

Massachusetts Bay Transportation Authority

Plan for Accessible Transit Infrastructure (PATI)

Preview of 2019 Recommendations

Presentation to the FMCB

April 1st, 2019

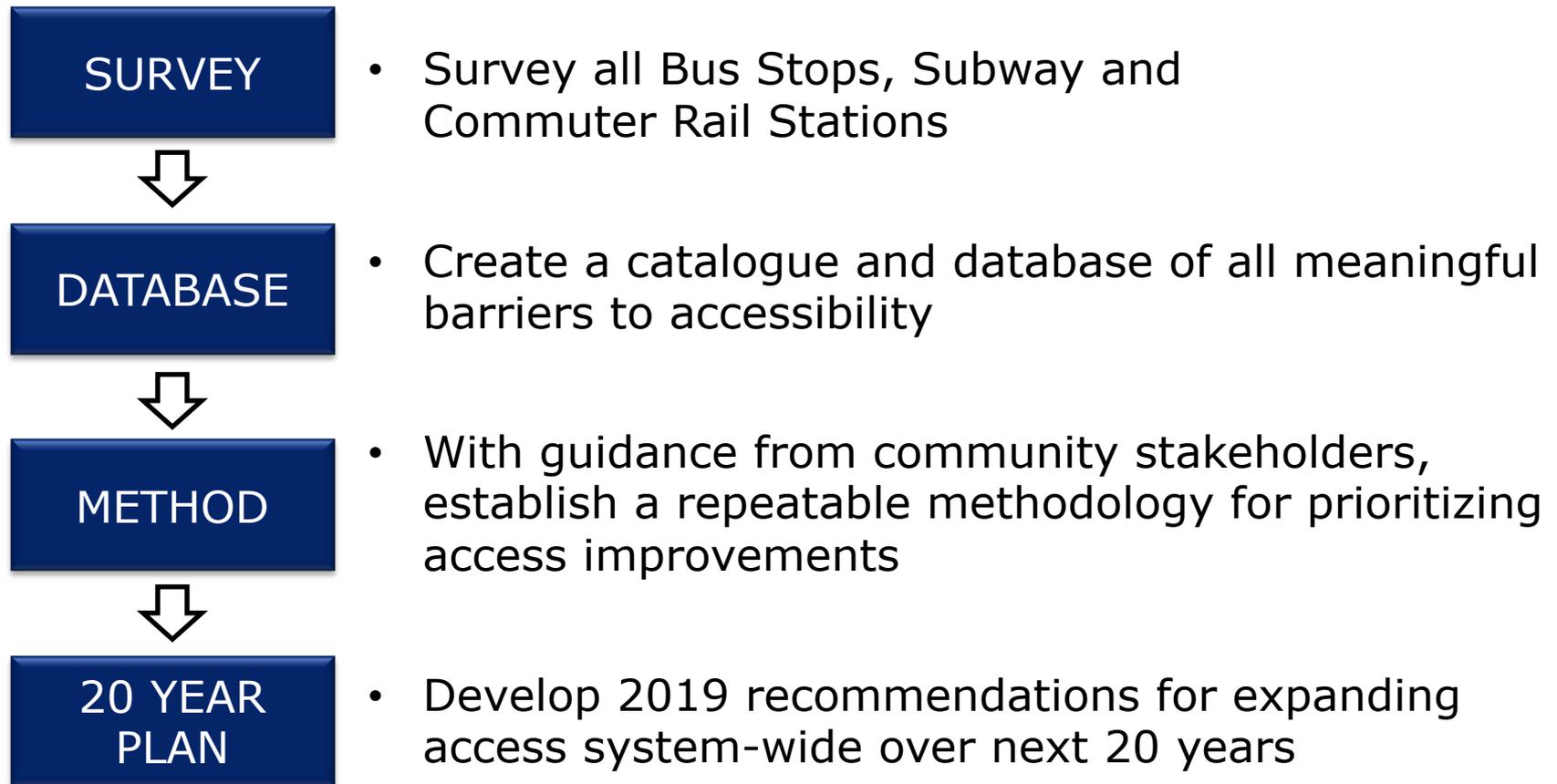


Agenda

- **Overview**
- **Methodology for Identifying Priorities**
- **Recommended Priorities by Mode**
- **Progress to Date**
- **Additional Impact of PATI**
- **Appendix: 20 Year Plan**



