Better Buses: Getting Boston On Board

LivableStreets

Rethinking urban transportation

March 2018

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LivableStreets Alliance

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EXECUTIVE SUMMARY

Source: LivableStreets

Boston's transit system is in crisis, and nowhere is that more evident than on the bus. Over the past few years, we've witnessed a rising trend of Boston riders ditching the bus in favor of other modes. Between 2015 and 2016 alone, there was an 8% decrease in overall bus ridership – the highest rate of decline across MBTA services. All of the top ten MBTA bus routes, which operate primarily in the City of Boston, saw substantial ridership decline between 2014 and 2016, in addition to experiencing longer trip times.

This drop in ridership has taken place during a period of unprecedented development and growth. According to Imagine Boston 2030, Boston has grown at a rate twice the national average since 2010, and by 2030, 50,000 residents and 100,000 jobs are projected to be added.

Today approximately 7 miles of Boston streets are holding back more than one-fifth of all MBTA bus riders.

As a city, we have taken our regional bus system for granted for too long, and increasingly this is at the expense of opportunity and regional equity. **According to MAPC's *State of Equity Report*, black riders spend 64 hours more per year on MBTA buses relative to their white counterparts**. Despite these long-standing inequalities, the City of Boston has historically chosen to de-prioritize improving the bus system operating on its streets.

The MBTA may own and operate its bus fleet, but increasingly, riders are being underserved by streets, traffic signals, and bus stops managed by the City of Boston. An independent assessment of MBTA bus ridership and performance data led by TransitCenter and LivableStreets shows that our system is being stifled by increasing congestion on Boston's streets, a trend that could be reversed if the bus system is allowed

to perform at its highest level. **Today approximately 7 miles of Boston streets are holding back 92,000 riders - more than one-fifth of all MBTA bus passengers.** As congestion on Boston's traffic-snarled streets worsens, the lack of necessary priority given to MBTA buses is undermining access for all.

If Boston is serious about expanding access to affordable housing, economic opportunity, and services for those who need them most, decision-makers need to be investing in the bus. ***Getting Boston on Board*** **outlines steps the City of Boston should take to make fast, meaningful improvements to our transit system in the next one to four years.**

Boston is falling behind peer cities like Seattle, New York, San Francisco, Baltimore, and Providence when it comes to giving buses priority on city streets.

Without fast, effective commitments from leaders and officials in Boston, we will continue to see this troubling pattern of existing and would-be transit riders turning to less-sustainable transportation options like rideshare and personal cars, resulting in more congestion, more emissions, and less mobility for all in the region.

LivableStreets has worked with a committee of community partners representing public health, higher education, economic development, and fellow advocates to shape the following recommendations. If implemented, these cost-effective measures would shorten travel times for commuters experiencing some of the longest delays and encourage more riders to get on board the bus.

Policy Recommendations:

- **Prioritize bus upgrades at the city level with a focus on accountability and equity.**
- **Improve streets to prioritize bus transit on high ridership corridors.**
- **Expand bus service and improve the rider experience systemwide.**

To advance these much-needed policies, LivableStreets will be working with a coalition of community partners, city staff, elected officials, and – most importantly – riders themselves, to elevate the need for bus priority now, and to provide real improvements for today's riders and expand transit ridership and overall urban mobility in the Boston area. To align improvements with the locations where they're needed most, LivableStreets will focus on a series of four corridors that are experiencing the highest delays for the most people.

To chart Boston's developments, we will be rolling out progress reports to show how Boston is improving bus transit, and how elected officials and city departments are – or aren't – taking the lead.

The lack of action by Boston is especially apparent when compared to our peer cities nationally and regionally. Seattle, New York, San Francisco, Baltimore, and Providence have dedicated municipal resources and staffing to fix their bus systems.

After aggressively adopting and implementing improvements to their bus system, cities like Seattle have seen spikes in performance and ridership at a time when bus use has been on a downtick nationwide. According to a recent report by Commute Seattle, downtown Seattle has seen a dramatic increase of 41,500 transit trips and a decrease of 4,500 drive alone commutes since 2010, while also adding 60,000 new jobs. This incredible growth in transit ridership has been in large part thanks to a regiment of fast, effective improvements led by Seattle DOT to bolster bus priority.

