

# Summer Street *Background & Pilot Performance*

July 8, 2024



# Introduction

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## *What brings us here today?*

- Present results of data collection process for the Summer Street Pilot.
- Hear public feedback about the results of the Pilot.
- Describe next steps for the Pilot.



# Agenda

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- South Boston History Moment
- Introduction & Background
- Data Collection & Analysis
- Future Growth
- Next Steps
- Q&A Discussion





Summer Street Pilot

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# South Boston History Moment

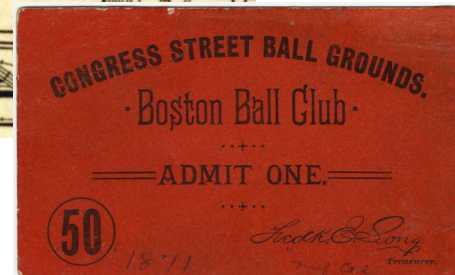
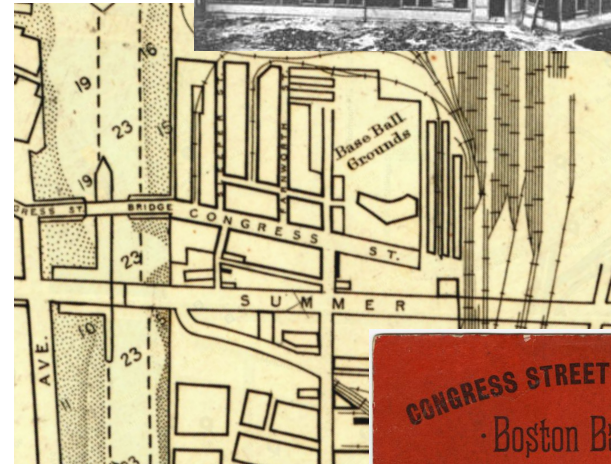




# South Boston History Moment

## Congress Street Grounds in Fort Point

- Baseball stadium that existed near Thompson Place in the 1890s, primarily for the short-lived Boston Reds baseball team.
- For a short time, it was also the home of Boston's National League baseball team known as the Boston Beaneaters - which later became the Boston Braves and now the Atlanta Braves



# Summer Street Pilot

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# Background





# Background

- The Route 7 bus experienced significant delays and crowding
- Higher concentration of severe delay than elsewhere in South Boston
- Amongst the highest areas of passenger delay across the entire city

Universal  
HUB

[Neighborhoods](#) | [Crime](#) | [The T](#) | [Development](#) | [Fire](#) | [Covid-19](#) | [Boston English](#) | [Boston Answ](#)

[Home](#) » [Boston](#) » [South Boston](#)

### Seems the 7 bus has a bit of a capacity issue

By adamg on Wed, 03/30/2022 - 9:49am

Realdavejshea joined one of the lines for the 7 bus in South Boston this morning:

# Background

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- Street was not comfortable for cyclists and pedestrians in many locations
- Traffic speeds reached more than 50 MPH in some segments and 1 in 4 cars were exceeding 40 MPH
- Congestion in key locations delays Port of Boston traffic and transit, creating poor reliability and overcrowding in peak periods





# Background

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## 2017

- **Go Boston 2030** recommends bike lanes on Summer Street
- **MassPort convenes a meeting with MassDOT, Mass. Convention Center Authority, City of Boston, and consultants** to discuss bus rapid transit options for South Boston with the group determining that a bus/truck lane on Summer Street should be studied.



## 2018 - 2020

- Design concepts for Summer Street bus/bike/truck lanes explored by MBTA, BPDA, and BTD in collaboration with stakeholders

## 2021 - 2022

- **Pilot explored in Seaport Transit Plan** public and stakeholder meetings
- **MassDOT awards grant** to City of Boston for Summer Street Pilot to implement bus/truck lanes

## 2023

- **BTD begins public engagement**, including office hours, open houses, flyering, and civic association meetings

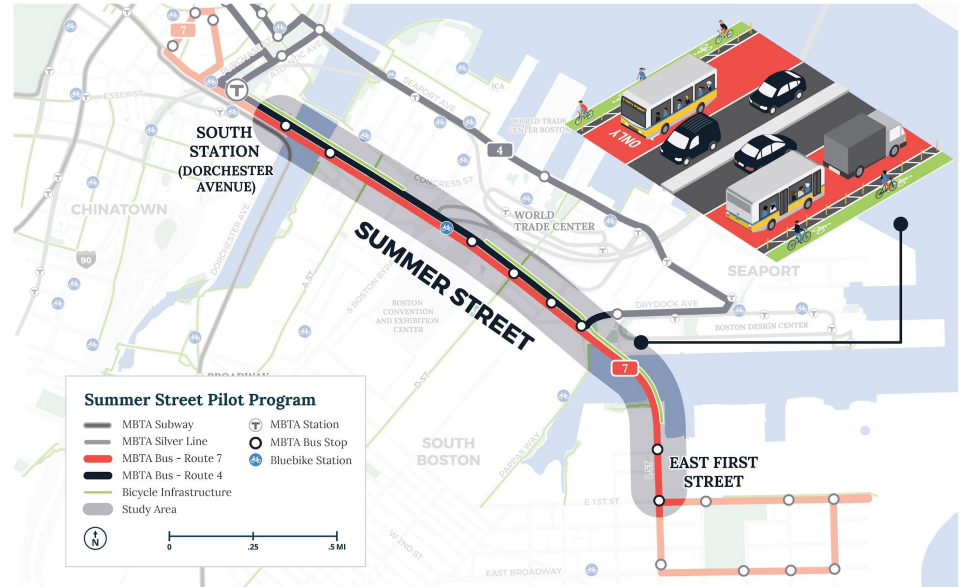
# Background



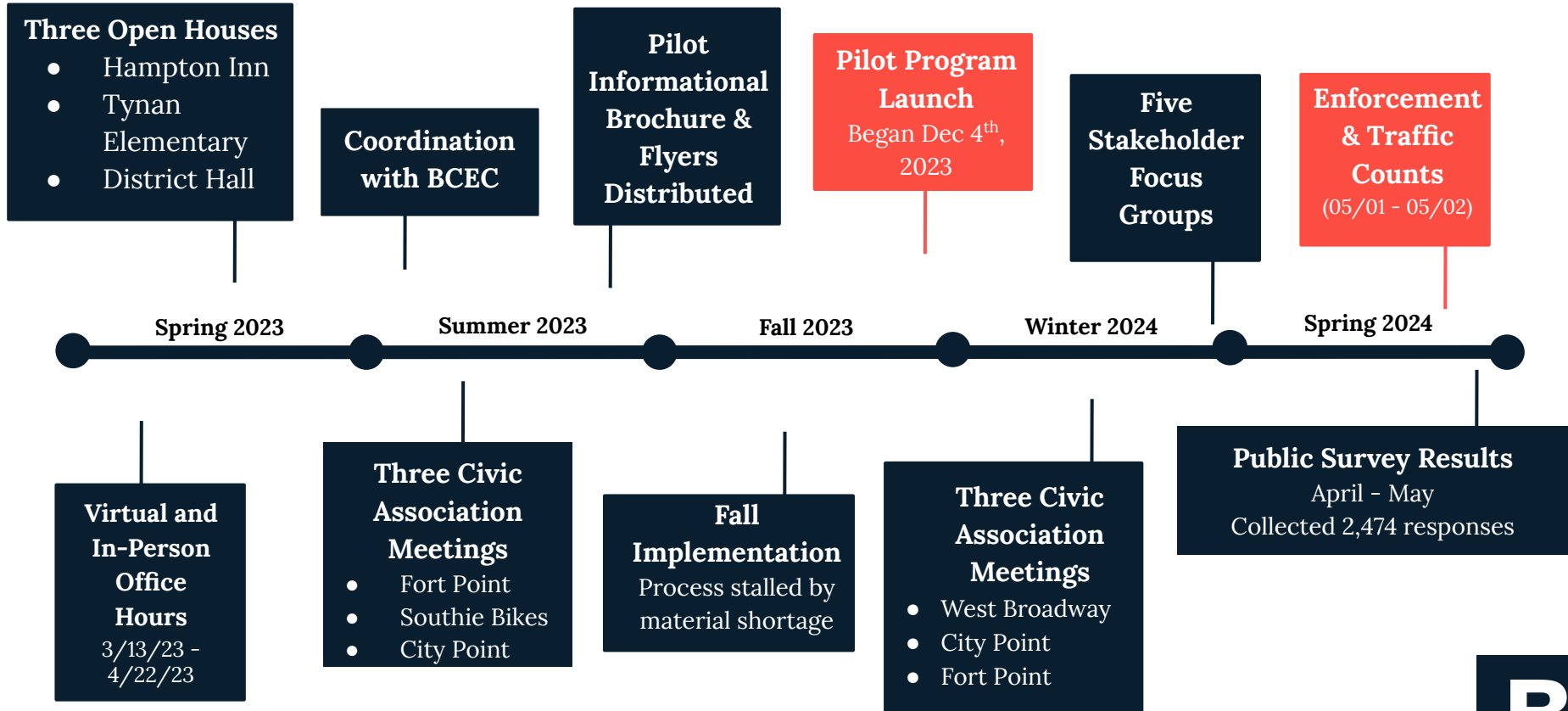


# Background: Pilot Goals

- **Enable Sustainable Mobility** *with a focus on better conditions for buses and bikes*
- **Improve Safety for Bikes and Pedestrians** *with a focus on improved infrastructure*
- **Accommodate Economic Activity** *with improved Port/Maritime access and mobility options for people who live and work here.*



# Background: Engagement Timeline



Summer Street Pilot

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# Data Collection



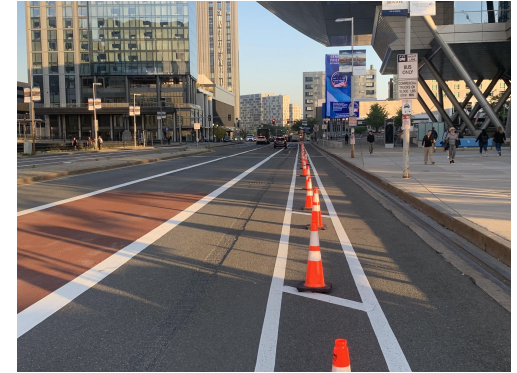


# Data Collection

## *What data have we been collecting?*

- Traffic
- Transit
- Bikes
- Field Observations
- Feedback - Agency, Stakeholder, and Public

Data reports, recordings, readouts, and other source material on the [BTD website](#).



# Summer Street Pilot

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# Data Analysis



# Data Analysis: Summary of Findings

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## Improvements to bike and pedestrian safety

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- \* *Slower vehicle speeds*
- \* *Higher bicycle activity*



## Some travel time increases for motorists

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- \* *Average peak vehicle travel time increase of 40-90 seconds*
- \* *Key intersections slowing bus trips*



## Challenges with compliance with bus/truck lane

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- \* *Majority of pilot lane traffic volume is unauthorized vehicles*
- \* *Greater enforcement needed*



## Inconclusive effect on MBTA bus operations

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- \* *Seasonal fluctuations in ridership, runtime, and congestion obscure new patterns*
- \* *Limited bus service prior to Bus Network Redesign*



Summer Street Pilot

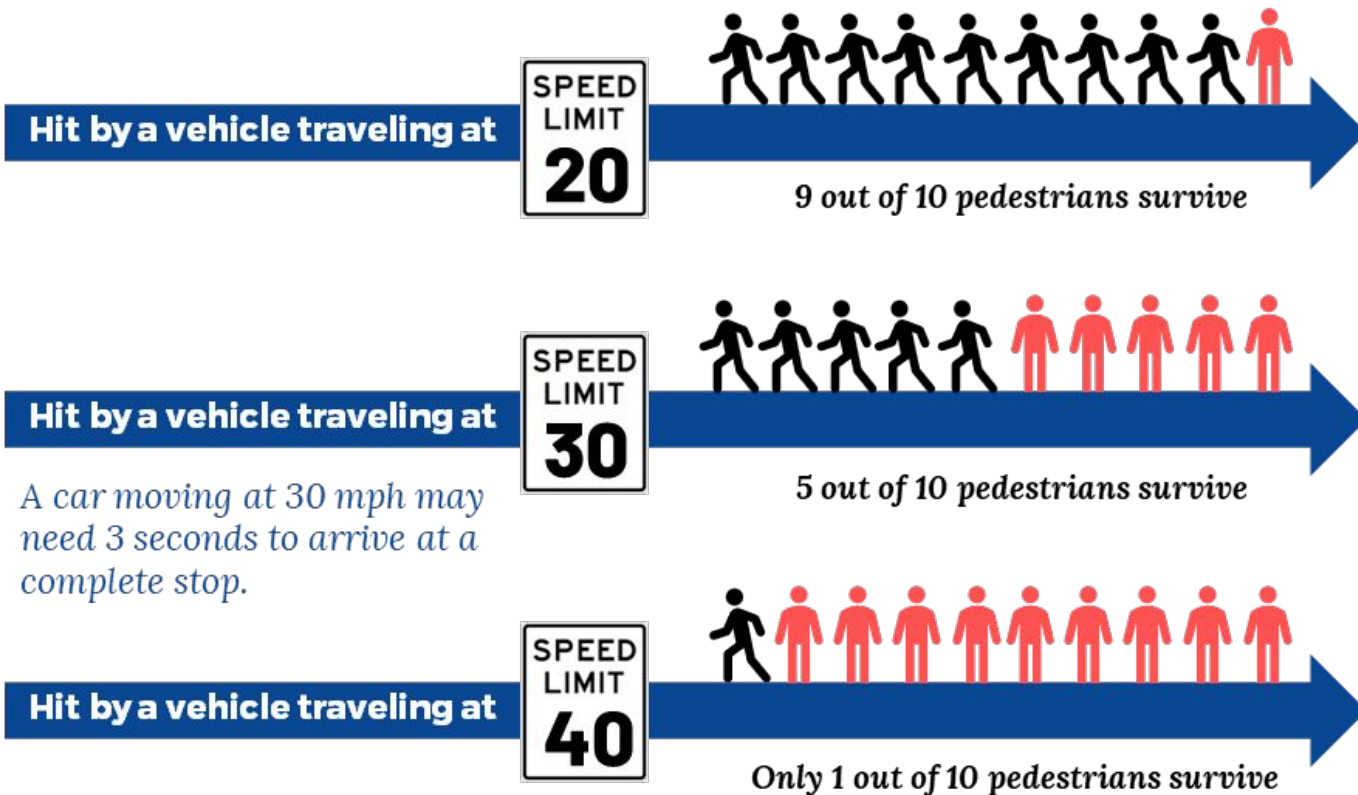
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# Data Analysis: Speeding

A blue-tinted photograph of a city street. On the left, a concrete walkway with a metal grate drain is visible. A few people are walking on the sidewalk. The road in the center has white lane markings and a series of orange traffic cones. A silver car is parked on the right side of the road. In the background, there are several tall city buildings under a clear sky.

