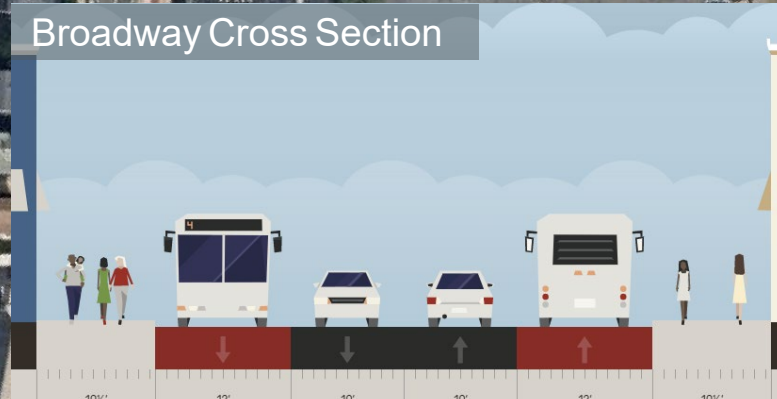
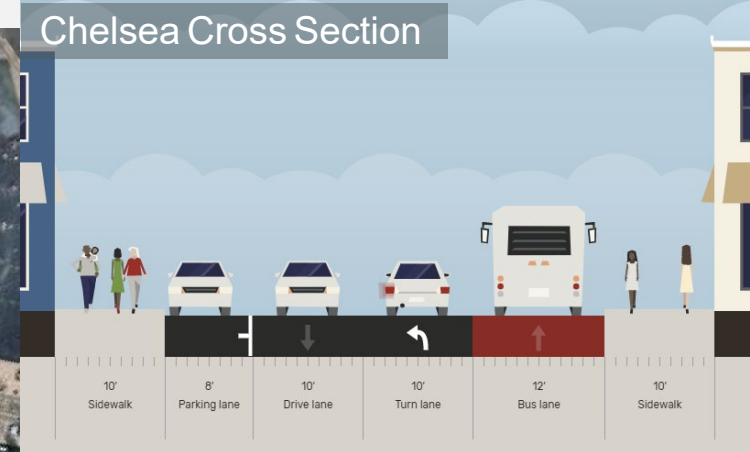
SL3 buses subject to delay at local bus stops.



# Design Assumptions – Chelsea to Everett Sq.

- 1) 40' curb-to-curb, 60' R/W – Remove WB parking and bike lane to provide WB bus in curbside bus lane, EB bus in mixed-flow general purpose lane.
- 2) Right lane “right turn only except bus”
- 3) 44' curb-to-curb, 65' R/W – Remove parking on Broadway to provide all-day bus lanes

