Projects and Policies

The Go Boston 2030 Action Plan is the product of input from thousands of Bostonians over the course of a two-year process including a Question Campaign, a Visioning Lab, Ideas Workshops, and Futures Survey. The following policies and projects outline the actions the City and its partners must take in order to address the concerns that were heard, the visions for mobility that evolved, and the specific ideas that came from citywide workshops and voting. Along with detailed data analysis, ideas from community members—often only a line on a map, notes on paper, a few sentences online, or a rough concept of what could be achieved—have been evaluated against the City's guiding principles of equity, economic opportunity, and climate responsiveness; analyzed according to metrics linked to the aspirational targets of Go Boston 2030; and evolved into the final policies and projects on the following pages. In the People's Voice II on p83, you can read about how these policies and projects emerged and evolved out of the 3,700 ideas collected.

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Seeing Boston 2030 coupled extensive and iterative public engagement with detailed data analysis and projections to develop the final list of policies and projects published in this Action Plan. Of the 58 projects and policies featured on the following pages, all of them came from the database of 3,700 ideas that were collected from the public. Some emerged as explicit recommendations from the public while others were developed as a more specific solution to an issue addressed in the public’s suggestions. Policies and projects were selected through a combination of:

- identification as early action projects
- a public voting process, and
- a detailed needs assessment.

Each policy and project described in this plan will require a more in-depth planning process at the local level to hear from community and city-wide stakeholders and to collaborate appropriately with state agencies and other municipalities prior to implementation.

### Early Actions

Early Actions were selected in two batches. Some were identified in the original Vision Framework as critical projects and policies that had come up repeatedly through the Question Campaign and already had momentum within City Hall. Others were identified during the Scenario Workshop as projects and policies that had traction and could be implemented in the next five years. The City committed to these projects and policies prior to releasing the public survey.

### New City of Boston Projects

- Vision Zero: Freeway Corridors and Safe Crossings
- Vision Zero: Neighborhood Slow Streets
- Better bike corridors
- Green Links Network
- Bikeshare network expansion
- Increased maintenance for sidewalk accessibility, smoother roads, and markings
- Public Realm Plan
- (Protected bike lanes) Commonwealth Avenue beyond Packards Corner
- Summer Street protected bike lane

### New City of Boston Policies

- Traffic signal retiming and synchronization at major arterials
- Climate adaptation requirements
- Development review guidelines to better address transit oriented development and affordable housing
- Autonomous Vehicle Policy

The City of Boston will also collaborate with State agencies to work on the following projects and policies:

- Fairmount Indigo Line service improvements
- Bus service reliability improvements
- Key to the City
- Orange Line and Red Line service improvements
- Fair MBTA fare policy and extended service hours
- Improved Silver Line - Dudley to Downtown
- Forest Hills to Roslindale Square Rapid Bus
- Green Line improvements

### Online and Paper Futures Survey

Roughly 20 projects and policies rose to the top in the public’s selections on an online survey and paper ballot that presented 48 ideas as part of four possible futures—Go Local, Go Crosstown, Go Regional, and Go Tech. These futures included ideas from the database of roughly 3,700 public suggestions received through the Ideas Campaign. These ideas were refined at the Idea Review Session and then organized at the Scenario Workshop.

The results of the public survey were tabulated by zip-code in order to weight the results from the 4,000 participants so that there was proportional representation for each neighborhood based on its population. The list of top 20 projects and policies for Boston residents, based on weighted neighborhood results, was nearly the same as the top projects and policies for all survey participants, even though nearly a third of respondents live outside the city.

#### Survey Overview

Active May 24 through July 3

- Boston Residents 65% (2,537)
- Non-Boston Residents 29% (1,158)

4,031 responses received

Top 20 for all survey participants

- Pedestrian and bike-friendly Main Streets
- Smart Signal Corridors
- Mobility Rails (metros, light rail, light rail)
- Massachusetts Avenue has rapid transit
- Silver Line extension to Roslindale Square
- Oak Hill neighborhood and pedestrian walk
- Public health improvements by the library (Policy)
- Smart Signal Districts
- Pedestrian-first traffic signals (Policy)
- North Station to South Boston Waterfront MBTA
- I-90 Newton urban rail
- Restoration all bus routes (Policy)
- Aurora lines to support green transportation (Policy)
- Green Line Extension to Hyde Square
- Smart high-occupancy-vehicle lanes on interstates
- Consolidated smart electric system (Policy)
- Charlestown Road Corridor
- Green Line extension to Hyde Square
- South Station to South End: Pedestrian walk
- Dorchester to Cambridge T (Hubway)
Selecting Projects and Policies

Needs Assessment
Projects and policies were also identified based on a detailed needs assessment that studied which ideas were needed to meet the Go Boston 2030 targets and support projected growth. The Vision Framework identified a list of measurable and aspirational targets across nine themes. These targets must be met in order to meet the future needs of a growing population and increased economic activity, to improve equity, and to increase the sustainability and resilience of the city’s mobility systems. Using modeled travel projections from the region’s Central Transportation Planning Staff (CTPS) and GIS (mapping) analysis, projects and policies were pulled from the idea database to improve Go Boston 2030’s performance against those targets that could be forecasted geospatially. The scoring tools developed were applied to the projects and policies that had already been selected, and the evaluation identified the following additions to the final list:

- Expanded Demand Management Program and TDM Office
- Neighborhood Complete Street Corridors
- Fairmount Greenway Neighborways
- SW Corridor Extension to Back Bay and MGH
- Longwood Transit Hub
- Fairmount Indigo Line Urban Rail
- LMA to JFK rapid bus via Dudley and Uphams
- Oak Square to Comm Ave Improved Bus Corridor
- Inner Harbor Ferry Expansion
- Dudley Square Transit Hub
- Boston Metro Transit District
- Sullivan Square Enhanced Transit Hub
- Morrissey Boulevard Resilient Complete Street
- Climate Protection for Vulnerable MBTA Stations
- West Station Transit Hub
- West Station Rapid Bus to LMA, Kendall, and Havard Square
- South Station Expansion

Together these policies and projects represent a commitment by the City to implement and advocate for a set of actions and infrastructure projects that came from the public who engaged by sharing their 3,700 recommendations, visiting the scenario workshop open house, and participating online or on paper in the futures survey.

Project and Policy Pages

This chapter outlines the specific details of policies and projects with information that will be used to continue programs, start design work, or begin a community process. Collectively, these pages describe what the City hopes to implement or advocate for over the coming 15 years and beyond.

On each page, you will find the name of the project or policy, a brief caption about it, a description of what it will look or feel like when fully realized, and the impacts it will have on future mobility. The pages also include information about implementation, including approximate costs, potential funding sources, the responsible agency or agencies, and a projected timeframe. Maps, renderings, and images provide a geographic and visual sense of where and what the project will be. Best practices from across the country demonstrate how similar ideas have been implemented nationwide with web links for additional information. Speech bubbles in yellow share quotes from the Idea Campaign that came from the public and informed the selection and description of the project or policy.

Finally, this list of projects and policies reflects a thorough data analysis that scored ideas based on their likely progress towards meeting nine of the aspirational targets individually and comprehensively. Scores from 0 – 3 (shown as 0.0, 1.5, 2.0, 3.0) indicate the impact of each idea in achieving each metric. Using mapping tools, Go Boston 2030 studied and scored the following:

- **Access 1**: To what extent will the project or policy increase the number of homes within a 10-minute walk of a rail or key bus route, Hubway station, and carshare?
- **Access 2**: To what extent is this project or policy likely to decrease commute times for residents living in areas with above-average commute times?
- **Safety 1**: How much is a project or policy likely to reduce the number of fatal and severe-injury crashes?
- **Safety 2**: To what extent will the project or policy increase the number of households within a five-minute walk of a protected bicycle facility or shared use path?
- **Reliability**: How much is a project or policy likely to reduce wait and travel times for MBTA customers?
- **Affordability**: To what extent will the project or policy reduce the transportation cost burden for very low income individuals?
- **Sustainability/Resiliency 1**: To what extent will the project or policy improve resiliency or provide an alternative transportation option during a flood or snow event?
- **Sustainability/Resiliency 2**: How much is a project or policy likely to reduce greenhouse gas emissions from transportation?
- **Governance**: Does this project or policy assign capital improvement dollars to underserved communities to improve the equitable distribution of investment?
City of Boston Ongoing Policies and Projects

In addition to the Early Action Projects identified in the Go Boston 2030 Action Plan, additional projects and policies, managed by the City of Boston, are currently underway.

**Policies**

**Boston Complete Streets Guidelines**
- Revised policies under review

**Future of Parking in Boston**
- Policies under review

**Parking**
- Polices that build on national best practices with a focus on expanding community access, reducing demand, and increasing opportunity for shared services (www.abettercity.org/docs-new/Future_of_Parking_in_Boston.pdf)

**DriveBoston**
- In progress

**Parking spaces in municipal lots and on city streets reserved for carshare vehicles** (www.boston.gov/departments/transportation/drive-boston)

**Complete Streets**

- **Beacon Street (Back Bay)**
  - In design
  - Current designs include features to reduce speeding and improve safety for people who are walking, biking, and driving as well as a potential separated bike lane.

- **Dudley Street ( Roxbury)**
  - In design
  - Current design includes wider sidewalks, improved access to the bus station, and a separated bicycle lane.

- **Harrison Avenue (South End)**
  - In design
  - Current design includes wider sidewalks and a protected bicycle lane between East Berkeley and Herald Streets.

- **Melnea Cass Boulevard ( Roxbury)**
  - In design
  - Neighborhood friendly corridor with wider sidewalks, shorter crossings, traffic-flow improvements, and off-street bicycle lanes.

- **Mt. Vernon Street (Columbia Point, Dorchester)**
  - In design
  - Preliminary designs explore the need for improved safety, wider sidewalks, and protected bicycle lanes.

- **Rutherford Avenue and Sullivan Square (Charlestown)**
  - In design
  - Redesign of existing conceptual designs to accommodate new development related to traffic and including an off-road bike and pedestrian path.

- **Boylston Street (Fanway)**
  - In design and construction
  - Completed project will include wider sidewalks with street trees and other greenscape elements as well as a separated bicycle lane.

- **Commonwealth Avenue Phase 2 (Allston/Brighton)**
  - In construction
  - Final design includes fully-accessible Green Line stations, separated bike lanes, protected intersections, transit priority, and a safer design for all users.

- **Quincy Street (Dorchester)**
  - In construction
  - Final design will improve pedestrian travel and accessibility, traffic flow, and streetscape elements between Blue Hill Avenue and Columbia Road.

**Major Bridges**

- **North Washington Street Bridge**
  - In design
  - New bridge will have wider sidewalks, gathering places, innovative accent lighting, protected bicycle facilities, and an exclusive bus lane.

- **Northern Avenue Bridge**
  - In design
  - Ongoing design process began with a design competition to envision a new bridge that addressed mobility, preservation, and sense of place.

**Main Streets Districts/Neighborhood “Squares”**

- **Hyde Square (Jamaica Plain)**
  - Construction beginning in 2017
  - Final design includes enhanced public square with sidewalk expansion and public art.

- **Audubon Circle (Fanway)**
  - In construction
  - Completed project will increase safety for pedestrians, bicyclists, and drivers and have four small rain gardens in each corner.

- **Central Square (East Boston)**
  - In construction
  - Completed project will feature wider sidewalks, narrowed streets, and an expanded park.

- **North Square ( North End)**
  - In design
  - Current design enhances the public square with site improvements including a shared street.

**Multiuse Paths**

- **Fenway-Roxbury Connector**
  - In design
  - The proposed off-road path extends the Southwest Corridor to the Emerald Necklace via Ruggles Station.

- **Fenway-Yawkey Multiuse Path**
  - In design
  - The proposed off-road path connects the Yawkey commuter rail station with the Fenway Green Line station and extends the Emerald Necklace.

- **South Bay Harbor Trail (Roxbury, South End, and South Boston)**
  - In design and construction
  - The trail connects residents to jobs, public transportation, and cultural institutions. Its route crosses over bridges and under highways, including public and private parcels.

- **Connect Historic Boston (North End, Charlestown, BU Lifeline Triangle, and Beacon Hill)**
  - In construction
  - Completed project will feature pedestrian paths and protected bike lanes on Commercial Street, Causeway Street, Staniford Street, and Constitution Road in addition to shared streets on Union and Joy.

**Square Projects**

- **Central Square**
  - In design and construction
  - Completed project will feature wider streets, narrowed streets, and an expanded park.

- **Fenway-Yawkey Multiuse Path**
  - In design
  - The proposed off-road path connects the Yawkey commuter rail station with the Fenway Green Line station and extends the Emerald Necklace.

- **South Bay Harbor Trail (Roxbury, South End, and South Boston)**
  - In design and construction
  - The trail connects residents to jobs, public transportation, and cultural institutions. Its route crosses over bridges and under highways, including public and private parcels.

- **Connect Historic Boston (North End, Charlestown, BU Lifeline Triangle, and Beacon Hill)**
  - In construction
  - Completed project will feature pedestrian paths and protected bike lanes on Commercial Street, Causeway Street, Staniford Street, and Constitution Road in addition to shared streets on Union and Joy.
Local Projects and Policies

“Safe and friendly” were consistently words that residents shared when describing the streets they wanted to live on, to walk and bike along, or to wait for a bus on, and these projects and policies set out to realize that vision. By enhancing local access, the realization of these Go Boston 2030 projects will mean that most residents will not need to use a car for the majority of their short trips. Buses will arrive reliably as they are prioritized on certain narrow corridors. Protected bike lanes will better connect confident but concerned cyclists who want the opportunity to pedal to their destinations. Travel safety, particularly for people walking, will dictate design decisions and determine the priority for funding and implementation.

**Policies**
- Climate Adaptation Requirements
- Development-Financed Funds for Multimodal Transportation
- Pedestrian-First Traffic Signals
- Public Realm Plan
- Performance-based Meter Pricing
- Expanded Demand Management Program and TDM Office
- Flexible Lanes Repurposed by Time of Day

**Early Action Projects**
0 to 5 years
- Walk- and Bike-Friendly Main Streets *
- Neighborhood Mobility microHUBs*
- Vision Zero: Priority Corridors and Safe Crossings*
- Vision Zero: Neighborhood Slow Streets
- Better Bike Corridors (p152)
- Bikeshare Network Expansion (locations TBD)
- Forest Hills to Roslindale Square Rapid Bus
- Dorchester Ave Complete Street (South Boston)
- Washington St/Columbus Ave Complete Street (JP/Roxbury)
- Neighborhood Complete Street Corridors
- Fairmount Greenway Neighborways
- Smart Signal Districts*

**Longer Term Projects**
5 to 15+ years
- Urban Rail Extension to Roslindale Square
- Green Line Extension to Hyde Square

* Top policy or project
Climate Adaptation Requirements
City transportation contracts will require analysis of climate impacts

Policy Description
Future designs for Boston streets will include a two-part evaluation and analysis that looks at how climate change will affect the street based on its geography and other design characteristics, as well as how the design of the street could influence the effects of climate change on the surrounding neighborhood. A demonstrated understanding of how stormwater, heat, and coastal flooding could affect a roadway under future climatic conditions and of how the roadway could contribute to reducing the effects of climate change on the surrounding neighborhood will generate appropriate site-specific responses ranging from innovative design to regrading to bioswales to new pavement materials.

Benefits and Issues Addressed
Current climate projections indicate that more roadways will become increasingly susceptible to flooding, particularly during extreme high tides and storm events. A range of innovative design solutions are needed, particularly for streets in East Boston and South Boston. In collaboration with the Environment Department and the Boston Water and Sewer Commission (BWSC), BTD will ensure that new infrastructure contracts will require the use of green infrastructure during street upgrades and costs to mitigate impacts. Contributions have funded city staff, the Transportation Access Plan Agreement (TAPA) mandate for large developers is a requirement of the Boston Planning and Development Agency’s (BPDA) Article 80 zoning review process. TPAs require developers to provide transportation demand management programs, transit related improvements, protected bike facilities, walkability improvements, etc., in exchange for a new tax revenue. Improve infrastructure to be resilient.

Implementation
In collaboration with the Environment Department and the Boston Water and Sewer Commission (BWSC), BTD will ensure that new infrastructure contracts will require the use of green infrastructure during street upgrades and costs to mitigate.

Time Frame: Five years

Best Practices
DRC’s Morrissey Boulevard Redevelopment project in Boston will address its regular flooding due to tides and extreme weather. www.mass.gov/eea/agencies/dcr/conservation/morrissey-boulevard-redevelopment-for-reconstruction.html

Public Input
“Instead of parking minimums, allow developers to instead pay into green infrastructure funds. Money from these funds could be used to enhance the walkability of a neighborhood, add a bike share station, install protected cycling infrastructure, help pay for additional public service, etc.”

Developing-Financed Funds for Multimodal Transportation
Incentivize more non-auto travel and infrastructure as part of new land developments

Policy Description
Development projects in Boston with more than 10,000 square feet of floor area are currently required to file a Transportation Access Plan Agreement (TAPA) with BTD. Initiating a mitigation fund from large developers that would be pooled to comprehensively improve sustainable transportation choices in a neighborhood, district, or corridor could support more substantive investments in employer-based demand management programs, transit related improvements, protected bike facilities, walkability improvements, etc., than any single developer can provide independently. A shared funding pool also helps remove the association of a single development with traffic impacts that have been created over time by many developments, fostering a shared investment in needed multimodal solutions.