# Data Analysis: Speeding

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## Data Analysis: Speeding

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**Before the Pilot, about 1 in 4 vehicles traveled over 40 MPH.**



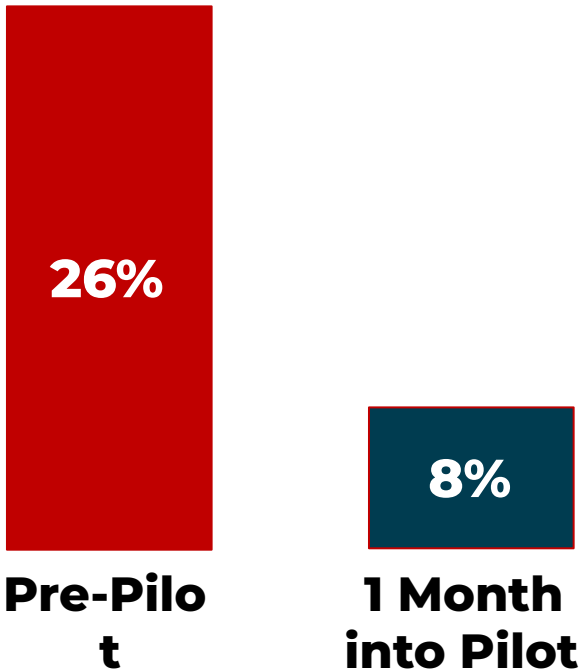
**Pre-Pilo  
t**



## Data Analysis: Speeding

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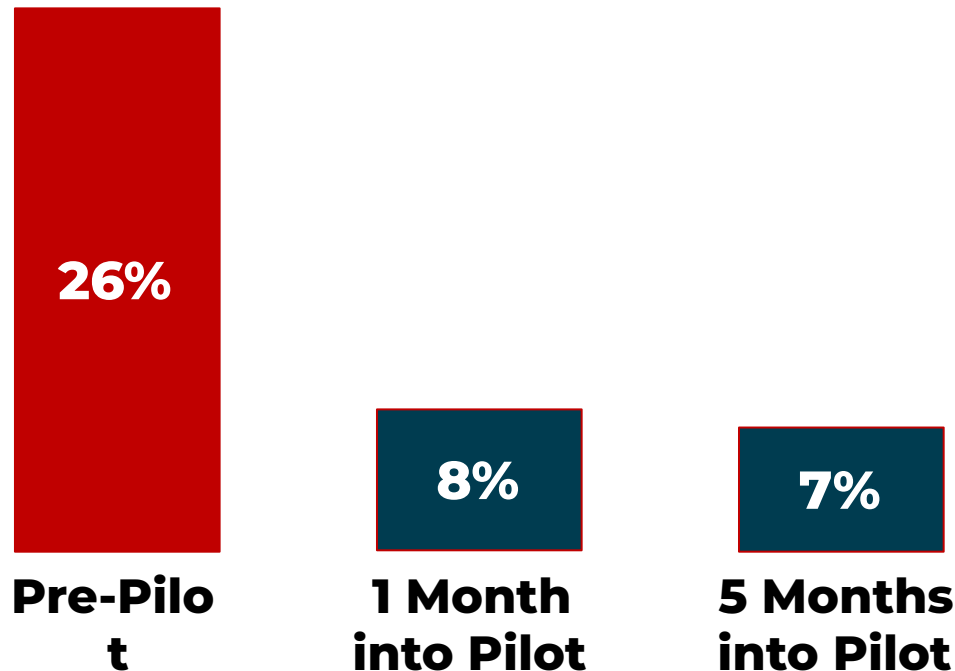
One month into the Pilot, the percent of vehicles traveling over 40 MPH dropped to 8%.



## Data Analysis: Speeding

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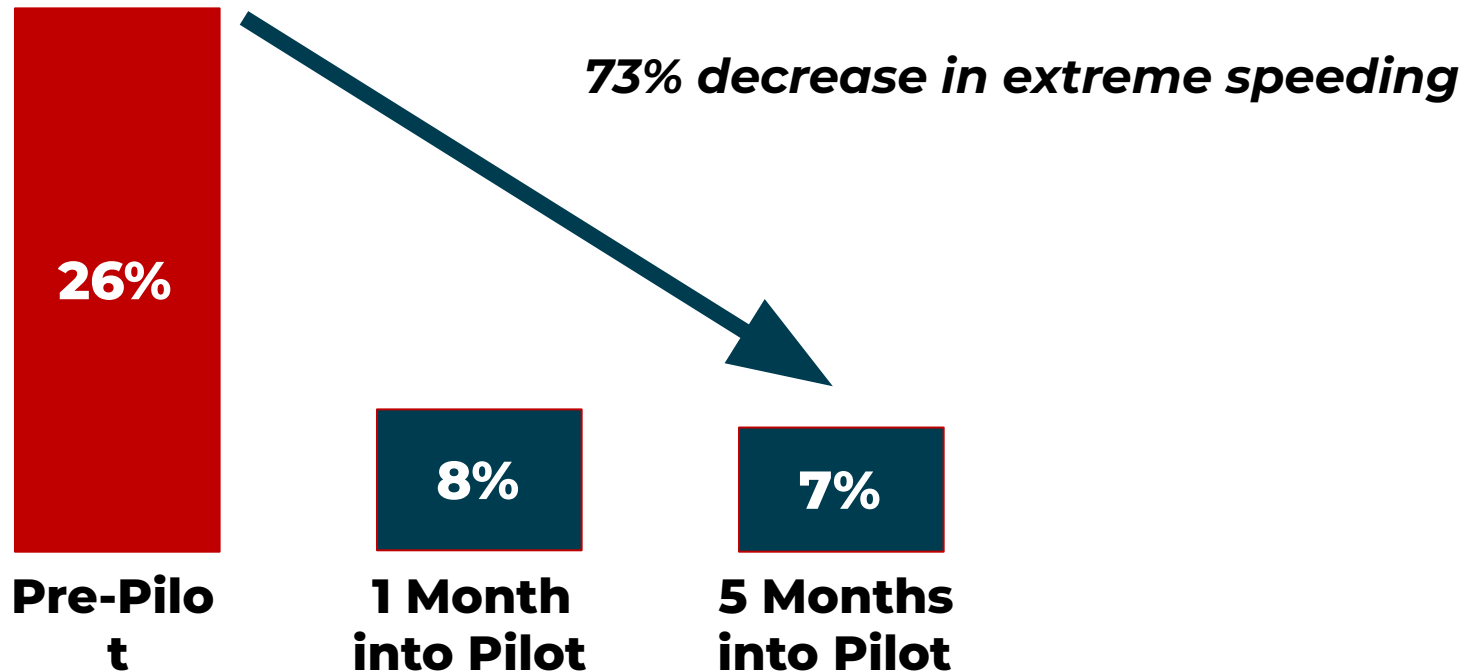
By month 5 of the Pilot, the percentage of vehicles traveling over 40 MPH remained lower than before the Pilot.



## Data Analysis: Speeding

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By month 5 of the Pilot, the percentage of vehicles traveling over 40 MPH remained lower than before the Pilot.





Summer Street Pilot

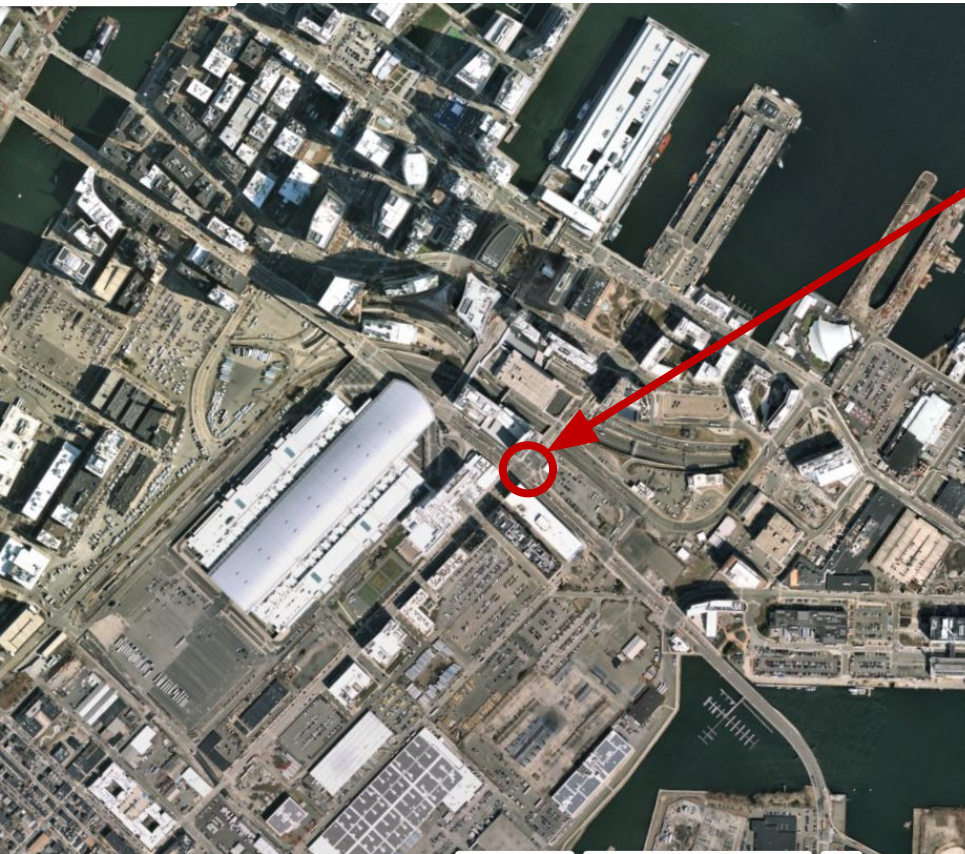
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# Data Analysis: Bikes



# Data Analysis: Bikes

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**January Bike Data  
Summer @ D Street**

**88  
Bikes**

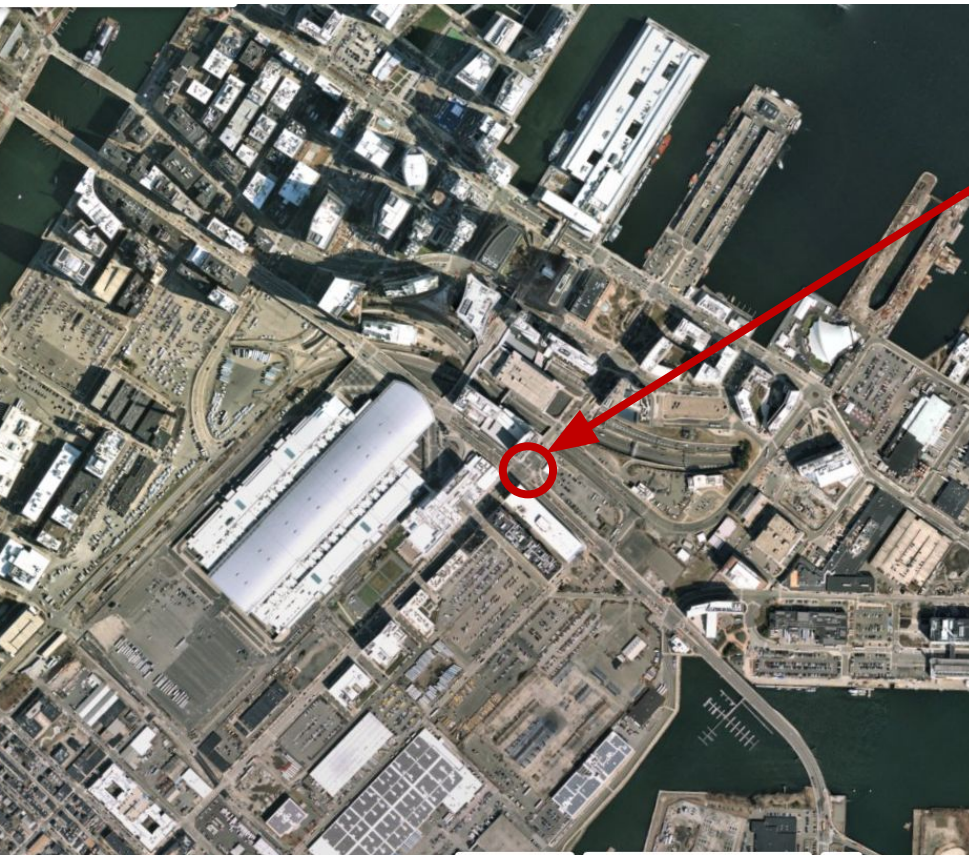
**2023  
46°, Partly  
Cloudy**



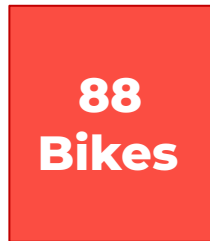


# Data Analysis: Bikes

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**January Bike Data  
Summer @ D Street**



**2023**  
**46°, Partly  
Cloudy**



**2024**  
**50°, Partly  
Cloudy**

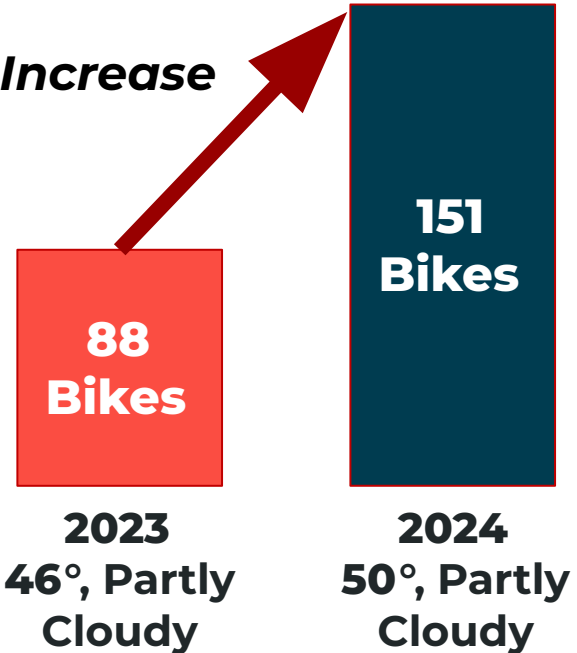


# Data Analysis: Bikes



## January Bike Data Summer @ D Street

**71% Increase**





## Data Analysis: Bikes

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Bluebike usage has increased system wide since 2023.

**Stations near Summer Street had a stronger ridership growth than stations in the rest of the system.**

- *SB Library and Lawn on D were among the stations near Summer Street that saw the highest increases.*
- *On an average Wednesday and Thursday in April 2024, all the Bluebikes at SB Library had been checked out by 9AM.*

### April 2023 to April 2024 Ridership Growth Rate



# Data Analysis: Bikes

“Since the change, there is more **separation**, and I find drivers giving me more space, especially since I have officially **designated space.**”

-Survey respondent,  
Summer Street commuter

Having a protected bike lane is **crucial to my ability to ride along this route.** I feel much safer.

-Survey respondent,  
Summer Street commuter

**Riders report feeling more comfortable and safe**



## Summer Street Pilot

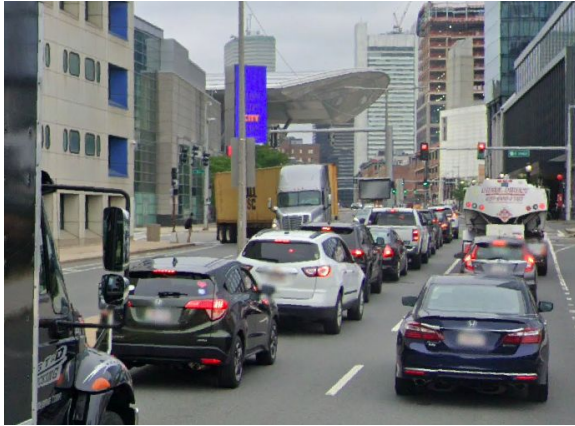
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# Data Analysis: Traffic





# Data Analysis: Traffic



**Before the Pilot**

Persistent congestion during rush hours and major events



Off peak, wide lanes encouraged driving at high speeds creating an unsafe and uncomfortable environment for all road users





# Data Analysis: Traffic

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**Total vehicle counts have remained consistent but showed some seasonal variation.**

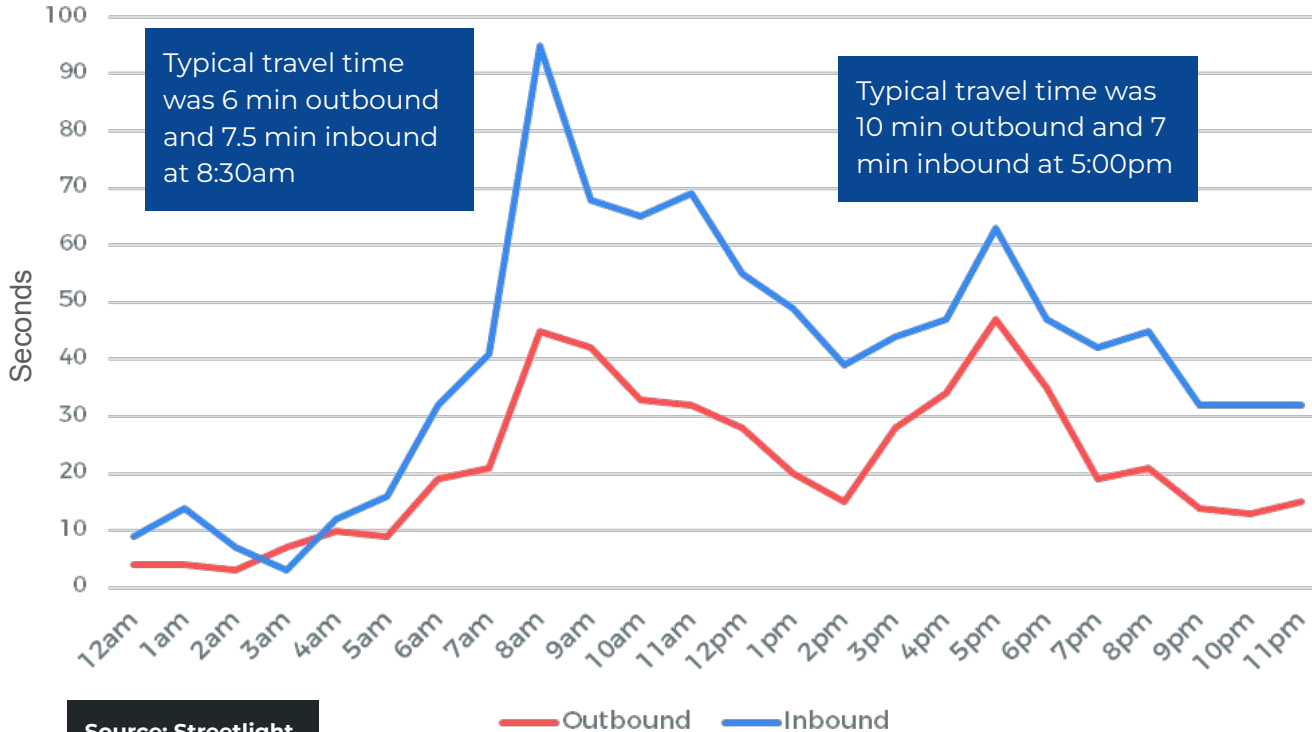
- January 2023: 17,500 vehicles
- October 2023: 20,000 vehicles
- Jan 2024: 17,800 vehicles

Truck volumes have remained consistent though truck traffic has slightly shifted to PM.