Locally, the City of Everett implemented a bus-only lane on upper Broadway, a bold move that has contributed to a 20% reduction in travel times. The City of Cambridge installed and activated transit signal priority (TSP) at nearly a dozen intersections along Massachusetts Avenue and Prospect Street. Watertown and Arlington have plans to implement elements of bus priority on their streets in the coming year.

The City of Everett's bus-only lane on upper Broadway has contributed to a 20% reduction in travel times.

Although the City of Boston shares bus routes with all of these municipalities, it continues to lag behind when it comes to implementation of transit priority measures. Many of the projects and policies outlined in the Go Boston 2030 Action Plan include commitments to improving bus service, and in December 2017, the City of Boston led two one-day operational pilots to test an inbound bus priority lane on Washington Street in Roslindale.

The City's siloed approach to city-owned streets and state-managed transit service has resulted in service gaps that undercut the system and affect mobility for everyone in the region. We need a roadmap for breaking down these silos to better connect city operations and bus service, and Getting Boston on Board intends to chart that path forward.

WHAT WE KNOW

Source: LivableStreets

Bus Ridership Trends

Systemwide there's been an 8% drop in MBTA bus ridership between 2015 and 2016, but this decline is even worse when looking at the top ten busiest routes, which all primarily operate in Boston. These routes represent the workhorses of the system, carrying more than one fifth of total bus passengers in the MBTA service area.

They are also among the system's slowest. All but the #111 and #32 are in the bottom third of T buses ranked by speed. **The #1, the fifth most patronized route in Boston's system, comes in dead last for speed relative to Boston buses. The #66, the second-most used bus route, is slower than 99% of all MBTA bus routes.**

The #1, the fifth most patronized route in Boston's system, comes in dead last for speed.

Top Ten Busiest MBTA Bus Routes

Route	2016 Average Daily Ridership	2014–2016 Ridership Change	Speed Rank (of 163 routes)
28	12,539	- 9%	145
66	12,157	-10%	161
111	11,802	-8%	66
23	11,608	-5%	154
1	11,416	-9%	163
SL5	10,175	-9%	158
32	9,578	NA	82
39	9,388	NA	147
57	8,743	-16%	112
22	8,166	-3%	133

Source: MBTA / TransitCenter

Further analysis found that this transit crisis also extends to many crosstown routes, which are experiencing below average speeds and some of the worst on-time performance rates for MBTA buses. Nearly all of the ten worst performing buses are local routes operating within Boston (exceptions being CT1, 47, 91, which cross from Boston into other cities). These bus lines could support and complement more popular routes and rapid transit, but current conditions on Boston streets are poor and discourage ridership.

According to MAPC's State of Equity Report, black riders spend 64 hours more per year on MBTA buses relative to their white counterparts.

Ten Worst Performing MBTA Bus Routes

Route	2016 Average Daily Ridership	Speed (MPH)	On-Time Performance
41	1,998	6.1	38%
19	3,260	6.2	43%
CT1	1,815	6.3	47%
43	1,118	6.4	54%
4	373	7.4	54%
18	449	6.9	57%
47	4,464	7.5	54%
14	1,091	8.2	49%
45	3,574	6.6	60%
91	1,787	7.2	58%

Source: MBTA / TransitCenter

Investing in Boston's bus system is critical for addressing systemic inequities throughout the city. According to MassDOT, 42% of bus riders are low-income and 48% are people of color. According to MAPC's State of Equity Report, black riders spend 64 hours more per year on MBTA buses relative to their white counterparts.

MBTA Service	Minority Riders	Low-income Riders
Bus	48%	42%
Rapid Transit	31%	26%
Commuter Rail	15%	7%
Ferry	2%	4%
Total	**34%**	**29%**

Source: MassDOT / MBTA

What Riders Are Saying

Throughout 2017, LivableStreets led and worked on several public engagement campaigns to reach out to bus riders in the Longwood Area, Downtown, the South End, Roxbury, and Roslindale. With the help of volunteer Street Ambassadors, LivableStreets spent hundred of hours at bus stops listening to riders' experiences, challenges and concerns.