Benefits and Issues Addressed
The TAPA is also a requirement of the Boston Planning and Development Agency’s (BPDA) Article 80 zoning review process. TPAs require developers to provide transportation demand management measures, traffic mitigation measures, and funding for improving transit and bicycle access. However, even as each TAPA is executed separately, funds can be pooled to make more systemic changes. The BPDA’s Morrissey Boulevard Redesign project in Cambridge, MA, regularly requires a proportional contribution from new large developments towards transportation programs as mitigation for potential impacts. Contributions have funded city staff, the EZ/Ride Shuttle, traffic calming, and more.

Implementation
Who’s responsible: BTD in collaboration with the BPDA and the Environment Department

Time Frame: Ongoing

Best Practices
Cambridge, MA, regularly requires a proportional contribution from new large developments towards transportation programs as mitigation for potential impacts. Contributions have funded city staff, the EZ/Ride Shuttle, traffic calming, and more.

Go Boston 2030
VISION People’s Voice I Boston Today Goals and Targets
ACTION PLAN People’s Voice II Boston in 2030 Projects and Policies
Boston Transportation Department March 2017

Public Input
“Allowing developers to buy out of parking requirements and impose housing projects for All and funds realted can build central parking garage and other infrastructure improvements.”

“Instead of parking minimums, allow developers to instead pay into green infrastructure funds. Money from these funds could be used to enhance the walkability of a neighborhood, add a bike share station, install protected cycling infrastructure, help pay for additional public service, etc.”

-02135

-02135

The King Tide in October 2016 demonstrated the impacts of future sea level rise.
**Policy Description**

Every trip begins and ends with at least a short walk. Our traffic signals and intersection designs will recognize the importance of supporting people on foot by shortening wait times at crossings and making signals adapt in real time to pedestrian behavior and flows. Automatic pedestrian phases—not requiring people to push a button—will be standard, as will countdown timers with audible indications for those with hearing impairment. Leading Pedestrian Intervals (LPIs) will allow people to start crossing the street and be seen before cars are permitted to move or turn with a green light, reducing incidents of right-turning vehicles hitting or startling walkers. Walk signals will be shown on every intersection leg at any phase when there are not conflicts with oncoming cars. A “Don’t Walk” will only be shown when the traffic is about to be released, allowing more time for more people to cross safely.

**Benefits and Issues Addressed**

Boston’s walk-frandlines are often measured by walking durations and intersection frequency, but not all of our traffic signals provide convenient wait times, intuitive signal patterns, or maximum crossing distances. Many Bostonians regularly ignore signals if they show a “walk” too infrequently, which sometimes leads to conflicts. By reprioritizing people on foot at each intersection and making “walk” signals automatic all the time, as many big cities should be #1 in Boston. People know they will always get a walk signal, allowing more time for more people to cross safely.

**Implementation**

Who’s responsible: BTD is developing new traffic signal policies to build on existing work such as installing LPIs.

**Time Frame:** Ongoing

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**Policy Description**

There are many potential improvements to the streets, sidewalks, and plazas across the City that will make them more welcoming to pedestrians, engaging for visitors, and inviting for people needing somewhere to wait. BTD, in conjunction with other City departments, hopes to activate and improve areas across the city with plazemaking, public art, green infrastructure, and wayfinding. Building upon successful initiatives like those in Hyde Square in Jamaica Plain or at the Tontine Crescent in downtown Boston, pilot tests for plazas and streetscape improvements will happen annually, Guidelines for community members to follow for installing parklets, painting street murals, and prototyping with other tactical interventions citywide will also be forthcoming.

**Benefits and Issues Addressed**

At least 56% of City-owned land is streets and sidewalks, and while getting around is the primary use for this space, there is increased attention that the City also needs to leverage our infrastructure in order to create a sense of place and bring communities together. Ensuring that sidewalks and plazas are accessible to all of abilities and fuel inclusive to all users will address issues of equity in all neighborhoods. Planning areas and installing smart gardens and permeable pavers that catch rain and nutrients make streets more inviting while mitigating against greenhouse gas emissions and preparing for extreme rain events.

**Implementation**

Who’s Responsible: BTD and the Public Works, BFD, and Boston Arts Commission

**Time Frame:** Ongoing

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**Best Practices**

Boston’s Complete Streets Guidelines provide guidance to ensure that Boston’s streets are designed as great public spaces for all users.

**Public Input**

“Make it incredibly easy to make ‘slow streets,’ ‘play streets,’ and ‘block party streets.’”

—02108

“Beauty = important in city”

—Roslindale roundtable

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**Public Realm Plan**

**Short- and long-term neighborhood public space projects**

**Policy Score**

- Access 1
- Safety 1
- Reliability
- Affordability
- Sustainability/Resiliency 1
- Governance

**Identified on the ballot as an Early Action commitment**

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**Public Input**

A pop-up plaza on Franklin Street between Arch and Hawley Streets served as a public realm demonstration project in August of 2016.

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**Benefits and Issues Addressed**

Oakland, CA, is in the process of installing leading pedestrian intervals (LPIs) at intersections. Anecdotally, DDOT found that these were more effective when used in concert with No Turn On Red restrictions for vehicles.

A study in State College, PA, found that LPI reduced pedestrian-vehicles crashes by almost 60% via reducing conflicts, leading to more effective use when used in concert with No Turn On Red restrictions for vehicles.

**Implementation**

- Oakland, CA, is in the process of installing leading pedestrian intervals (LPIs) at intersections. Anecdotally, DDOT found that these were more effective when used in concert with No Turn On Red restrictions for vehicles.

**Best Practices**

- San Francisco’s City Design Group has developed a series of neighborhood-specific public realm plans that focus on “putting people and the quality of place foremost.”

**Public Input**

“Make it incredibly easy to make ‘slow streets,’ ‘play streets,’ and ‘block party streets.’”

—02108

“Beauty = important in city”

—Roslindale roundtable
Performance-based Meter Pricing

Set differentiated parking rates based on demand to improve availability at curbside

Policy Description

At the more than 8,000 metered parking spaces in the city, new technology is allowing TTD to set variable meter prices. A pilot program has begun in Back Bay and will begin in April 2017 in the Seaport. At peak times in busy commercial districts, higher parking prices encourage faster turnover and compete with nearby garage rates. Parking meters can continue to operate later into the evening or earlier in the morning and be installed in more neighborhoods at a lower price point that regulates parking without discouraging potential customers. The new ParkBosApp also allows drivers to add time to a meter that is about to expire and extend beyond the regular maximum time-limit.

Benefits and Issues Addressed

Repeated studies show that roughly 30% of traffic in commercial areas is generated by people looking for parking and that parking pricing at the right level can ensure that there is the right amount of availability on a block. With properly priced parking, drivers can find a spot more easily, which reduces congestion and the additional traffic and safety problems associated with circling and double parking. Variable meter pricing allows for higher rates on neighborhoods where garage parking prices are high and there are numerous transit alternatives. It also allows for lower-priced meters to be installed elsewhere in the city. Where new or higher meter prices are implemented, parking benefit districts can be created so that the increase in parking fees is used to fund other transportation improvements in the surrounding area.

Implementation

Who’s Responsible: BTD and MOUNM
Potential Funding Sources: BTD operating budget
Time Frame: Ongoing

More info about our ParkBosApp at parkbos.com

Expanded Demand Management Program and TDM Office

Enchance Boston’s capacity to introduce programs that reduce driving

Policy Description

The City will expand upon best practices already in place through BTD’s Transportation Access Plan Agreement (TAPA) review process to mandate that all new employers, developers, institutions, and transportation operators participate in or create new programs and incentives to help meet Go Boston 2030’s mode shift and other targets. Working in collaboration with existing Transportation Management Associations (TMAs), the City will enforce existing commitments and annual monitoring requirements and promote solutions such as carshare fleets, guaranteed emergency rides home, on-site bikeshare, private mobility hubs, bicycle “pedal and park” and rides, integrated multimodal mobile trip planners, universal traveler assistance, and other essential employee and resident benefit programs that encourage people to travel without a private car.

Benefits and Issues Addressed

The provision of new transportation supply will be insufficient without new policies that require reductions in the demand for driving. Today, many employers of Boston businesses have their parking subsidized, which disincentivizes transit, walking, and biking. Commuters often have little information available about nearby alternatives and default to driving. With the right financial incentives and simple promotion of alternative travel options, many Boston businesses and residential complexes have already demonstrated dramatic mode shift. Such successes need to be publicized and built upon by mandating the creation of equitable-funded travel programs for all workers and residents and avoiding the perk of “free parking.”

Implementation

Approximate Cost: $200,000 per year operating costs for the new office
Potential Funding Sources: APCG fees and TMA support
Who’s Responsible: BTD and Environment
Time Frame: Establish City TDM office within five years

Best Practices

In 1998, Cambridge, MA, passed the Parking and Transportation Demand Management Ordinance, which requires any new development that adds parking to implement TDM measures and annual monitoring. The City created a new position, PTDM Planning Officer, which manages the program. The program has been credited with reducing driving by 10% and increasing transit use 11%.

Public Input

Ways to shift modes and funding: Make driving private cars in Boston prohibitively expensive. "No free parking." “Raise the rates charged at parking meters: They do not match what the garages charge.”

A Better City TMA provides information about multimodal commute options to employees in downtown and Allston. Among their many programs, they offer guided bike tours to show bike commuters safe route options. Photo credit: A Better City TMA

Paradigm shift reducing burden on transportation system. More work from home opportunities to provide flexible public transit for all neighborhoods. Subsidies free taxis in extreme weather.

—Roslindale roundtable
Walk- and Bike-Friendly Main Streets

Improvements to neighborhood commercial districts for people traveling on foot and by bike

Project Description

Walking and bicycling-friendly Main Streets districts would focus on street and sidewalk investments that incentivize walking and biking to and through every local business district in the city. Signalized crossings would prioritize walking with responsive push-buttons or automatic pedestrian cycles, longer walk times that start before turning cars, and shorter crossing distances. Additional parking spaces would be added to support people who choose to walk, bike, and take transit to our Main Streets.

Benefits and Issues Addressed

Many of Boston’s 21 official Main Streets districts cannot accommodate enough parking for their patrons to arrive solely by car, but the roadways through them are nonetheless often designed to maximize vehicular flow rather than focusing on moving walkers and bicyclists along and across streets to easily and safely shop, dine, and build community on either side of the street. Since many Main Streets are centered around uniquely shaped intersections that can be hard to navigate on foot, improvements like those underway in East Boston’s Central Square and JP’s Hyde Square could serve as a model for improving walkability—along with co-benefits like green infrastructure and expanded plaza space. People getting off of buses or trains, arriving by bike, or walking from the surrounding residential area will support small businesses with increased foot traffic and activated sidewalks.

Implementation

Planning Level Cost: $2.3 million over five years for design and construction

Funding Sources: City capital plan and developer funding

Who’s Responsible: BTD and Public Works with Boston Main Streets

Time Frame: Ongoing, with an estimated two to three districts per year

Best Practices

In 2004, Cambridge, MA, completed construction of Lafayette Square at the edge of Central Square. By reclaiming pavement at a triangular intersection and realigning streets at safer right-angles, a new plaza lined with shops was created, crosswalks shortened, conflicts reduced, and a barrier at the edge of Central Square became a new walk and bike friendly gateway.

Public Input

“Make walking fun and desirable – create street culture. Ex. businesses give rewards/discounts for walking/biking.” – Revere resident

“Add more defined bike lanes on main streets.” – Newton resident

Vision for a Neighborhood Main Street with small businesses from Boston’s Complete Streets Guidelines
Neighborhood Mobility microHUBs

Multiple prominent neighborhood access points to shared transit resources

Project Description
Centered around T-stations, bus network nodes, and local destinations such as community centers and small business districts, Mobility microHUBs are designed to provide and identify a range of connected travel choices. Using clearly-branded kiosks or nodes with real-time interactive information displays about transit schedules and shared vehicle availability, people can connect quickly between bus and train service, a Hubway station, secure bike parking, car share vehicles, ride-hailing pick-up spots, and electric vehicle charging stations at every microHUB. Coupled with free Wi-Fi and interactive wayfinding, these nodes become reliable ways to start, continue, or complete a multimodal journey. Placemaking strategies including plazas or parklets, sidewalk amenities, information signs, shelters, and works of art at each of these hubs will make them places that are worth stopping in when you have the time or if you have to wait.

Benefits and Issues Addressed
People often make their transportation choices based on their confidence that the trip will be reliable. Even in choice-rich Boston, this often means residents opt to use a car or make a one-seat train ride. Trips requiring transfers or changing modes can be more uncertain, so people often drive when other options are available. Mobility microHUBs increase people’s confidence in multimodal trips by co-locating multiple travel modes and combining wayfinding and real-time information, supporting regular users who are making daily decisions about which is the best combination of modes to take today and allowing someone visiting for the first time to navigate their trip through the city with ease. Placemaking at each of these hubs will make them places that are worth stopping in when you have the time or if you have to wait.

Project Score
- Access 1
- Safety 1
- Reliability
- Affordability
- Sustainability/Resiliency 1
- Sustainability/Resiliency 2
- Governance

#3 in public voting

Go Boston 2030
VISION People’s Voice I Boston Today Goals and Targets ACTION PLAN People’s Voice II Boston in 2030 Projects and Policies

Best Practices
San Diego, California
Planned mobility hubs include car share parking, bikeshare, informational kiosks, transit stops, and EV charging all in a location surrounded by cycling infrastructure, transit-oriented development, mixed use development, and extensive pedestrian facilities. Hubs are placed along light rail and high volume bus routes and designed to be implemented over a 35 year period at a cost of roughly $13 million each. http://www.sandiego.gov/transportation/vehicleaccess/review/forhubs/mobilityhubstrategy.aspx

In Los Angeles, the city has framed co-located multimodal transportation services as “Mobility Hubs.” A kit of parts, including transit access, bicycle amenities, pedestrian connections, and waiting areas can be assembled to provide a mobility hub. Mobility hubs typically link to a transit center or access point. The City recently received $4 million in JARC (Job Access Reverse Commute) federal funding to pursue 13 new hubs citywide. www.urbandesignla.com/resources/docs/MobilityHubsReaderGuideMobilityHubsFinalPlan.pdf

Implementation
Approximate Cost: $100,000 for design and construction

Potential Funding Sources: City capital plan and MBTA funding (FTA provides limited funds for bikeshare installations related to transit)

Who’s Responsible: RFT and MBTA

Time Frame: Ongoing over 10 years in coordination with bikeshare and DriveBoston expansion

Public Input
“MBTA stations that are major transportation hubs (DTX, Park Sq) should have better design and wayfinding.”
—Chinatown roundtable

“We felt one of the root causes was around inequality in regard to race. One of our ideas was that currently our transit hubs were in downtown Boston, what if they were moved to higher density and lower economic opportunity to increase the flow of business.”
—Chinatown roundtable

Recent pilot of real-time information kiosk in Faneuil Hall and new wayfinding throughout Boston helps people get to where they need to go.
Vision Zero: Priority Corridors and Safe Crossings

Safety measures along Massachusetts Avenue and Codman Square; two additional corridors every year and multiple independent intersection improvements

Project Description

Roadway design that prioritizes vulnerable road users on corridors with historic safety concerns will work to reduce traffic fatalities and severe injuries across Boston. The toolkit for improving safety at intersections may include shortening crossing distances, "daylighting" intersections to make pedestrians more visible, restricting turn movements on red, giving people more time to cross on walk signals, and allowing pedestrians to start across the street and be clearly seen before turning cars have a green light. Along the streets there will be a combination of protected bike lanes, speed radar signs, fresh pavement markings, and more commercial and short-term parking to prevent double-parked vehicles from stopping in dangerous places.

Benefits and Issues Addressed

Based on historic crash data, recent traffic fatalities and severe injuries, and crowd-sourced interactive safety maps, Massachusetts Avenue and Codman Square were identified as the first two priority corridors for Vision Zero—the City’s initiative to eliminate traffic fatalities by 2030. The Vision Zero Task Force, representing multiple city agencies and advocacy groups, does site visits following each fatal incident and will continue to identify new corridors for improvements on an annual basis. By designing streets with pedestrian and cyclist safety at the forefront of the process, statistical and perceived safety will continue to improve across the city.

Implementation

Approach: $3.1 million a year for design and construction for Vision Zero corridors and safe crossings and Neighborhood Slow Streets

Potential Funding Sources: City capital plan

Who’s Responsible: BTD and Public Works

Time Frame: Ongoing with corridors and intersections selected based on crash data, and observations from public input on Vision Zero’s Safety Concerns map

Best Practices

Portland, OR, identified the top 10 crash streets and top 50 crash intersections as part of the city’s High Crash Corridor Program. They found that more than half of all deadly crashes occur on just 5% of the city’s streets. As part of their citywide Vision Zero program, the City is focusing resources on these roadways to ensure priority is given to these locations. The City also installed fixed-speed-safety cameras along these corridors. www.portlandoregon.gov/transportation/66873

Public Input

“Do-able in the short term: Make Mass Ave a Complete Street—safe for cyclists, pedestrians, and cars.”

“Codman Square Safety Plan: In the short term, to reduce the traffic-lighted intersection at Washington and Talbot, with pedestrian crosswalks moved away from the intersection and marked by flashing lights, speed bumps, or other safety markings. This will enhance the safety of pedestrians and cars, and add an opportunity to beautify Codman Square.”