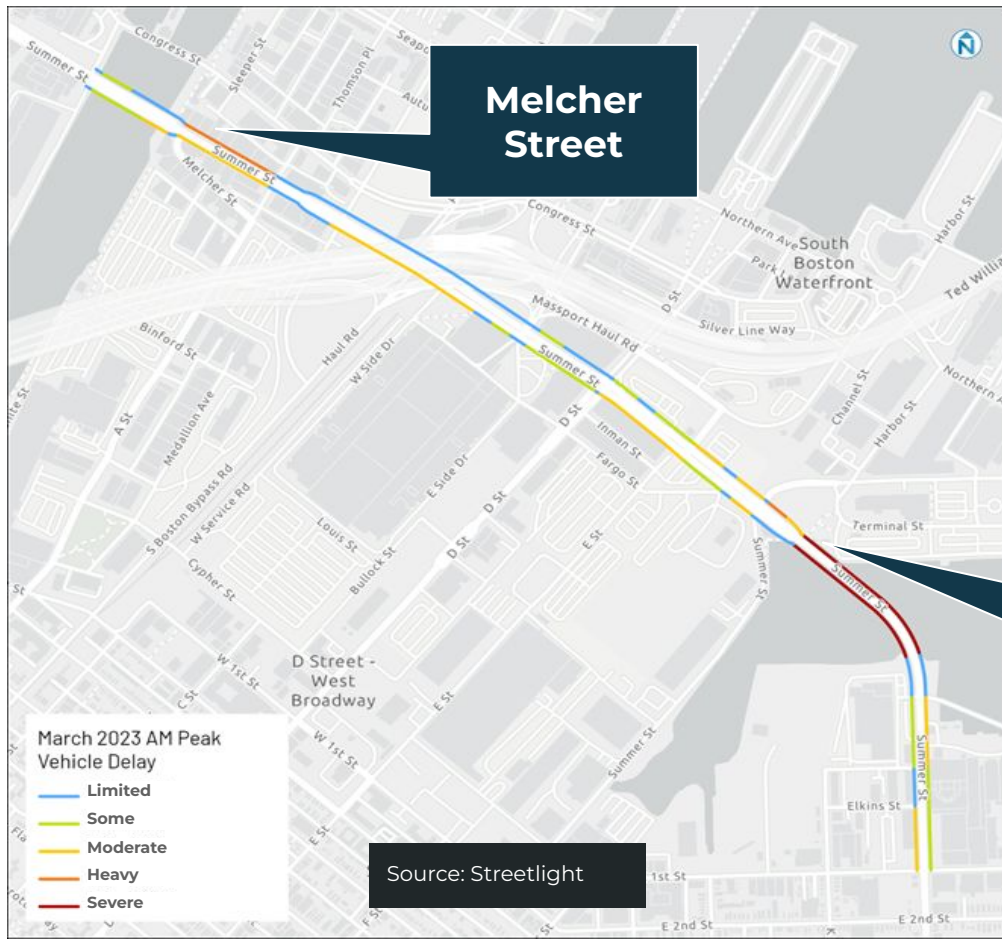
# Data Analysis: Traffic

## Change in Trip Times March 2023 to March 2024



**Average peak travel times increased by less than two minutes for a trip from East 1st Street to Dorchester Ave near South Station.**

# Data Analysis: Traffic



## AM Peak Traffic before the Pilot

Severe delay was frequently present in key locations during the AM Peak in March 2023.

Reserve Channel Bridge & Drydock Ave

# Data Analysis: Traffic



## AM Peak Traffic during the Pilot

Delay increased in three locations while maintaining steady at other points.

**Drydock Ave to Pumphouse Rd**



# Data Analysis: Traffic

## Most drivers expressed frustration with new roadway configurations

“Bus lane causes high levels of traffic and **makes the commute to our daycare a lot more difficult**. If someone is turning left, they basically hold up the entirety of the now single-lane road.”

- Survey respondent, South Boston resident

**Accessing and exiting the garage is now a challenge**, especially during peak periods, while Cypher St is closed.

-BCEC Employees



Summer Street Pilot

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# Data Analysis: Transit

A blue-tinted photograph of a city street, likely in New York City, showing a transit lane. The street is lined with tall buildings. In the foreground, there are concrete barriers on the left and orange traffic cones along the edge of the transit lane. A person is walking on the sidewalk to the left, and a car is visible in the distance on the right. The text "Data Analysis: Transit" is overlaid in large white letters across the center of the image.



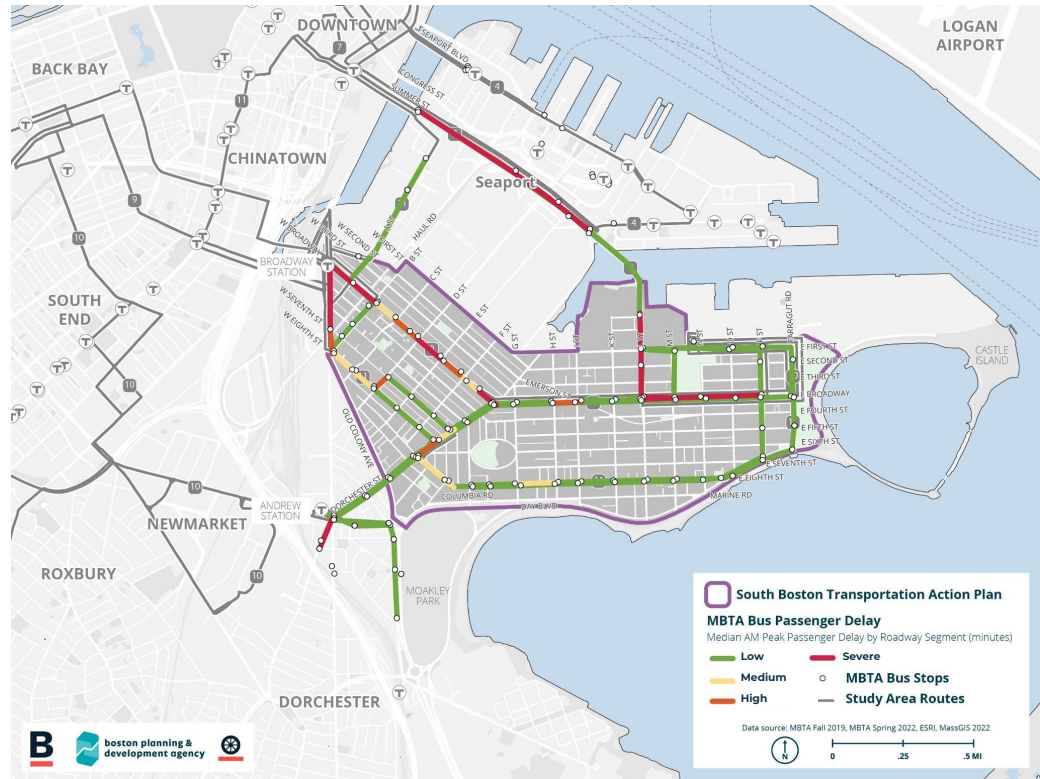
# Data Analysis: Transit

**Historically, there was a concentration of transit passenger delay across Summer St during the AM Peak.**

380 buses operate in both directions all day on Summer St

Of those, ~140 are MBTA vehicles in service (not including the Route 11)

Other buses are private shuttles and out of service vehicles



# Data Analysis: Transit

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## Inconclusive bus operations improvement

*Inbound travel times match pre-pilot conditions, with some improvement in the PM Peak. Outbound travel times are faster in midday.*

## Riders and bus drivers recognize non-compliance

*Vehicles consistently violating the lane restrictions inhibit the potential for buses to operate without delay.*

## Key congested segments are slowing buses too

*Reliability has overall gotten slightly better for outbound trips and slightly worse for inbound trips. Delay leading to BCEC outbound is worse. Delay inbound near Drydock Ave is worse.*

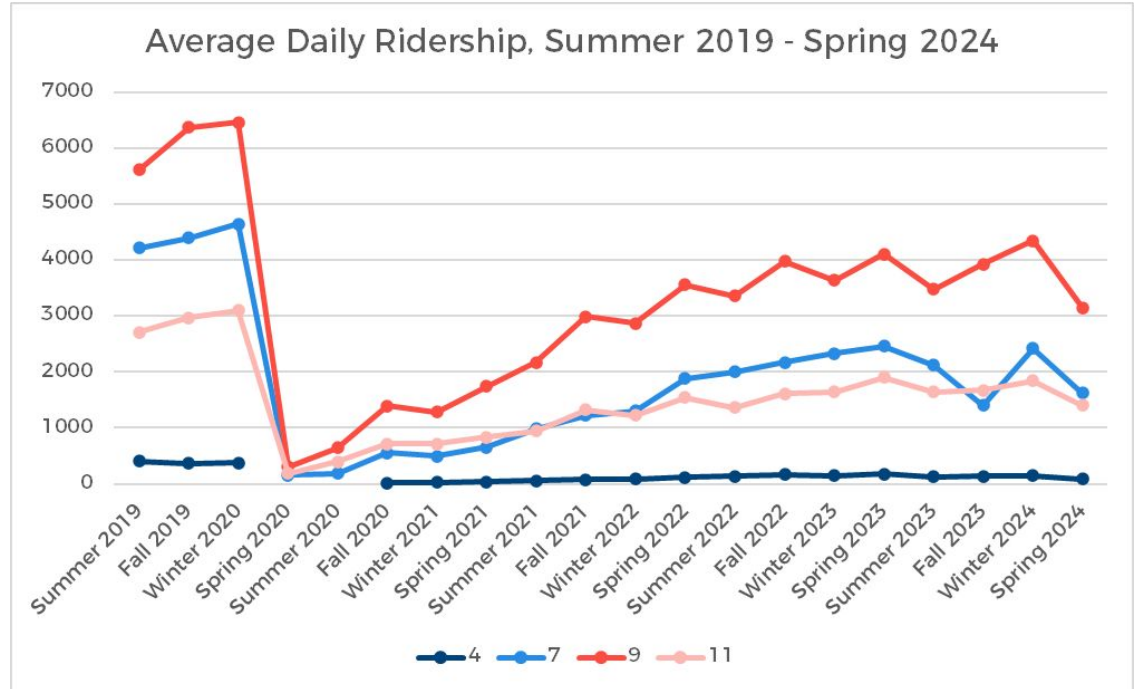


# Data Analysis: Transit

**Route 7, 9 and 11 ridership fluctuates seasonally over the past 3 years following a big dip during the pandemic.**

**Seasonal fluctuations have grown larger over time for Route 7 and Route 9.**

**All four routes saw a decrease in ridership between Winter and Spring 2024.**



# Data Analysis: Transit

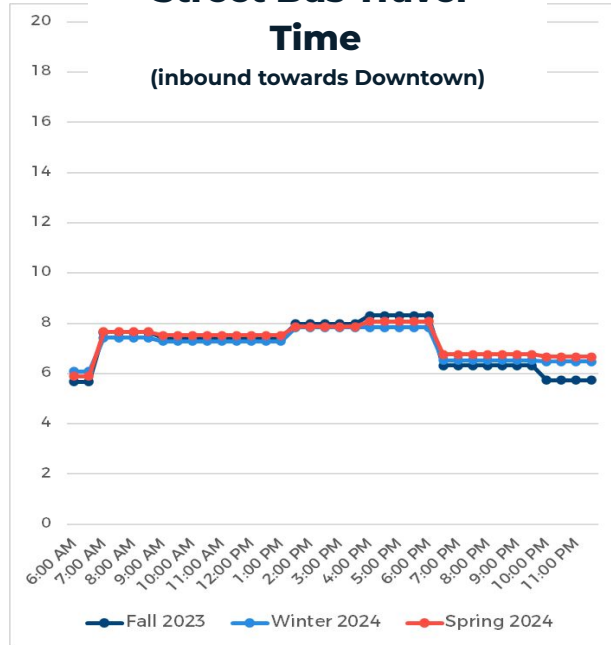
The pilot bus lane has had limited impact on bus trip times.

Typical inbound travel times along the corridor range from 6-8 minutes. Trip times are the least reliable during the AM Peak, and the slowest trips can take up to 16 minutes.