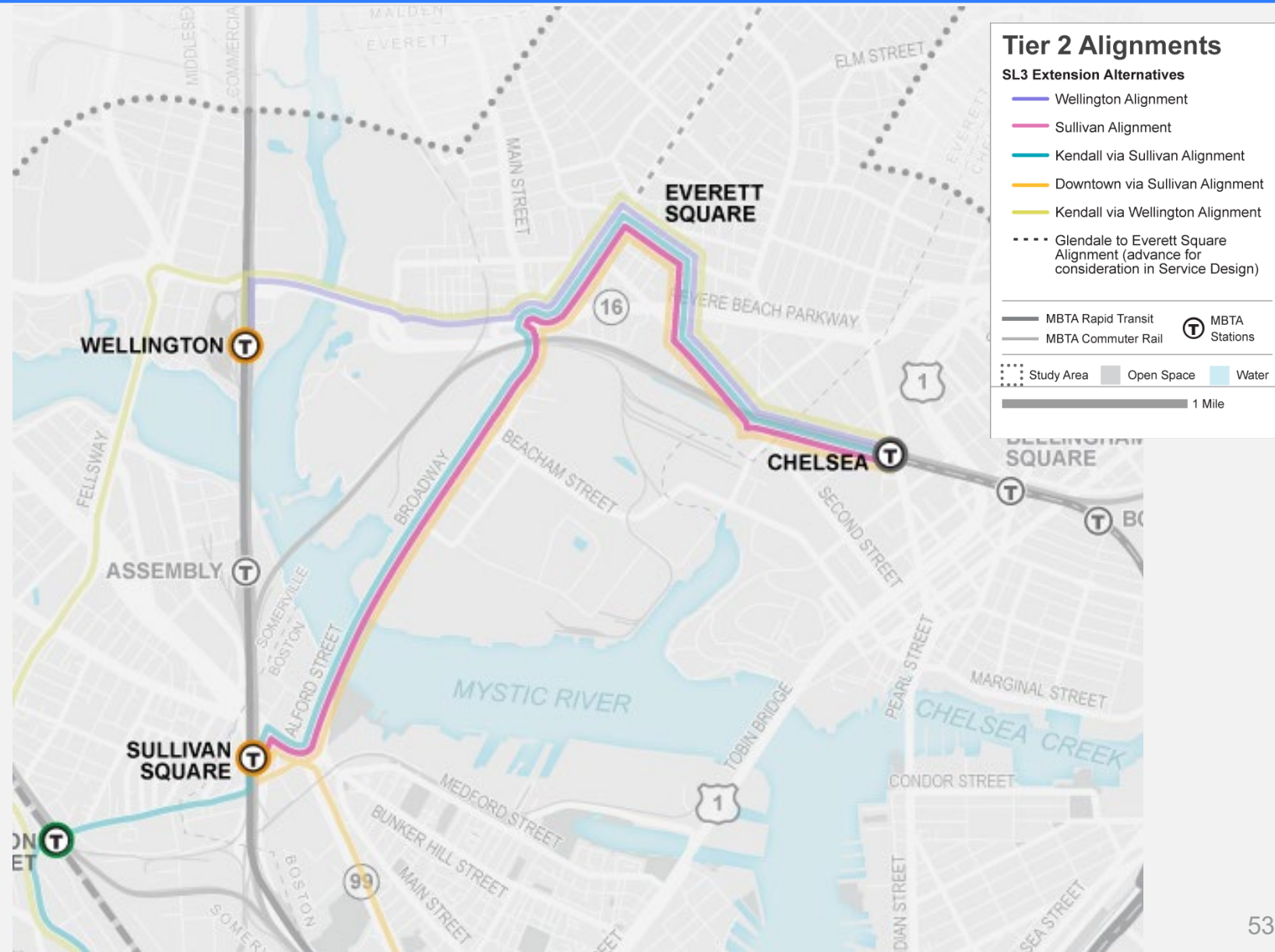
DRAFT FOR DISCUSSION PURPOSES ONLY  
Corridor design and service assumptions to be determined