Their daily experiences detailed the mounting crisis demonstrated by rapidly declining ridership and performance data. Each rider offered a snapshot of how current bus service adversely impacted his/her/their personal and professional lives. **The bottom line is that unreliable transit means less time in the classroom for students and teachers, docked pay for workers, and missed medical appointments for seniors and veterans.**

This lack of reliable service on City of Boston streets is also thwarting new riders from relying on the bus.

LivableStreets' outreach in the Longwood Area, one of the region's thriving and growing job engines, has found a substantial desire for improvements to bus transit. A multimodal survey conducted with more than 1,500 commuters revealed that 36% of motorists wanted to switch to another mode, with public transit being the leading alternative. When asked why they did not currently take transit, respondents overwhelmingly stated that service today took too long or was too unreliable.

Calls for improvements to transit times, reliability, and overcrowding were also common among existing bus riders. "Congestion / traffic" was the leading factor for both mode groups when it came to which issues negatively impacted their commutes. When asked what they would like to see to improve surface transit, bus-only lanes, less overcrowding, and more reliable service ranked high for MBTA bus and shuttle riders. With meaningful improvements to surface priority and signals engineering, Boston can effectively pave the way for better, more reliable service.

36% of motorists surveyed in the Longwood Area wanted to switch to another mode, with public transit being the leading alternative.

Survey findings in the Longwood Area resonated with feedback received in Roslindale as well. Poor bus service there threatens access to opportunity and services for thousands traveling to and from West Roxbury, Hyde Park, Mattapan, and other communities. Riders also made the connection between improving bus service and maintaining housing affordability in a market where costs continue to rise. According to Rori, a bus rider from Roslindale, ***"I think [improving bus transit in Roslindale] is super important because, as rents rise, bus use rises, and I need to get to work downtown efficiently to make sure I can keep my job."***

The following comments further illustrate the stress and frustration riders continue to face throughout Boston.

"[I need more reliable bus service] to be consistently on time for work and my students. I am teacher and inconsistent bus service causes the whole school issues when I'm late."

~ Deborah, Roslindale

"I've sometimes found that getting off the bus when it's stuck in traffic and walking gets me to my destination faster. Also, I have cancer, and some days walking to and from the bus is tough. (I don't have to walk all that far, but I imagine others with health problems who are further from the bus must have a hard time with the walk.) Coming from work, I sometimes use UberPool because the bus does not come often enough and I would need to miss more work in order to get to appointments on time."

~ Patient traveling to the Longwood Area by bus from JP

"In order for me to get the 5 miles on one road to my institution from my home, I need to take an unreliable bus an extra five miles in the opposite direction to the green line."

~ Employee at one of the Longwood Area hospitals traveling by car from West Roxbury

"I always get to school late."

~ Ricky, Hyde Park

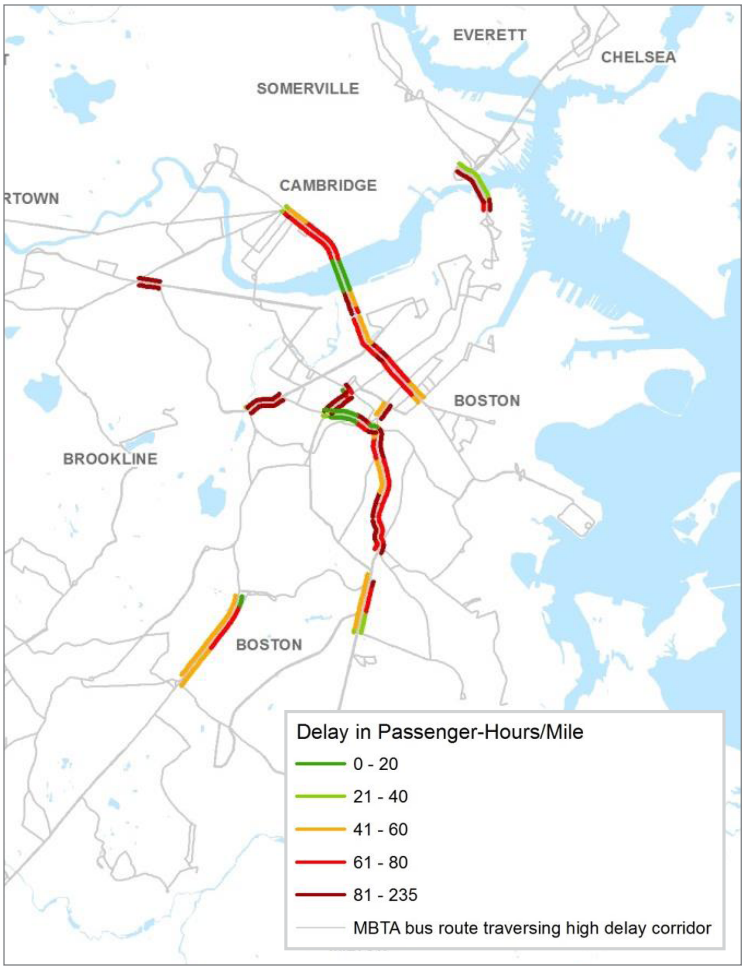
"Half of the time it is faster to get off the bus and walk than it is to take it all the way to Forest Hills. Every few months I have to get up 5 minutes earlier to be on time for work."