- PM peak trips have improved slightly since Fall 2023 (15-30 seconds)
- The worst 10% of Midday trips were over a minute faster in Winter 2024 compared to Fall 2023 and Spring 2024

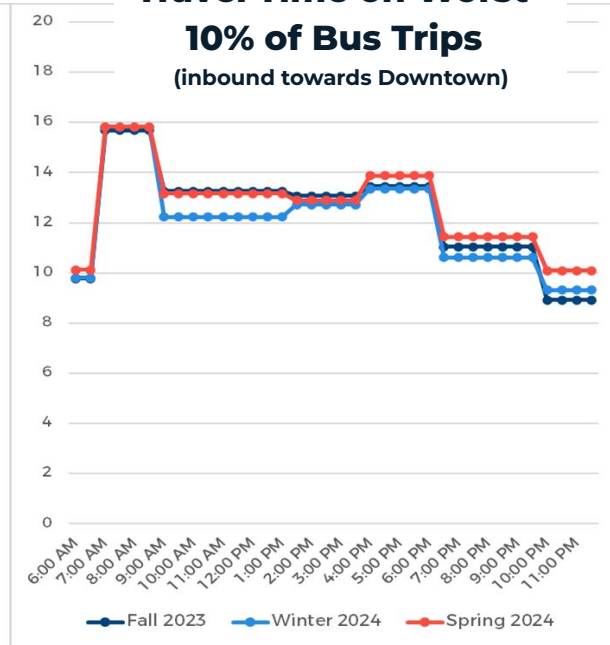
## Typical Summer Street Bus Travel Time

(inbound towards Downtown)



## Summer Street Travel Time on Worst 10% of Bus Trips

(inbound towards Downtown)



Summer Street Pilot

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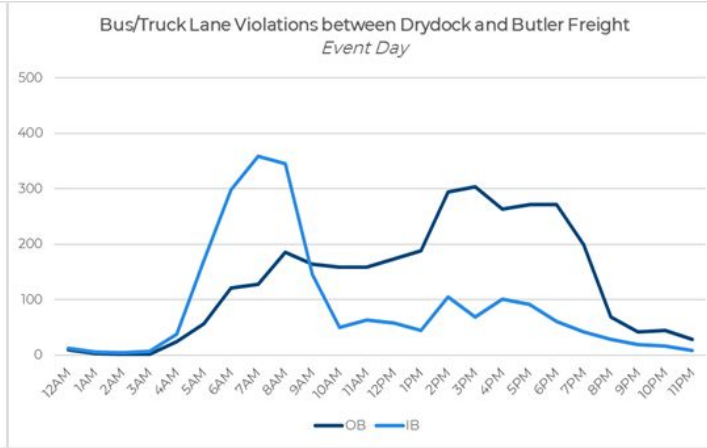
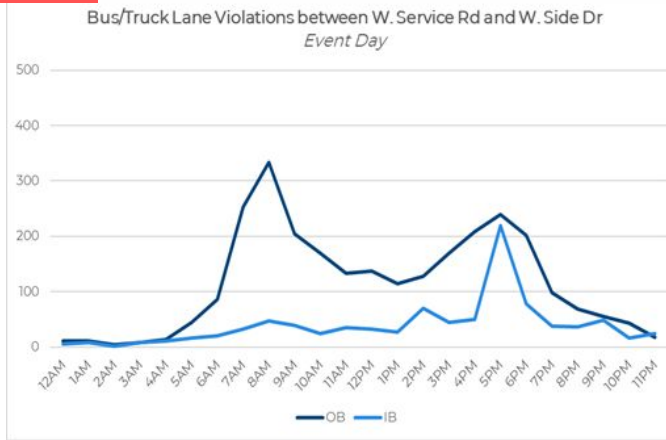
# Data Analysis: Challenges





# Data Analysis: Challenges

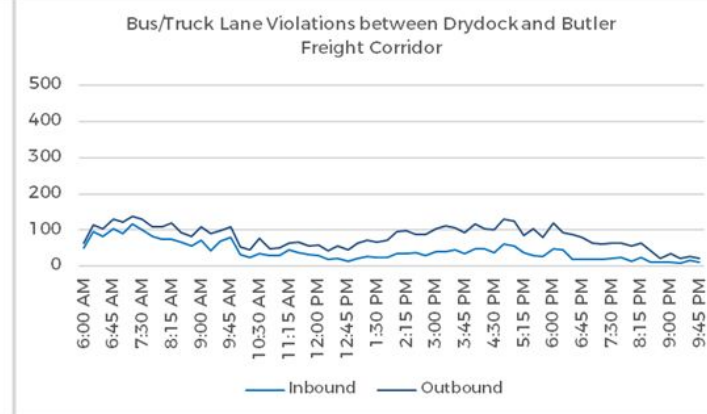
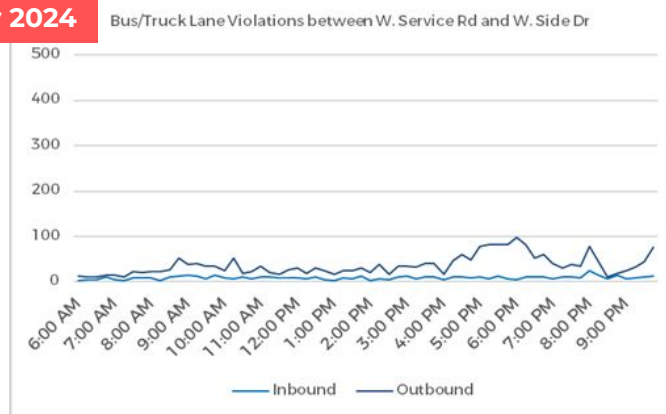
Jan 2024



“What bus lanes? They’d would work much better if there weren’t people blocking them.”

- MBTA Bus Operator

May 2024



Despite a decrease in lane violations with enforcement in May, more than 85% of outbound pilot lane traffic in AM and PM are unauthorized vehicles.



# Data Analysis: Challenges

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**Based on feedback from community stakeholders, the City adjusted some pilot design components in the last few months**

- BCEC striping requests
- MassPort striping requests
- Adaptive signals
- Additional signage
- Increased days of enforcement
  - 56 citations and multiple verbal warnings

“Inconsistent signage at Summer & Drydock intersection. **Signage painted on the road doesn’t match up or align with overhead signage.**”

*- Survey respondent, South Boston resident*



Summer Street Pilot

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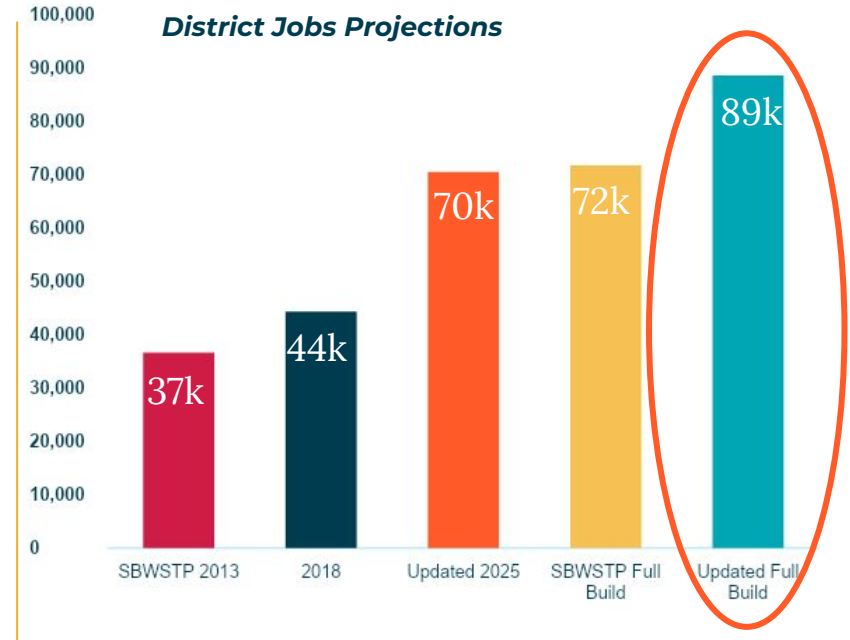
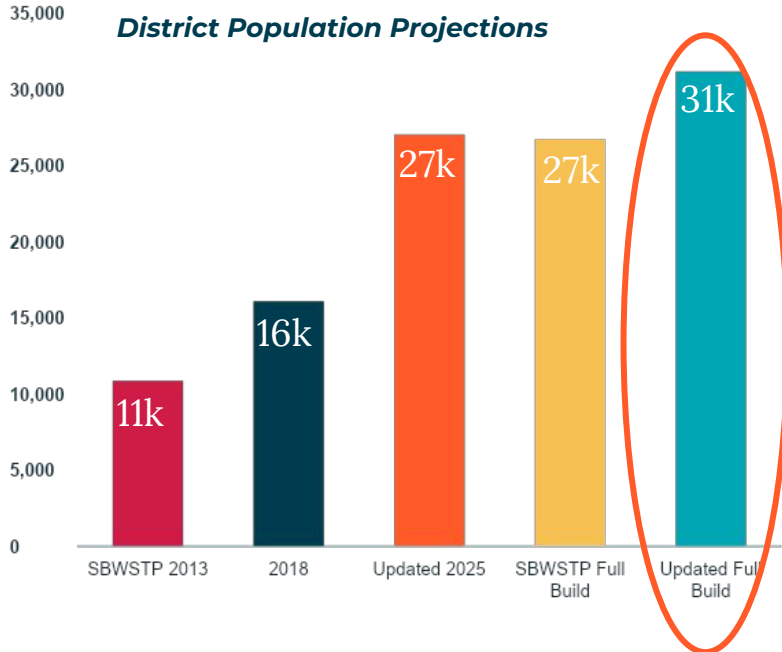
# Future Growth & Implications for Summer Street





# Future Growth

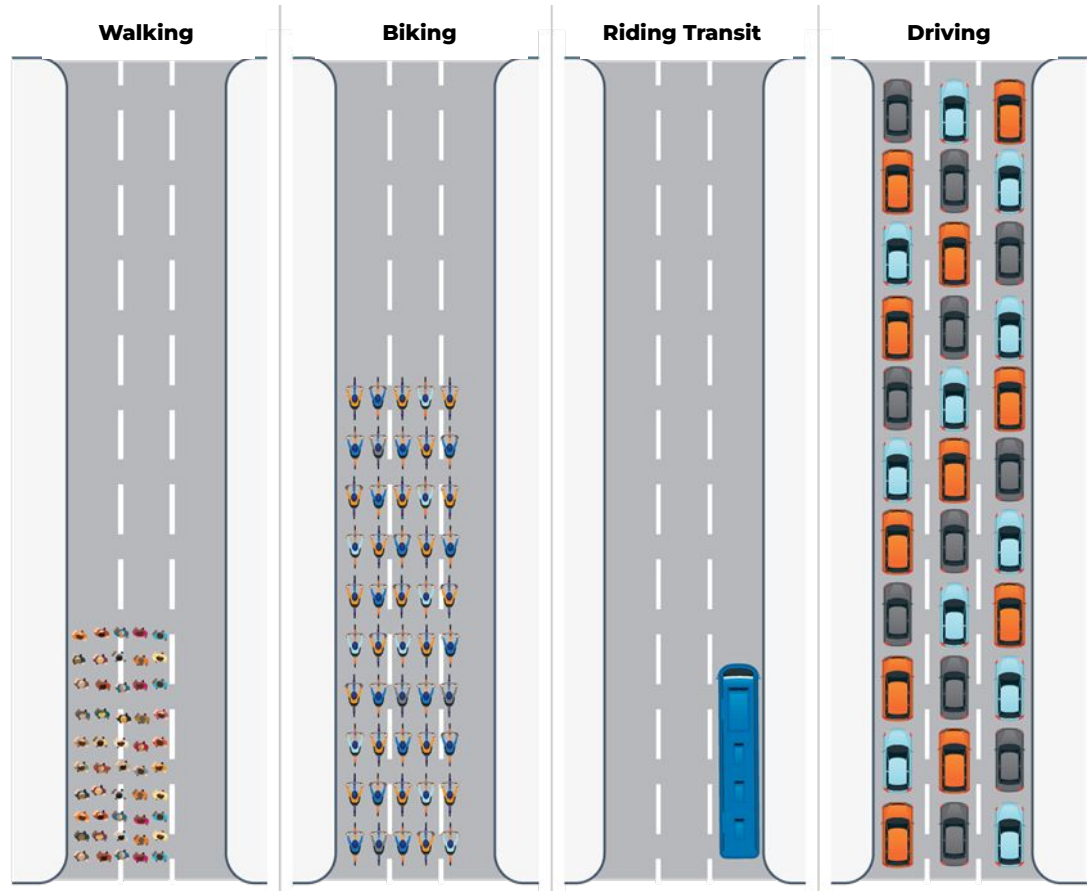
By 2030, the South Boston Waterfront will have roughly 31,000 residents and 89,000 jobs, putting pressure on the transportation network. This population is equivalent to Hyde Park and larger than Allston, Roslindale, Back Bay, or Mattapan. The amount of employment is second-only to Downtown and more than the Back Bay.



# Future Growth

We only have so much available space on our roads - and transit, biking, and walking use this space more efficiently than cars.

50 people traveling on different modes



# Future Growth

**Bus Network Redesign** proposes a high frequency route from Sullivan Square to City Point. The new T7 will require bus priority along much of its route to remain reliable given congestion in Downtown and Seaport.

We are also working on a North Station to Seaport Rapid Bus design in coordination with the MBTA.



Every 15 min or less.  
5 AM - 1 AM  
7 days a week





# Future Growth

Bus lanes are **quicker and cheaper to install** than rail, and can be altered significantly easier.

Bus lane design and installation costs \$1 million per mile for a red paint/sign program and up to \$20 million/mile for center running bus lanes. The 2022 Green Line Extension cost \$500 million per mile.

Between now and 2030, there are limited options for additional infrastructure in the Seaport to accommodate anticipated growth.



# Summer Street Pilot

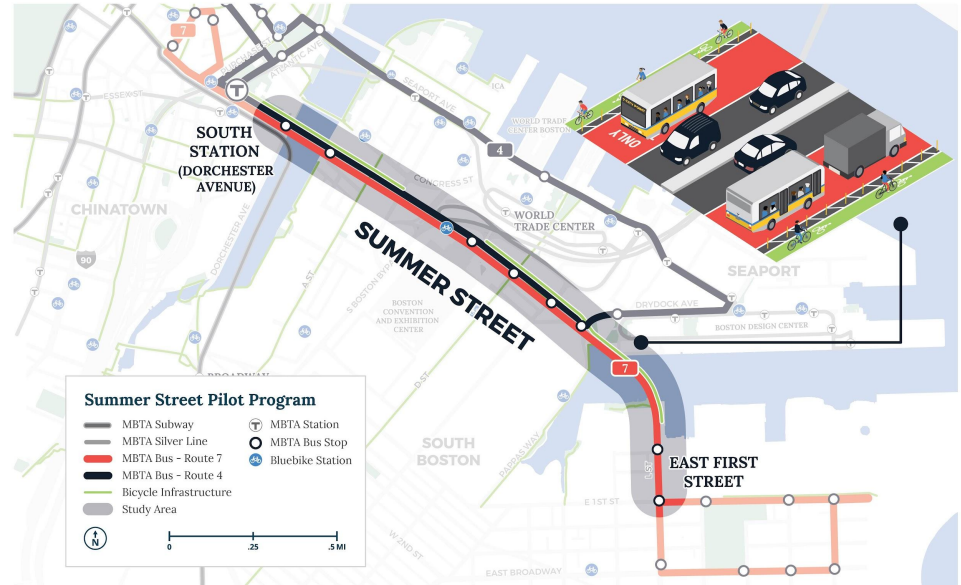
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## Summary



# Review: Pilot Goals

- **Enable Sustainable Mobility** *with a focus on better conditions for buses and bikes*
- **Improve Safety for Bikes and Pedestrians** *with a focus on improved infrastructure*
- **Accommodate Economic Activity** *with improved Port/Maritime access and mobility options for people who live and work here.*





# Summary of Findings

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## Enable Sustainable Mobility

### Bikes

- There was a 71% increase in the number of bicycles on Summer Street from January 2023 to January 2024
- Bluebike stations near Summer Street experienced a higher ridership growth (+39%) compared to the system-wide growth rate (+20%).

### Bus

- Mixed results on bus trip times and reliability due to the pilot conditions and lack of enforcement.
- Showed potential to support future Bus Network Redesign
- Future population/employment growth require transit enhancements in the Seaport.
- Bus transportation the only feasible option for near-term transit enhancements

# Summary of Findings

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## Improve Safety for Bikes & Pedestrians

### Speeding

- Notable reduction in speeding along Summer Street:
  - Before the pilot, approximately 26% of vehicles were recorded traveling over 40 MPH.
  - Decreased to 7% after five months, indicating a sustained improvement in driving behavior and enhanced safety for all road users.

# Summary of Findings

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## Accommodate Economic Activity

### Commuting

- Dedicated bus lanes and enhanced biking facilities provided safer, more reliable and efficient transportation options for people to commute to work and navigate the area without relying on cars.

### Port Access

- While truck traffic experienced slight travel time increases due to the new infrastructure, it benefited from a safer street environment and improved separation from bikes.