# Tier 2 Alternatives: Alternative 2

## Chelsea Terminal to Sullivan Square

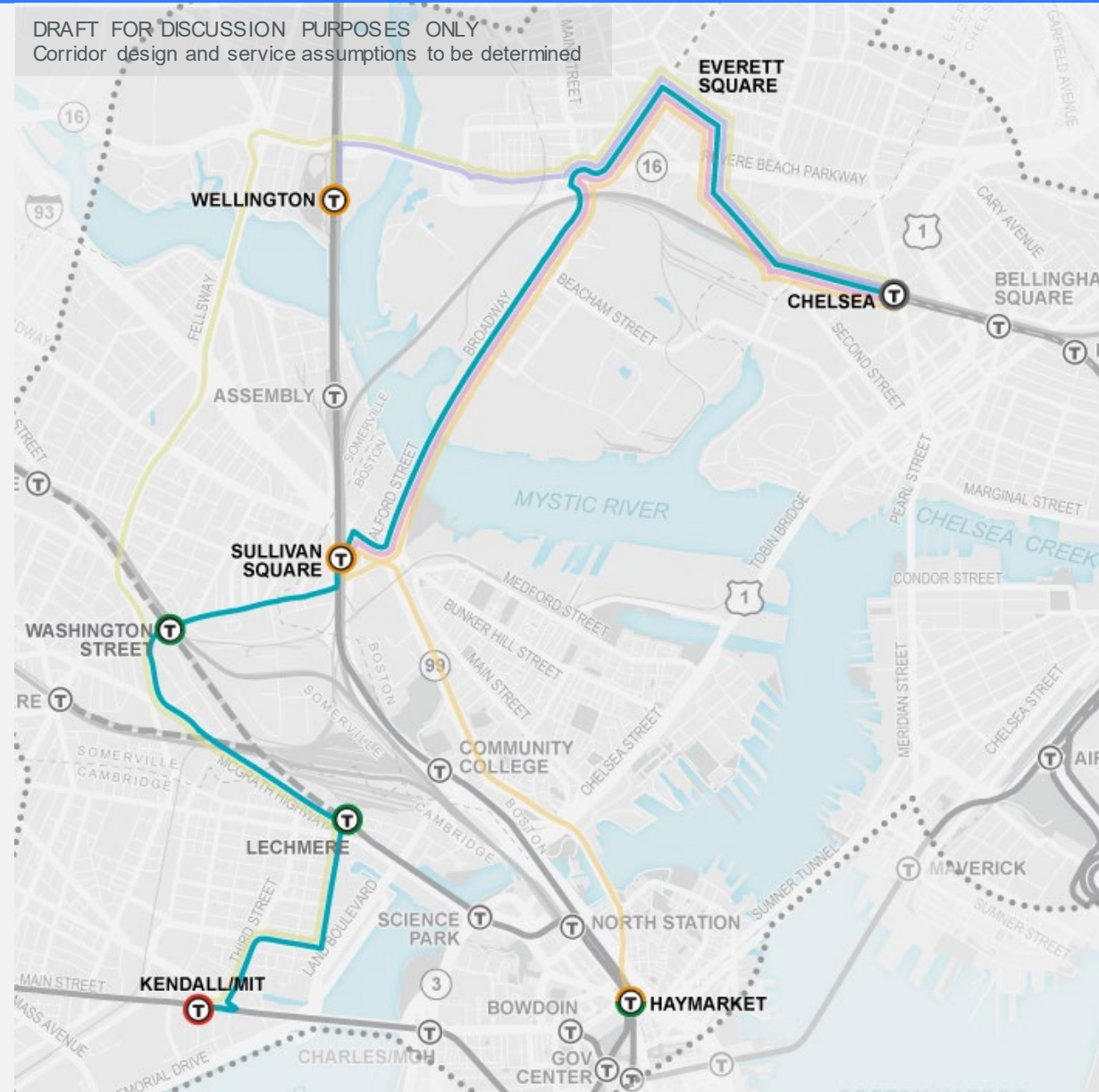
- Similar to Alternative 1 between Chelsea terminus and Everett Sq.
- Broadway to Lower Broadway to Alford St. bridge
- Transit priority treatments at Sullivan Square



# Tier 2 Alternatives: Alternative 3

## Chelsea Terminal to Kendall via Sullivan

- Similar to Alternative 2 to Sullivan
- Washington Street to McGrath Boulevard
- McGrath to Lechmere
- Kendall Circulation