Primary Goals





Overview:

PATI Surveys and Database

Stations:

177
 Station Reports
17624
 Elements Surveyed
26004
 Photos Captured

Bus:

7690
 Bus Stops Surveyed
51
 Towns Impacted
184
 Routes Covered

Plan for Accessible Transportation
 Infrastructure
 Airport Station

Municipality: Boston
 Date Surveyed: 08/31/2017
 Date Report Prepared: 8/28/2018
 Version: 0.1

T PATI Bus Stop
 Town Report
City/Town: Everett
 Date of Report 3/20/2019

Everett Bus Stops & Routes Summary
 Total distinct routes:
 0
 Total distinct stops:
 114
 Distinct Routes:
 104, 105, 106, 108, 110, 111, 112, 97, 99

Legend: Critical High Medium Low Compliant

Survey Date From: 4/7/2016 Survey Date To: 4/7/2017

Customizable Report Options:

- Bus Stop
- Bus Routes
- City/Town Stop Summary
- Station Summary
- Element Queries
- Ad Hoc Queries



Snapshot of Barriers—Bus Stops

Out of **7690 stops**, **84%** have at least one significant barrier:

- **20%** Have less than 4'-0" wide sidewalk for length of bus stop
 - **6%** Have a sidewalk less than 36"
- **18%** Have a landing pad too narrow for bus ramp to easily deploy
- **2%** Have an amenity blocking the path of travel
- **14%** Are located near a crossing with a missing curb ramp
- **Only 8%** have a shelter





Snapshot of Barriers--Stations

No Access Aisles



Low Scoring Ramp



RAPID TRANSIT + COMMUTER RAIL

Most accessible stations are host to numerous serious barriers, impacting:

- Accessible parking
- Elevator/Escalator
- Sidewalk/curb ramps
- Door issues
- Track-crossings
- Restrooms
- Ramps to platforms
- Detectable Warning Panels
- Call Boxes

COMMUTER RAIL

- **32** stations remain inaccessible
- **58** stations have mini-high, but not full-high platforms

RAPID TRANSIT

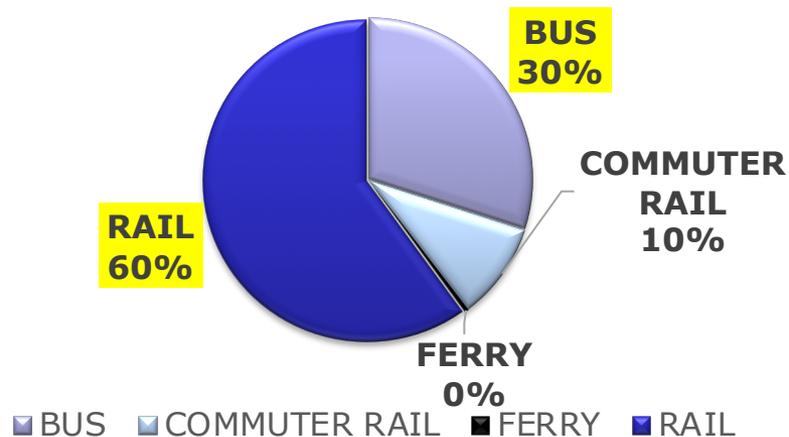
- **5** subterranean stations remain inaccessible
- **32** street-level stops remain inaccessible
 - 31 Green Line Surface
 - 1 Mattapan Trolley



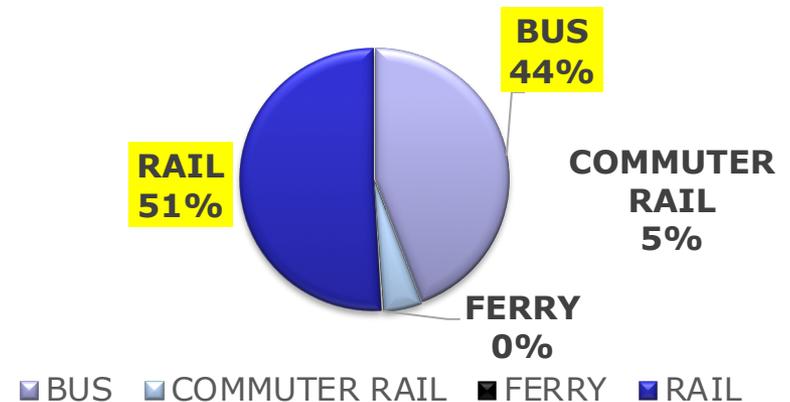
Choosing between Modes

- Customers expect and regulatory realities call for continuous progress across all modes
- Community stakeholders emphasize importance of Bus & Subway network over Commuter Rail