# Summer Street Pilot

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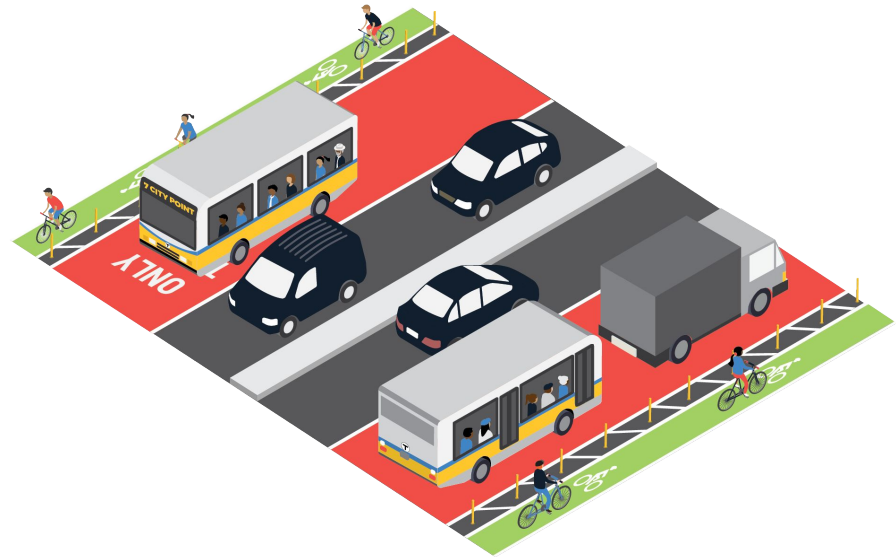
## Next Steps



# Next Steps

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1. Hear Public Feedback
  - a. Fort Point Meeting on 6/11
  - b. Virtual Meeting on 6/14
  - c. City Point Meeting on 7/8
  - d. Email -  
[Transit@Boston.Gov](mailto:Transit@Boston.Gov)
2. Coordinate with Partner Agencies & Stakeholders on Results
3. Announce Final Pilot Determination in late Summer





Summer Street Pilot

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# Questions & Discussion





# Data Analysis: Summary of Findings

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## Improvements to bike and pedestrian safety

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- \* *Slower vehicle speeds*
- \* *Higher bicycle activity*



## Some travel time increases for motorists

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- \* *Average peak vehicle travel time increase of 40-90 seconds*
- \* *Key intersections slowing bus trips*



## Challenges with compliance with bus/truck lane

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- \* *Majority of pilot lane traffic volume is unauthorized vehicles*
- \* *Greater enforcement needed*



## Inconclusive effect on MBTA bus operations

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- \* *Seasonal fluctuations in ridership, runtime, and congestion obscure new patterns*
- \* *Limited bus service prior to Bus Network Redesign*

# THANK YOU



# Summer Street Pilot

*Appendix Slides*





Summer Street Pilot

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# Appendix: Implementation & Background



# Summer Street Pilot: Key Pilot Partners

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- **BTD-Led**
- **MassDOT**
  - Grant awarded by Shared Streets Program
- **MBTA Design Review**
- **Coordination**
  - MassPort on design and industry needs
  - BCEC
  - Seaport TMA
- Neighborhood Partners in Fort Point, Seaport, and South Boston Neighborhood





# Summer Street Pilot: Pilot Goals

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## Durable but Easily Changeable Materials for Pilot

- *Painted Lanes & Pavement Markings*
- *Signage*
- *Flex Posts*
- *Minor Changes to Traffic Lights*





# Summer Street Pilot: Roadway Changes for the Pilot



# Summer Street Pilot: Other Transportation Planning Efforts

## North Station to Seaport Multimodal Corridor

- Concept Planning

## South Boston Transportation Action Plan

- Kicked-Off Spring 2022
- Focus on core residential neighborhood

## PLAN South Boston Dorchester Avenue (2016)

- August 2021 Completed Transportation Plan





# Appendix: Data Collection



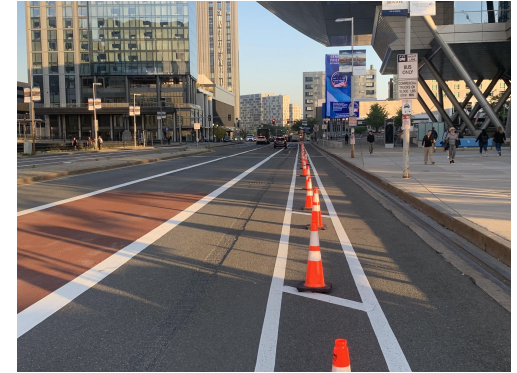


# Data Collection

## *What data have we been collecting?*

- Traffic
- Transit
- Bikes
- Field Observations
- Feedback - Agency, Stakeholder, and Public

In the coming weeks, we will post data reports and readouts to the [BTD website](#).



# Data Collection: Traffic

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## *What traffic data did we collect?*

- **Traffic Intersection Counts** - during event and non-event days at BCEC
  - January 2023
  - October 2023
  - January 2024
  - May 2024
  
- **Commercially Available GPS Data**
  - TomTom
  - Streetlight
  - Google Maps
  - Inrix



# Data Collection: Traffic

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## *What does this traffic data tell us?*

- Delay at Specific Intersections
- Trip Times by Vehicles
- Vehicle Counts & Speed
- Origin/Destination
- Lane Violations
- Changes over the course of a day
  - AM Peak, PM Peak, Mid-Day
- Changes over time - weeks, months, and years
- Seasonal variations





# Data Collection: Transit

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## *What transit data did we collect?*

- MBTA Bus Data
- Korboto - commercially available bus performance data

## *What does this transit data tell us?*

- Bus speed, Trip times, Reliability, Ridership
- Changes over time and seasonal variations

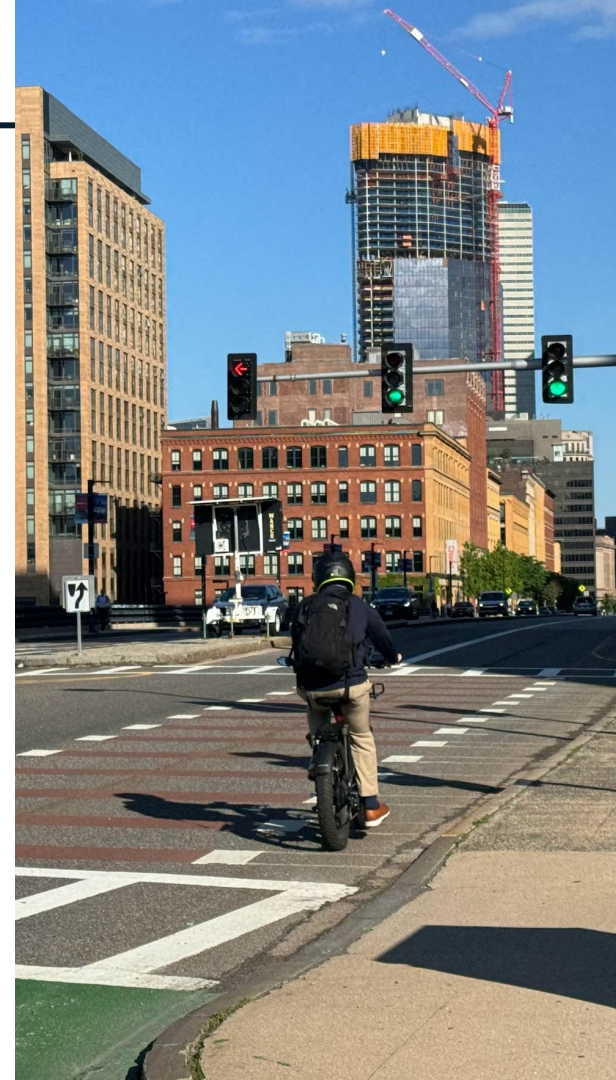


# Data Collection: Bikes

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## *What bike data did we collect?*

- **Bike Counts** - during event and non-event days at BCEC
  - January 2023
  - October 2023
  - January 2024
  - May 2024
- **City of Boston Bike Counts from 2019 to 2023**
- **BlueBike Usage**

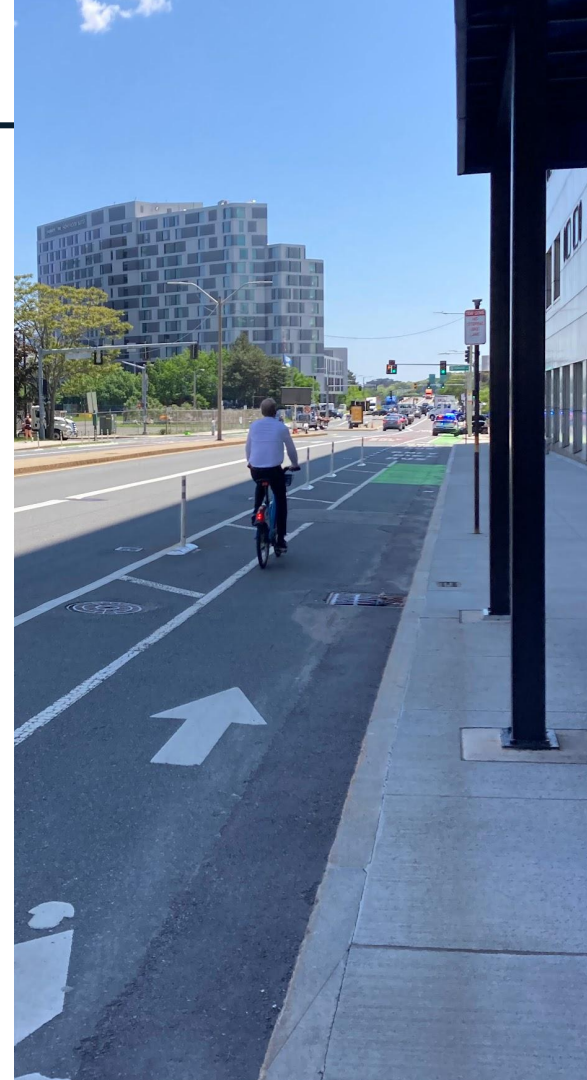


# Data Collection: Bikes

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## *What does this bike data tell us?*

- Usage bikes on Summer Street
- Usage of bikes on Summer Street compared with other parts of Boston
- Changes in bike usage during specific times of the day
- Changes in bike usage over time
- Changes in bike usage seasonally





# Data Collection: Field Observations

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## ***What are field observations?***

- Visits to Summer Street by City of Boston staff, engineering team staff, and stakeholders.

## ***Why do field observations?***

- To assess the overall condition of the Summer Street Pilot or observe a condition in a specific location.

## ***How many of these were done during the Pilot?***

- Over 30 field visits were conducted during the Summer Street Pilot - including during AM Peak, PM Peak, midday, and during major BCEC events (e.g. PAX).

# Data Collection: Feedback

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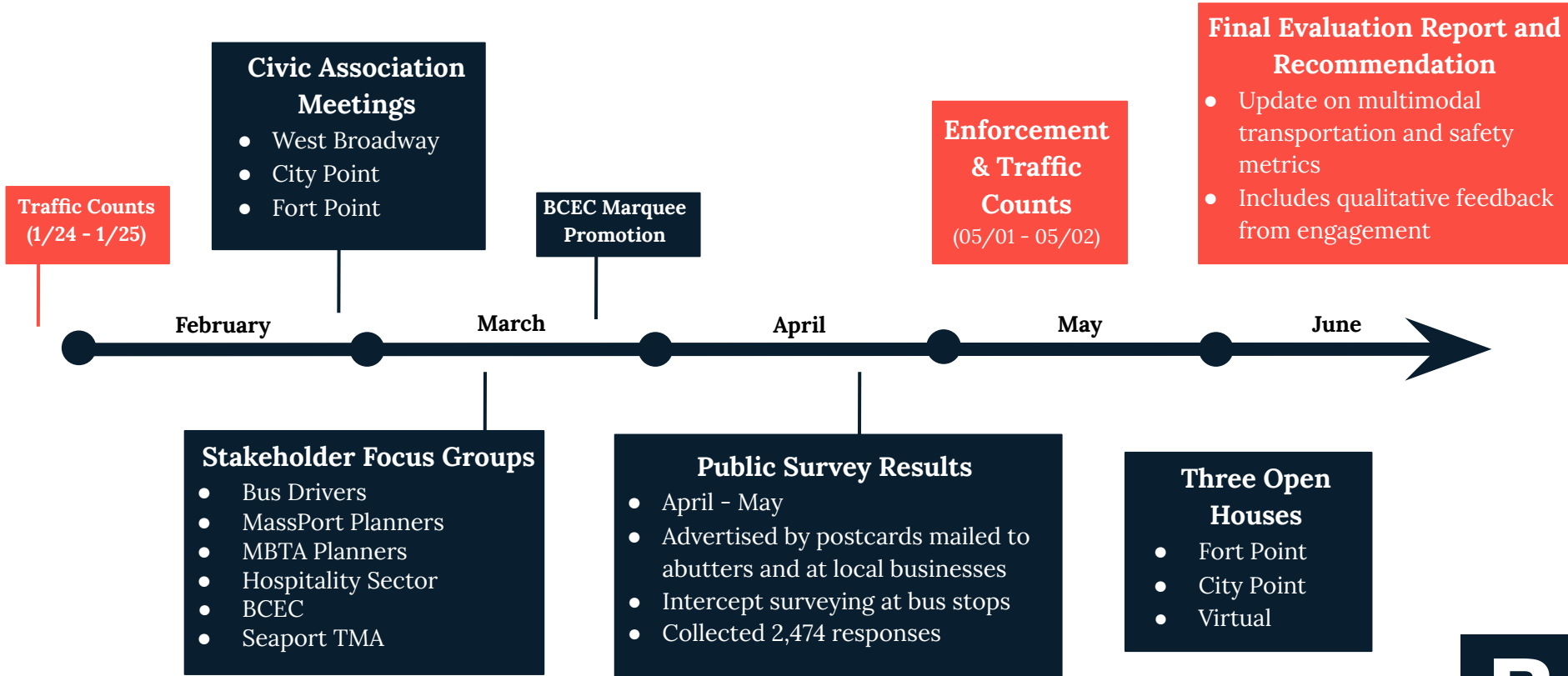
## ***What feedback did we solicit?***

- Public survey with nearly 2,800 responses
- Email feedback
- Attended/hosted over 20 stakeholder meetings
- Hosted industry-specific meetings - including MassPort, MBTA Operations, MBTA bus drivers, hotels/hospitality groups, and Seaport TMA commuters.
- Attended civic association meetings - including Fort Point, Seaport, and City Point.

## ***How do we use this feedback?***

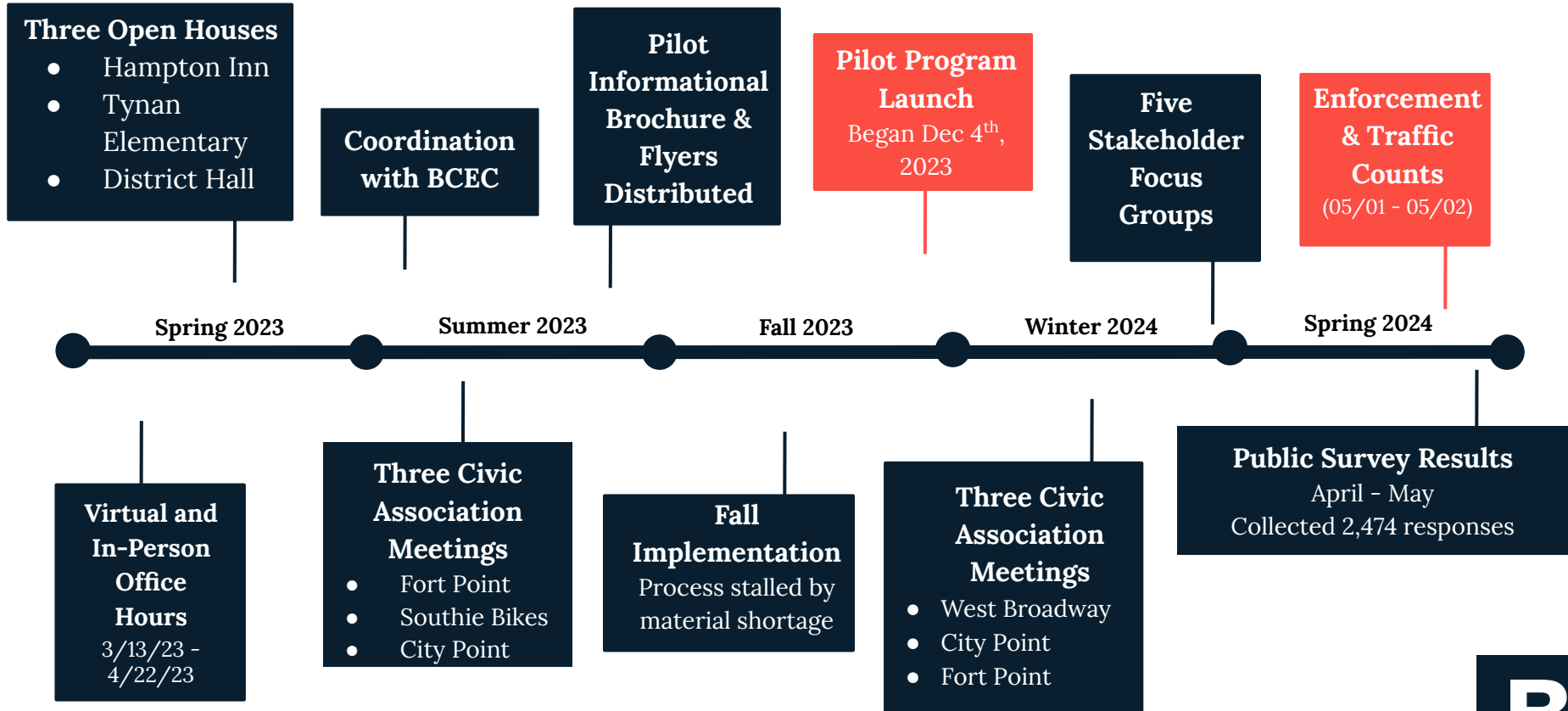
- Provides an insight into user experience during the Pilot.
- Enables us to understand general sentiment and specific feedback about specific locations.
- Enables us to make corrections to things that are not working as intended.

