

Draft State Rail Plan

MassDOT Board and FMCB Joint Meeting

February 12, 2018

Purpose of State Rail Plan

- To meet FRA requirements and guide future of the rail system and rail services in the state.

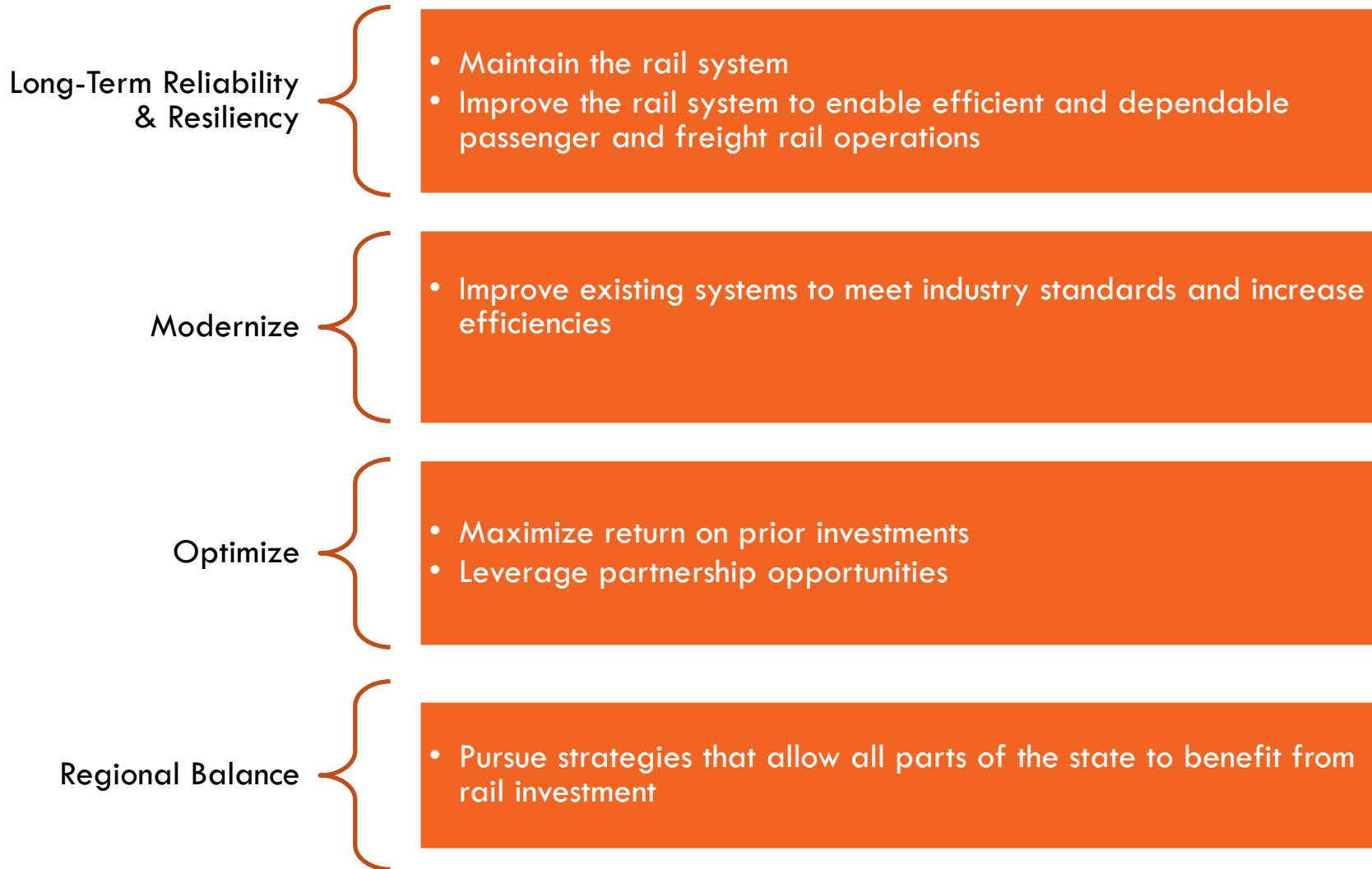
Specifically, intended to:

- Set forth Commonwealth policy involving **freight and intercity** passenger rail transportation.
- Establish policies, priorities and strategies to enhance rail services in the Commonwealth that provide benefits to the public.
- Serve as the basis for federal and state rail investments within Massachusetts.
- Establish the means and mechanism to coordinate with adjoining states, private parties and the federal government in projects of regional and national significance, including corridor planning and investment strategies.
- Future commuter rail investments are currently being identified through the MBTA's Focus40 and Rail Vision planning process.