~ Anne, Roslindale

State of Our Streets: Key Corridors at a Glance

On the whole, Boston's streets haven't kept pace with the need for transit design and operational improvements. Systemwide, only 8% of MBTA bus stops have shelters. The City of Boston has not implemented new bus-only lanes on its streets in the last ten years.

An analysis recently conducted by CTPS identified several corridors where bus riders are a high portion of the overall people traveling on the street and are also experiencing high delays. Nearly all of these choke-points are located within the City of Boston's jurisdiction and none have been upgraded with elements of bus priority, even though many have been identified as action items through Go Boston 2030 and other planning initiatives. Regardless, most are not being actively planned by the City of Boston at this time and lack timelines for implementation. Those corridors include the following:



Source: CTPS

North Washington Street between the Route 1 off-ramp and Valenti Way:

- Bus priority is a committed part of the forthcoming reconstruction of the North Washington Street Bridge.

Massachusetts Avenue between Storrow Drive and Albany Street:

- "Massachusetts Avenue Rapid Bus" action item is included in Go Boston 2030, although no planning is actively in progress.

Washington Street between Warren Street and Melnea Cass Boulevard:

- This corridor would be partially impacted by the proposed "Improved Silver Line: Dudley to Downtown" action item included in Go Boston 2030, and some bus priority improvements are included in the Melnea Cass Boulevard Redesign and the Dudley Square Design Project.

Ruggles Street between Ruggles Station and Dudley Street at Warren Street

- Planning for the redesign of Ruggles Street could include components of bus priority.

The City of Boston has not implemented a single mile of bus-only lanes in the last ten years.

Between Warren Street at Dudley Street and Blue Hill Avenue at Geneva Avenue

- Sections of this corridor would be improved through the Dudley Square Design Project.

Blue Hill Avenue between Seaver Street and Talbot Avenue:

- This corridor would be partially impacted by the proposed "Mattapan to LMA Rapid Bus" action item included in Go Boston 2030, although no planning is actively in progress.

Between Washington Street at Forest Hills Station and Washington Street at Cummins Highway:

- Bus priority pilot currently being planned for spring 2018 through the "Forest Hills to Roslindale Square Rapid Bus" action item included in Go Boston 2030.

Huntington Avenue between South Huntington Avenue and Tremont Street

Brighton Avenue between Cambridge Street and Harvard Avenue:

- This corridor would be partially impacted by the proposed "Oak Square to Comm Ave Rapid Bus" action item included in Go Boston 2030, although no planning is actively in progress.

Several corridors where bus riders are a high portion of the overall people traveling on the street and are also experiencing high delays.

In addition to experiencing high levels of delay, several of these corridors have also seen considerable drops in ridership between 2014–2016:

Corridor	Routes impacted	Daily ridership (2016)	Percentage of total MBTA bus ridership (2016)	Changes in ridership (2014–2016)	Average bus rider percentage of motorized road users	
					AM peak	PM peak
Washington Street *(Forest Hills to Cummins Hwy)*	51, 37, 36, 35, 34, 34E, 50, 30, 40	15,167	4%	-17%	Northbound: 58.4% Southbound: 46.1%	Northbound: 32.4% Southbound: 59.8%
Warren Street *(Dudley Street to Blue Hill Avenue)*	7, 14, 19, 22, 23, 28, 29, 45	42,356	11%	-5%	Northbound: 45.9% Southbound: 39.1%	Northbound: 32.3% Southbound: 44.7%
Mass Ave *(Storrow Drive to Albany Street)*	1, CT1	13,232	3%	-11%	Westbound: 15.2% Eastbound: 23.0%	Westbound: 19.2% Eastbound: 15.9%
Brighton Ave *(Cambridge Street to Harvard Avenue)*	57, 57A, 66	20,900	5%	-12%	Westbound: 42.3% Eastbound: 39.6%	Westbound: 33.0% Eastbound: 29.2%

Source: CPTS / TransitCenter

POLICY RECOMMENDATIONS

Source: LivableStreets

In reviewing national best practices, existing city operations, MBTA bus performance data, and community feedback, LivableStreets has outlined the following policy recommendations to roadmap how **the City of Boston can make quick, cost-effective improvements in the next 1–4 years, and how there can be greater collaboration between Boston and its state-level partners**.

Without dedicated staffing, funding, and clear project goals, Boston will continue to see ridership decline and longer commutes for transit-dependent populations. Furthermore, the lack of publicly stated goals and benchmarks discourages public engagement and makes it difficult for riders and advocates to hold decision-makers accountable to progress.

To fund these efforts, there are several new revenue mechanisms the City of Boston could explore. For example, the City of Chicago recently adopted a 15 cent tax on rideshare trips that will directly fund improvements for public transportation. Other options include charging for residential parking permits, tapping into the parking meter fund, and developing a better strategy for pooling developments' Transportation Demand Management assets.

Without dedicated staffing, funding, and clear project goals, Boston will continue to see ridership decline and longer commutes for transit-dependent populations.

1. RECOMMENDATION: PRIORITIZE BUS UPGRADES AT THE CITY LEVEL WITH A FOCUS ON ACCOUNTABILITY AND EQUITY

Improving surface transit will not happen unless the City of Boston makes clear staffing and funding commitments with accountable target dates and objectives. Boston has already made strides to address infrastructure inequities, as exemplified by recent efforts such as Vision Zero's Neighborhood Slow Zones program and the Resilient Boston Report. Fixing the bus system through an equity framework will be critical to improving access to opportunity for communities most in need.

ACTION: The City of Boston should create a new staff position, ideally a unit comprised of several staffers, specifically tasked with carrying out upgrades to the bus system on its streets.

- This staffing capacity should serve as an intermediary among the Boston Planning and Development Agency (BPDA), Boston Transportation and Public Works departments, work closely with the MBTA and MassDOT, and serve as an extension of the Imagine Boston 2030 and Go Boston 2030 process.
- To ensure equity is a part of the outreach process, these staff position(s) should be responsible for developing new real-time engagement efforts to connect with bus riders in their communities.
- Staff position(s) should prioritize efforts benefiting low-income communities of color with high bus ridership levels.

Fixing the bus system through an equity framework will be critical to improving access to opportunity for communities most in need.

2. RECOMMENDATION: IMPROVE STREETS TO PRIORITIZE BUS TRANSIT ON HIGH RIDERSHIP CORRIDORS

According to Central Transportation Planning Staff (CTPS) and MassDOT's "Prioritization of Dedicated Bus Lanes" analysis, nearly all of the bus corridors experiencing the most delays for the greatest number of riders are on Boston streets. A progressive roll-out of pro-transit infrastructure upgrades on Boston's streets are needed to increase bus reliability and boost ridership.

ACTION:

- Implement bus-only lanes along corridors with high ridership and delay.
- Additional transit staff would work with the Transportation and Public Works Departments to implement bus priority lanes on the following corridors by 2021:

- Between North Washington Street at Route 1 off-ramp and North Washington Street at Valenti Way
- Between Massachusetts Avenue at Storrow Drive and Massachusetts Avenue at Albany Street
- Between Washington Street at Warren Street and Washington Street at Melnea Cass Boulevard
- Between Ruggles Street at Ruggles Station and Dudley Street at Warren Street
- Between Warren Street at Dudley Street and Blue Hill Avenue at Geneva Avenue
- Between Blue Hill Avenue at Seaver Street and Blue Hill Avenue at Talbot Avenue
- Between Washington Street at Forest Hills Station and Washington Street at Cummins Highway
- Between Huntington Avenue at South Huntington Avenue and Huntington Avenue at Tremont Street
- Between Brighton Avenue at Cambridge Street and Brighton Avenue at Harvard Avenue