# Data Collection: Timeline





# Background: Engagement Timeline



Summer Street Pilot

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# Appendix: Pedestrian Conditions Comments



# Summer Street Pilot: Pedestrian Testimonials

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“Overall they are in **good condition** on both sides of Summer/L St. There are **a few uneven places and some tight spots** where the bus stops don't leave a lot of room for passing pedestrians.”

- Survey respondent, South Boston resident

“Sections of the sidewalk from the **fort point bridge to L street are dangerous and uneven**. They do however improve close to south station.”

- Survey respondent, South Boston resident

“Crossing streets is always super **stressful when there are concurrent walk signals**. Those and **right on red need to end, period.**”

- Survey respondent, daily commuter to Seaport

“**Cars and bikes consistently do not stop** for the flashing lights. I **only cross at intersections** for this reason.”

- Survey respondent, South Boston resident and daily commuter



## Summer Street Pilot

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# Appendix: Bikes

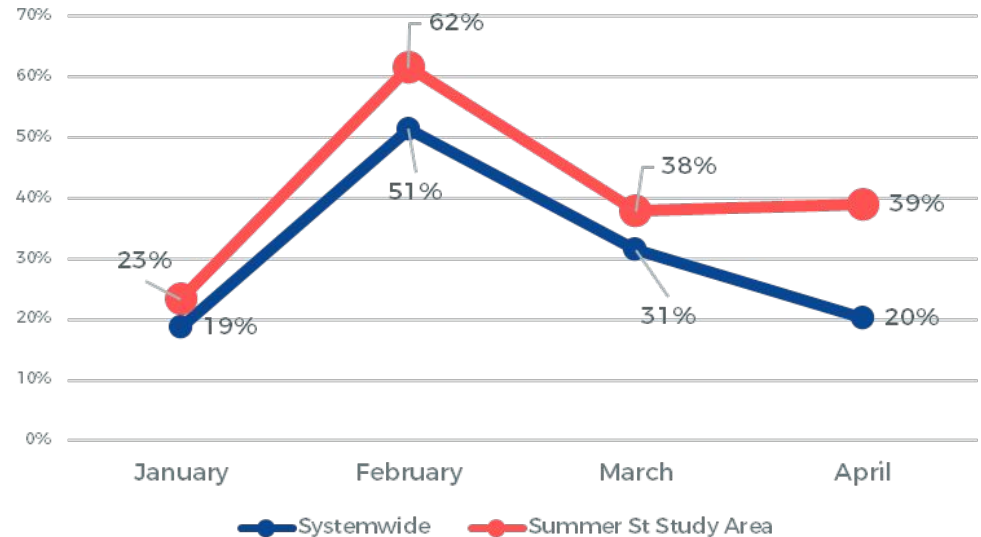


# Summer Street Pilot: Bicycle Activity

**Bluebike station activity near the pilot lane increased at a higher rate than systemwide station activity.**

- *SB Library and Lawn on D were among the stations near Summer Street that saw the highest increases.*
- *On an average Wednesday and Thursday in April 2024, all the Bluebikes at SB Library had been checked out by 9AM.*

**Year-over-year Increase in Bluebike Check-outs  
(2023 - 2024)**



# Data Analysis: Bikes

Despite the Pilot officially launching in December 2023, most new bike infrastructure was substantially complete by September 2023.

Bike counts on Summer Street have shown a modest increase in bike usage since new bike infrastructure was installed. However, biking patterns tend to be seasonal and weather dependent.

Weekday <u>Bicycle Activity</u> on Summer Street, All Day (D Street Intersection)				
	Before <i>Jan 2023</i> <small>46°, Partly Cloudy</small>	<i>Oct 2023</i> <small>72°, Partly Cloudy</small>	During <i>Jan 2024</i> <small>50°, Partly Cloudy</small>	During <i>May 2024</i> <small>66°, Partly Cloudy</small>
Inbound	19	139	52	122
Outbound	69	221	99	223
Total	88	360	151	345

*Note: January bike volumes tend to be low due to winter weather conditions*



# Summer Street Pilot: Bike & Ped Conditions During the Pilot



"While I appreciate the focus on developing bike lanes further, I **still feel unsafe with the amount of cars driving erratically** due to the bus lanes and the amount of illegally stopped drivers that force bikers back into traffic."

*-Survey respondent, South Boston resident*

"The bike lanes, while not perfect, are **significantly improved**. The bus lane **works well when cars obey the law**."

*-Survey respondent, Summer Street commuter*

# Summer Street Pilot: Bicycle Activity

*Limited increase in overall bike activity, though seasonal effects may damper total volume observed*

- *The increase in inbound bike volume during both AM and PM peak hours indicates a positive response to the usage of the new bike lane.*
  - *During BCEC event days, inbound bike volume increased significantly during peak hours, highlighting the importance of providing safe infrastructure for bicyclists to accommodate special event travel.*
- *The decrease in outbound bike volume during peak hours may suggest a need for further improvements*

<b>Weekday <u>Bicycle Activity</u> on Summer Street During AM &amp; PM Peaks</b> (World Trade Center Ave Intersection)						
	<b>Before</b> <i>Jan 2023</i>	<b>During</b> <i>Jan 2024</i>	<b>Percent Change</b>	<b>Before</b> <i>Jan 2023</i> <small>*EVENT DAY</small>	<b>During</b> <i>Jan 2024</i> <small>*EVENT DAY</small>	<b>Percent Change</b> <small>*EVENT DAY</small>
<b>INBOUND</b>						
<b>AM</b>	9	14	<b>56%</b>	15	26	<b>73%</b>
<b>PM</b>	16	11	<b>-31%</b>	23	27	<b>17%</b>
<b>OUTBOUND</b>						
<b>AM</b>	25	25	<b>0%</b>	18	15	<b>-17%</b>
<b>PM</b>	29	17	<b>-41%</b>	27	27	<b>0%</b>

*Note: January bike volumes tend to be low due to winter weather conditions*

## Summer Street Pilot

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# Appendix: Speeding



## Data Analysis: Speeding

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**Before the Pilot, 5% of vehicles on Summer Street obeyed the City's 25 MPH speed limit.**



**5%**

**Pre-Pilot**



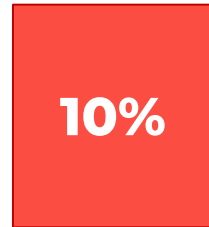
## Data Analysis: Speeding

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One month into the Pilot, 10% of vehicles on Summer Street obeyed the City's 25 MPH speed limit.



**Pre-Pilot**



**1 Month into Pilot**

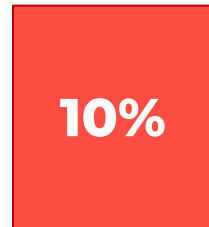
## Data Analysis: Speeding

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By month 5 (May 2024), 20% of vehicles on Summer Street obeyed the City's 25 MPH speed limit.



**Pre-Pilot**



**1 Month  
into Pilot**



**5 Months  
into Pilot**

## Summer Street Pilot

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# Appendix: No Rights on Red

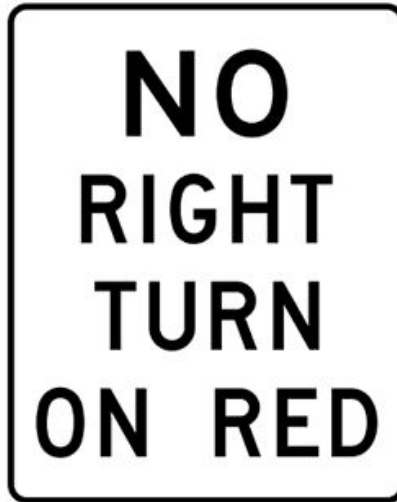


## Summer Street Pilot: No Turn on Red

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“Crossing streets is always super **stressful when there are concurrent walk signals**. Those and **right on red need to end, period.**”

- Survey respondent, daily commuter to Seaport



“Would be better to have right on red and **tell bikes to yield to cars** or **have a button they press.**”

- Survey respondent, daily commuter to Seaport

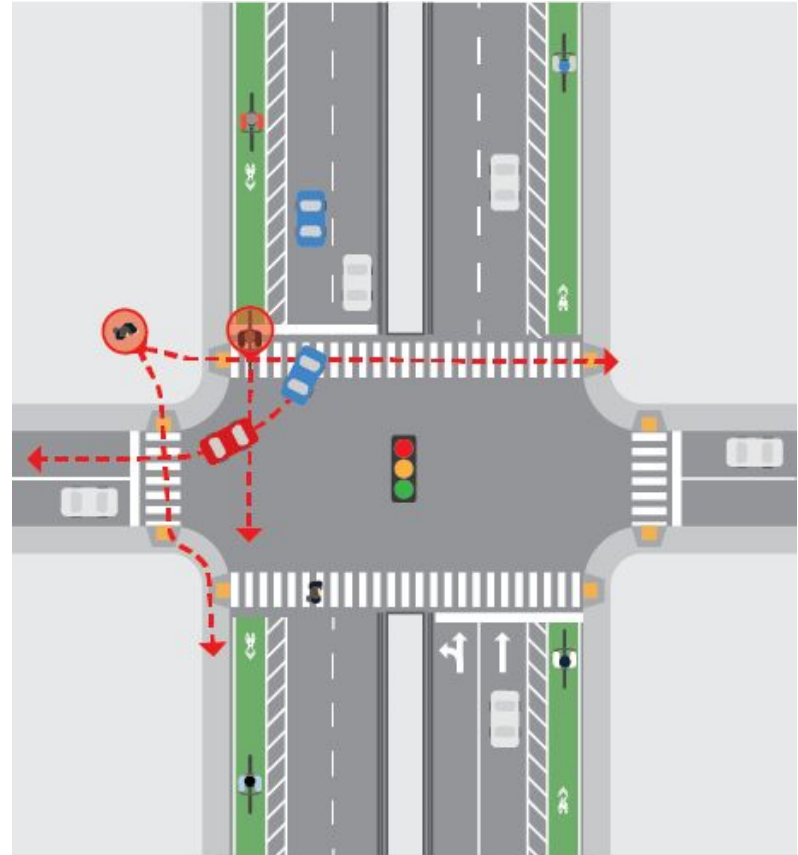


## Summer Street Pilot: No Turn on Red

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### **No turn on red improves safety.**

Allowing right turns on red makes walking or biking dangerous because...



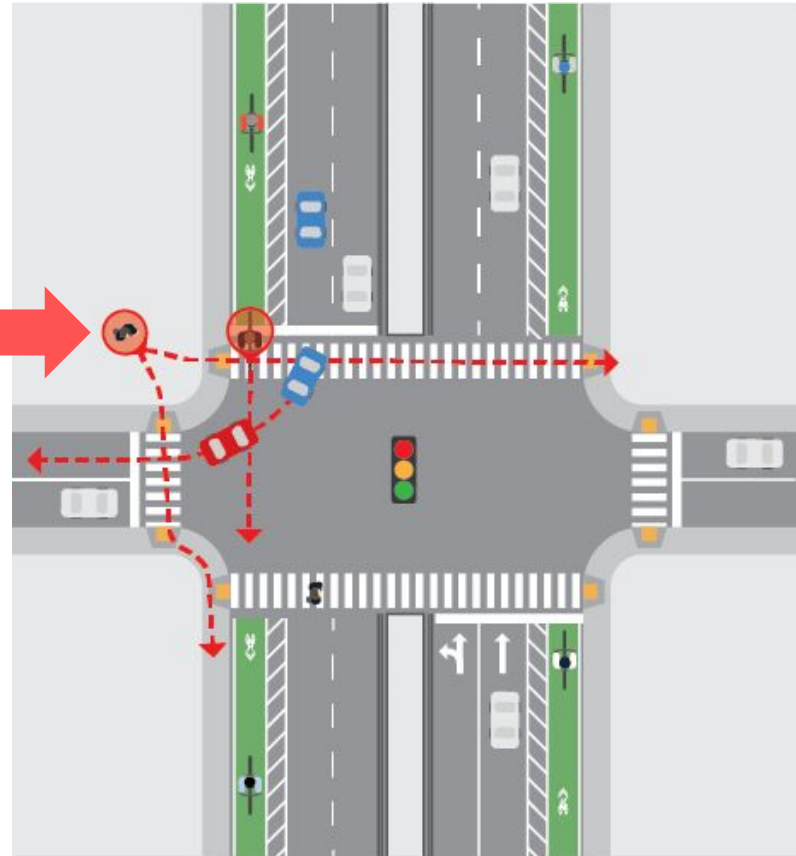
## Summer Street Pilot: No Turn on Red

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### **No turn on red improves safety.**

Allowing right turns on red makes walking or biking dangerous because...

Drivers look left to judge gaps in traffic and do not look for pedestrians or cyclists coming on their right.



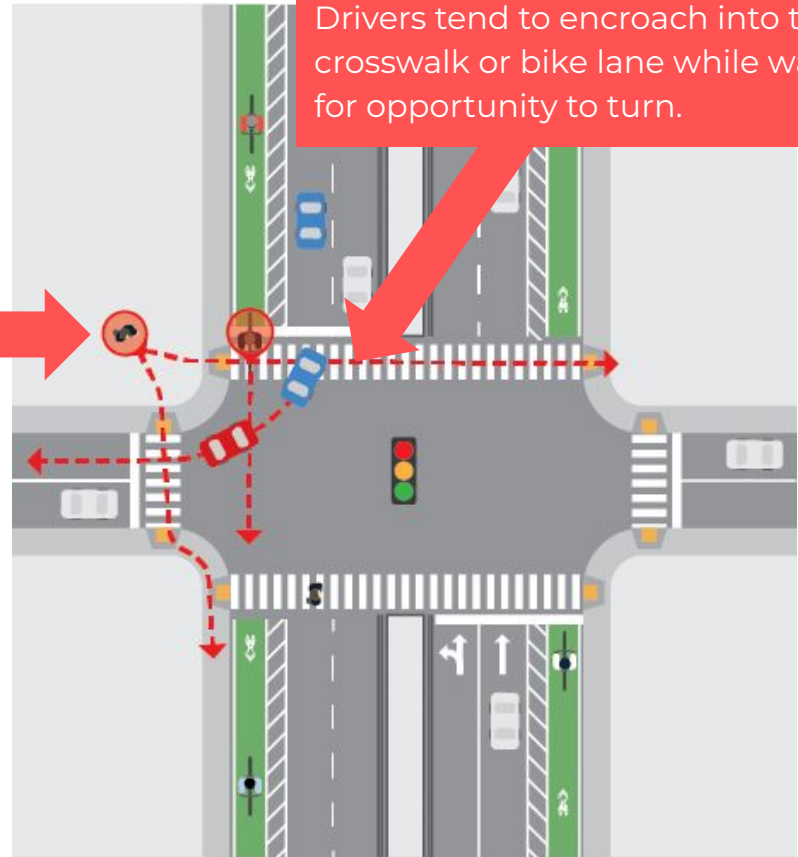
## Summer Street Pilot: No Turn on Red

### No turn on red improves safety.

Allowing right turns on red makes walking or biking dangerous because...

Drivers look left to judge gaps in traffic and do not look for pedestrians or cyclists coming on their right.

Drivers tend to encroach into the crosswalk or bike lane while waiting for opportunity to turn.