Avg. Weekday Ridership CY 2017

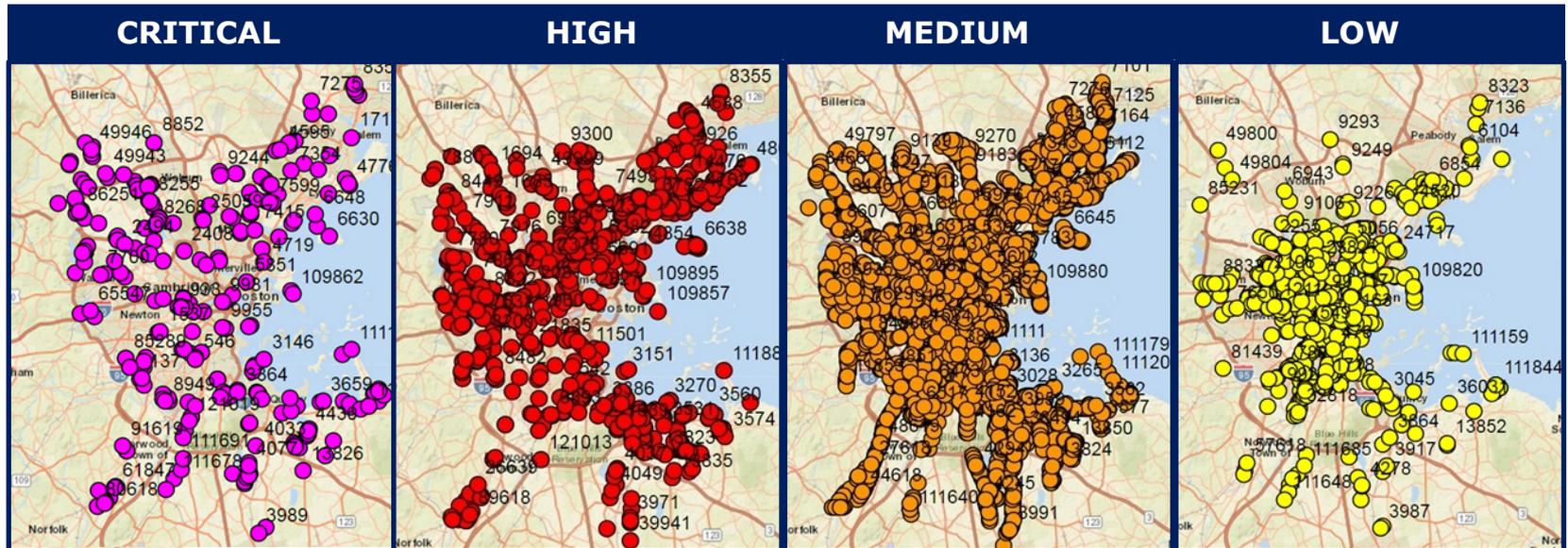


Avg. Weekday Ridership CY 2017 for Senior/TAP





Choosing between Bus Stops



- Start with degree of barriers—critical, high, medium and low
- Examine ridership—opportunity for consolidation
- Further prioritize by high ridership, municipal coordination & known complaints
- Coordination with other bus initiatives



Bus Stop Priorities

Emphasis on addressing most critical stops to ensure basic safety and usability.

Bus stops to be addressed include:

- 273 Critical Stops to be eliminated or reconstructed
- 600+ High Priority Stops to be triaged





Choosing between Stations

- **Accessibility Impact Score— How Important is the location to people with disabilities?**
 - General Ridership
 - Census Data within ¼ mile radius – seniors and people with disabilities
 - Location’s Minority and Low income status
 - Rate of RIDE pick-ups/drop-offs within ¼ mile
 - Proximity of other accessible station

- **Cost/Benefit Score—How much are we resolving with this investment?**
 - Degree of Barrier
 - Project Cost
 - Will project address other serious non-access issues?