State Rail Plan Components

- Overview of rail role in Massachusetts
- Existing Massachusetts rail system: future trends, forecasts, needs, and opportunities
- Projects considered for long-term: freight and intercity passenger rail
- Near-term funded investments and a 20-year long-term strategy for state investment in rail
- Coordination with other plans and stakeholder outreach

State Rail Plan Vision



Near Term Rail Priorities - CIP

■ Investing in State of Good Repair (SGR)

- Achieving State of Good Repair of MassDOT acquired assets is a major priority for near term investment

■ South Coast Rail Phase I

- Advancing South Coast Rail Phase I to provide service to the South Coast in advance of completion of the Stoughton Electric Full Build

■ 286K weight limits on key freight routes

- Applying for federal funds to increase weight limits on New England Central freight line to 286,000 lb.

■ Service between New Haven and Springfield

- Supporting Connecticut's initiative to provide additional service between New Haven and Springfield over and above current shuttle service, with possibility of pilot service to Greenfield.

Studies Now in Development

- **North South Rail Link Feasibility Reassessment:**

- A feasibility reassessment is being done to examine a proposed pair of 1.5 mile-long tunnels that would connect the MBTA's North Station and South Station.

- **Berkshire Flyer**

- The study is examining the potential for seasonal passenger rail service between New York City and the Berkshires, based on the CapeFLYER example.

- **Patriot Corridor Double Stack Initiative**

- The study is examining the feasibility of double-stacked freight operations on the Patriot Corridor's right-of-way between Mechanicville, New York, and Ayer, Massachusetts.

Long Term Rail Prioritization

- Continued investment in State of Good Repair will be necessary.
- Rail Plan solicited project ideas and sought to develop project priorities that go beyond the basic State of Good Repair needs of the MassDOT rail network.
- Assessment of projects was based on available data that spoke to the following factors:
 - Achievement of goals/benefits criteria:
 - Enhances mobility
 - Improves safety & security
 - Supports economic growth
 - Provides environmental benefits
 - Improves intermodal connectivity
 - Maximizes use of existing right-of-way
 - Cost/feasibility
 - Regional balance

Tiering Process For Long Term Projects

Tier 1: Priority for implementation

- Demonstrated alignment with Vision
- Benefits commensurate with costs
- Priority for implementation after currently committed projects

Tier 2: Warrants further study

- Insufficient clarity on project definition, costs, or benefits
- Warrants further study
- To be revisited in subsequent plans

Tier 3: No action planned

- Costs not commensurate benefits
- Implementation challenges
- No action recommended at this time; requires significant partner support or change in circumstances to allow for additional consideration

Long Term Passenger Rail

Tier 1: Priority Investments

Tier 1 Long-Term Passenger Rail Projects

Tier 1 Long-Term Passenger Rail Projects							
Project Title		Line	Region	Benefits	Feasibility		Cost
Tier 1	New Haven to Springfield Service (Full implementation)	NHHS	Western	High	High	Coordination with Amtrak/CT	\$
	Springfield to Greenfield Passenger Rail Service	Knowledge Corridor	Western	High	High	Dependent on pilot program	\$
	South Station Expansion (SSX)	South Station	South Shore/NEC / East-West Connections	High	Med	Purchasing and relocation of postal service facility and associated challenges.	\$\$\$
	Improve Tower 1 into South Station	South Station	South Shore/NEC / East-West Connections	High	Med	Track portion of improvements will require purchase of postal service facility to obtain full benefits. Signal and power components can be done as SSX early action items.	\$\$
	South Coast Rail	Stoughton	South Coast	High	Med	Permitting challenges	\$\$\$\$

Long Term Passenger Rail Investments

Tier 2: Warrants Further Study

Tier 2 Long-Term Passenger Rail Projects to be Studied							
Project Title		Line	Region	Benefits	Feasibility		Cost
Tier 2	Western Mass to Boston Passenger Service Study	Inland Route	Western (primary)	TBD	TBD	Challenges associated with line ownership/shared use and freight conflicts; prerequisite investments.	TBD

- ✓ Insufficient clarity on project definition, costs and benefits
- ✓ Warrants further study
- ✓ To be revisited in subsequent plans