Crossing in Codman Square before and after Vision Zero intervention. Photo credit: Brendan Kearney/WalkBoston

New corridors and intersections will be prioritized in 2017 and additional projects will be added annually.

Project Score

- Access 1
- Safety 1
- Reliability
- Sustainability/Resiliency 1
- Sustainability/Resiliency 2
- Governance

Identified on the ballot as an Early Action commitment
Vision Zero: Neighborhood Slow Streets

Traffic calming on residential streets

Through the Neighborhood Slow Streets program, residents can apply for traffic calming on a cluster of residential streets within their neighborhood. Selected districts will work with the City to implement a variety of designs to slow traffic across 10-12 blocks, including speed bumps, curb extensions, small traffic circles, and wiggles in the roadway (called chicane). When entering a Slow Streets area, signage and pavement markings will indicate to drivers that their behavior should change.

Benefits and Issues Addressed

Residents across the city report a growing perception that their residential streets are too heavily trafficked and that drivers are going too fast, making their streets feel uncomfortable to cross or walk along. Such behavior is most common where residential streets feel uncomfortable to cross or walk along.

Implementation

Approximate Cost: $3.1 million a year for design and construction for Vision Zero corridors and safe crossings and Neighborhood Slow Streets

Best Practices

The Seattle, WA, City Council recently voted to lower speed limits on non-arterial streets to 20 MPH.

www.seattle.gov/Documents/Departments/ 9c03ktf/12_safe-streets_VZ_3q2_v5.pdf

Safe Streets SF is a citywide effort in San Francisco, CA, that combines marketing, enforcement, and public engagement to increase public awareness of laws related to crosswalk violations and highlights the need to change driving behaviors and give the right-of-way to pedestrians.

www.sfmta.com/all-projects/liveRLF/streets-safe-streets-of-6

Other traffic calming measures, such as pedestrian bumpouts and refuge islands, as well as any improvements like floating bus stops that prioritize transit would be a very welcome addition.

=02139

Policy Description

Roadways have different demands depending on the time of day and day of the week. Responding flexibly to their real use can allow for a single lane to efficiently serve different uses during peak and off-peak hours. Flexible lanes can become exclusive bus or bike lanes for part of the day or they can change direction for additional capacity depending on the primary direction of travel. Flexible lanes might provide space for evening or weekend expansion of sidewalk space with temporary cafes or parklets, or they can accommodate expanded loading zones during the week to discourage double-parking. With advances in technology, particularly the use of smartphone navigation and autonomous vehicles, more adaptive lane uses will be possible, and the flexibility to adjust for large scale events or detours will also be possible. Boston is already working with Streetparkd, to create the underlying electronic database of all curb regulations citywide. This database, called BPARC (Boston Parking Atlas and Rules Census), will ultimately link to user apps and technologies that make it easier to find car parking, shared rides, bicycle parking, and more.

Benefits and Issues Addressed

Currently, lane assignments and directions are fixed, and these lanes can be filled to capacity or be completely under-utilized, depending on the time of day. With flexible lanes, and improved technology to communicate and enforce their use, parking lanes in business districts can accommodate food trucks and pedicabs at lunch, peak hour travel lanes can become walking and bicycling spaces on weekends along Boston’s parkways or downtown streets and waterfront boulevards; farmers markets can regularly flow-out on the street; or center travel lanes could switch their direction of travel to better move neighborhood commuters to their jobs. More parking can be provided overnight for residents and return to travel lanes during the day.

Implementation

Approximate Cost: Costs would be accommodated in BTD operating budget

Potential Funding Sources: BTD operating budget

Who’s responsible: BTD

Time Frame: Ongoing

Best Practices

In San Francisco, a collaboration between Lyft and the non-profit Livable City is piloting a program that works within ride-hailing apps to encourage pickups at safe locations. Moreover, these locations are separate from other modes. The user simply inputs the new location on their app when they request a ride.

livelabcity.org/Curb-The-Cluster/

In Seattle, WA, the City has implemented lanes that accommodate transit during peak hours of the day, as recommended in the NACTO design guide. The City has nicknamed these “BAT lanes” (Business Access and Transit) and they are currently working on additional corridors.


Public Input

“Open up new routes for high traffic areas. Different set out times for workers.”

=02139

Seattle allows only buses and bicyclists to travel on certain streets during peak times.
Better Bike Corridors
Rebuild streets with protected and low-stress bicycling facilities

Project Description
New projects will aspire to make bicycling a safe, comfortable, and convenient choice for more of Boston’s residents and visitors. Better bike lanes go beyond traditional bike lanes, which are painted on the street between moving and parked cars. The city will pursue more priority routes with bike lanes that are separated from moving traffic. Similar approaches are part of Boston’s Complete Streets Guidelines and Neighborhood Slow Streets efforts. Today, Boston residents can experience protected bike lanes on parts of Western Avenue in Allston; Commercial Street, Stanton Street, and Atlantic Ave in the North End and West End; and parts of Beacon Street and Massachusetts Avenue in the Bay. Future better bike lanes are planned for additional corridors, including:

- Columbia Road Greenway (p72)
- SW Corridor Extension to Back Bay and MGH (p74)
- Melnea Cass Blvd, where protected bike lanes will connect the SW Corridor to Boston Medical Center

Benefits and Issues Addressed
Building better bike corridors has increased cycling rates across the nation and in the Boston region. A connected network of more comfortable routes makes bicycling a more realistic option for people who would otherwise choose to drive or rely on transit. Through the Go Boston 2030 process, the call for building better bike corridors (and facilities that provide “low-stress” connections for cyclists) has been heard from across all neighborhoods and from current and potential cyclists alike.

Best Practices
Since 2007, the NYCDOT has installed over 30 miles of protected bicycle lanes throughout the five boroughs of New York City.

- Based on what was spent by NYCDOT on bicycle infrastructure between 2007 and 2014, a study estimated that the city’s 2015 outlay of $8,109,511 resulted in 45.5 miles of new bike lanes. Taking into account the past cost of bike-related injuries and fatalities, they also estimated quality-adjusted life years (QALYs, a common economic metric) for all New Yorkers. [Source]

In Boston, the expansion of bicycle facilities from 2007-2012 has been shown to correlate with a decrease in cyclist injuries. [Source]

Implementation
Approximate Cost: $1 to $2 million per year for design and construction.

Potential Funding Sources: COB capital plan and Boston MPO TIP construction funds

Who’s responsible: ETD, Public Works, and MassDOT

Time Frame: Ongoing and over 15 years in conjunction with local community process

Public Input
"Protected bike lanes in Roxbury: Install them on Blue Hill Ave, Dudley Street, Washington, Warren, and Malcolm K." –2013

"Cambridge Street: Particularly outbound, the street is VERY dangerous, yet it is the gateway to City Hall, state government, etc. Please remove the median and install dedicated bike routes/paths." –2013

Projects and Policies
Go Boston 2030
March 2017
Bikeshare Network Expansion

Increase the number of bikes and stations to reach more Bostonians

Project Description
Bikeshare is a newer type of public transportation, providing a reliable and low-cost option for getting around the city and adjacent region. Launched in 2011, the regional bikeshare system now has more than 1,600 bikes and 180 stations across Boston, Brookline, Cambridge, and Somerville. The system has grown so that docking stations are within a 5- to 10-minute walk of other stations; this allows people to find an alternative bike or dock if a station is full or empty, without significantly adding time to their trips. By the end of 2022, Boston aims to grow its part of the system 137 new stations, for a total of 248 stations in the city. The growth includes additional stations within the busiest areas of the system and broader access in all densely-populated neighborhoods.

Benefits and Issues Addressed
Bikesharing provides area residents, visitors, and workers with additional transportation options and increases connectivity within the existing public transportation network, serving as a key first-mile/last-mile connection to rapid transit, commuter rail stations, and bus stops. Bikeshare helps reduce the number of single-occupant vehicle trips for work and non-work purposes in the region, supporting Boston’s mode shift goals. Additionally, the widespread availability of low-cost, public bicycles means residents can choose an active, healthy lifestyle and reduce greenhouse gas emissions. In the future, bikeshare stations will be integrated into Neighborhood Mobility microHubs (p146) that cluster bus stops, carshare, bikeshare, electric vehicle charging, and improved wayfinding across the city.

Implementation
Approximate Cost: $6.5 million for installation
Funding Sources: Title and other sponsorships, advertising, private foundation and public agency grants, developer funding, user-generated revenues, and C.O.R. capital and operating funds
Who’s Responsible: BTD
Time Frame: Ongoing

In 2016, 23 new bikeshare stations were installed in Roxbury, northern Dorchester, East Boston, Brighton, and the Seaport. Continued expansion is anticipated.

Public Input

“Hubway should be utilized to work as last-mile connections to/from transit stations. As an example, along the Southwest Corridor, some Orange Line stations have Hubway docking stations, but there are few to no stations in the neighborhoods surrounding them. Adding more stations in these areas would allow people who live farther from transit the opportunity to bike to the T.”

—02130

More info at
blog.bostonbikes.org/post/143549809449/did-you-hear-hubway-expanded-in-roxbury-and
and www.thehubway.com/
Forest Hills to Roslindale Square Rapid Bus

Bus priority treatments from Forest Hills to Roslindale Square

**Project Description**

Using a reserved transit lane on Washington Street and bus signal priority, all existing bus service between Roslindale and Forest Hills would be able to operate clear of traffic congestion, greatly improving service reliability.

The transit lane could be reversible, and flexible curb regulations would preserve vehicle capacity in the peak direction. With these bus service improvements, existing services could serve more riders in Roslindale and in points further south. In the long term, this route could utilize abandoned rail tracks that extend to Hyde Park, potentially bringing rapid bus to even more undeserved residents.

**Benefits and Issues Addressed**

Currently, half of motorized roadway users on Washington Street between Forest Hills T-station and Roslindale Square are bus passengers. This demonstrates an incredible demand for improved transit service, specifically to that segment of Washington Street.

The bus passenger percentage of motorized roadway users on the stretch of Washington St between Forest Hills and Roslindale is as follows:

- AM Peak Hour
- PM Peak Hour

Belgrade Ave - Roslindale Square

**Public Input**

"Would like to see a bus route from Washington St. Roslindale to Centre St. West Roxbury. We have to go to Roslindale Square to catch another bus to go to Centre St. West Roxbury. At the CVS in Roslindale the cars come out of the parking lot and stop the traffic coming down Washington St. West Roxbury - there is always a jam all day long."

- 02130

**Project Score**

- Access 1
- Safety 1
- Reliability
- Affordability
- Sustainability/Resiliency 1
- Governance

Identified on the ballot as an Early Action commitment.

Urban Rail Extension to Roslindale Square

Subway-like service to Roslindale

**Project Description**

Much like the Red Line extension to Alewife in 1985, the Orange Line could be extended to Roslindale or further. Alternatively, subway-like service could be added to the Needham Line that already runs from Forest Hills T-station. By providing this new service, an entire neighborhood as well as one of Boston’s most successful Main Streets district will be connected by train to Forest Hills and beyond, enabling a single-seat subway-like ride where bus-to-train transfers were once needed. A parallel multiuse path will connect Roslindale Square to one of Boston’s premiere open spaces, the Arnold Arboretum. Extending the Orange Line would require land acquisition and consolidation followed by major capital investments in new rail lines and a new station at Roslindale Square. Improved and more frequent service is possible to West Roxbury and beyond along this corridor, whether by the Orange Line or subway-like service on the Needham Line.

**Benefits and Issues Addressed**

While a rapid bus on Washington Street to Roslindale will help this congested transit corridor, the Needham Line is a separate right-of-way that represents a significant increase in transit capacity. An Orange Line extension can not only provide more people with a one seat ride, it enables a rapid bus on Washington Street to also do more, especially if extended south to Hyde Park and eventually to Dedham. Subway-like service on the Needham line will enable that service to also have greater speed and capacity. Including a multiuse path would also provide the community with a healthy, active transportation and recreation route, connecting to the Arboretum and on to the existing Southwest Corridor Path, the Green Links Network (p170), Columbus Road Greenway (p172), and SW Corridor Extension to Buck Bay and MGH (p174).

**Implementation**

- Approximate Cost: $500 million (for Orange Line Extension)

**Potential Funding Sources:**
- MTA
- MBTA

**Time Frames:**
- 14+ years in coordination with local public process

**Best Practices**

The planned Green Line Extension to Union Square and ultimately College Avenue in Medford will follow existing MBTA Commuter Rail tracks for the Lowell and Fitchburg lines.

Los Angeles, CA, is also extending their Gold Line to Montclair/Clairemont alongside the existing LA Metrolink commuter rail line, increasing the number of tracks to three or more.

**Public Input**

"The Orange Line should be expanded to go along the Needham Commuter Rail line... This would alleviate congestion on Washington St. in Roslindale because of all the buses that currently travel through there."

- 02130

"Roslindale is the only part of Boston proper without proper T coverage. Commute
tial and bus service isn’t cutting it, especially as more people get priced out of the up and coming JP and move to Rozzy instead. An increasing number of folks will need to commute into Boston from Roslindale, and extending the T there would increase efficiency and make a lot of residents very happy."

- 02130

Go Boston 2030

March 2017

Boston Transportation Department

Local

PUBLIC INPUT

Project Score

- Access 1
- Safety 1
- Reliability
- Affordability
- Sustainability/Resiliency 1
- Governance

Identified on the ballot as an Early Action commitment.

Photo credit: Aaron Black

Mystic River

Boston

Common

Arnold Arboretum

Thompson Square/Bunker Hill

Joe Moakley Park

Egleston Square

Chestnut Hill Reservoir

Sullivan Square

Forest Hills

Arnold Arboretum

Pleasure Bay

Pleasure Bay

Columbia Road Greenway

MetroWest

West Roxbury

The Charles River

Boston

Common

Egleston Square

Olmsted Park

Pleasure Bay

Chestnut Hill Reservoir

Jamaica Pond

Boston

Common

Dudley Square

Thompson Square/Bunker Hill

Joe Moakley Park

Egleston Square

Chestnut Hill Reservoir

Sullivan Square

Forest Hills

Arnold Arboretum

Pleasure Bay

Columbia Road Greenway

MetroWest

West Roxbury

The Charles River

Boston

Common

Egleston Square

Olmsted Park

Pleasure Bay

Chestnut Hill Reservoir

Jamaica Pond

Boston

Common

Dudley Square

Thompson Square/Bunker Hill

Joe Moakley Park

Egleston Square

Chestnut Hill Reservoir

Sullivan Square

Forest Hills

Arnold Arboretum

Pleasure Bay
**Dorchester Ave Complete Street (South Boston)**

Make Dot Ave between Broadway and Andrew Square more multimodal

**Project Description**

As outlined in the BPDA’s PLAN South Boston report, Dorchester Avenue will be redesigned as a street that serves as the retail anchor to the district as well as a key multimodal thoroughfare. Enhanced crosswalks accessible to those of all abilities, as well as other safety and public realm improvements, protected or separated bike lanes, and on-street bike lanes along the spur priority for buses will support active transportation and retail activity. Old Colony Avenue, Edge Street, and (new) Eliey Street will also be designed for multimodal use appropriate to the transportation needs and scale of the surrounding buildings.

**Implementation**

**Planning Level Costs:** $7 million for design and construction

**Funding Sources:** City capital budget and Boston MPO TIP

**Who’s Responsible:** BT&D and Public Works with BPDA

**Time Frame:** Ongoing design within five years and construction within 15 years

**Best Practices**

- Chicago moved parking onto side streets and redesigned busy Milwaukee Avenue to install protected bicycle lanes. Over 1,000 cyclists per day use the lane. [chicagocompletestreets.org](http://chicagocompletestreets.org)
- “A street for people not cars”
- “Safe streets, slower cars, protected bike lanes, good sidewalks”
- “More accessible and safer for pedestrians, bicyclists”

More info at [www.bostonplans.org/planning/planning-initiatives/plan-south-boston-dorchester-ave](http://www.bostonplans.org/planning/planning-initiatives/plan-south-boston-dorchester-ave)

**Benefits and Issues Addressed**

The existing Dot Ave corridor between Broadway and Andrew Street stations is currently a mix of industrial uses, is unfamiliar to walkers and cyclists, and has insufficient bus service. As part of the rezoning of this district and subsequent rezoning, the City expects a surge in mixed-use development which will accommodate multimodal businesses. This will require a better connected existing walkable clusters of businesses and homes. Pedestrian friendliness will be a key design feature along the corridor, with widened sidewalks and improved pedestrian crossings. The design of Egleston Square in particular will focus on helping people navigate it safely on foot. Bicycle facilities, bike parking, and improved way-finding will support local trips and help people access the Southwest Corridor. Bus lanes, queue jump lanes, and operational improvements at bus stops will improve Columbus Ave and part of Washington Street for transit.

**Washington St/Columbus Ave Complete Street (JP/Roxbury)**

Make the corridor between Forest Hills and Jackson Sq more multimodal

**Project Description**

As outlined in the BPDA’s PLAN JP/Rox report, Washington Street and Columbus Ave will gradually transition from auto-related businesses to a corridor of mixed-use multi-family buildings to better connect existing walkable clusters of businesses and homes. Pedestrian friendliness will be a key design feature along the corridor, with widened crosswalks and improved pedestrian crossings. The design of Egleston Square in particular will focus on helping people navigate it safely on foot. Bicycle facilities, bike parking, and improved way-finding will support local trips and help people access the Southwest Corridor. Bus lanes, queue jump lanes, and operational improvements at bus stops will improve Columbus Ave and part of Washington Street for transit.