## Tier 2 Alignments

### SL3 Extension Alternatives

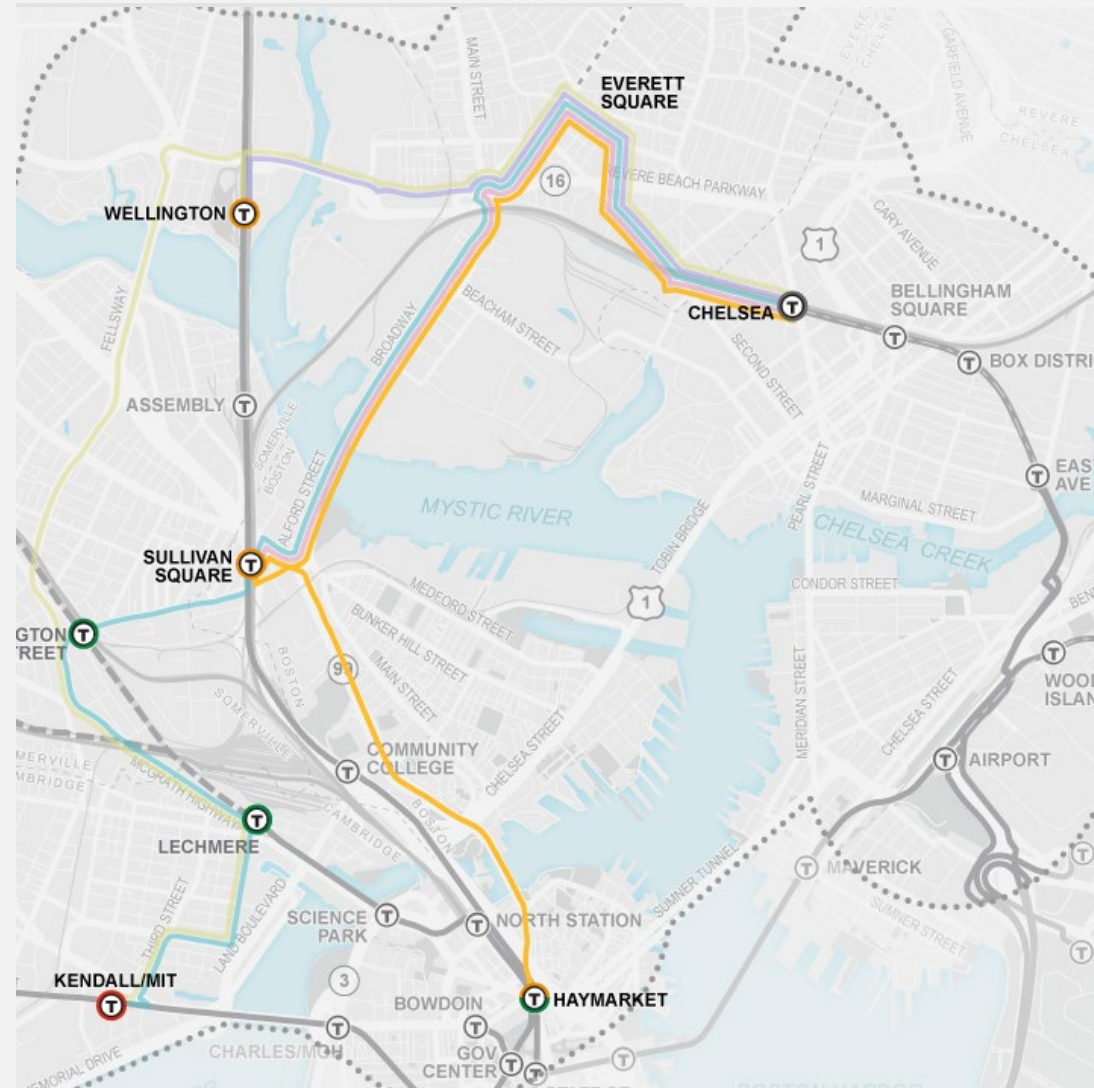
- Wellington Alignment
- Sullivan Alignment
- Kendall via Sullivan Alignment
- Downtown via Sullivan Alignment
- Kendall via Wellington Alignment
- Glendale to Everett Square Alignment (advance for consideration in Service Design)

- MBTA Rapid Transit
  - MBTA Commuter Rail
  - Ⓣ MBTA Stations
  - ⋯ Study Area
  - Open Space
  - Water
- 1 Mile

# Tier 2 Alternatives: Alternative 4

## Chelsea Terminal to Downtown Boston

- Similar to Alternative 1 to Sullivan
- Rutherford Avenue to Washington Street
- Washington Street to Haymarket



### Tier 2 Alignments

**SL3 Extension Alternatives**

- Wellington Alignment
- Sullivan Alignment
- Kendall via Sullivan Alignment
- Downtown via Sullivan Alignment
- Kendall via Wellington Alignment
- Glendale to Everett Square Alignment (advance for consideration in Service Design)