- **Overall Readiness—Can project move forward and eliminate barriers quickly?**



Station Priorities—System-Wide

Emphasis on addressing moderate barriers system-wide to ensure that accessible stations remain safe and usable.

System-Wide programs to be established include:

- Install automatic door openers at each station
- Apply yellow contrast nosings to stairways
- Repair serious sidewalk/curbramp defects in/around stations
- Ensure adequate accessible parking at all lots
- Address barriers in public restrooms
- Install detectable warnings at all CR platforms where lacking
- Repair mini-high platforms
- Repair track crossings



Station Priorities—Rapid Transit

Tier I:

- Wollaston
- BU West, St. Paul, Pleasant, Babcock (B Line)
- Symphony
- Red/Orange Connection at DTX
- Packard's Corner (B Line)
- Eliot, Chestnut Hill, Beaconsfield, Waban (D Line)

Considerations:

- Highest Impact
- 3/5 remaining subway stations
- Large operational benefit
- D Line does not require municipal coordination



Station Priorities—Rapid Transit

Tier II:

- Boylston*
- Bowdoin*
- Griggs, Alston, Warren, Sutherland, Chiswick, Chestnut Hill Ave, South St (B Line)
- Hawes, Kent, St Paul, Summit Ave, Brandon Hall, Fairbanks, Tappen, Dean, Englewood (C Line)
- Fenwood, Mission Park, Riverway, Back of the Hill (E Line)

Tier III:

- Adjust Platforms system-Wide to Provide Level Boarding with Type 10 Vehicle

Considerations:

- All stops on B, C & E Lines require significant municipal coordination
- Level board cannot be achieved until Type 10 arrives

**subject to results of conceptual design*



Station Priorities—Commuter Rail

Tier I:

- Chelsea
- Natick
- Auburndale/Newtonville/W. Newton
- Winchester
- Wellesley Square
- Melrose Highlands
- Endicott
- Walpole
- West Medford
- Franklin/Dean

Considerations:

- Highest Impact Score
- Significant SGR issues at most

Tier II/ Tier III:

- Remaining priorities dependent on rail vision and any opportunities for consolidation
- Work with FTA to phase in access more quickly via mini-highs at lower priority locations
 - Expand to full-high once every station is usable



Implementation Strategy & Must Haves



- Steady pipeline of designs to ensure on-going project readiness
- Proper scoping from Day 1 to maximize SGR/Access overlap
- Support and coordination from municipalities regarding Green Line & Bus Stops



Bus Stop Projects Underway

Critical Bus Stops:

143 PATI bus stops were identified for closure:

- 46 stops have already been closed due to very low/no ridership and missing signage
- Remaining stops require a higher level of municipal coordination

130 PATI bus stops were identified for reconstruction:

- 130 stops will be reconstructed between April and October 2019
(Construction work will combine Critical stops with 50 previously identified high priority stops)
- 40 remaining stops will be designed in 2019, constructed Spring 2020

High Priority Bus Stops:

600+ stops are being reviewed and triaged for concept level designs in 2019

All Other Stops: Municipal Coordination

Report packets for each municipality with bus service will include bus stop survey results as well as list of grant opportunities for stop reconstruction



Station Projects Underway

| Project | Duration | Project Budget |
|--|---|---------------------------------|
| Minor-Moderate Barriers | Ongoing | 5 mil |
| Elevators | Ongoing | 100+ mil |
| Wollaston | Summer 2019 opening | 45 mil |
| Symphony | 2019-20 Design | 40 mil |
| Hynes | 2019-21 Design | 45 mil |
| BU West/St. Paul & Babcock/Pleasant St – B Line | 2019-21 Construction | 30 mil |
| Newton Highlands – D Line | Follows D Line Track/Signal est. 2021-23 Construction | 23 mil |
| Ruggles | Phase 1 – Construction to 2021, Phase 2 – 2019-2020 Design | Phase 1: 43 mil Phase 2: TBD |
| Oak Grove | Construction Winter 2019-2023 | 35 mil |
| Forest Hills | 2019-20 Design | 22 mil |
| Mansfield | Fall 2019 opening | 11 mil |
| Chelsea | 2019-21 Construction | 35 mil |
| Natick | 2018-2019 Design | 4 mil |
| Winchester | 2019-2020 Design | 39+ mil |