Long Term Passenger Rail Investments

Tier 3: No Action Planned

Tier 3 Long-Term Passenger Rail Projects – No Action Planned

Tier 3 Long-Term Passenger Rail Projects – No Action Planned							
Project Title		Line	Region	Benefits	Feasibility		Cost
Tier 3	Privately Operated Commuter Rail Service between Worcester and Providence	P&W Mainline	Central	Med	Low	Interest by the private sector initiator, but challenges associated with ridership.	N/A - Limited Info
	Palmer Station	Inland Route	Western	Low	Low	Limited market with little local planning to establish station context.	\$-\$\$
	Housatonic Passenger Rail Service	Berkshire Line	Berkshires	Low	Low	No current likelihood of service improvements in Connecticut.	\$\$\$
	Passenger Service to Montreal via Springfield	Inland Route	Western/Vermont	Low	Low	Challenges associated with line ownership/shared use and coordination with CSX. Low ridership and capacity on line.	\$\$\$\$

- ✓ Costs not commensurate with benefits
- ✓ Associated implementation challenges
- ✓ No action recommended at this time; Requires significant partner support or change in circumstances for additional consideration

Long Term Freight Rail Investments

Tier 1: Priority Investments

Long-Term Freight Rail Projects – Priority Investments							
Project Title		Line	Region	Benefits	Feasibility		Cost
Tier 1	Priority 286K Network Build-out	Varies	Varies	High	High	Dependent on near-term 286K projects completed.	\$-\$\$
	Fall River Secondary Extension to Rhode Island Border	Fall River Secondary	Southeastern	Medium	High	Dependent on near-term Fall River Extension	\$
	Ware River Secondary Projects	Ware River Secondary	Central	Medium	High	Leveraging existing investments. Challenges associated with acquiring track & ROW.	\$

- ✓ Assumes a robust system-wide State of Good Repair program
- ✓ Demonstrated alignment with vision and goals
- ✓ Benefits commensurate with costs
- ✓ High priority for implementation after near-term projects are completed

Long Term Freight Rail Investments

Tier 2: Warrants Further Study

Long-Term Freight Rail Projects to be Studied							
Project Title		Line	Region	Benefits	Feasibility		Cost
Tier 2	Otis Industrial Track	Falmouth Secondary	Southeastern	Medium	High	N/A	\$-\$\$
	New Bedford Marine Commerce Terminal Rail Spur	New Bedford Secondary	Southeastern	High	Medium	Challenges with establishing a new rail corridor in a urban area.	N/A - Limited Info

- ✓ Insufficient clarity on project definition, costs and benefits
- ✓ Warrants further study
- ✓ To be revisited in subsequent plans

Long Term Freight Rail Investments

Tier 3: No Action Planned

Long-Term Freight Rail Projects							
Project Title		Line	Region	Benefits	Feasibility		Cost
Tier 3	Extend New Bedford Secondary to New Bedford Airport	New Bedford Secondary	Southeastern	Low	N/A	No information available	N/A - Limited Info

- ✓ Costs not commensurate with benefits
- ✓ Associated implementation challenges
- ✓ No action recommended at this time; Requires significant partner support or change in circumstances for additional consideration