Source: LivableStreets

- Activate transit signal priority (TSP) at choke points along corridors with high ridership and delay.
- Proposed transit staffers would work with Boston Transportation Department, Public Works Department, and MBTA to implement transit signal priority (TSP) at the following intersections by 2021:
  - Brighton Ave @ Cambridge St
  - Brighton Ave @ Harvard Ave
  - Malcolm X Blvd @ Columbus Ave
  - Ruggles St @ Tremont St
  - Malcolm X Blvd / Dudley St near Warren St
  - Warren St @ Blue Hill Ave (some funds allocated for 2018 in TIP)
  - All along Mass Ave (Melnea Cass Blvd to Charles River)
  - Washington St @ Melnea Cass Blvd
  - South Huntington Ave @ Huntington Ave
  - Huntington Ave @ Brigham Circle
- Upgrade bus stop amenities and make them accessible for all.

A progressive roll-out of pro-transit infrastructure upgrades on Boston's streets are needed to increase bus reliability and boost ridership.

- Proposed City transit staff would work with Boston Transportation Department, Public Works Department, and MBTA to ensure all bus stops with high ridership (70+ boardings per day) have a shelter and are fully accessible by 2021.
  - Adopt policy and work plan to widen sidewalks where needed to better accommodate bus shelters – prioritize pedestrian use and transit riders over vehicular traffic.
  - Improve signage at bus stops to create better system wayfinding.

3. RECOMMENDATION: EXPAND BUS SERVICE AND IMPROVE THE RIDER EXPERIENCE SYSTEMWIDE

At a time when the metropolitan area is thriving, we need to see the expansion of transit to take us where we need to go. With proper investments, bus transit offers the most affordable and by far the quickest way to move the most people in a sustainable, efficient manner.

In addition to new policies from the City of Boston, we also need to see continued engagement from state-level partners to ensure overall service improvements.

With proper investments, bus transit offers the most affordable and by far the quickest way to move the most people in a sustainable, efficient manner.

ACTION: MBTA and MassDOT work with municipalities to ensure proper service improvements and planning are completed quickly and equitably by adopting the following policies and service upgrades:

- Implementing all new bus service lines included in Go Boston 2030:
  - North Station-South Boston Waterfront
  - Mattapan to LMA
  - LMA to JFK
  - West Station corridors (Urban Ring)
- Adopt all-door boarding & fair-capping
- Explore low-income fares by 2020
- Implement overnight bus service
- Re-align inefficient routes in service planning process
- Improve signage and wayfinding to better connect bus system with other transit services
- Increases in service to the top ten most ridden bus routes

WHAT'S NEXT

Advocacy Agenda

To ensure that these policy recommendations are adopted within City Hall and on neighborhood streets, LivableStreets will continue to work with the following stakeholders over the next several year to elevate the need for bus priority to ensure access for all:

- Engage with riders and neighbors to address bus-related issues and move solutions forward. A special emphasis will be placed on real-time engagement efforts with riders at bus stops through LivableStreets' Street Ambassador program:
  - Washington Street corridor in Roslindale
  - Brighton Ave corridor in Allston
  - Warren Street and Blue HIll Ave corridor in Roxbury, Dorchester, and Mattapan
  - Mass Ave corridor in Back Bay and South End / Roxbury
- Encourage decision makers to adopt and implement policy changes.
- Work with the City of Boston and local elected officials to ensure that resources for bus improvements are included in the City's budget.
- Partner with the City of Boston on outreach, pilots, and other bus-related initiatives.
- Continue to elevate public attention on the need for bus improvements.

Source: LivableStreets

A special emphasis will be placed on real-time engagement efforts with riders at bus stops through LivableStreets' Street Ambassador program.

GET INVOLVED!

If you're interested in volunteering with LivableStreets, developing partnerships to promote bus priority, or advocating for improvements with decision-makers, reach out to info@livablestreets.info.

ACKNOWLEDGEMENTS

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