**Implementation**

**Planning Level Costs:** $12 million for design and construction

**Funding Sources:** City capital budget and Boston MPO TIP

**Who’s Responsible:** BT&D and Public Works with BPDA

**Time Frame:** Ongoing design within five years and construction within 15 years

**Best Practices**

- Parallels for the Southwest Corridor and the Orange Line, residents around this stretch of Washington Street are already multimodal. Enhancing easy access to that multimodal corridor will be an important concurrent project to the upgrades on Washington and Columbus. Especially as parking ratios decrease to accommodate more workforce housing in the district, high-quality walking, biking, and transit options for residents will be imperative. Orange Line improvements (p39) and continued bikeshare expansion (p34) will also support people who chose not to drive here.

More info at [www.bostonplans.org/planning/planning-initiatives/plan-jp-roc](http://www.bostonplans.org/planning/planning-initiatives/plan-jp-roc)
Neighborhood Complete Street Corridors
Enhancements to promote safe travel for those walking, on bikes, in buses, and driving cars

Project Description
Implementing Boston’s Complete Streets Guidelines, the City will install enhancements along several neighborhood corridors that improve travel safety, accommodate people biking, and make walking more comfortable. These include: East Boston’s longest connector, Bennington Street; Washington Street between Egleston and Dudley Squares; Humboldt Avenue in Roxbury; Cummins Highway connecting Roslindale and Mattapan; and Tremont Street in the South End.

Benefits and Issues Addressed
Each of these complete neighborhood corridors experiences higher crash rates and greater vehicle speeds than most of the residential streets that feed into them, yet residents of these neighborhoods depend on these corridors for daily life. Making each a complete street will improve safety for all travelers and provide much needed bicycle accommodations where none exist. Once improved, these corridors can make it easier for residents to walk and bike to transit, neighborhood services, and their Main Streets districts (p144).

Best Practices
In 2008, NYC DOT released their Sustainable Streets plan. The plan laid out several transportation initiatives that would improve streets for all modes of transportation and increase safety for bicyclists and pedestrians.

Implementation
Approximate Cost: $40 million for design and construction
Potential Funding Sources: City capital plan, MassDOT, Public Works, and MassDOT
Time Frame: Ongoing and over 15 years

Go Boston 2030

Fairmount Greenway Neighbors
A nine-mile walking and biking route that parallels the Fairmount Indigo Line

Project Description
This multi-site urban greenway links the Fairmount stations, open space, and other developing neighborhood amenities with an on-street biking and walking route that loosely follows the Fairmount Indigo Line. The neighbors would include traffic calming, wider sidewalks, wayfinding signs and markings, improved intersection crossings with busy streets, and green infrastructure enhancements. In addition to the primary north-south route, there would be shorter loops for local trips that safely connect residents, commuters, shoppers, and visitors to transit stations; to new and existing open space, including parks, community gardens, schools; and to neighborhood business districts and historic sites.

Benefits and Issues Addressed
The Fairmount Greenway Task Force (FGTF) has engaged over 700 local community members since 2008 to implement short stretches of the neighborhoods, create new community gardens, activate vacant sites, enhance urban wilds, and develop a shared vision for a connected network of garden, parks, and greenspace that enhance the communities in Hyde Park, Mattapan, Roxbury, and Dorchester that were historically underserved by transit and park access. Moving forward, its special designation as a greenway of neighborways will make it the focus of temporary playways, art installations, tactical urbanism strategies, and green infrastructure improvements to the streetscape to create a sense of place, provide community destinations, and green the route.

Implementation
Approximate Cost: To be determined
Potential Funding Sources: City capital plan, DCOR for path along Neponset, EPA Region 1, and MassDOT’s Complete Streets program
Who’s Responsible: BTD and Public Works with MassDOT and DCR
Time Frame: Five years for design and 15 years for construction in coordination with local public process

Best Practices
In Vancouver, BC, the Carrall Street Greenway connected three neighborhoods by altering the existing street layout of two travel lanes and parking/ loading lanes to include a recreational path, more street trees, and decorative street lighting. The design includes “flexible amenity space” that can be used for loading, parking, sidewalk cafes, partis, etc. The design preserved the character and history of the neighborhoods it passed through (ex. brick sidewalks in the Gastown neighborhood) with an existing ROW of 66 feet.

Public Input
“Build the Fairmount Greenway: a neighborway to connect communities. The Greenway promotes active living and improves the environment, while connecting neighborhoods. Since 2008 the effort has been led by the Fairmount Greenway Task Force, which includes 10 community organizations working in collaboration with the City of Boston. We are very excited to mark the Greenway route with permanent playways and wayfinding pavement markings in the near future. However, there is still more work to be done. Our vision is to create a friendly, safe, and green route.” — 02143

More info at: www.frwcrc.com/?p=493

Go Boston 2030
Green Line Extension to Hyde Square

**Project Description**
The existing Green Line beyond Brigham Circle would be upgraded and extended beyond Heath Street to Hyde Square, creating an improved transit connection between the Longwood Medical Area and Jamaica Plain. The existing protected rail median on Huntington Avenue would be extended to South Huntington by moving on-street parking to side streets converted to one-way pairs. In-street operations south of Huntington could continue, with the final alignment to serve Hyde Square determined through a separate process.

**Benefits and Issues Addressed**
Huntington Avenue is a heavily-traveled corridor that greatly intersects with Green Line operations west of Brigham Circle, where a protected transit median has not yet been built. More efficient operations increase transit access to the LMA in both directions, while a southerly extension to Hyde Square connects thousands of riders with rail transit and connects the Centre Street Main Street district in Jamaica Plain to the rest of the city on rail, further helping to reduce reliance on driving in this congested part of the city.

**Implementation**
- **Approximate Cost:** $40 million for design and construction.
- **Potential Funding Sources:** City capital plan.
- **Who’s responsible:** MBTA
- **Time Frame:** 3+ years

**Best Practices**
In Los Angeles, CA, the most recent Gold Line light rail extension opened in 2016.’s already high-usage numbers led, with 46% of new riders coming from private vehicle commuters.


**Public Input**
- “Extend the Green Line to Hyde Square.”
- “The Green Line should be extended 3/4 of a mile to Hyde Square, where there is great residential and commercial activity, and therefore serve the needs of hundreds more residents and bring thousands of people to the commercial and cultural hub of Boston’s Latin Quarter. This is more crucial now that the South Huntington Avenue corridor is in the midst of important development, with at least 200 new units along the avenue.” —02130
- “Green Line to Hyde Square would be a ‘game-changer’—save people where they are.” —Ron Davis, roundtable

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**Smart Signal Districts**

**Traffic lights talk to each other to facilitate movement in congested parts of the city**

**Project Description**
Building upon smart signal corridor approaches (p177), in the South Boston Waterfront, Sullivan Square, the Bulfinch Triangle (just south of North Station), and Dudley Square, traffic signals would communicate with one another as vehicle traffic backs up onto short blocks when drivers wait to turn or as crossing walkers surge from trains or buses unloading nearby. Signals would then adjust their timing to alleviate temporary delays and avoid intermittent conflicts. District-wide, automated responses to traffic, bike, and walk flows would have traffic signals work together as a single network, and adjustments in one section would be sensitive to impacts in another.

**Benefits and Issues Addressed**
Complicated historic street patterns, accelerated housing development and job growth, and high numbers of buses and shuttles traveling through these districts has led to heightened local congestion. Unlike corridors where the primary direction of travel is clear, these districts have more complicated circulation issues to address. By leveraging new technology that responds to demand, BTD signals will impactfully improve flows and reduce congestion.

**Implementation**
- **Approximate Cost:** $2.5 million over five years for smart corridors and districts as well as other signal upgrades.
- **Potential Funding Sources:** City capital plan and developer funding.
- **Who’s Responsible:** BTD
- **Time Frame:** Ongoing

**Best Practices**
In Pittsburgh, PA, a startup found that smart traffic signals could reduce vehicle travel times by 23%. Importantly, this study also tracked a 40% reduction in idling, which is directly tied to an emissions decrease. www.transitontimes.com/cars-that-think/robotic-artificial-intelligence/pittsburgh-smart-traffic-signals-will-make-driving-less-boring

**Public Input**
- “Traffic light retiming: Hire a transportation planning agency to do a full city-wide review of all our traffic lights to see how retiming them can give better traffic flows.” —02135
- “Adaptive signal technology that automatically adjusts for real time conditions within 5 years.” —02136

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*Boston Transportation Department March 2017*
Travel across the neighborhoods of Boston has been challenging, particularly for non-drivers. The Go Boston 2030 crosstown policies and projects relieve the transportation systems of the need to go downtown for transit transfers and safe bike facilities. New pockets of growth proposed by Imagine Boston 2030 and other planning initiatives will be well-served by these new connections. New job centers in medical areas such as Longwood and MGH, the South Boston Waterfront, Beacon Yards (Allston), and Allston Landing will be easier to access by high quality bus and train corridors, technology-leveraging shuttles, safe bike routes, and effectively signalized streets.

### Crosstown Projects and Policies

**Policies**
- Bus Service Reliability Improvements*
- Restructure All Bus Routes*
- Green Line Improvements
- Consolidated Smart Shuttle System

**Early Action Projects**

0 to 5 years
- Green Links Network (Refer to Boston Greenlinks map on p171)
- Columbia Road Greenway*
- Commonwealth Avenue beyond Packards Corner
- SW Corridor Extension to Back Bay and MGH
- Summer Street Protected Bike Lane
- Silver Line Termi at Downtown Crossing and South Station
- Smart Signal Corridors*

** Longer Term Projects**

5 to 15+ years
- Longwood Transit Hub
- Fairmount Indigo Line Service Improvements*
  - Fairmount Indigo Line Urban Rail*
- LMA to JFK Rapid Bus via Dudley and Uphams
- Mattapan to LMA Rapid Bus*
- Improved Silver Line: Dudley to Downtown
- Oak Square to Comm Ave Improved Bus Corridor
- Seaport to Dorchester/Widett Urban Rail
- Inner Harbor Expansion
- Dudley Square Transit Hub

* Top policy or project
#### Bus Service Reliability Improvements

**Policy Description**

In 2013 and 2014, the 15 bus routes in the MBTA system with the highest ridership were the focus of a project to consolidate stops and develop a schedule with more frequent service, "with buses arriving every 10 minutes or better during weekday peak periods, every 15 minutes or better during weekday midday, and every 20 minutes or better during off-peak periods." Now, these bus routes, along with the next 15 busiest, will be the focus of further improvements including exclusive bus lanes where there is a segment of particularly high ridership and a high frequency of buses, off-board payment or another system that allows for all-door boarding, signal priority when buses ran behind schedule, and better bus stops.

**Benefits and Issues Addressed**

While buses have to stop regularly on a route to serve passengers effectively, they should remain an efficient and reliable way to travel through the city. Improving the boarding process and helping buses advance past other vehicular congestion will mitigate the two most common types of existing delays that plague essential MBTA routes now serving neighborhoods with little or no subway service. Though all buses should provide excellent customer service, be safe and comfortable, and meet the needs of people with disabilities, improvements to 30 routes with the highest ridership will make a significant impact on transit reliability and use.

**Implementation**

**Approximate Cost:** TBD

**Potential Funding Sources:** MassDOT/MBTA for the existing Key Bus Route program

**Time Frame:** Ongoing

Construction and improvements for Key Bus Routes was completed in 2014, with the exception of minor adjustments, using a $10 million grant from the American Recovery and Reinvestment Act.

**Map source:** mbta.com/about_the_mbta/Projects/Default.aspx?id=29047

*These 15 routes are part of the existing Key Bus Route program.*

**Best Practices**

- Select Bus Service: a system of key bus routes in NYC that have been (or will be) improved using more frequent service, fewer stops, off-board fare payment, real-time arrival updates, signal priority, and bus lanes. [www.mta.info/mta/planning/bls/](http://www.mta.info/mta/planning/bls/)

**Public Input**

- "Keep up bus service during the day so that it’s a reliable way to run errands or get to meetings between peak times."

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### Crosstown

#### Restructure All Bus Routes

**Project Description**

Beginning with Focus40, the MBTA is taking a fresh multi-year look at its operations and routes and the possibility of extended service. In collaboration with the MBTA, the City of Boston would work with the community to develop a new network of bus routes that better match Bostonians’ travel needs, providing the most frequent service where there is the highest demand and ensure ADA compliance. The MBTA will also consider a set of routes that would best serve the city overnight to provide 24-hour access to jobs, as laid out by the MBTA in its Fair Fare policy and Extended Service Hours policy.

**Benefits and Issues Addressed**

Today’s bus network largely resembles the paths of the historic streetcars it replaced, even though the population density of homes and workplaces has evolved significantly. While buses serve many destinations well, others are too poor or indirect for service, forcing many residents to rely on their car to travel. By restructuring service and considering new routes and extensions, the MBTA could serve many more people more efficiently. Combined with other projects that will expand the Key Bus Routes system (p166), add new real-time cross-route routes (p167), and include transit signal priority on key corridors (p177), Boston stands to greatly improve bus transit at little cost.

**Implementation**

**Planning Level Costs:** TBD

**Potential Funding Sources:** MBTA

**Who's Responsible:** MBTA with local municipalities

**Time Frame:** Focus changes within five years

**Best Practices**

- Pittsburgh, PA, restructured their bus system in 2012 resulting in faster and more reliable service for over 60% of riders, even though the system had to cut bus based due to diminished funding.

- The recent restructuring of the Houston, TX, bus system has been matched by a notable uptick in transit riders and far fewer complaints. Houston implemented this plan nearly overnight and more than tripled the number of riders who had access to high-frequency routes. Of particular note, the high-frequency routes are consistent on weekdays and weekends, thereby serving those with non-traditional work schedules.

**Images**

- [Go Boston 2030](http://www.ridemetro.org/pages/Reimagining.aspx)

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*Reimagined Network

Base (Midday and Weekend) Headway

- 15, 12, or 10 Minutes
- 20 or 20 Minutes
- 30 Minutes
- 40 Minutes
- Peak Only

Map source: mbta.com/about_the_mbta/Projects/Default.aspx?id=29047

*These 15 routes are part of the existing Key Bus Route program.*

**Public Input**

- "Restructure MBTA to include riders’ voice and vote." —02125


- "Greater variety of bus routes: Small bus for short routes, medium bus for long routes through neighborhoods, large bus for cross-route routes. Same with commuter rail - use DMUs to reduce headways." —02131

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Green Line Improvements

Technology improvements to increase speed and reliability

Policy Description

A combination of several technology improvements will increase Green Line speed, reliability, and travel times. To improve safety in the most congested section between Kenmore and Government Center, a safety system will increase spacing, which will be compensated by going to three-car trains from today’s two-car trains to preserve or increase capacity. On surface sections of the B, C, and E branches, signal priority technologies will ensure that trains no longer wait to pass at cross streets; station improvements will make each stop fully-accessible to anyone of any ability while allowing off-board payment and all-door boarding to reduce station delays; and continued stop consolidation will further reduce the number of delays on all three lines, thereby helping to make peak-hour signal progression work better.

Benefits and Issues Addressed

The Green Line is an essential and heavily-used transit service for most of Allston, Brighton, Fenway, and the LMA, but delays associated with train congestion in the underground tunnels, as well as operating at grade, are excessive, and add significant travel time—especially during commute hours. Increasing car capacity by 50% while reducing intersection and boarding delays would noticeably reduce travel times and attract more riders, helping to meet Go Boston 2030’s goals for transit ridership and attract more riders, helping to meet Go Boston 2030’s goals for transit ridership and demand. While preserving preference for employees, allowing the public to use these shuttles for a nominal fare can better integrate this supplemental service into the existing transit system.

Implementation

Approximate Cost: TBD
Potential Funding Sources: MBTA, FTA/FHWA
Who’s Responsible: MBTA with street design changes by BTD
Time Frame: Staged within five years

Existing shuttle services stack up while waiting for passengers. Photo credit: Boston Globe

Consolidated Smart Shuttle System

Eliminate redundant service with responsive vehicle requests

Policy Description

An on-demand shuttle service would provide circulation between major rail stations and large employers in congested commercial districts. This would build upon similar efforts by the Boston Convention and Exhibition Center (BCEC), BFD, and Massport to improve access to the South Boston Waterfront, as well as the current system of MASCO and EZRide shuttles which connect North Station to the LMA and Kendall Square. Rather than running separate shuttles for individual buildings or employers, a consolidated fleet could run at higher frequencies with lower overall cost. A system designed to request vehicles electronically via the web and mobile devices could also allow for an ebb and flow of shuttles that is responsive to demand. While preserving preference for employees, allowing the public to use these shuttles for a nominal fare can better integrate this supplemental service into the existing transit system.

Benefits and Issues Addressed

Today, numerous employer shuttles, designed to serve congested districts, operate redundant and underutilized service with multiple independent buses running from South Station to separate but adjacent buildings in the same district. They operate regardless of need, do not offer service to non-employees trying to reach the same location, and can get stuck in traffic. MASCO and EZRide shuttles at North Station are a somewhat consolidated system but remain independent from each other and other non-participating but nearby employers who would benefit from their services today. A consolidated system could provide more regular service to a wider cross-section of potential users and be eligible for access to exclusive bus lanes and queue jumps on City streets to serve these places and others that the MBTA does not yet connect—such as Harvard’s burgeoning Allston campus—expanding transit access while reducing overall delay and congestion.