Additional Impact of PATI

Google Mapping Update

- Boston was named one of six cities in the world to offer accessible transit navigation.
- The Customer Technology Department took PATI bus data and translated it into an algorithm that allows for MBTA bus stops to be included in planning an accessible transit trip

Governor Baker's Council to Address Aging

- The Council's Transportation Work Group used statistics to identify stops with most frequent boarding with Senior Charlie and TAP cards and overlaid PATI data on accessibility of such bus stops in gateway cities.

City of Boston Age Strong Commission

- Using PATI data, 45 bus stops were submitted for "Main Street" improvements

Vision Zero

- MassDOT Highway Division, looking to develop systemic safety improvements for pedestrians, used the PATI bus stop data to assist with prioritizing locations based on crash data, pedestrian boarding/alighting activities and risk factors



PATI External Engagement Committee

- Access Advisory Committee to the T (AACT)
- Boston Center for Independent Living (BCIL)
- Daniels-Finegold vs. MBTA Plaintiffs
- Disability Policy Consortium
- Greater Boston Legal Services (GBLS)
- Massachusetts Office on Disability (MOD)
- Mass Senior Action Council
- Massachusetts Institute for Technology (MIT)
- Rider's Transportation Access Group (R-TAG)
- Transportation for Massachusetts (T4MA)
- WalkBoston



**THANK
YOU**



Short-term Recommendations (1-5 years)

Bus Improvements

- Reconstruct 130 Critical Stops
- Design and reconstruct 50 remaining Critical Stops
- Design and reconstruct portion of 600+ high priority bus stops

Rapid Transit Improvements

- Renovate highest impact stations & those legally required
 - Wollaston, Symphony, BU stops, Newton Highlands, Forest Hills, Oak Grove, Ruggles
- Advance Design of remaining D Line Stops
 - Waban, Elliot, Chestnut Hill, Beaconsfield
- Develop conceptual design for Boylston
- Develop conceptual designs for street-level stops
 - B, C & E Line stops can't be handled as one offs
- Downtown Crossing elevator design
- Implement first phase of minor-moderate programs at high-impact accessible stations for example:
 - Door Openers Program
 - Restroom improvement Program
 - Path of Travel Program
- Advance design work on elevators and contingency work



Short-term Recommendations (1-5 years)

Commuter Rail Improvements

- Renovate most high-impact stations
 - Mansfield Construction
 - Chelsea
 - Natick
 - Winchester
- Design portion of high priority stations
 - Auburndale, Newtonville, West Newton, etc.
- Implement first phase of minor-moderate programs at high-impact accessible stations
 - Sidewalk/Curbramp Work
 - Install Detectable Warnings
 - Mini-High Improvement Program
 - Etc.



Medium-term Recommendations (6-15 years)

Bus Improvements

- Resolve all High priority stops
- Corridor Improvement Plan
 - Municipal coordination and partnerships

Rapid Transit Improvements

- Rebuilt remaining D Line Stations
- Boylston Design & Construction
- Bowdoin Design & Construction
- Downtown Crossing Elevators Construction
- Move next wave of redundant/replacement elevators into construction
- Begin modernizing street-level Green Line stops
 - Identify priorities by lining up work with City projects
 - B Line Construction
 - C Line Construction
 - Raise all Green Level platforms to provide level boarding with Type 10s

Commuter Rail Improvements

- Design Tier I & Tier II Commuter Rail Stations
- Construct Tier I Stations
- Advance Design & Construction of Tier II Commuter Rail Stations
- Advance Designs of Tier III Commuter Rail Stations



Long-term Recommendations (16-20 years)

Bus Improvements

- Resurvey of Bus Network

Rapid Transit Improvements

- Continue to design/rebuild elevators as needed

Commuter Rail Improvements

- Construct Tier III Commuter Rail Stations
- Expand Existing Mini-highs to Full-Highs/Station Upgrades