Next Steps

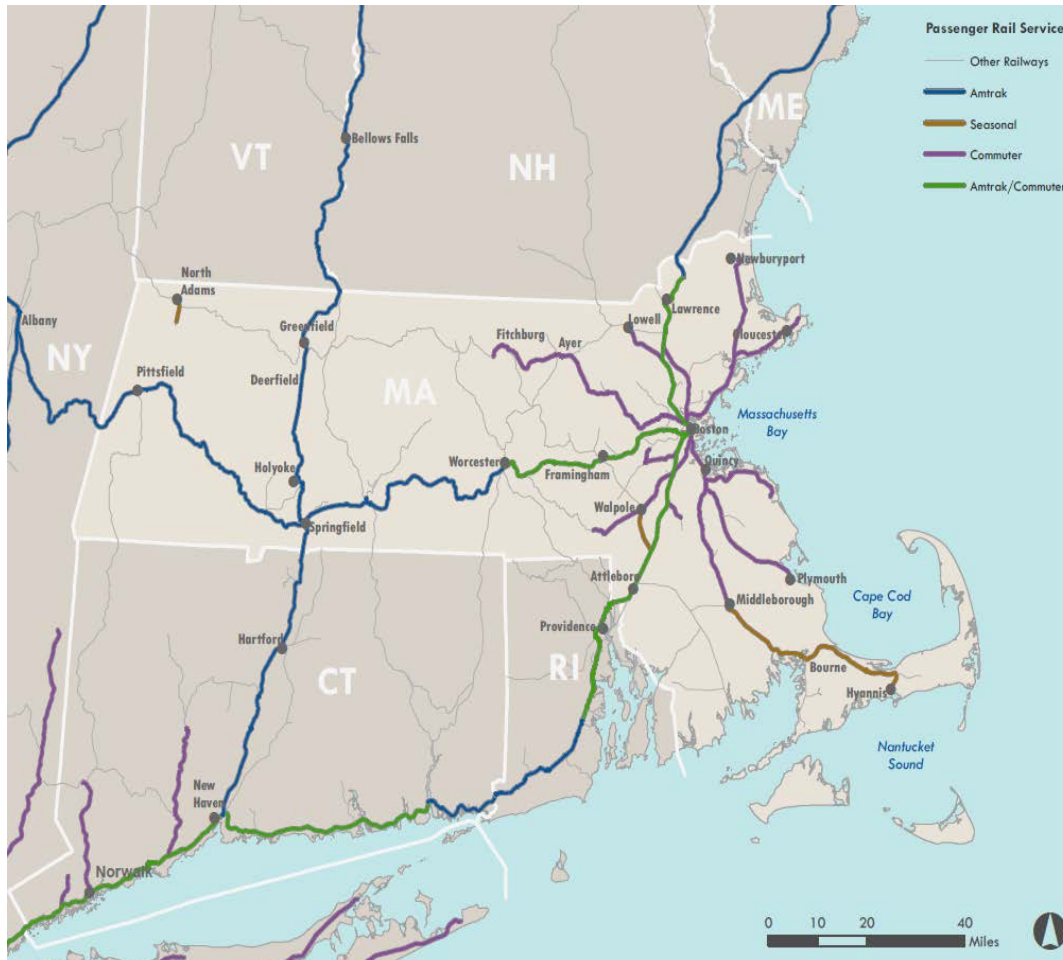
- Update draft based on public comment
- Submit to FRA for approval
- Explore potential federal funding opportunities to address rail system needs
- Continue to address State of Good Repair while advancing priority projects

Appendix

Commuter Rail

- The State Rail Plan is not considering MBTA commuter rail projects unless they have a direct impact on Amtrak passenger service or are currently being advanced by MassDOT.
- Future commuter rail investments are currently being identified through:
 - MBTA Focus40:** The long-term capital plan for the MBTA
 - MBTA Rail Vision:** Identifying strategies for leveraging the MBTA's rail network with the goals of increasing ridership and meeting the transportation and economic growth needs in the Greater Boston region. Strategies being assessed include different types of vehicles and/or service models and electrification.

Passenger Rail Operations



Passenger service includes:

- ❖ 5 intercity Amtrak routes (Downeaster, Vermonter, NEC, Lake Shore Limited, New Haven Springfield Shuttle)
- ❖ 4 seasonal/tourist routes (MBTA and private)
- ❖ 12 commuter rail MBTA routes*

Freight Rail Operations



- ❖ Numerous operators
- ❖ Many shared freight / passenger rail corridors
- ❖ Limited service by Class I railroads

Near Term Highlight:

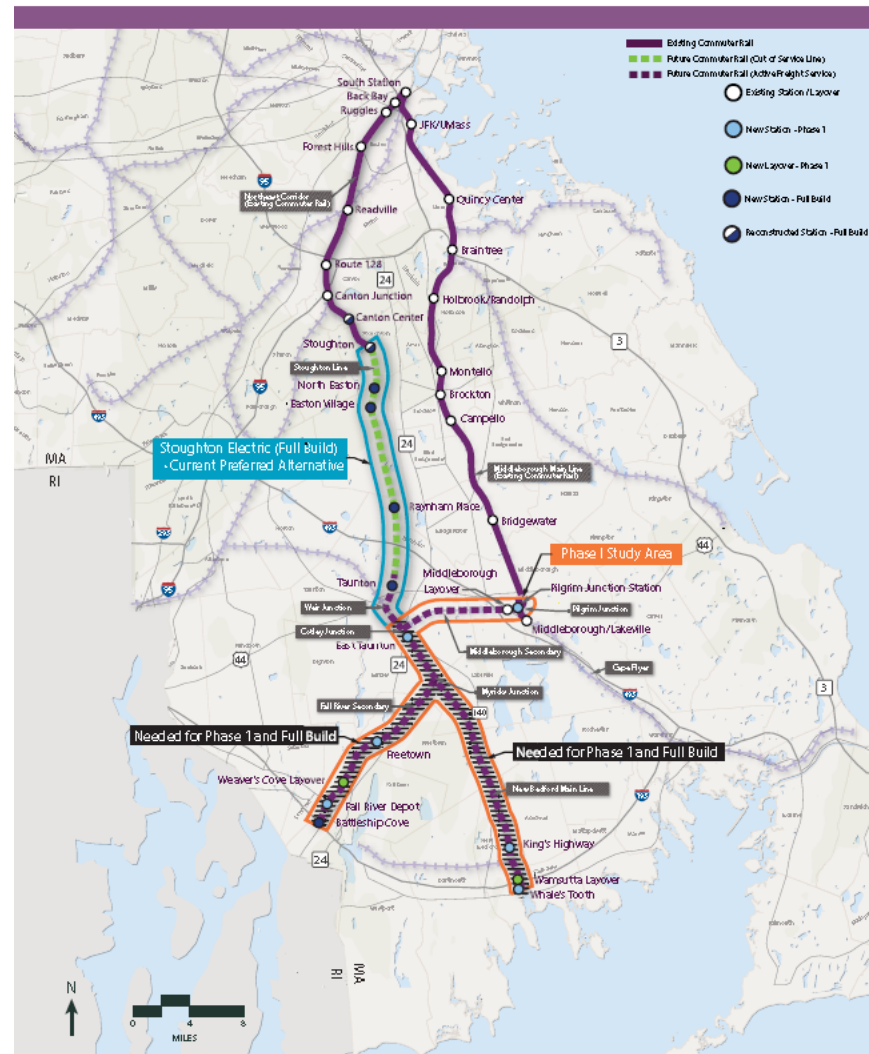
South Coast Rail: Phase 1



South Coast Rail Phasing Plan

Project Summary

- While MassDOT remains committed to the Full Build Stoughton Electric Route to provide commuter rail to the South Coast, building Phase 1 will allow a substantial amount of service to be provided to Fall River and New Bedford by 2022, several years before the Full Build can be completed.



Accomplishments Since 2010 Plan

- **Rail Acquisition**

- MassDOT acquired approximately 200 miles of rail to upgrade assets for public benefit and protect key corridors for the MBTA

- **CSX Partnership**

- CSX Double Stack Initiative and Intermodal Investment

- **Industrial Rail Access Program (IRAP)**

- IRAP awards of \$12.7 million leveraged \$19.3 million in private sector investment in first five program years

- **Grade Crossing Safety Programs**

- 2010-2016: 100 grade crossing improvement projects across Massachusetts

Accomplishments Since 2010 Plan

- **Knowledge Corridor**
 - Track improvements (50 miles acquired and rehabilitated)
 - Rehabilitation of Springfield Union Station
 - Three new stations (Holyoke, Northampton and Greenfield)
- **South Coast Rail Early Action Implementation**
- **Haverhill Line/Downeaster Improvements**
 - Double-tracking
 - Bridge rehabilitation
- **Partnership with Rhode Island to upgrade shared MBTA/Amtrak line for MBTA service to T.F. Green Airport**

Long Term Prioritization Process

- **How we refined the project list of modernization and expansion ideas:**

Define Universe

- MassDOT, stakeholders, and partner agency priorities
- Input from elected officials, regional MPOs, civic associations, and the public

Evaluate

- Benefits/Goals
- Project cost and feasibility
- Regional Balance
- Level of information

Tier

- Tier 1: Priority for implementation
- Tier 2: Study Further
- Tier 3: No Action Planned

Long Term Freight Rail

Priority 286K Network Build-out

Long Term (Tier 1)

■ Project Summary

- Project would build on existing weight-on-rail upgrades and complete any priority 286K improvements not accomplished in the near term rail priorities

■ Benefits

- Improved shipper efficiency
- Strengthened freight corridor between industrial cities and larger national freight rail system
- Reduced transportation costs to local businesses utilizing freight rail
- Modal choice to freight shippers currently utilizing trucks to move cargo

■ Next Steps

- Identify most strategic locations and identify funding opportunities with railroads

Fall River Secondary Extension to Rhode Island Border

Long Term (Tier 1)

■ Project Summary

- Improvements and extension to facilitate rail service to local industries.