# Summer Street Pilot: No Turn on Red

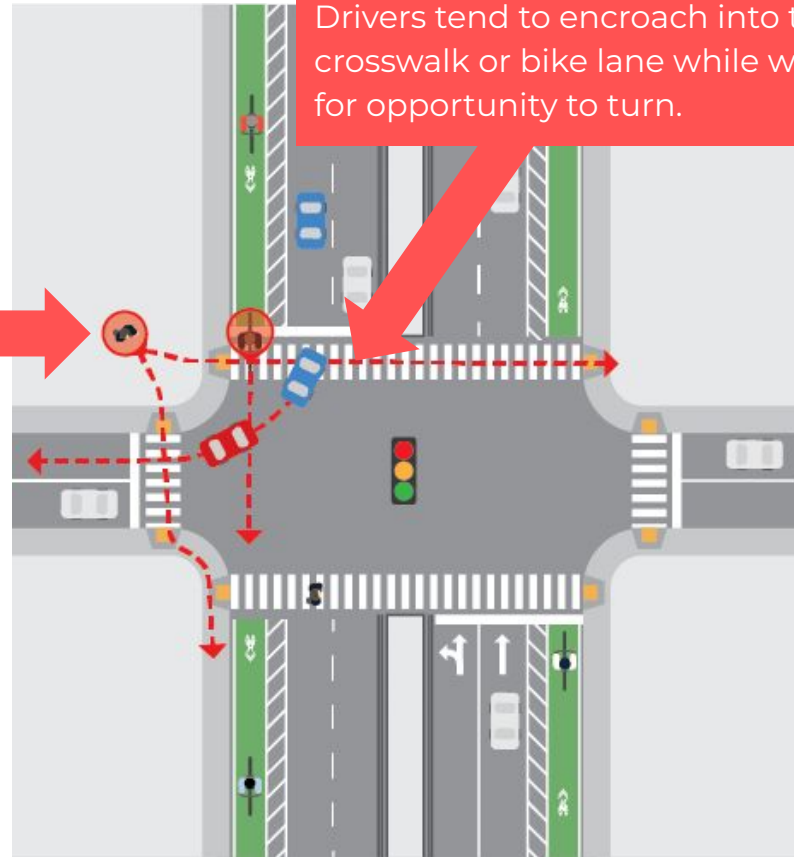
## No turn on red improves safety.

Allowing right turns on red makes walking or biking dangerous because...

Drivers look left to judge gaps in traffic and do not look for pedestrians or cyclists coming on their right.

Especially when vehicle traffic is light, drivers turning right on red tend to not come to a full stop.

Drivers tend to encroach into the crosswalk or bike lane while waiting for opportunity to turn.





## Summer Street Pilot

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# Appendix: Traffic

A blue-tinted photograph of a city street during a pilot project. The street is closed to traffic, with orange traffic cones and white lane markings. Pedestrians are walking on the sidewalk, and construction equipment is visible in the background.

## Data Analysis: Traffic

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### Drivers report frustration with single vehicle lane

*Intersections with more turn activity (D St, Pumphouse Rd, Pappas Way/Drydock Ave) continue to create congestion*

### Modest vehicle travel time increases

*As average travel speeds decline, it takes 40-90 more seconds to travel between East 1st St to Dorchester Ave.*

### Vehicle volumes remain mostly consistent

*There are no major dips in traffic volumes that would indicate a substantial number of drivers are taking alternate routes to avoid Summer Street*

## Data Analysis: Traffic

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Peak periods show slightly higher traffic counts between 2023 and 2024 traffic counts.

Weekday Average Vehicle <u>Volume</u> on Summer Street During Peak Hours (Pumphouse Road Intersection)			
	Before <i>Jan 2023</i>	During <i>Jan 2024</i>	Percent Change
<b>CARS</b>			
<b>AM</b>	4,597	4,625	2%
<b>PM</b>	4,428	4,630	4%

## Summer Street Pilot: Vehicle Volumes

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**Total vehicle and truck volumes are largely the same as pre-pilot, though truck traffic has slightly shifted to PM.**

### **Summer St at Pumphouse**

Total volumes in Jan 2023 (15,495 cars, 1,556 trucks, 356 buses, 96 bike, 728 peds)

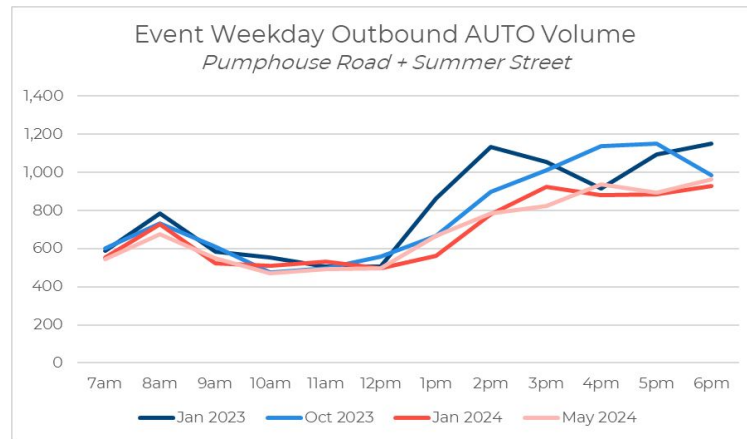
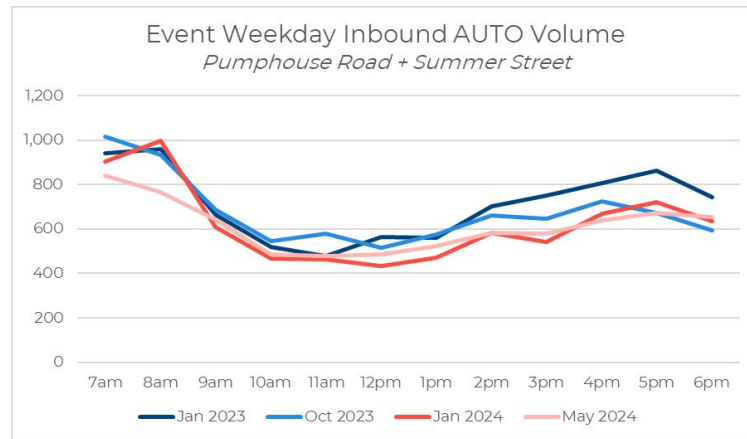
Total volumes in Oct 2023 (17,858 cars, 1,862 trucks, 336 buses, 289 bike, 1,412 peds)

Total volumes in Jan 2024 (15,992 cars, 1,481 trucks, 319 buses, 71 bike, 1,566 peds)



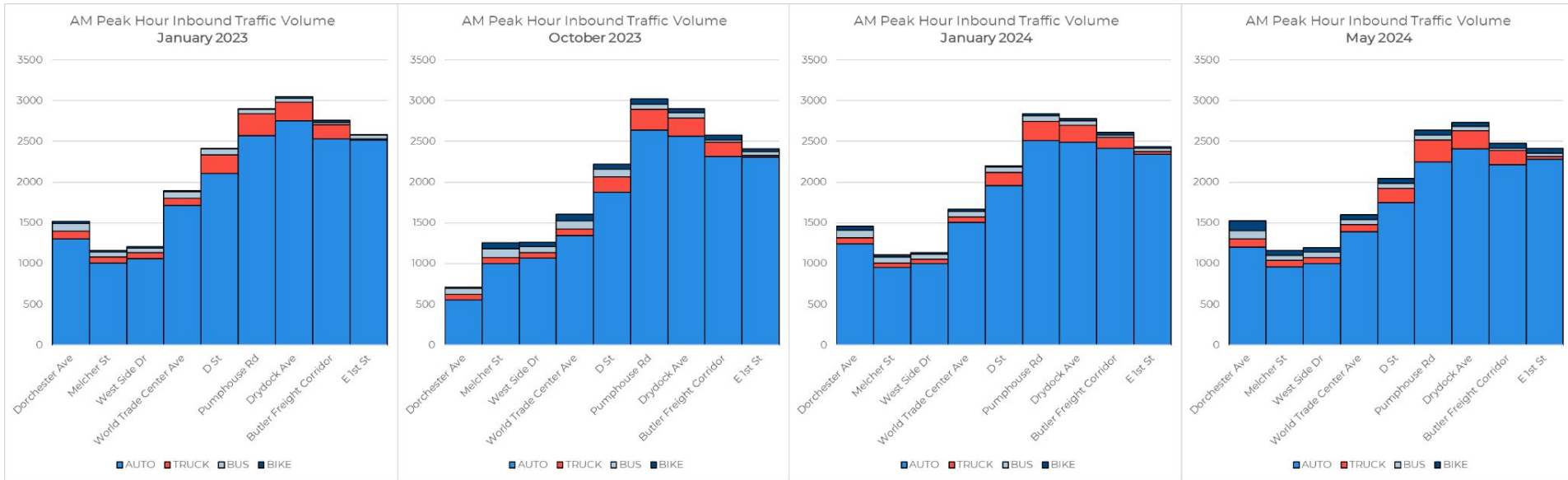
# Data Analysis: Traffic

## BCEC Event Day Traffic Counts



# Summer Street Pilot: Vehicle Volumes

## AM Peak Hour Inbound Traffic Volume (event day)

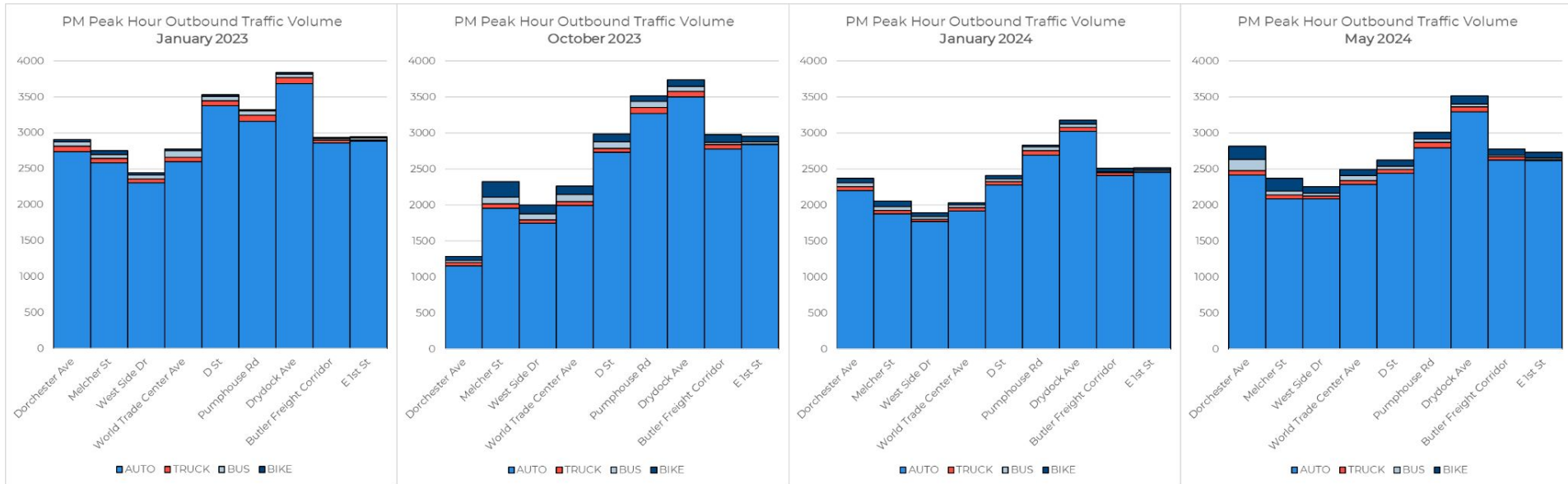


**Between January 2023 and May 2024, limited change in the total volume of vehicle traffic across different segments of the corridor during the AM Peak. Similar proportions of trucks and autos within each block persist.**



# Summer Street Pilot: Vehicle Volumes

## PM Peak Hour Outbound Traffic Volume (event day)



**Similar proportions of trucks and autos within each block persist in the PM before and after the pilot lane was installed. In May 2024, there is a slight rebound in auto and truck volumes compared to immediate post-pilot implementation period, indicating adaptation by drivers.**



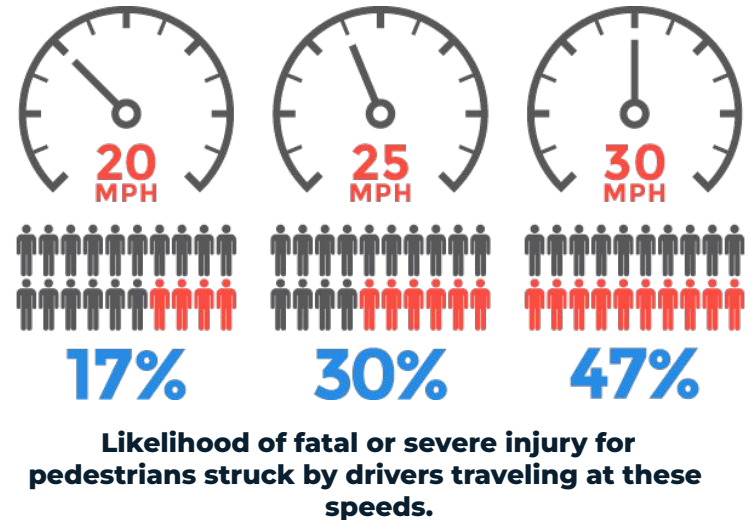
# Summer Street Pilot: Vehicle Speeds

Bus lanes are having a traffic calming effect, but more is needed to reduce speeds to the speed limit and increase safety and Vision Zero.

## Highest recorded speed:

- Oct. 2023 (pre-pilot): **77 mph** on 10/25/23 at 1:25 pm, NB (West Service Rd and West Side Dr).
  - Second highest speed: **71 mph** on 10/26/23 at 2:01 pm, SB (Drydock Ave and Butler Freight).
- Jan. 2024 (mid-pilot): **75 mph (-2.6%)** on 1/25/24 at 3:59 pm, NB (West Service Road and West Side Dr).
  - Second highest speed: **68 mph (-4.2%)** on 1/24/24 at 5:28 pm (West Service Rd. and West Side Dr.) and again on 1/25/24 at 9:44 am (Drydock Ave and Butler Freight), both NB.

These mark a marginal decrease, indicating a potential response to ongoing safety measures. However, findings also highlight the **persistent challenge of maintaining safe speeds** along the corridor





# Summer Street Pilot: Vehicle Speeds

**Peak hour average vehicle speeds fell slightly, but remain higher than the citywide speed limit**

## Average Speeds

- Between Fort Point and the BCEC, peak hour NB speeds averaged 34 mph in both directions and fell to 32 mph. On event days, speeds average 31mph.
- The all-day average SB vehicle speed fell from 38 mph OB on the Reserved Channel bridge to 33mph, and from 34 to 32 in the inbound direction. Similar declines are observed in the peak hours on event and non-event days.
- Speeds in non-peak direction see larger average reductions.

## Weekday Average Vehicle Speeds on Summer Street During Peak Hours

(Between Drydock Ave and Freight Corridor)

	Before Jan 2023	During Jan 2024	Percent Change
<b>INBOUND</b>			
<b>AM</b>	33 mph	32 mph	<b>-4%</b>
<b>PM</b>	35 mph	31 mph	<b>-11%</b>
<b>OUTBOUND</b>			
<b>AM</b>	37 mph	32 mph	<b>-13%</b>
<b>PM</b>	38 mph	33 mph	<b>-13%</b>

The slight reduction in speeds during peak hours suggests successful safety measures implemented as part of the pilot.

# Summer Street Pilot

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## Appendix: Transit



# Summer Street Pilot: Bus Rider Improvements for the Pilot



"While I thought it was already a pretty quick trip from South Station to Powerhouse Street, I feel as though **travel time has become more consistent with the bus lane.**"

- Survey respondent, daily Summer Street commuter

"**Cars will fill up the bus lane** during peak traffic, blocking the 7 bus from moving quickly, but the **bus overall has been faster and more convenient** to use."