Implementation

Approximate Cost: $600,000 for an operations plan
Potential Funding Sources: BCEC, Massport, developers and employers, MASCO, and area universities with support from MBTA and BTD
Who’s Responsible: Service providers who would be selected through open RFP process
Time Frame: Within five years

Best Practices

MASCO already operates effective shuttle services for the Longwood Medical Area and can serve as a model for consolidation. Leveraging app-based technology to request needed service can improve efficiency for these shuttles here and across the city.

Public Input

Consolidate shuttles and buses → create monopoly to issue $ and reduce inefficiencies → eliminate mandatable

Privately owned hospital bus shuttles LMA for one should offer space for the public. Hospitals do, after all, benefit tremendously from the financial breaks they get from the city. → public mandate
Green Links Network

Enhanced pedestrian and bicycle paths between greenways including Yawkey Station to Fenway, Roxbury to Fenway, and Arboretum to Roslindale

Project Description

Boston Green Links is a city-wide plan to connect people in every neighborhood to Boston’s greenway network by installing new paths, new bike facilities, and safer road crossings. In particular, ongoing projects include the Roxbury to Fenway connector, that will link the Southwest Corridor Park and the Emerald Necklace for local residents and the South Bay Harbor Trail, which will connect Lower Roxbury and the South End to Boston Harbor. The plan has been developed in collaboration with multiple city departments, MassDOT, the state’s Department of Conservation and Recreation (DCR), the LandLine and Emerald Network initiatives, and community groups. Individual links will be implemented over time, through grants, partnerships, and City-funded projects.

Benefits and Issues Addressed

Boston Green Links initiative has taken on the challenge of connecting people in every neighborhood to Boston’s greenway network and major parks by installing new paths, new bike facilities, and safer road crossings. While 97.4% of residents live within a 10-minute walk of a park, the quality of the walk and the connections to other green spaces varies by community. By improving access to green spaces and opportunities for recreation and active transportation—including walking, running, biking, and skating—the City can reduce health disparities by ensuring that everyone can partake in increased physical activity, improved air quality, and lower levels of chronic disease.

Implementation

Approximate Cost: Determined by project, approximately $500,000 per year
Potential Funding Sources: City capital budget, DCR, Boston MPO TIP, and private developers and institutions
Who’s responsible: BTD, Public Works, Boston Parks, DCR, and private institutions and developers
Time Frame: Ongoing

An interactive version of this map with links to specific projects can be found at app01.cityofboston.gov/GreenLinks/

Best Practices

Since 1992, a coalition in Portland, OR, has been working to build a series of regional greenways. 300 miles of trails have been built to date. These trails are mostly off-street and provide an excellent example of coordinated master planning efforts by diverse communities working to build on a more regional network.

Public Input

“Green links: Columbia road, no-laten connection, cycle track on Talbot Ave” —02135
“Advance components of Green Links Vision” —02132
“Connected footpaths between parks, greenspaces” —02115

Image sources: NBBJ and WalkUp Rozzie

Go Boston 2030
Boston Transportation Department
March 2017

Go Boston 2030
170
171
Crosstown
Columbia Road Greenway
Create a neighborhood friendly street connecting to Franklin and Moakley Parks

Project Description
With over 100 feet between building faces, Columbia Road is one of the widest streets in Boston. The proposed greenway would preserve vehicle travel in both directions while consolidating the median, sidewalks, and wider areas into a connected-sense linear park stretching from Franklin Park to Moakley Park. The allocation of roadway space will be determined in conjunction with local residents, and will include improved pedestrian paths and crossings, protected bike paths, and significantly more trees to transform this former boulevard into a vibrant green corridor that is connected to the Blue Hill multiuse path to the south (p199), the Fairmount Greenway (p161), Dorchester Ave. Complete Street (p158), and the Carson Beach bike path, creating a continuous protected bicycling network into Downtown.

Benefits and Issues Addressed
The Emerald Necklace connects Boston Common to the Fenway, the Arboretum, and Franklin Park, but it is disconnected from Boston’s waterfront and its other Olmsted Parks. Completing this piece of the Emerald Necklace with improved paths for walking and biking will connect residents of Roxbury and Dorchester to Boston Harbor and beyond. It will also provide a corridor designed to improve public health through active transportation opportunities and better air quality. The greenway also provides an essential link to the harbor, and has wide sidewalks, street trees, and a balance between people in cars, buses and on bicycles.

Implementation
Planning Level Costs: $17 million for design and construction.

Best Practices
In Indianapolis, IN, the Cultural Trail runs along downtown streets connecting multiple cultural districts. Designed as a series of connected bicycle paths, the links provide both green spaces and places to walk and bike. As part of the trail, Indy’s Massachusetts Avenue gained significant green space and a bicycle path.

Photo credit: Flickr user Eric Fischer

Commonwealth Avenue Beyond Packards Corner
Enhancing multimodal movement and safety in Brighton

Project Description
The Boston Public Works Department is redesigning Commonwealth Avenue between Brighton Ave and Packards Corner and Warren Kelton Streets. The redesigned corridor will feature separated bicycle facilities, improvements to sidewalks and crosswalks, enhanced access to the MBTA Green Line, preservation and enhancement of historic landscape features, and the implementation of innovative sustainable features. The centerpiece of the project will be the redesigned intersection of Commonwealth Avenue and Harvard Avenue, which will feature extensive safety improvements, as well as new outdoor public spaces.

Benefits and Issues Addressed
With its solid five- and six-story apartment blocks, unique carriage roads, landscaped median, and MBTA transit reservation, Commonwealth Avenue in Brighton is both a multimodal transportation corridor and a home for thousands of people. Population along the corridor has grown in recent years, as has transit use and the demand to bike safely, but infrastructure continues to be decades old without many proper transit stations or biking features that could carry more people safely without a car.

This Public Works project will greatly enhance access in one of Boston’s densest neighborhoods.

Implementation
Planning Level Costs: $17 million for design and construction.

Best Practices
Implemented as part of two three to five lane conversions, this protected intersection in Salt Lake City, UT, was the second protected intersection for people on bikes in the country. The City created informational materials to show people walking, bicycling, and driving how to use the intersection.

Description of the Protected-Intersection_ALTA-2015.pdf

Rendering of the current proposal for Comm Ave

Image credit: HDR care of Public Works Department

Public Input
"Bike lanes: Better/better bike lanes all along Comm Ave and through Allston/Brighton." —02135

"Bike lane on Commonwealth Ave." —02481

Boston Transportation Department March 2017
**Summer Street Protected Bike Lane**

**Project Description**

The City of Boston will commence with the reconstruction of Summer Street in the spring of 2018. The reconstruction effort will pursue the highest level of protected bike lanes all the way from South Boston into Downtown. The initial phase of the reconstruction effort will start at Fort Point Channel and continue to West Service Road. The second phase will extend from West Service Road to the Wharf District and the Boston Convention and Exhibition Center (BCEC) and then on to the Reserve Channel. In the long term, protected bike lane facilities will extend along East First Street, providing a continuous protected bicycling network through Dorchester, Hyde Park, and Mattapan by linking with the Harborwalk, a resilient Morrissey Boulevard (p198), the Columbia Road Greenway (p72), and the Neponset Greenway.

**Benefits and Issues Addressed**

- The protected bike lane will provide a safe riding route for cyclists connecting from South Boston to Downtown through Fort Point, creating a safe and efficient connection between a major transit hub (South Station), the BCEC, Seaport Square, and the Ray Flynn Marine Industrial Park, which can help alleviate congestion in the burgeoning South Boston Waterfront as recommended by the South Boston Waterfront Sustainable Transportation Plan. The facility will also serve regional commuters transferring from trains at North Station or coming from Milton and Quincy by linking to the north with the Rose Kennedy Greenway and to the south with Canton Beach, where connections can be made to Morrissey Boulevard or Columbia Road.

**Implementation**

- **Planning Level Costs:** $14 million design and construction
- **Funding Sources:** City capital plan for design, Boston MPO TIP, and developer contributions
- **Who’s Responsible:** Public Works and BTD with MassDOT, Massport, and BCEC
- **Time Frames:** Within five years

**Best Practices**

- With a raised bike path on each side, Vassar Street is a key bicycle link for those traveling to and through MIT in Cambridge, MA.

**Public Input**

- More information about this and other projects in the South Boston Waterfront can be found at [www.massdot.state.ma.us/Portals/17/docs/Studies/Massport/Waterfront/fullreport Jan2015.pdf](http://www.massdot.state.ma.us/Portals/17/docs/Studies/Massport/Waterfront/fullreport Jan2015.pdf)
**Crosstown**

**LMA to JFK Rapid Bus via Dudley and Uphams**

Quality transit connecting the LMA with Roxbury, Dorchester, the Fairmount Indigo Line, and the Red Line

**Project Description**
A single bus transit line utilizing signal priority and some exclusive lanes or queue-jump lanes will provide an essential crosstown transit connection from the JFK/UMass Red Line Station to Uphams Corner Indigo Line station, Dudley Square Silver Line station, Roxbury Crossing Orange Line station, and into the LMA. Likely following portions of MBTA Route 41 and operating on Columbus Road, Dudley Street, Malcolm X Boulevard, Tremont Street, and Huntington Ave or St. Alphonsus Street, higher-frequency crosstown service would give a large residential population direct connections to commercial and employment centers along the line, with many more connected via transfers from the Red, Orange, and Fairmount Indigo Lines. A shorter term key bus route using existing transit equipment is possible between the Red Line stations and the LMA while final alignment planning for the rapid bus is being determined in conjunction with the surrounding neighborhoods of Fenway, Mission Hill, Roxbury and Dorchester in conjunction with employers.

**Benefits and Issues Addressed**
The need for Ruscintown is to get to the LMA, Dudley Square, and Columbia Point and UMass is growing and projected to increase in the future, but only selected neighborhoods have direct transit access to these places due to the mostly radial nature of MBTA service. A new crosstown connection linking these jobs, commerce, and service centers to the Orange Line, Silver Line, Fairmount Indigo Line, Red Line, and several Main Streets districts in-between is now necessary to convey thousands of existing and future residents and employees. Providing key connections to radial transit lines outside of downtown, this route could greatly reduce travel times to these areas, ease vehicle congestion, and provide access to new jobs. Rapid bus treatment will aid other bus routes, such as the 15 and 47, which experience poor reliability along Dudley Street.

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**Crosstown**

**Smart Signal Corridors**
Traffic signals that talk to each other

**Project Description**
Building off of and sometimes connecting to more localized Smart Signals Districts (p163), these Smart Corridors would allow BTD to better manage traffic flow for those walking, biking, riding transit, and driving on some of the City’s most congested corridors. Today, staff at the City’s Traffic Management Center monitor traffic cameras and manually adjust signal timing to improve driving conditions. Smart signal corridors would go one step farther by automatically adjusting signals in ways that respond better to the primary direction and desired speed of traffic flows. State-of-the-art signals would improve the capacity of the City to give green lights to arriving transit and emergency vehicles, calculate green wave patterns that allow people biking and driving to stop less frequently, communicate with autonomous cars, and give more walk time at crossings when sidewalk crowding is an issue.

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**Best Practices**
Los Angeles’s Metro Rapid system provides an example for a mix of service improvements that increase overall bus speeds. During peak hours, buses arrive every 3 to 10 minutes. Buses are low-floor, which speeds up boarding times, and bus shelters have real-time bus displays. Signal priority allows buses to speed through traffic delays at intersections. Temporal headway increases were as high as 40%.

**Implementation**
Approximate Cost: $5 million for design and construction with vehicle costs to be determined.
Potential Funding Sources: City capital budget for design, Boston MPO VTF for roadway construction, and MassDOT/META for vehicle costs
Who’s Responsible: BTD and PWD with MassDOT/META
Time Frame: Within 5 to 15 years in conjunction with local community process

**Public Input**

- “Connectivity to the Red Line: Bus from Dudley to JFK should also be more frequent.”
  - 02119
- “South Boston needs to be better connected to the Longwood Medical Area by bus.”
  - 02127

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**Benefits and Issues Addressed**
New technology that is currently being developed for individual vehicles, including apps like Wave, only allows travelers to react to and avoid delays and congestion, rather than providing systemic solutions to delays. By integrating this data with live traffic cameras, smart signals can coordinate and make travel safer and smoother for all travelers. Smart signal corridors can keep traffic flowing without the policy of road closures, enabling lower speeds to be more compatible, emergency services to increase response times, and transit reliability to improve. These technologies are especially helpful where flows of people cross, reducing conflict and crashes while making it safer to walk across the city.

**Implementation**
Approximate Cost: $2 million over five years for smart corridors and districts, as well as other signal upgrades
Potential Funding Sources: City capital plan and local developers
Who’s Responsible: BTD
Time Frame: Ongoing

**Best Practices**
Bellevue, WA, has implemented an adaptive signal system along Factoria Blvd, a key corridor in the City, heavily used by commuter traffic.

**Smart Signal Corridors along:**
1. Essex and Roslindale Streets
2. Dorchester Avenue
3. Blue Hill Avenue and Warren Street
4. Morton Street
5. Melrose Court Boulevard
6. Columbus Avenue
7. Massachusetts Avenue
8. Gallivan Boulevard
9. A Street

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**Public Input**

- “Reduce pedestrian waiting time on Columbus Ave between St. Peter’s. Buses have to wait almost 2 minutes to get a green light.”
  - 01919
- “Magnetic sensor under roads: It would determine the number of cars waiting at a light and adjust the signal accordingly on traffic flow.”
  - 01867

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**Go Boston 2030**
Fairmount Indigo Line Urban Rail

Phase Two: Bringing the benefits of subway service to a walkable Fairmount corridor

Benefits and Issues Addressed

While ongoing service improvements will help the Fairmount Indigo Line, converting it to a high-speed rail service on the rapid transit map will change the quality of access for a large swath of dense and traditionally underserved neighborhoods of Boston and incentivize a major shift from driving. To make transit more equitable to thousands of Bostonians, the Indigo Line would operate with at least as much frequency and spare capacity as other rapid transit lines, have the same free transfers to other lines and have rail urban stations with easy walk-up access. No longer a commuter rail line, urban rail will reconnect the heart of Boston's neighborhoods and create new direct access to Boston's biggest employment and commerce centers.

Best Practices

In Ottawa, Canada, GO Transit moved from hourly headways to half-hourly during off-peak times on its commuter rail network in 2013. Since then ridership has increased by 30%.

Implementation

Approximate Cost: $540 million

Potential Funding Sources: MassDOT/MBTA, City capital plan, FTA

Who's responsible: MassDOT/MBTA and RTO

Time Frames: 15 years

Public Input

You should be able to just use your Charlie Card—whether it has your monthly pass or is a mobile app—are helpful, but make it harder to get on to the Fairmount Line.

Project Description

Expanding beyond current service improvements to the Fairmount Line, a new set of urban rail lines could be introduced, operating at higher speeds and 5 to 10 minute frequencies to create Boston's sixth rapid transit line. Working in close partnership with a wide array of neighborhood interests, the line is envisioned to be extended both south to Dedham Corporate Park, east through the Seaport tracks and north past South Station into the Seaport and South Boston via the existing Silver Line tunnel and/or track 6 (Seaport Rail (p183)) with a new tunnel below the congested South Station tracks to directly link with the Silver Line. Further station area improvements would bring a true urban subway environment and service quality to Dorchester, Mattapan, Hyde Park, and beyond. New transit centers at Readville or Widett Circle would allow riders to connect to the Providence Line commuter rail and future city Amtrak service. To make this project successful, a separate operating and financing entity other than the MBTA—a such as a municipal transit district (p193)—may be necessary, given the MBTA's already overburdened financial constraints.

Project Score

- Access 1
- Safety 1
- Affordability
- Sustainability/Resiliency 1
- Reliability
- Governance

- Access 2
- Safety 2
- Affordability
- Sustainability/Resiliency 2
- Reliability
- Governance

The project recommendation came out of the Nanda Assessment and feedback from local groups already working to improve service along the corridor.

Public Input

You should be able to just use your Charlie Card—whether it has your monthly pass or is a mobile app—are helpful, but make it harder to get on to the Fairmount Line.

Project Description

With three new stations on the Fairmount Indigo Line recently completed—Four Corners Geneva, Tabion Avenue, and Newmarket—neighborhoods are now being served by trains that previously passed them by. With the Blue Hill Avenue Station scheduled to be completed by 2021, an additional 1,200 households will have access to regular rail service within a 10-minute walk. Now, further efforts are proposed to improve walking and bicycling access to every station and as part of a first phase, provide a new subway-like schedule so that passengers can walk to the station and reliably expect train service in 15 or 20 minutes rather than every 45 to 60 minutes. Though fares are currently equivalent to the subway lines in the city, technology improvements should allow payment to be made with ordinary Charlie Cards so any rider wanting to pay with a monthly fare card or to make a free bus transfer can do so. In the future, integrating Charlie Card tapping or the next generation of payment technology will eliminate this transfer penalty and keep a linked trip affordable for riders. Other improvements are planned with the future conversion to urban rail cars (p179).