■ Benefits

- Reduced roadway congestion and related environmental benefits
- Improved access to larger freight rail network

■ Next Steps

- Identify funding through IRAP or federal funding opportunities

Ware River Secondary

Long Term (Tier 1)

■ Project Summary

- Project secures public rights and access to a 1.2 mile segment connecting Ware River Secondary to the CSX Main Line

■ Benefits

- Addresses a key missing link for MassDOT owned rail
- Continued improvements support expanded freight rail service in the region

■ Next Steps

- Ascertain whether rights available and whether continuing customer support will warrant investment.

Otis Industrial Track Study

Long Term Study (Tier 2)

■ Project Summary

- Enhance project track spur off of the Joint Base Cape Cod (JBCC) and long term improvements would replace ties, rail, ballast, surface, and transload equipment
- Provide improved access and reliability of service for Cape Cod

■ Considerations and Next Steps

- Need to understand more about costs and feasibility

New Bedford Marine Commerce Terminal Rail Spur Study Long Term (Tier 2)

■ Project Summary

- Would extend existing New Bedford Secondary rail line 3,750 feet to a newly constructed marine facility
- Could provide access to alternative modes of freight transportation
- May support water-dependent industries and provide future anchor for South Terminal focus area

■ Considerations and Next Steps

- Potential environmental impacts and uses

Long Term Passenger Rail

New Haven to Springfield Service

Long Term (Tier 1)

■ Project Summary

- The combined CTRail/Amtrak service will provide 12 roundtrips each weekday between New Haven and Springfield Union Station, starting in 2018
- MassDOT to support costs

■ Benefits

- Improved mobility and accessibility
- Potential for additional transit-oriented development.

■ Next Steps

- Finalize long-term agreements with Connecticut

Springfield to Greenfield Passenger Rail Service

Long Term (Tier 1)

■ Project Summary

- First Phase (near term) – Initial pilot program with limited service
- Second Phase – Examine potential for service long-term along corridor

■ Benefits

- Improved mobility and accessibility
- Potential for additional transit-oriented development

■ Next Steps

- If pilot is successful, explore long-term options to provide service

South Station Expansion

Long Term (Tier 1)

■ Project Summary

- The project would expand the South Station Terminal, increasing passenger capacity and improving experience at the station.
- The project will add 7 new tracks and 4 new platforms, totaling 20 tracks and 11 platforms
- The Final Environmental Assessment (EA) and Section 4(f) Determination and the Finding of No Significant Impact (FONSI) were issued in October, 2017.

■ Benefits

- This project will allow the system to meet current and future high-speed, intercity, and commuter rail service needs. It would be required to enable several projects being considered as part of this plan.

■ Next Step

- Acquire property of adjacent postal service facility to enable expansion

Improve Tower 1 into South Station

Long Term (Tier 1)

■ Project Summary

- Upgrade Tower 1 signals and power as an early action item prior to SSX to improve reliability.

■ Benefits

- Reduction in conflicting movements through terminal area
 - Improved efficiency and reliability – meeting on-time performance and reducing delays
 - Additional flexibility in cases of disabled trains or other unexpected activities in the Tower 1 Interlocking area
 - Emissions reduction benefits

■ Next Steps

- Advance design with current FRA grant

South Coast Rail

Long Term (Tier 1)

■ Project Summary

- Extend commuter rail service from Boston to Fall River and New Bedford through the Stoughton Electric route.

■ Benefits

- Would provide new commuter rail service to Fall River and New Bedford.
 - Reduction in travel times (77 minutes to New Bedford from Boston; 75 minutes from Fall River to Boston)

■ Next Steps

- Advance design and permitting

Western Massachusetts to Boston Passenger Rail Service Study

Long Term (Tier 2)

Project Summary:

- Study service between Boston and Western Massachusetts (Springfield and potentially Pittsfield)

To address issues raised in prior analysis this study will look at the following:

- Speed/time goals
 - Technology choices
 - Peak period service
- Separate track
- Right-of-Way acquisition
- South Station capacity
- Construction impacts
- Stations
- Safety
 - Grade crossings
 - PTC
 - Risks and safeguards
- CSX capacity and cooperation

Questions and Discussion

Contact

Jen Slesinger

- E-Mail: Planning@dot.state.ma.us