— MBTA Rapid Transit    T MBTA Stations  
— MBTA Commuter Rail

Study Area    Open Space    Water

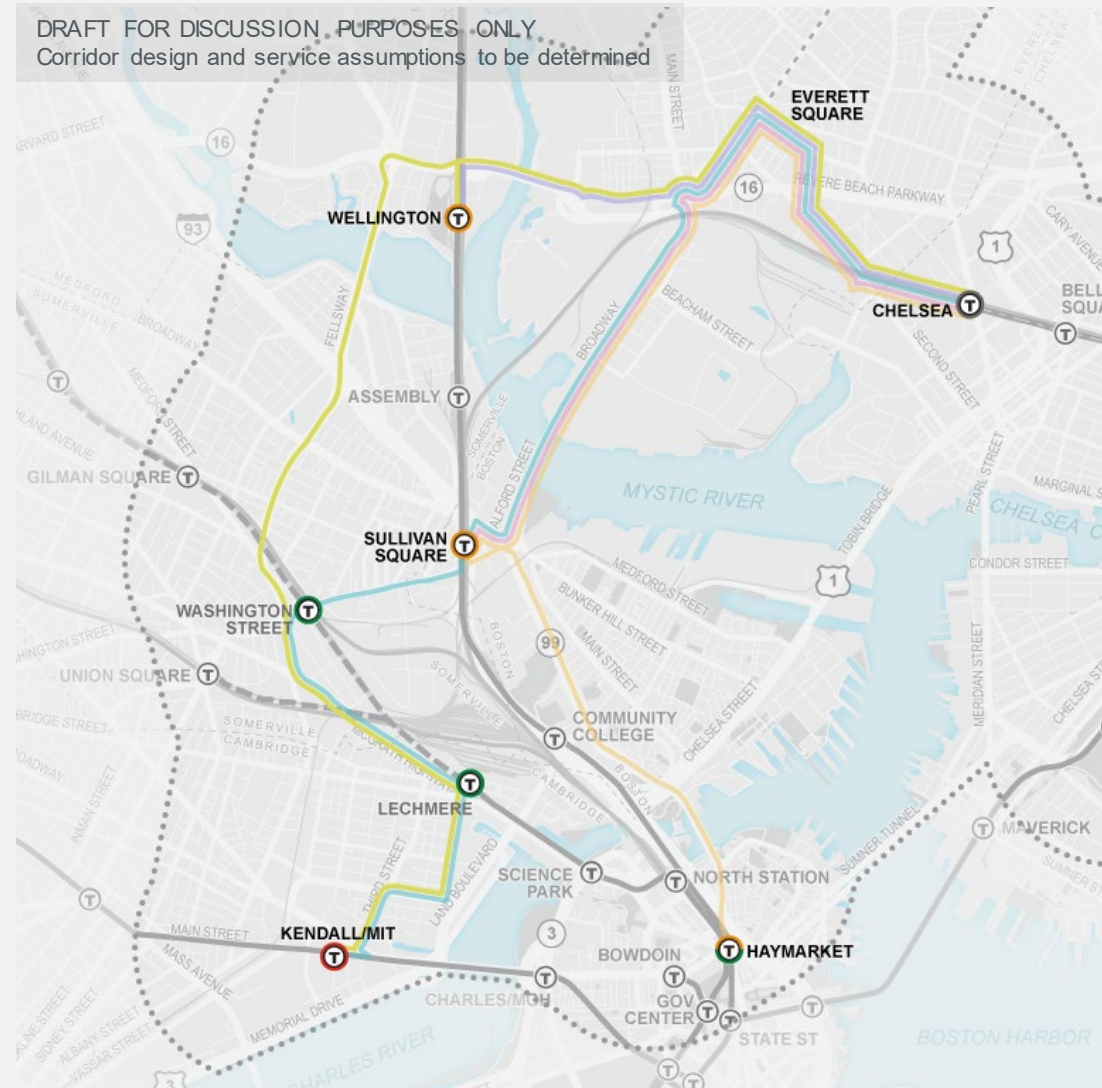
1 Mile

# Tier 2 Alternatives: Alternative 5

## Chelsea Terminal to Kendall via Wellington

- Similar to Alternative 1 to Wellington
- Fellsway to McGrath Boulevard
- McGrath to Lechmere
- Kendall Circulation

Design assumptions in Wellington Circle and along Route 28 will be determined in coordination with ongoing studies/design processes



### Tier 2 Alignments

#### SL3 Extension Alternatives

- Wellington Alignment
- Sullivan Alignment
- Kendall via Sullivan Alignment
- Downtown via Sullivan Alignment
- Kendall via Wellington Alignment
- - - Glendale to Everett Square Alignment (advance for consideration in Service Design)

- MBTA Rapid Transit
- MBTA Commuter Rail
- Ⓣ MBTA Stations
- ⋯ Study Area
- Open Space
- Water
- 1 Mile



## WORKING GROUP DISCUSSION

1. Do you agree with the High-Level Assumptions that we made?
2. What do you think of the Proposed Tier 2 alternatives?
3. Are there any other projects or efforts underway that we need to consider?

# Next Steps

Where do we go from here?