Benefits and Issues Addressed

Providing rail service to Mattapan, Codman Square, Grove Hall, and South Bay makes a significant improvement in transit access to communities of color who have historically been underserved, but the current infrequency of trains and the issues with payment make it hard for residents to rely on this service, particularly if they need a combination of buses and trains to complete their journey. In order to effectively link these residents to more job opportunities, especially those working outside of the usual nine to five, operational changes such as those described above are needed along with the expansion of South Station and the purchase of additional trains. Future advancements—such as those included in the Fairmount Urban Rail project (p179)—will be necessary to truly improve transit access equitably.

Implementation

Approximate Cost: $31 million in capital improvements and $4 million per year for operations

Potential Funding Sources: MBTA

Who’s responsible: RTO and MBTA

Time Frames: Within 5 to 10 years

Best Practices

In Havana, Cuba, a high-speed rail service on the rapid transit map was introduced, operating at higher speeds and 5 to 10 minute frequencies, and creating new direct access to the city’s biggest employment and commerce centers. In Ottawa, Canada, GO Transit moved from hourly headways to half-hourly during off-peak times on its commuter rail network in 2013. Since then ridership has increased by 30%.

Implementation

Approximate Cost: $200 million

Potential Funding Sources: Federal, State, local, private

Who’s responsible: MBTA, FTA, City

Time Frames: 3-5 years

Public Input

You should be able to just use your Charlie Card—whether it has your monthly pass or is a mobile app—are helpful, but make it harder to get on to the Fairmount Line.

Project Description

Go Boston 2030

Phase One: Increase the frequency and improve the payment systems

Crosstown

Fairmount Indigo Line Service Improvements

People’s Voice | Boston Today | Goals and Targets

ACTION PLAN | People’s Voice II | Boston in 2030 | Projects and Policies
Mattapan to LMA

**Rapid Bus**

Faster transit connections to the medical district from southern Boston

**Project Description**

A new transit line with high-quality stops, signal priority, all-door boarding, and some exclusive lanes will create direct transit connections for residents of Mattapan and southern Dorchester to jobs and medical care in Roxbury, Mission Hill, and the Longwood Medical and Academic Area. This involves a rail-like bus service operating where excess roadway widths exist today on one of several potential corridors that will be determined in conjunction with the community. Service would be high capacity and high frequency and could interline with the JFK/UMass to LMA rapid bus corridor (p176) and even the West Station to LMA connection (p203), connecting together southern Boston, the LMA, and Beacon Yards. Future upgrades could see tracks and streetscapes service initiated as ridership grows.

**Implementation**

- **Approximate Cost:** $55 million for design and construction with vehicle costs to be determined
- **Potential Funding Sources:** City capital budget for design, Boston MPO TIP for roadway construction, and MassDOT/MBTA for vehicle costs

**Who’s Responsible:** BTD andPWD with MassDOT/MBTA

**Time Frame:** Within 5 to 15 years in conjunction with local community process

**Best Practices**

- The Cleveland, OH, Healthline has free run frequency during rush hours, 24/7 service, off-board fare collection, dedicated ROW with speed limits, real-time information displays, “stations” with fare machines, emergency call boxes, and elevated platforms.

- [www.riderta.com/healthline/about](http://www.riderta.com/healthline/about)

**Benefits and Issues Addressed**

This investment will support economic opportunity along a corridor with heavy bus ridership but unreliable service, while—depending on the alignment—potentially improving other connections that head into Dudley Square and Downtown as well. Crosstown connections from this part of the city are in high demand, as shown by the ridership rates on “diagonal” routes such as the 28, yet these routes have poor reliability. Peaked served riders, plus many more riders of Dorchester and Mattapan who do not use these diagonal routes today, must either drive—adding to the congested traffic on Morton Street—or ride into Downtown then back out to Dudley Square. With faster and more frequent service, while—depending on the alignment—potentially improving other connections that head into Dudley, expanding commercial activity and contributing to the vitality that evolves around transit hubs elsewhere in Boston.

**Public Input**

- “Transit expansion is critical to the city’s continued vitality. Our rapid transit route maps expansion of its capacity, both in the downtown core and in many under served neighborhoods that are among the most transit-dependent sections of the entire metropolitan region (e.g., Washington Street Corridor through Roxbury and continuing through Grove Hall to Mattapan Square,... indispensable prerequisites to assuring the continued development of Boston by providing the critical infrastructure that can support our growing public transportation system.”

- [www.boston2030.org](http://www.boston2030.org)

**Crosstown**

**Improved Silver Line: Dudley to Downtown**

Better rapid bus service and terminals on the Silver Line from downtown to Dudley

**Project Description**

Today the Silver Line between Dudley and downtown along Washington Street has protected bus shelters and an exclusive red bus lane. In the next five years, the width of the lane will be increased, physical buffers and stronger enforcement will ensure that it is not used for double parking, an off board payment system will allow for all-door boarding and prevent long passenger queues from delaying stops, automated signal priority will avoid red-light delays, and raised, accessible platforms will make it safer and easier for passengers of all abilities to board. An improved Dudley station (p187) will be paired with improved terminals at Downtown Crossing and South Station (p184), where new in-street platforms will enable faster transfers to the Orange, Red, and waterfront Silver Lines.

**Implementation**

- **Approximate Cost:** $22 million for capital improvements
- **Potential Funding Sources:** MassDOT/MBTA, Gty capital program, and FTA
- **Who’s responsible:** BTD, PWD, and MassDOT/MBTA
- **Time Frame:** Design and unmitral improvements within five years

**Best Practices**

- The GRTC Pulse is under construction in Richmond, VA. This BRT system will be a mix of bus-only lanes and mixed-traffic with queue jumps. Level boarding will speed the boarding process.

- [www.riderta.com/brt](http://www.riderta.com/brt)

**Public Input**

- “Boston already has the Silver Line, but why not create a true BRT that runs from Egleston all the way to Downtown? One with prioritized lanes and prioritized traffic signals AND limited access boarding? Roxbury needs better transit connections.”

- [www.boston2030.org](http://www.boston2030.org)
Oak Square to Comm Ave Rapid Bus

Create a rapid bus system to serve a large underserved neighborhood

Project Description
The speed and reliability of existing MBTA bus services connecting Oak Square and most of Brighton to Kenmore Square and the LMA will increase notably with the introduction of rapid bus treatments along Washington and Cambridge Streets. Synchronized signals with transit priority at intersections, curbside queue-jump lanes to bypass traffic, flexible peak-hour bus lanes, off-board payment, and other bus rapid transit (BRT) technology improvements would provide these neighborhoods with greater transit capacity. Stops will include improved amenities and be fully accessible to anyone of any ability.

Benefits and Issues Addressed
The existing bus routes that serve parts of Allston, most of Brighton, and the Oak Square Main Street district are heavily used but offer long running times and low reliability. For example, the section of roadway between Brighton Avenue at Cambridge Street and Brighton Avenue at Harvard Avenue has one of the highest rates of delay in the region.* While many residents are transit dependent and rely on buses to get to work, others add to the congestion on these same streets by driving to work because buses are a slower and less reliable option. Introducing rapid bus treatments on these prime routes will connect many Bostonians with jobs and other destinations more reliably while reducing peak hour congestion in these neighborhoods.

Implementation
Approximate Cost: $60 million for design and construction
Potential Funding Sources: MassDOT/MBTA and T/I
Who’s Responsible: MassDOT/MBTA and BICEC
Time Frame: 15+ years

Seaport to Dorchester/ Widett Urban Rail

Create new connections from Dorchester at Newmarket using Track 61

Project Description
The South Boston Waterfront contains a rail right-of-way running parallel to the South Boston Bypass Road/ Massport Haul Road, which was used in the past for single track freight rail shipments from the rail system at Widett Circle out to the Marine Industrial Park. This line, known as Track 61, does not currently connect to Boston’s transit system. To bring essential new transit capacity into this growing district, urban rail running from Fairmount (p179) can use Track 61 for direct access from Dorchester. Alternatively, the Fairmount Line could use a new tunnel connecting to the Silver Line. This service could directly serve the Convention Center, a new station at D Street, and potentially a new Broadway or Dorchester Avenue stations in South Boston. Integrated into the ground floor of the planned South Boston Waterfront Transportation Center, direct connections between the Silver Line, commuter rail, and consolidated shuttles (p169) would make transit the primary mode of access to the Seaport. The line could also serve a future rail station at Widett Circle with appropriate rail or passenger connections. Concepts and designs would be developed in coordination with the community.

Benefits and Issues Addressed
The South Boston Waterfront Sustainable Transportation Plan, as well as growth projections done for Go Boston 2030, indicate that more transit capacity will be needed in the burgeoning Seaport. With the Silver Line already at capacity, new rail connections can provide enhanced transit access for single user trips from South Boston and Dorchester, neighborhoods along the Fairmount Indigo line, and/or the entire South Shore, as well as transfers from other commuter rail lines and Amtrak at a proposed Widett Rail Station. A Seaport rail line—especially with transfers at Widett—would also be an appealing growth rail corridor at South Station. In the long term, connections could be made to other future “urban rail” services that have been envisioned over the years for other existing commuter rail corridors, greatly enhancing transit access to the South Boston Waterfront.

Implementation
Approximate Costs: $60 million for design and construction
Potential Funding Sources: MassDOT/MBTA and T/I
Who’s Responsible: MassDOT/MBTA and BICEC
Time Frame: 15+ years

Best Practices
In Damon County, TX, the Damon County Transportation Authority (DCTA) received an alternative vehicle technology waiver from the FRA in 2012 to operate Stadler rail cars that share tracks with freight trains. The A-train carries an average of 1,920 people daily and provides regional connections to downtown Dallas.

Public Input

*Crosstown

More direct bus or train routes to the Seaport and south Boston.*

T rail access to Seaport.*

Access to the new Seaport District: The Silver Line really doesn’t cut it to this new district.*
Silver Line Terminus at Downtown Crossing and South Station

Improve the convenience and quality at key Silver Line transfer points

Project Description

These enhancements create terminus stations for the Washington Street Silver Line that facilitate transfers to the Orange, Red, and waterfront Silver Lines. In Downtown Crossing, the stop would be relocated to Washington Street and serve by an enhanced shelter a few steps from the subway entrance while being complemented by new markings, lights, and signs to facilitate transfers by those unfamiliar with the system. At South Station, the stop would be relocated to the left side of Atlantic Avenue with an exclusive lane and new shelter on a boarding median, immediately adjacent to the Red and Silver Line headhouse at One Financial Center to facilitate quick transfers with complimentary signage. These enhanced connections are interim transfer improvements until a full underground connection between the Washington Street and waterfront Silver Lines can be constructed.

Benefits and Issues Addressed

While the Washington Street Silver Line routes connect Dudley Square and residents of Roxbury and beyond to both the Orange and Red Lines at Downtown Crossing, as well as to the Red and waterfront Silver Lines at South Station, transfers require an outdoor walk and crossing streets with no wayfinding guidance. The lack of efficient connections affects access to jobs, especially in the growing South Boston Waterfront. With these improvements, the Washington Street Silver Line is more directly connected to the subway system for workers, residents, and visitors alike.

Implementation

Approximate Cost: $2.5 million for design and construction
Potential Funding Sources: MasiDOEMTA and developers
Who’s Responsible: MasiDOEMTA and BTD
Time Frame: Within five years

Best Practices

Today’s MBTA riders going from downtown or East Boston to the Airport Station on the Blue Line transfer from a subway to a bus. Although the service is provided by two different agencies, the transfer is well integrated, clearly marked, and does not require an additional fare.

Crosstown

Longwood Transit Hub

A consolidated LMA transit center to improve transit quality and safety

Project Description

In the heart of the LMA within a five-minute walk of most of its institutions, a new transit center is envisioned on Longwood Avenue to serve the majority of MBTA routes that connect Boston residents to the LMA’s jobs and services. As proposed by MASCO, the hub will have modern passenger amenities, real-time arrival displays, new off-street loading bays, and amenities for pedestrians and bicyclists. Transit riders will have a safer and more comfortable experience. Future long-term expansion could include new enclosed public spaces and direct underground connections to an enhanced LMA to Kendall crosstown connection (p203). Cars, shuttles, and bicycles in the surrounding area will provide additional transportation choices.

Benefits and Issues Addressed

The LMA maintains a very high transit share given the institutions’ emphasis on employee transit, walk, and bike travel, and despite the high congestion on Longwood Avenue, the district’s primary transit spine. Buses have little off-street pick-up space, bus stop amenities are lacking, and congestion makes a one-block ride out of the district often exceed 10 minutes. With new essential transit routes from JFK and Dudley (p143), Mattapan (p140), and West Frame/Kendall planned for the LMA (p201), a new transit center will attract new riders to transit. Once established, the hub can become a future major rail station if crosstown rail service is established and would reduce vehicle congestion on Longwood Ave to the benefit of riders, motorists, and emergency services alike.

Implementation

Approximate Cost: $5 million for design and construction of first phase
Potential Funding Sources: MASCO institutions with BTO, Public Works, and MasiDOEMTA
Who’s Responsible: MASCO as lead
Time Frame: Within 10 to 20 years in conjunction with local community process

Best Practices

In Denver, CO, the recently completed RTD bus hub is a 22-gate underground area. A bus departs every 48 seconds from this hub. www.rtd-denver.com/unionstation-busconcourse.shtml

In Poughkeepsie, NY, a new bus hub opened in 2013. The hub includes bus bays, monitors, and passenger amenities on a small site. In 2014, the design received an engineering award. cityofpoughkeepsie.com/archives/4463

Public Input

Connect the two Silver Lines.

“Silver line expansion/ink.”

“Make Silver Line more friendly for people commuting from airport with suitcases, etc.”

Image Source: MASCO
Inner Harbor Ferry Expansion

Lovejoy Wharf to Fan Pier and other new local ferry routes

Project Description
MassDOT, through guidance by the Water Transportation Advisory Council, is partnering with Boston Harbor Now to develop a water transportation feasibility and business plan to look at passenger demand, locations for ferry terminals, and service routes around Boston’s Inner Harbor. The Seaport Transportation Management Association and the Boston Convention and Exhibition Center (BCEC) are also partnering to develop a business plan for ferry service between Fan Pier in South Boston and Lovejoy Wharf at North Station to replace or augment land-based shuttle service. Recent and pending additions of water transportation terminals including at Fan Pier, Lovejoy Wharf, and Lewis Mall will offer direct connections between waterfront neighborhoods around the harbor to improve connections.

Benefits and Issues Addressed
Boston’s unique coastline geography is advantageous for remote and dependable ferry service. There is considerable potential for water transportation to accommodate development growth and to get residents to new jobs emerging all along Boston Harbor and especially in the Seaport. Indirect travel links and limited road capacity diminish Seaport access, particularly from northern suburbs, Charlestown, and East Boston—places that would all experience quicker commutes with improved ferry service. Scheduled Inner Harbor ferry service could also expand Boston’s open space and pedestrian and bike networks. Meanwhile, as detailed by the MBTA’s Focus40 process, despite carrying the fewest passengers of any transit mode, the ferry service’s share of fare revenue is greater than its share of riders of any transit mode, the ferry service’s share of fare revenue is greater than its share of riders of any transit mode.

Implementation
Estimated Cost: $21 million for new terminals and service; $6 million per year for operations
Potential Funding Sources: Federal grants for capital and infrastructure investments, private development funding through municipal harbor plans and Chapter 91 licensing

Best Practices
In Vancouver, BC, the Granville Island inner harbor ferry system provides high-frequency service between several key destinations not connected by trains. The extensive ferry system in Seattle, WA, is the third largest in the world. A necessary part of many daily regional commutes, it features high frequencies, high-capacity boats and terminals, and the latest in real-time passenger information.

Public Input
Public Forum: We should have a public ferry between East Boston and South Boston.

Dudley Square Enhanced Transit Hub

Incorporating improved services into a high-quality indoor station

Project Description
Coupled with the improvement of existing Silver Line service (p181) and the addition of new crosstown service between the LMA and JFK/UMass Station (p176), the existing Dudley Station would be upgraded to become a high-quality indoor facility to enhance the customer experience and minimize delays and aggravation on transfers between bus routes. Improvements would be developed in coordination with the community and riders through the Boston Planning and Development Agency’s (BPDA) ongoing Dudley PLAN process. The new station would likely feature modern passenger amenities, electronic real-time travel information, and new retail spaces in a well-integrated station that more efficiently processes buses and minimizes conflicts with boarding passengers.

Benefits and Issues Addressed
Dudley Station has already evolved beyond its intended capacity with thousands of daily riders waiting for Silver Line and other bus service. Expanded service will further burden riders who wait outside for buses with limited amenities, necessitating an improved transit center. Dudley’s future role at the heart of radial and crosstown enhanced transit routes connecting Downtown and the LMA with Dorchester, Mattapan, and Roxbury deserves a high-quality station that handles transfers as well as the workers bound for this growing Roxbury commercial center. Furthermore, improved circulation for buses would have significant transportation and air quality benefits.

Implementation
Approximate Cost: $15 million for design and construction
Potential Funding Sources: MassDOT/MBTA with developer funding
Who’s Responsible: MassDOT/MBTA
City of Boston
Time Frame: Within 5 to 10 years in conjunction with local community process

Best Practices
The Bus Interchange in Christchurch, NZ, brought a bus hub to the heart of the city. Web.16 bus stops and an indoor waiting area, the hub makes it easy to transfer between routes and comfortable to wait for the bus.

