Commuter Rail Communities Coalition

MARCH 11, 2019
Presentation Agenda

• Project Overview
• Seven Service Alternatives
• Next Steps
Project Goal

Leverage the MBTA’s extensive commuter rail network to best meet the transportation and economic growth needs of the region.

Project Objectives

1. Match service with the growing and changing needs of the region
2. Enhance economic vitality
3. Improve the passenger experience
4. Provide an Equitable and Balanced Suite of Investments
5. Help the Commonwealth achieve its climate change resiliency targets
6. Maximize return on investment (financial stewardship)
Where We Are Now

Ideas Developed

Long List of Concepts

Qualitative Screening:
Do concepts meet one or more of the Objectives? If yes...

Concept Evaluation:
Uses sketch models to evaluate ideas against Objectives

7 Service Alternatives

Alternatives Evaluation:
Uses traditional ridership and operations analysis models

The Vision
Advisory Committee

- 22 member Advisory Committee represents diverse MBTA service area perspectives and provides informed advice to agency leadership
  - Local, state and federal elected officials, transportation and business organizations, transit and advocacy groups
- Members review information and provide advice to MassDOT and MBTA at key milestones
- Members have attended five meetings and provided comments and concerns
What We Heard – Riders and Non-Riders

Keolis surveys Commuter Rail riders annually – most recently in February 2018

- 4,000 individual comments on topics ranging from wi-fi to reliability to increasing seat capacity
- Results showed that most respondents are likely to continue to use Commuter Rail in the future
- Fare promotions and special ticket deals were well rated

Rail Vision developed a survey for non-riders to ask what factors affect their decision to drive versus switch to rail

- 2,500 non-riders completed the survey as of March 4
- Lack of convenience was a bigger barrier to using Commuter Rail than cost
Elements Covered in Rail Vision Service Alternatives

Alternatives aim to **reduce travel time, increase service frequency, and improve system connectivity** based on results from the first phase.

Alternatives to consider mix of service and investment elements:

<table>
<thead>
<tr>
<th>Service Element</th>
<th>Investment Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>- New vehicle technology</td>
<td>- Station locations</td>
</tr>
<tr>
<td>- System electrification</td>
<td>- More express service</td>
</tr>
<tr>
<td>- High level platforms</td>
<td>- Span of service</td>
</tr>
<tr>
<td>- Station typology and frequency</td>
<td>- Transfer hubs</td>
</tr>
<tr>
<td>- Double and triple tracking</td>
<td>- Operational feasibility</td>
</tr>
<tr>
<td>- Facility needs and expansions</td>
<td>- Order of magnitude operating and capital costs</td>
</tr>
</tbody>
</table>
Station Typologies

Alternatives will consider a mix of service and investment elements to provide higher levels of service to:

- **Key stations**, due to their density, regional access, and transit connectivity
- **Inner core stations**, in and around Boston
- **Outer stations**, outside the Inner Core

![Typical Characteristics of Key Stations](image-url)
High Level Platforms / Accessibility Upgrades

• Existing system has a mixture of platform types:
  • **High-level**, with a level boarding surface
  • **Mini-high**, with a portion of the platform at a high-level to provide a level boarding surface
  • **Low-level**, requiring use of stairs or ramp

• High-level boarding and powered doors on trains could reduce dwell times at stations

• The project will assume different levels of platform upgrades across the alternatives to test a range of capital improvements.
Electrification and Vehicle Technology

- Some alternatives will consider full or partial system electrification
- Vehicle options include locomotives paired with coaches or multiple units (multiple self-propelled vehicles) – either can be diesel, electric, or dual mode
- Vehicle powered by electricity produce lower emissions
- Multiple unit trains can provide travel time savings
- Procurement and O&M costs vary across the range of vehicle types
Terminal Capacity and System Expansions

Examples include North South Rail Link, South Station Expansion, South Coast Rail (Phase 1 and Full Build), Foxborough, Grand Junction
Seven Rail Vision Service Alternatives

Handouts provide more detail on alternatives:

- Alternative 1: Optimize Existing System
- Alternative 2: Regional Rail to Key Stations (Diesel)
- Alternative 3: Urban Rail (Diesel)
- Alternative 4: Urban Rail (Electric)
- Alternative 5: Regional Rail to Key Stations (Electric)
- Alternative 6: Full Transformation
- Alternative 7: Hybrid System
Next Steps: Alternatives Evaluation

• Develop robust ridership estimates for all 7 Alternatives using the CTPS Travel Demand Model
• Model operations, infrastructure and capital costs with Rail Traffic Controller (RTC) modeling tools
• Identify potential land-use and demographic effects of one or more Alternatives using the Regional Dynamic Model (RDM)
• Develop capital and operating cost estimates
• Share results with Advisory Committee and public
What the Alternatives Analysis Will Tell Us

- Ridership
- Travel Time Savings
- Frequency
- Connectivity
- Equity
- Emissions
- Capital Costs
- Operating Costs
Integrating Parking and Fare Policy

Parking Constraints

• Test the effects of un-constraining parking supply at some stations, in some alternatives

Fare Policy Analysis

• Work with the MBTA team conducting a network-wide analysis of fare policy, which will identify and evaluate potential alternative fare structures
• Test the effects of implementing a different fare structure in at least one alternative
How You Can Spread the Word

• Attend future meetings of the Advisory Committee and/or Open Houses

• Send comments to us on the Alternatives at https://www.mbta.com/projects/rail-vision

• Encourage non-rider family and friends to take the quick Rail Vision survey
Project Contacts & Website

Scott Hamwey
Manager of Transit Planning
Scott.Hamwey@state.ma.us
857-368-9800

Project Website
www.MBTA.com/rail-vision

Project Survey
www.mbtarailvisionsurvey.com