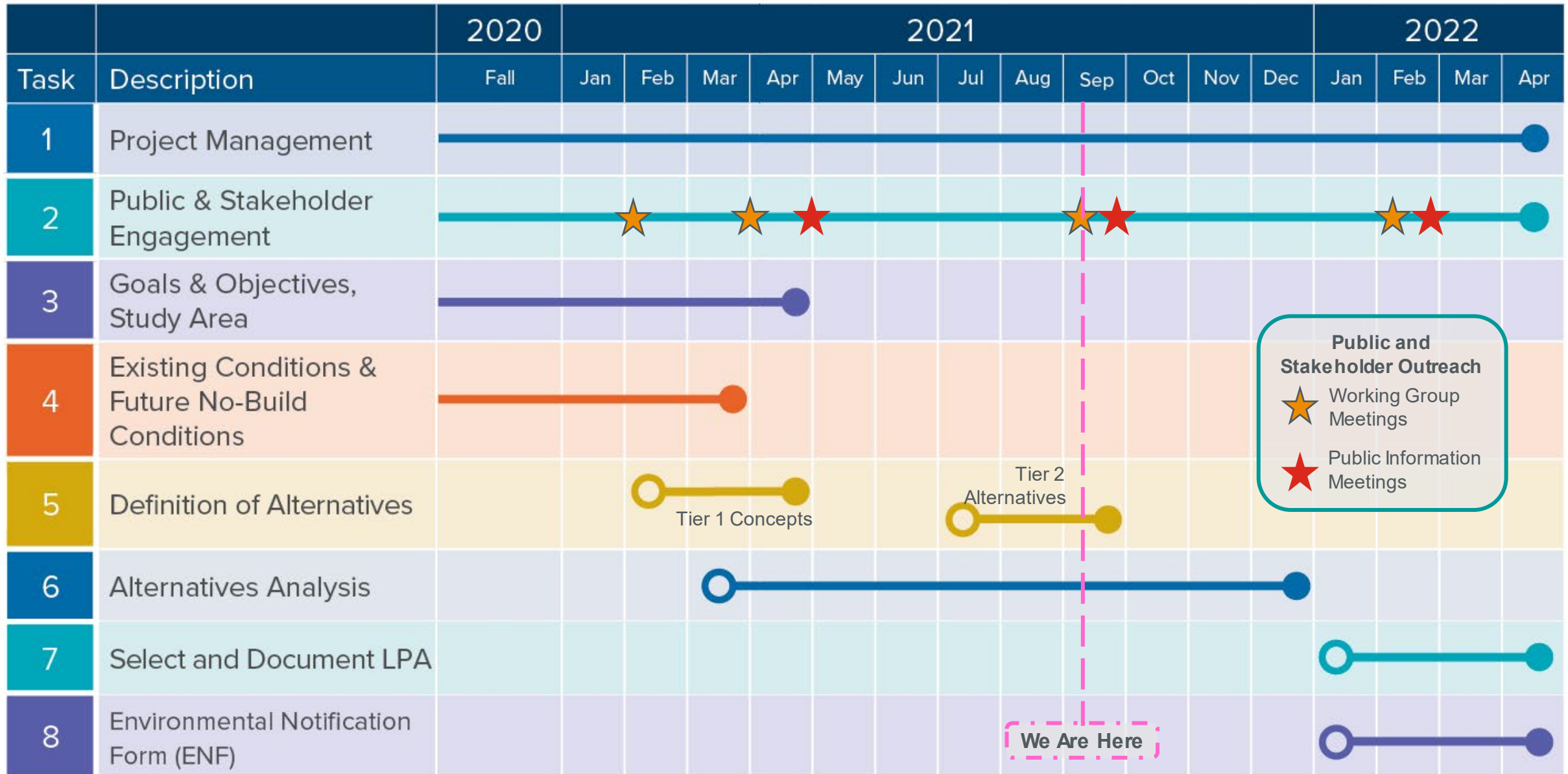
# Next Steps

Our second Online Feedback Form is live at [mbta.com/slx](https://mbta.com/slx)

Public Meeting #2 is September 28, 2021

Tier 2 analysis will be conducted this fall

# Project Schedule



# SL – Extension

Alternatives Analysis

**THANK YOU!**



For questions and comments  
please email [slx@mbta.com](mailto:slx@mbta.com)