Public Input
Need to repair sidewalks around Dudley Square and have clear marked handicapped. (p2119)

“Connect all the parts of Boston on the waterfront-North End, East Boston, Charlestown, Downtown, Dorchester, South Boston—by boat. The ferry is part of the rapid transit system (like our MBTA) in some places such as Switzerland where a ticket purchased for their buses also covers boat fare.”

Go Boston 2030
March 2017
Regional Projects and Policies

Crossing borders in the densely developed inner core of the Boston metropolitan area, travel should feel seamless for all modes. These porous municipal borders should be inviting to all roadway and rail path users whether they are traveling on local or state owned infrastructure. Effective transit is a core component of effectively supporting mode shift across the region. Corridors that incentivize shared vehicles and long-distance cycling are also important for reducing greenhouse gas emissions. The entire region also needs to collaborate to prepare for the impacts of climate change by building more resilient roads and stations that are ready to weather more hot days, extreme storms, and rising sea levels.

Policies

Key to the City
Fair MBTA Fare Policy and Extended Service Hours
Autonomous Vehicle Policy*
Boston Metro Transit District

Early Action Projects

0 to 5 years
- Orange Line and Red Line Service Improvements
- Sullivan Square Enhanced Transit Hub
- Morrissey Boulevard Resilient Complete Street
- Smart High-Occupancy-Vehicle Lanes on Interstates

Longer Term Projects

5 to 15+ years
- Massachusetts Avenue Rapid Bus
- Multiuse Path Extension to the Blue Hills
- North Station to South Boston Waterfront Rapid Bus*
- I-90 Newton Urban Rail
- Climate Protection for Vulnerable MBTA Stations
- West Station Transit Hub
- West Station Rapid Bus to LMA, Kendall, and Harvard Square
- South Station Expansion

* Top policy or project
**Policy Description**

Instead of paying for transportation services separately—with a Charlie Card, Commuter Rail ticket, bikeshare membership key, Zipcar membership card, ride-hailing app, or money for parking meters, and an EZPass to pay tolls in your car—a Key to the City would enable easier transfers on multimodal trips and reward people who use a card or mobile phone. While technology options are changing rapidly and many important legal agreements need to be worked out, these payment systems would enable easier transfers on multimodal trips and reward people who use a combination of transportation options with lower greenhouse gas emissions. It may also allow for price reductions for people traveling outside of commuter peaks to incentivize travelers who don’t contribute to congestion.

**Benefits and Issues Addressed**

Similar “universal access passes” used in other cities across the country have shown a notable uptick in transit ridership when the barrier of not having the right pass on-hand is removed. A seamless multimodal transaction can eliminate the delays of transferring, increasing speed and convenience. One of the greatest potentials for a single transportation payment platform is that people with limited income or special mobility needs could get credits similar to housing vouchers or food stamps that allow them to select from a menu of services to find the combination that best suits their needs.

**Implementation**

Approximate Cost: To be determined

Potential Funding Sources: Service providers such as the MBTA, car ride and bikeshare companies, and BTD for meter parking integration.

Who’s Responsible: Service providers

Time Frame: Within zero to five years

**Best Practices**

In Los Angeles, CA, the TAP Card/LA’s TAP card allows use of dozens of transit systems throughout Los Angeles County with the same card including the Metro and commuter rail as well as LA’s Metro Bikeshare Program. [www.tapgo.net/laaction_lsw/Website_content/where-to-ride](http://www.tapgo.net/laaction_lsw/Website_content/where-to-ride) and [bikeshare.metro.net/how-it-works/lap](http://bikeshare.metro.net/how-it-works/lap)

**Public Input**

“Make it easier to pay for the bus. If you just take the bus, it’s hard to get and refill a Charlie Card, but without one, it’s more expensive to ride.”

**Regional**

**Key to the City**

Payment technology to access all transportation services

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**Regional**

**Fair MBTA Fare Policy and Extended Service Hours**

Coordination with the State to ensure access to transit for low-income residents, people with disabilities, and employees with off-hour shifts

**Policy Description**

Public transit is a public good and the City of Boston will continue to advocate for a fare structure that preserves access to high-quality transit for low-income and disabled populations. Working with MassDOT’s program to revamp its automated fare collection system (also known as AFE: 2.0), the City and State will provide opportunities for more equitable fares and subsidy programs. Discussions with MassDOT are already underway regarding discounts for lower-income riders and re-instating late-night bus service, which could include a 24-hour service. The City also will continue to explore ways to extend the hours of the trains and communicate service hours clearly to the public so they can reliably use transit as the right pass on-hand is removed. A seamless multimodal transaction can eliminate the delays of transferring, increasing speed and convenience. One of the greatest potentials for a single transportation payment platform is that people with limited income or special mobility needs could get credits similar to housing vouchers or food stamps that allow them to select from a menu of services to find the combination that best suits their needs.

**Benefits and Issues Addressed**

Public transit is a public good and the City of Boston will continue to advocate for a fare structure that preserves access to high-quality transit for low-income and disabled populations. Working with MassDOT’s program to revamp its automated fare collection system (also known as AFE: 2.0), the City and State will provide opportunities for more equitable fares and subsidy programs. Discussions with MassDOT are already underway regarding discounts for lower-income riders and re-instating late-night bus service, which could include a 24-hour service. The City also will continue to explore ways to extend the hours of the trains and communicate service hours clearly to the public so they can reliably use transit as the right pass on-hand is removed. A seamless multimodal transaction can eliminate the delays of transferring, increasing speed and convenience. One of the greatest potentials for a single transportation payment platform is that people with limited income or special mobility needs could get credits similar to housing vouchers or food stamps that allow them to select from a menu of services to find the combination that best suits their needs.

**Implementation**

Approximate Cost: To be determined

Potential Funding Sources: MBTA and employers along with City of Boston and other municipalities

Who’s Responsible: MBTA with City of Boston and other municipalities

Time Frame: Ongoing

**Best Practices**

In Seattle, WA, the King County fare policy offers discounts up to 50% for most transit rides to low-income residents. For example, the discount threshold is a household income of $46,400 for a family of four and is usually set as less than double the federal poverty level. [Kingcounty.gov/Departments/Transportation/News/release/2016/May/07-orca-lift-anniversary.aspx](http://Kingcounty.gov/Departments/Transportation/News/release/2016/May/07-orca-lift-anniversary.aspx)

**Public Input**

“Look at all lines and think about if they make sense. It costs a lot to move people at night regardless of mode. How much should late night cost? How much should bus cost with a transfer? Question every pricing hierarchy and redevelop a system to keep it up to date.”

—Rockdale resident

In 2015, the MBTA piloted a youth pass program for low-income young people, and in December 2016, the program was officially adopted by the MBTA’s Fiscal Management Control Board. Photo credit: Alternatives for Community and Environment
Autonomous Vehicle Policy
Preparing for self-driving cars

Policy Description
Boston is working with the Boston Consulting Group and the World Economic Forum on a year-long collaboration focused on creating policy recommendations and supporting on-street testing of autonomous (self-driving) vehicles. There is an initial focus on the testing of new technology, which will lead to the exploration of business models and urban infrastructure that improve safety, access, and sustainability. This policy development process is generating best practices to ensure that vehicles are shared, electric, and can improve mobility options for all residents, not just those who can afford the technology. The initiative is also being paid to the potential implications of this technology on our workforce, land use, urban design, and transportation funding.

Benefits and Issues Addressed
Self-driving vehicles are already being tested in cities around the world and are likely to reach the public market as early as 2020. If this new generation of cars carries solo riders, are powered by fossil fuels, and are not designed for multimodal street conditions, then they will fail to achieve their promise of decreasing congestion and improving environmental health. Given that our cars sit unoccupied 95% of the time, a smart autonomous vehicle policy can encourage shared trips and shared rides, greatly boosting the hours a car is used and the amount of people a single car serves while eliminating more than half of the automobile fleet. A single autonomous car can serve a commuter, then pick up someone running to a meeting, followed by another’s shopping car can serve a commuter, then pick up someone shopping, then their child, then pick up someone else’s child, and so on, completely eliminating the need for multiple cars. This also means that parking is entirely unnecessary in dense areas with lots of trips, allowing Boston to re-convert curb space, parking lots, and garages for sidewalk dining, more bike lanes, new open spaces, expanded affordable housing, and more.

Implementation
Planning Level Cost: Policy work is in-kind
Funding Source: World Economic Forum, City of Boston, with Boston Planning and Development Agency/Economic Development Consulting Group and the World Economic Forum
Who’s Responsible: BTD and the Mayor’s Office of New Urban Mechanics
Time Frame: Testing and initial policies: Spring 2017

Best Practices
In Los Angeles, CA, the LADOT is the first city to specifically address autonomous vehicle policy through the incorporation of Urban Mobility in the Digital Age. The document ties together existing transportation initiatives and goals with advances in technology to approach the integration of autonomous vehicles into the city’s transportation fleet and overall system.

Public Input
...be the first city to fully embrace autonomous electric vehicles by investing in their development as an on-demand transit option, self-ride and other-pool style, to further lower cost-paring for users, and to drastically reduce the need for driver-controlled vehicles in Boston. If you want to really shoot for the moon, by 2030 ensure happy commuters by allowing only 100% self-driven vehicles into Boston in order to relieve congestion, reduce the need for parking, eliminate traffic fatalities, and to definitively brand Boston as a leading global city.


Boston Metro Transit District
Rebalancing transit dollars to jointly fund new services in core communities

Policy Description
Boston will spearhead a new core transit district in collaboration with nearby communities to provide additional transit services that expand the MBTA’s capacity within the broader region. Building off of local transit successes, the district would focus on non-competing modes that may include shared transportation and technology providers that could extend the range of MBTA transit or alternative modes of travel such as mini-buses, streetcars, or urban rail on routes such as the Fairmount Indigo Line. Boston would complement this with a new transit streets initiative that focuses on speeding up buses and improving the passenger experience on city streets. Broader and creative revenue sources would help fund new services and improvements, and integrated fare payment and information technologies would make the services feel seamlessly integrated with the MBTA.

Benefits and Issues Addressed
Today, the MBTA is heavily burdened by serving a large region with extensive on-going capital repair and maintenance needs which prevent it from providing many new transit services. Meanwhile, transit demand is at an all-time high and growing, especially in the core service area of Boston and nearby communities. A transit district for this core area would yield new services—potentially some recommended in this plan action—that the MBTA cannot support today while making Boston’s low per capita transit expenditure more in line with other large American cities. With a new focus on operating new transit service, the City would be able to make additional street and signal improvements that enhance transit quality and speed, beyond those made for most existing MBTA routes.

Implementation
Approximate Cost: $10 million per year for operations
Potential Funding Sources: City of Boston and parking impact fees
Who’s Responsible: BTD
Time Frame: 5 to 15 years

Best Practices
In San Francisco, CA, the Municipal Transportation Agency (SFMTA) manages the entire surface transportation network, including taxi regulation. This includes operating Muni Transit, a network of streetcars, buses, and cable cars. To the user, the Clipper Card makes transfer between Muni and other regional services such as BART or Golden Gate Transit seamless. www.sfmta.com
Portland, OR, owns the Portland Streetcar, and operates it in conjunction with the regional transit agency, TriMet, and a non-profit specifically for the streetcar. The three parties have a “master agreement” governing this relationship. The system includes 16 track miles today and carries more than 15,000 trips daily. portlandoregon.gov/transportation/article/573729
Similarly, the Atlanta, GA, funds the Atlanta Streetcar, while several other transit agencies serve the region. The City has leveraged funding from both federal and regional sources, e.g. as a Development Transportation District. The streetcar serves 12 stops with 15 minute frequencies and has several additional lines planned in the future.
**Regional**

### Orange Line and Red Line Service Improvements

Expand capacity with new signals, new vehicles, and more frequent service

#### Project Description

Beginning in 2019, and to be completed by 2022, the number of Orange Line train cars will increase from 120 to 152 with new larger vehicles, increasing the capacity and reliability of service while improving the customer experience. Combined with signal upgrades and an expanded maintenance facility at Wellington, the Orange Line will be capable of delivering four-minute headways during peak service and increase overall service capacity by 30%. This will reduce crowding and also allow for growth at underutilized sites along the corridor that are strong candidates for transit-oriented development. Meanwhile, Red Line cars, as well as track and signal improvements along the Braintree branch, will enable trains to operate more smoothly, increasing capacity and reliability on the entire line.

#### Benefits and Issues Addressed

Currently, Orange Line trains are at or near capacity with no safety, and often not enough room, when they enter Boston (or at the first stop within the city) during peak hours. Though new residential and commercial areas continue to emerge on this line, significant capacity improvements are needed to accommodate this growth as Boston and the surrounding communities grow denser and to enable Go Boston 2030 to meet its mode-shift goals. Similarly, Red Line improvements are needed to reduce delays and accommodate more transit riders during peak hours.

#### Implementation

**Approximate Cost:** $1.3 billion ($800 million for new cars, $500 million for signals)

**Potential Funding Sources:** FTA and MassDOT

**Who’s Responsible:** MBTA and MassDOT

**Timetable:** To be completed by 2022

#### Best Practices

Many transit agencies have plans in place to procure updated cars for their rapid transit systems, including the Chicago Transit Authority, the Bay Area’s BART system, and New York’s MTA system.

WMATA put its new 7000 series cars into service in 2013 on the Blue Line that runs from Maryland to Virginia through Washington D.C. These cars feature many safety and passenger comfort improvements such as wider aisles, LED screens, and better public address systems.


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**Regional**

### North Station to South Boston Waterfront Rapid Bus

Direct bus service between northern commuter rail lines and the Seaport in tandem with ferry service

#### Project Description

For commuters traveling through North Station and heading to the Seaport, transit and shuttle options will be consolidated and expanded by providing bus service in exclusive bus lanes running between Causeway Street and the South Boston Waterfront, as recommended in the South Boston Waterfront Sustainable Transportation Plan. For a direct connection from North Station’s Lovejoy Wharf to Fan Pier in the Seaport, a new ferry route is proposed (p.86). With bus service offering limited stops, all-door boarding, and separation from vehicle congestion, more commuters could opt to take transit to the Seaport. Stops near Post Office Square, Atlantic Avenue, D Street, and South Station, would serve dense areas in ways that would reduce crowding on other transit routes and provide new connections to job hubs.

#### Benefits and Issues Addressed

As both the Waterfront and the area around North Station-KU new buildings with residents and employees at an incredible rate, the need for providing effective alternatives to driving between them is increasingly significant. Meanwhile, North Shore commuters easily reach North Station but have few easy connections to the majority of the Seaport. The recently completed transportation plan for the district has identified the lack of connection with northern commuter rail service as one of the biggest obstacles to the district’s continued growth. Today, multiple employers’ on-site shuttles are trying to address this gap and have created an inefficient and redundant network. A new, reliable rapid bus corridor will provide a high quality connection, eliminating the need for additional transfers and private shuttles. This provides a strong alternative to driving for future commuters to these growing districts as well as those going to many of the dense stops between them.

#### Best Practices

Orlando, FL’s Lymmo provides a free link through downtown. Running in its own lane and with signal priority, the Lymmo has three routes with multiple stops. The Lymmo Orange Line runs every five minutes on weekdays and every hour on weekends so that users never have to think about when the next bus will arrive.

*Image Source: [www.dot.state.or.us/roads/travelimages/VMOS.jpg](http://www.dot.state.or.us/roads/travelimages/VMOS.jpg)*

**Implementation**

**Approximate Cost:** $21 million for design and construction

**Potential Funding Sources:** City capital plan for design and Boston MBNO TIP for construction

**Who’s responsible:** RTD and PWD with MassDOT

**Time Frame:** Within 5 to 15 years in conjunction with local community process

#### Public Input

- [Bus and shuttle exclusive lanes on surface roads connecting South and North Stations with the South Boston Waterfront*](http://www.dot.state.or.us/roads/travelimages/VMOS.jpg)
- [Transit connection between North Station and South Station via Commercial Street and Atlantic Avenue*](http://www.dot.state.or.us/roads/travelimages/VMOS.jpg)

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*Image Source: [www.dot.state.or.us/roads/travelimages/VMOS.jpg](http://www.dot.state.or.us/roads/travelimages/VMOS.jpg)*
Sullivan Square
Enhanced Transit Hub

Improving the customer experience and connections to the neighborhood

Project Description
Along with new rapid bus service to Everett and new shuttles to the Wynn Casino, Sullivan Station amenities and access will be enhanced. Within the station, improved wayfinding, lighting, and waiting areas will increase rider comfort. Outside, bus berths will be reconfigured onto one level with improved operating efficiencies, and riders will have well-lit shelters, real-time information displays, comfortable benches, and other modern amenities. Rationalized bus and automobile circulation will be accompanied by an improved walking experience to and from the station along and across Broadway, Mystic Avenue, Cambridge Street, and Sullivan Square itself.

Benefits and Issues Addressed
Sullivan Square Station is a major transfer point and a growing destination station, but physical conditions for connecting between trains and buses are outdated and deteriorating, while connections on foot and bike to Charlestown and East Somerville are particularly difficult. Demand is expected to grow —02129 —02155 —02148 —02116 —02109 —02123 —02125

Implementation
Approximate Cost: To be determined by ongoing Transportation Department planning processes Potential Funding Sources: MassDOT/MODA and other developers Who’s Responsible: MassDOT/MBTA Time Frame: Within 5 to 15 years

Noteworthy
About 10,000 Orange Line boardings and 8,000 local bus boardings occur at Sullivan Square each weekday. Between 2009 and 2012, ridership on all but one local bus route serving Sullivan increased by at least 10%.

Climate Protection for Vulnerable MBTA Stations

Ensure that T stations are more resilient

Project Description
Some T stations are already vulnerable to coastal flooding in the case of an extreme weather event, and with climate change, they will become increasingly vulnerable. These stations include JFK/UMass, Sullivan Square, and many Blue Line stations in East Boston. They can be made more resilient during a rain or flood event with on site redesign or barriers or be protected by other adaptations to the surrounding neighborhood, particularly at flood entry points. These adaptations may also contribute to neighborhood protection. Smaller scale protections may be necessary as well, such as conserving ADA access by protecting elevator pits. Protection can be done with permanent design changes or the procurement and installation of temporary structures. The Climate Ready Boston report highlights the vulnerability of and the possible adaptive infrastructure for each of these stations as well as for the Silver Line stations in the South Boston Waterfront, which are also vulnerable.

Benefits and Issues Addressed
Depending on the type and severity of an extreme weather event, T stations are impacted differently. Rails need to support the entire transit system, but flooding can affect a single station halting one line at a time. This is particularly problematic if flooding causes diversions for trains to the manifold of a tunnel or diversions passengers onto buses with a particularly congested corridor, as is the case for the Aquarium and Maverick stations. Diversions can often last far longer than the flooding due to water damage and necessary repairs, making climate readiness essential to maintaining access to jobs and services.

Implementation
Approximate Cost: TBD Potential Funding Sources: MBTA/MassDOT Who’s Responsible: MBTA/MassDOT Time Frame: 5 to 15 years

Best Practices
Philadelphia, PA’s Southeastern Pennsylvania Transportation Authority recently completed an FTA-funded pilot vulnerability assessment on its Manayunk-Norristown commuter rail line. The report provides a detailed list of specific adaptation measures for storms, snow, and other climate-related events.

ClimateAdaptationReport.pdf

Public Input
"Make Sullivan Sq. area safer for bike riders."

"More buses near and around Wellington and Sullivan Stations. Buses are overcrowded."

"Improved pedestrian safety in area of Sullivan Sq. rotary."

"What can we do to make the Sullivan Square transit and bus facilities more accessible to the Charlestown and surrounding communities?" This includes frequent service, better access by walking and bikes, a better layout and modernization of the facilities, and transit-oriented development. "

"ClimateAdaptationReport.pdf"
Regional

Morrissey Blvd Resilient Complete Street

An enhanced multimodal corridor guarded against sea level rise

Project Description

A multi-year reconstruction of Morrissey Boulevard will correct frequent street flooding and prepare the corridor for anticipated sea level rise and storm surges. While enhancing stormwater management infrastructure, the reconstruction will add new bicycle and pedestrian paths to enable safe travel without a car along its entire length.

Benefits and Issues Addressed

Recent flood issues can render Morrissey Boulevard impassable during storms, and the frequency of these closures has increased over the years. Each flood damages critical infrastructure and impedes safe commuting. The planned reconstruction will not only ensure that this essential auto commute corridor for Dorchester is passable, it will add a critical regional bicycling connection that enables a continuous ride from Mattapan, through Dorchester and South Boston, into Downtown by connecting the Neponset Greenway (p199) to new bicycling connections to larger parks and path networks.

Implementation

Approximate Cost: $17 million for design and construction

Potential Funding Sources: Department of Conservation and Recreation (DCR)

Who’s Responsible: DCR

Time Frame: Design ongoing with construction expected within 5 to 15 years

Best Practices

21st Avenue in the small town of Paso de Robles, CA, is just north of downtown. The street experienced frequent flooding and had no accommodations for people on bikes. In 2014, a redesign of the street provides bicycle amenities as well as green infrastructure designed to manage flooding and runoff.

Regional

Multiuse Path Extension to the Blue Hills

A protected, multiuse trail extending the Southwest Corridor to the Neponset Greenway

Project Description

Several possible routes are being considered to continue Boston’s Southwest Corridor to the south in order to serve more residents and the region. One option is a safe and continuous connection from Forest Hills through Franklin Park to the Neponset River Greenway. The Blue Hill Reservation. Whether along Blue Hill Avenue or on American Legion and Cummins Highways, a multiuse path for people walking, running, and cycling—buffered from traffic and supplemented by trees and other green infrastructure—would extend a critical green route for the city, enhancing opportunities for recreation and active transportation. Of the routes proposed by the City’s GreenLinks plan, in coordination with LivableStreets Alliance’s Emerald Network and MAPC’s LandLink initiative, one or more will be constructed. Connections will be made to other proposed multiuse paths including Columbia Road (p172) and the Fairmount Greenway Neighborhoods (p161).

Benefits and Issues Addressed

A map of existing greenways in Boston shows a clear lack of biking and walking paths in Mattapan, as well as parts of Dorchester, Roxbury, and Hyde Park. Creating a safe connection that allows people on foot and on bike to link up with existing paths on the southern edge of the city, as well as northward along the Southwest Corridor, Cummins Field, or the Fairmount corridor, would support active transportation in neighborhoods where public open space tends to be limited and the major roadways are inhospitable to vulnerable road users. Whether for transportation or recreational walks, runs, or rides, a new path is needed here in additional parkland and connections to larger parks and path networks.

Implementation

Approximate Cost: $6 million for design and construction

Potential Funding Sources: City capital plan and Boston MPO TIP

Who’s Responsible: STBD and Public Works

Time Frame: Within 4 to 15 years

Best Practices

New York City has connected many of its parks and greenways using protected bike lanes. The Pelham-Moshulu Parkway Greenway connects several parks and urban areas and is part of the larger East Coast Greenway network.

Public Input

“Make traffic safer for people, cars, buses, & pedestrians along Blue Hill Ave near Talbot St.”

Boston Transportation Department March 2017

“Connect Emerald Necklace to Neponset Trail.”
Regional

Massachusetts Avenue Rapid Bus

Exclusive bus lane with priority signals and quick bus boarding along Mass Ave

Project Description
A designated lane along Mass Ave would facilitate rapid travel for buses and other high occupancy vehicles including university shuttles and on-demand bus services such as Brid. In addition to the exclusive lanes, which allow buses to avoid the congestion caused by cars, the stations would include all-door boarding, off-board fare collection, and improved waiting areas, which would support and promote transit ridership in this corridor and reward people who take the bus.

Benefits and Issues Addressed
The Route 1 bus that runs down Massachusetts Avenue from Harvard Square in Cambridge to Dudley Square in Roxbury is among the routes with the highest ridership in Boston. These buses are less than 3% of the vehicles on this corridor, yet they carry up to 23% of the people traveling in motorized vehicles between Beacon and Albany Streets. However, Route 1 buses are regularly stuck in general traffic leading to bus bunching, inconsistent service, and slow overall speeds. Exclusive bus lanes and smart signals that adapt in real-time would help eliminate bunching, improve reliability, and reduce travel times—especially in the Back Bay and South End. Empowering cross-corridor connections and transit speed. Delays also occur at stops where long lines of people wait to board and passengers without loaded Charlie Cards slow the process. Off-board payment makes this worse.

Implementation
Approximate Cost: $43 million for design and construction with vehicle costs to be determined
Potential Funding Sources: State of Massachusetts, City of Cambridge, and BTD
Who's responsible: BTD and Public Works
Time Frame: 15+ years

Best Practices
Chicago, IL's Looplink project rechristened vehicle travel lanes to offer rapid boarding, dedicated bus lanes, and bus tracking monitors coupled with protected bicycle lanes. Multiple routes use these amenities, which now include pre-board fare systems in some places.

Public Input
“Painful Signal Priority for MBTA buses along key corridor… The Mass Ave corridor at least could greatly benefit from this—often see #1 and #57 bus bunching, and find bad for the passengers when this is the case. I often decide to walk along Mass Ave because I usually don’t have faith in the bus arrival estimates, but would be more inclined to climb on board if I knew the bus would be able to see through the traffic signals.”

—20150

Regional

I-90 Newton Urban Rail
Subway-like service paralleling the Mass Pike from Newton to South Station

Project Description
The Worcester/Framingham Line currently provides service structured to accommodate suburban commuter train lines into three Boston stations (Yawkey, Back Bay and South Station) that serve key employment districts. Trains arrive with 20 to 30 minute headways during peak commuting periods and less frequently during the middle of the day. This project would use advanced train scheduling technology to run smaller urban railcars in between the less-frequent commuter rail train runs to provide subway-like service between several neighborhoods of Boston and Newton, including new connections at Boston Landing and West Station, in addition to the existing stations. With an expanded South Station, this kind of rapid turnaround becomes more reasonable. Alternately, service could be interfaced with the Fairmount Line to connect to Newmarket and beyond.

Benefits and Issues Addressed
With the recent completion of the Wyckoff Commuter Rail station in the Fenway to access jobs in the LMA, the planned completion of Boston Landing Station in Allston in a rapidly growing jobs hub, and the planned construction of West Station in the new neighborhood and university areas planned for the I-90 straightening project, the I-90 Urban Rail is intended to supplement Framingham/Worcester Line services between Newton and South Station to support travel needs of some of Boston's future growth areas. An urban rail line with regular service similar to the Red or Orange Line coupled with an affordable fare structure will provide service that employers and residents can rely on. It will also incentivize new transit-oriented development in these districts. The new line will provide a high-quality transit alternative to driving and relieve pressure on the Mass Pike, as well as traffic congestion on city streets surrounding these growing districts.

Best Practices
Both NJTransit’s RiverLine and Denton County Transportation Company (Texas) have diesel-multiple units in service. These study cars provide an experience similar to light-rail for the rider, but can operate on heavy rail tracks. One major difference between these and commuter rail cars is that instead of having a separate locomotive, the trains are "self-propelled" by an engine in a passenger vehicle. Although cars can be more expensive up front, their operating cost is lower than traditional commuter rail.

Dallas Area Rapid Transit will open TEXrail in 2018 using similar vehicles.

Implementation
Approximate Cost: $100 million for stations and rail cars. $5 million annually to operate
Potential Funding Sources: MBTA/MassDOT
Who's responsible: MBTA/MassDOT
Time Frame: 15+ years

Public Input
“Boston should take a page or three from Paris or San Francisco or Tokyo, and build a regional rapid transit network connecting communities like Hyde Park, Mattapan, Quincy, Chelsea, Revere, Lynn, Salem, Waltham, and Newton to the downtown and the city core.”

—20170
West Station Transit Hub

A new rail and bus station serving Brighton and the new Beacon Yards

Project Description

As part of the necessary reconstruction of an aging L90 viaduct that curve above an abandoned rail yard, MassDOT is designing a new station along the Framingham/Worcester commuter rail line that will include direct connections to local buses, proposed rapid bus connections to the LMA and Cambridge (p202), and urban rail service to Newton (p201). New walking routes into Allston near Boston University and to the evolving Beacon Yards district adjacent to Harvard will also serve the new station. The transit hub will improve connections between Boston and Cambridge and will bring regional travelers to the expanding districts nearby. A study is underway, as are preliminary designs for the future station.

Benefits and Issues Addressed

West Station provides an opportunity for the new jobs center at Beacon Yards to be built transit-ready, with easy and direct rail and bus connections from the west, into Downtown, to the LMA, and Cambridge and will bring regional commuters from the west to use local rail and bus services to connect with key destinations such as the LMA and Harvard Square.

Implementation

Approximate Cost: $85 million for design and construction
Potential Funding Sources: MassDOT/MBTA
Time Frame: 13+ years

Best Practices

Durfee, CO’s, Union Station opened in place of a rail yard in 2012. The project integrates a bus concourse, Amtrak commuter rail, and light rail as well as high-quality food amenities and event spaces. The project has spurred almost $1 billion of investment in the area.

Public Input

I would like to see more transit stations that connect inner suburb and outer neighborhoods of Boston without involving trips through downtown. I envision a University Line that connects some of the Boston area’s great universities to one another.

West Station Rapid Bus to LMA, Kendall, and Harvard Square

Create a new set of rapid bus connections

Project Description

Using existing rail and highway right-of-way, a new set of transit lines would connect via West Station (p202) from the Longwood Medical Area across the Charles River to both Kendall and Harvard Squares and their corresponding universities and Red Line stations. Further connections could potentially continue on to the Orange Line, North Point, or Alewife in the future. While the exact alignment and type of transit vehicles will be decided in conjunction with MassDOT and the community, the service would provide high-frequency limited-stop service between the Green Line near Kenmore Square, the urban rail along I-90 (p201), the MBTA’s Route 1 bus on Massachusetts Avenue, and the Red Line. These lines would connect many transit commuters with top regional employment centers without requiring travel into the core of Boston.

Benefits and Issues Addressed

Sustained employment growth will continue in the LMA and Kendall Square, as well as around West Roxbury, but these centers are each only served by one rail line, forcing most workers to transfer to downtown, lengthening their commute and disincentivizing their use of transit. With a new high-quality transit connection that interfaces directly with rail lines and brings workers to these centers, transit ridership can grow while commute times drop, helping to boost each of these jobs centers and to attract future development.

Implementation

Approximate Cost: $133 million for design and construction
Potential Funding Sources: City of Boston and City of Cambridge for design, Boston MPO TIP for roadway construction, MassDOT/MBTA for vehicle costs
Who’s Responsible: BTU and Public Works with City of Cambridge and MassDOT/MBTA
Time Frame: Within 5 to 11 years in conjunction with local community process

Best Practices

In Hartford, CT, CTtransit runs a dedicated 9.4-mile line along a former rail right-of-way and an operating Amtrak line. Weekday ridership along this alignment has almost doubled compared to similar service.
**Smart High-Occupancy-Vehicle Lanes on Interstates**

Incentivize regional transit, car-pooling, and shared-rides by separating them from congested general freeway traffic.

**Project Description**
In coordination with MassDOT, existing and new HOV lanes would be converted to smart lanes that are open only to transit, shared rides, and carpools—restricted to permitted vehicles only through MassDOTs new overhead license-plate reading gantries. This electronic lane technology allows the existing Interstate 93 HOV lane to be extended north to Interstate 95, the gap on I-93 between Massachusetts Boulevard and Widett Circle to be filled, and new HOV lanes to be added to I-90 and Route 1. In the future, vehicles equipped with autonomous or driverless technologies that allow closer spacing and automated speed control can greatly increase the capacity of these lanes.

**Benefits and Issues Addressed**
Significant regional growth is expected by 2030, with increased driving further burdening congested highways if commuters do not shift to other modes. Rather than relying only on existing transit lines to take the burden, every highway can serve as a peak time lane only for commuter traffic. The conversion, extending into general traffic lanes, can help incentivize new non-commuter use of increased capacity, including transit, car-pooling, and shared rides. This conversion can also help incentivize increased driving further burdening congested general traffic lanes.

**Implementation**
Approximate Cost: $1.6 billion
Potential Funding Sources: Federal Rail Administration (FRA), MassDOT
Who’s Responsible: MassDOT, MBTA, Amtrak
Time Frame: 5 years

**Best Practices**
On US-36 in Colorado between Boulder and Denver, a public-private partnership provides one lane in each direction for buses and high-occupancy vehicles. Users below the occupancy limit can travel in the lane but must pay extra for this premium service. The price to use the lane varies dynamically throughout the day.

**(Point of Interest)**
"Will Boston consider extending the HOV lanes North/South on I-93?"

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**South Station Expansion**

Additional track capacity in order to accommodate more frequent train service.

**Project Description**
MassDOT has been studying the viability and benefits of expanding South Station by adding seven new tracks and four new platforms to the existing 13 tracks and seven platforms. This addition, along with reconfiguring the rail lines, creating additional midday layover capacity, and enlarging and improving the passenger waiting areas (the “headhouse” building), would reduce existing capacity challenges and allow for expanded regional rail service and Amtrak inter-city service in the future.

**Benefits and Issues Addressed**
In advance of anticipated urban rail service along multiple commuter rail lines, additional platform and track capacity is needed at South Station. This is particularly critical for operating Farnsworth’s Indigo Line trains with greater frequency. In order to achieve the aspirational mode shift goals for increased transit use, more rail service must be provided during peak commuter hours, along with additional midday and late-night service to accommodate people’s non-traditional employment hours.

In order to expand, the State must acquire the US Post Office building as well, which can allow for a new connection from South Boston and the South End on a relocated Port Street and complete a missing segment of the Harbor Walk. In addition, the City has been working with MassDOT to ensure that the potential for new uses adjacent to the expanded track area are realized, as well as preserving the opportunity for longer term air rights development over the new track area footprint.

**Implementation**
Approximate Cost: $1.6 billion
Potential Funding Sources: Federal Rail Administration (FRA), MassDOT
Who’s Responsible: MassDOT, MBTA, Amtrak
Time Frame: 5 years

**Best Practices**
Denver, CO’s, Union Station integrates and consolidates new RTD FasTracks passenger rail service, existing Amtrak service, and an underground bus terminal in a bright and passenger-friendly way. The station was recently renovated and expanded, and now has a hotel on top of it. With FasTracks expanding, estimates put the number of passengers the station will handle at 200,000 per day with full service. South Station currently handles just over 91,000 riders daily, including intra-city bus service.