- Survey respondent, South Boston resident, Rt. 7 commuter



# Data Analysis: Transit

“There is **consistently a line of 50-plus people** waiting for the bus and **not everyone can get on the bus each time.**”

– South Boston resident commuting to Downtown

“THE BUS IS THE ONLY TRANSPORT IN THE EAST SIDE OF SOUTHIE. We really need this to run better because **we are about a 40 minute walk at least to any T (subway) stop.**”

– South Boston resident commuting to South Boston Waterfront

“Sometimes the bus is too full... this makes me Uber frequently **which is bad for me personally financially and environmentally seems bad too.**”

– South Boston resident commuting to Financial District

## Seems the 7 bus has a bit of a capacity issue

By adamg on Wed, 03/30/2022 - 9:49am



Realdavejshea joined one of the lines for the 7 bus in South Boston this morning:



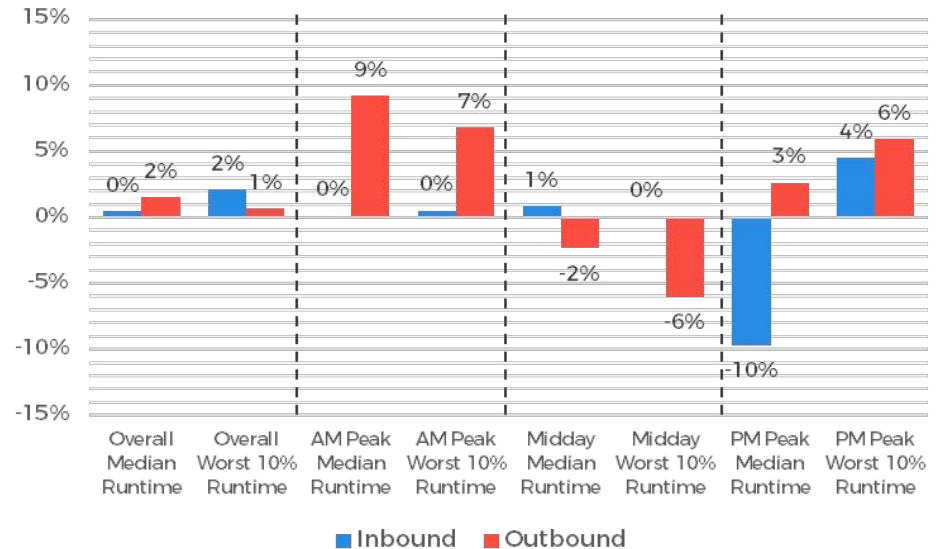
# Summer Street Pilot: Bus Run Time

**The pilot bus lanes are having a limited impact on transit speed and reliability between stops, varying by direction and time of day.**

*Route 7 is running similarly on average to pre-pilot in both directions.*

- *The largest improvements are to PM Peak IB trips and Midday Outbound trips.*
  - Generally more compliance with vehicles staying in the GP lane during these times / off-peak directions
- *Run times generally increased in March/April after initial decreases in across time periods and in both directions in January/February.*

**Changes in Run Time  
Fall '23 to Spring '24**



# Summer Street Pilot: Bus Run Time on the Worst 10% of Trips

The MBTA makes schedules around the slowest 10% of trips, so improvement has cascading benefits.

- Overall, Route 7 is running slightly slower both inbound and outbound since the pilot started for the slowest 10% of trips
  - Inbound increased by 15 seconds (2.1%)
  - Outbound increased by 5 seconds (0.7%)
  - Notably entering and leaving South Station, there has been a significant improvement, 17% OB and 5% IB
- Inbound, the slowest trips are running faster everywhere except from Drydock Ave to World Trade Center Ave
- Outbound, the slowest trips are facing more congestion and delay after Melcher Street



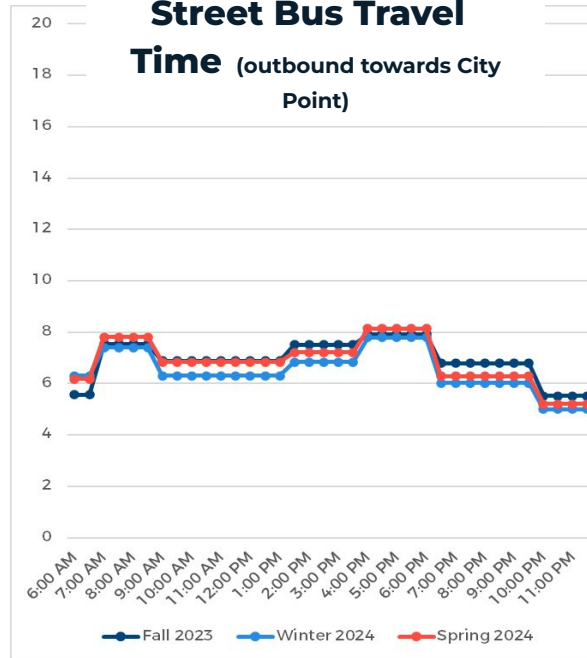
# Data Analysis: Transit

The pilot lane has improved bus trip times at different times of day but also faces increased congestion delay.

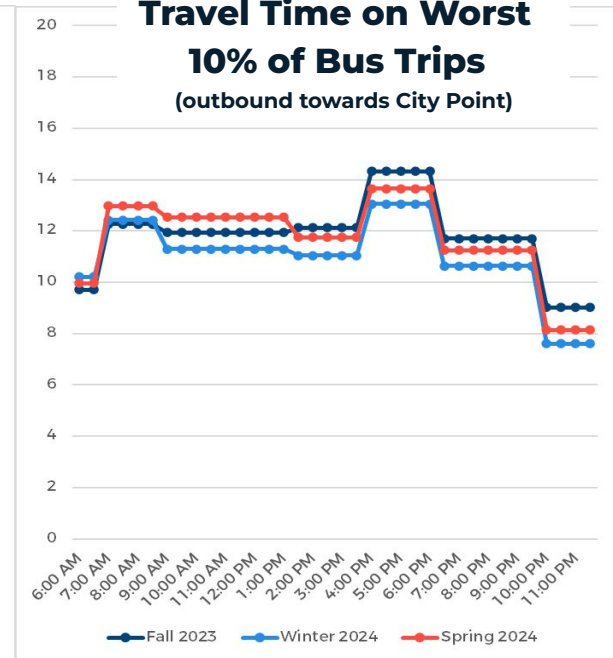
Typical outbound travel times along the corridor ranged from 5-8 minutes, slightly faster than inbound on average. Trip times are least reliable during the PM Peak, and the slowest trips can take up to 14 minutes.

- Late Midday and Evening trips have improved since Fall 2023 (30-45 seconds)
- The worst 10% of trips after 4PM were better in Winter and Spring 2024 than in Fall 2023

### Typical Summer Street Bus Travel Time (outbound towards City Point)



### Summer Street Travel Time on Worst 10% of Bus Trips (outbound towards City Point)



# Data Analysis: Transit

**Reliability is the difference between the typical (median) run time and slowest (90th% run time).**

- *Reliability has overall gotten slightly better for Outbound trips and slightly worse for Inbound trips*
- *Biggest improvements are outbound from South Station to Melcher St from Pappas Way to First St*
  - South Station to Melcher St: 6% improvement
  - Pappas Way to First St: 14% improvement
- *Inbound trips are less reliable from First St to D St*
  - Drydock Ave to D St segment saw biggest decrease in reliability (15%)





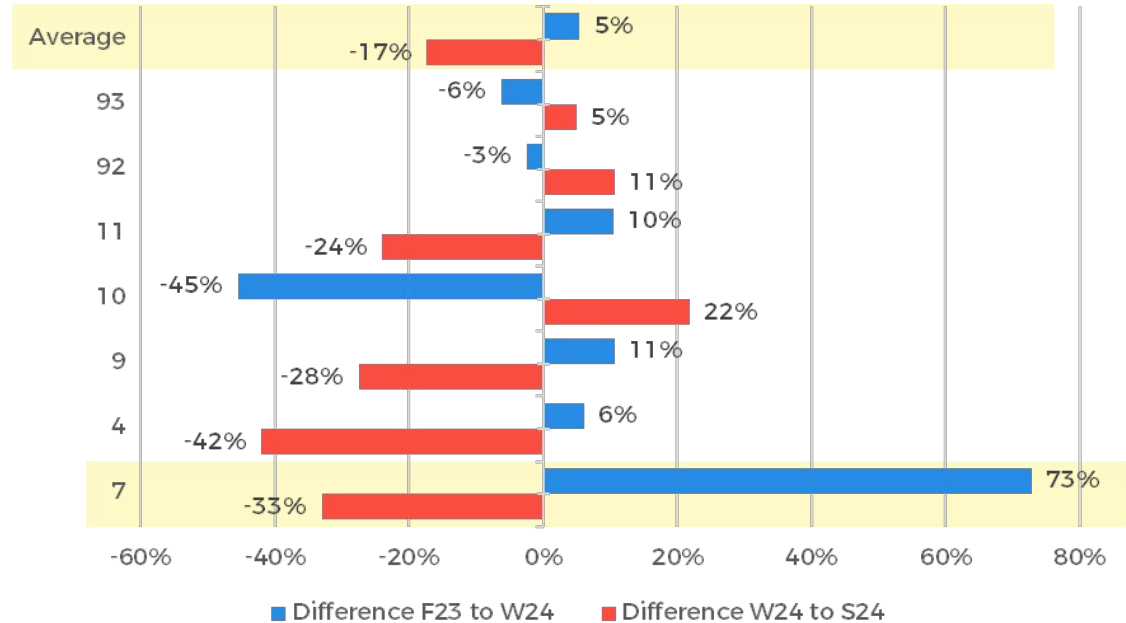
# Summer Street Pilot: Transit Ridership

**Route 7 ridership increased substantially between Fall 2023 and Winter 2024, but it has since decreased in Spring 2024 at a higher rate than most peer routes.**

**Peer routes also generally saw increases in Winter 2024 and decreases in Spring 2024.**

**Loss in Route 7 ridership can be attributed mostly to peak-time ridership decreases.**

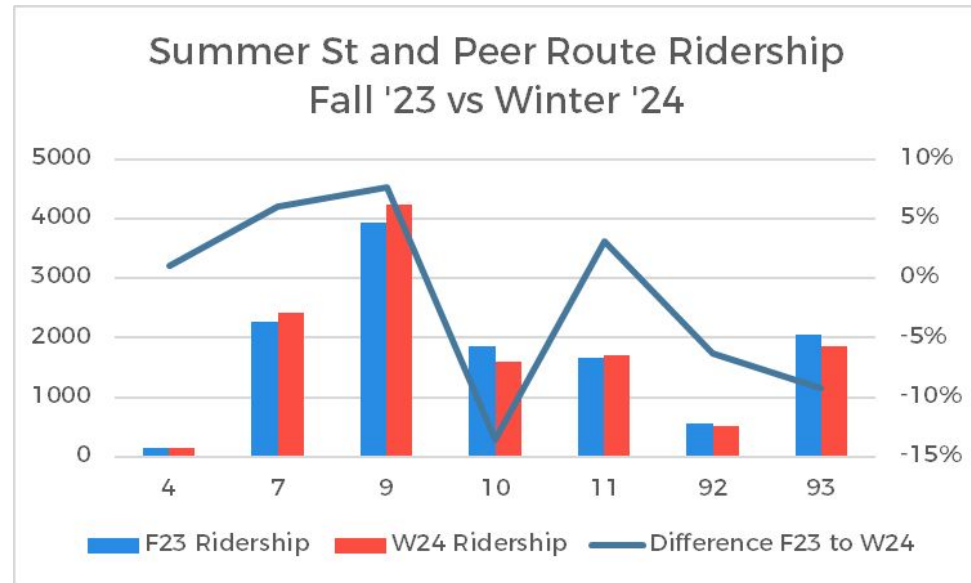
Summer St and Peer Route Ridership



# Summer Street Pilot: Transit Performance

Route 7 ridership has grown modestly between September/October 2023 through January/February 2024, and grown at larger rate than the peer group average

- Average weekday ridership on Route 7 has grown 6%, from 2,275 to 2,412 daily riders
  - Average ridership across similar routes (4, 7, 9, 10, 11, 92, and 93) stayed almost the same, with a growth of 0.1%
  - Route 9 grew 8% in ridership
- Average Tu - Thu ridership is around 10% higher than weekday average as a whole
- MBTA increased Route 7 AM and PM frequency in April due to increased demand.



# Summer Street Pilot: Bus Rider Testimonials During Pilot

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“Bus is faster than before lane. **Enforcement is needed** for those blocking the lane to continue this progress.”

- Survey respondent, daily Summer Street commuter

“**There’s been an improvement** in removing other vehicles from the lane, **but not enough**, it needs enforcement.”

- Survey respondent, South Boston resident, Rt. 7 commuter

“**Cars will fill up the bus lane** during peak traffic, blocking the 7 bus from moving quickly, but the **bus overall has been faster and more convenient** to use.”

- Survey respondent, South Boston resident, Rt. 7 commuter

“Nobody stays out of the bus lane. I don’t blame them. The bridge is so backed up.”

- MBTA Bus Operator

## Appendix: Next Steps





# 1. Pilot largely left in place

- Continue with the current bus lane and bike lane configuration
- Increase enforcement efforts to prevent violations (cars in bus lane, blocking intersections, etc.)
- Enhance striping and paint to make lane more obvious to drivers
- Continue to make small adjustments as needed

"More bus/bike lanes area **great benefit** to the public."

- Survey respondent | Bike commuter

"A dedicated lane **makes it run on time** more often."

- Survey respondent | Bus commuter

## 2. Modifications to the roadway design

- Consider physically separated bus lanes or center-running design
- Extend protected bike lanes (including converting to sidewalk-level configuration) and improve connections
- Adjust lane configurations at problematic intersections (e.g., BCEC, Drydock/Pappas Way)

**“Make it like Columbus Ave.”**

Center running lanes are better, lead to less violations, faster service, and don't need as much enforcement.

- MBTA Bus Operator

“I would love to see **permanent concrete barriers** to increase **safety**.”

- Survey respondent | Bike commuter

**“Separated bus lanes** would be a huge improvement, because **cars don't respect the road paint** and police don't enforce the rules.”

- Survey respondent | Regular driver

### 3. Modifications to the program design

- Implement bus lane restrictions at certain times of day (peak hours, weekday only, etc.) and allow other vehicles to use the bus lane during outside of the specified time periods.
- Work with MBTA to increase bus frequency with Bus Network Redesign implementation to optimize the dedicated lane usage

“Consider having signage prior to the bus lane beginning, **only having the bus lane during certain times**, opting for more frequent buses rather than a dedicated lane to assist with work commuting times.”

- Survey respondent | Daily driver, South Boston resident

“Bus lane should be in effect on a limited basis, i.e., **during morning and evening commute** when bus actually runs.”

- Survey respondent | Regular driver, South Boston resident

## 4. Pilot is ended/elements removed

- Revert to pre-pilot lane configuration, but maintain bike infrastructure
- Consider alternative solutions for traffic congestion and safety concerns in preparation for future growth
- Work with MBTA to explore improvements to bus service and frequency

“The problem that the bus lane intends to solve **does not address the real problem**. South Boston needs **better public transport** (i.e. more frequent buses and more routes).”

- Survey respondent | Regular driver, South Boston resident



# Appendix: Additional Quotes



# Summer Street Pilot: Final Evaluation and Recommendation

- Improve **signage**
- Make it bus **only during rush hour** times (ie. 7-9 am and 4-6 pm)
- Improve and fix the bike lane protections running alongside the bus lane

- Survey respondent, regular driving commuter

“Bus lane should be in effect on a **limited basis, i.e., during morning and evening commute** when bus actually runs.”

- Survey respondent, South Boston resident

“If the buses aren't running, the **lanes should be available for regular traffic**. If the busses are running, the **bus lanes should be enforced.**”

- Survey respondent, South Boston resident

The problem that the bus lane intends to solve **does not address the real problem**. South Boston needs **better public transport** (i.e. more frequent buses and more routes).

- Survey respondent, regular driving commuter

**“Make it like Columbus Ave.”**

Center running lanes are better, lead to less violations, faster service, and don't need as much enforcement.

- MBTA Bus Operator

Let non-buses use the lane **during off hours**, perhaps 7pm to 5am or so.

- Survey respondent, regular driving commuter

## Summary of Findings

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The Summer Street Pilot Project has made notable strides towards the original pilot goals. Through data-driven decisions and community engagement, the project has shown promise, though issues like enforcement and legibility still need to be addressed to fully realize its potential.

**Enable Sustainable Mobility**

**Improve Safety for Bikes & Pedestrians**

**Accommodate Economic Activity**

# Summary of Findings

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## Enable Sustainable Mobility

### Bikes

The pilot saw an increase in biking activities, showcasing the promise of improved biking conditions in and around Summer Street.

- There was a 71% increase in the number of bicycles on Summer Street from January 2023 to January 2024
- Bluebike stations near Summer Street experienced a higher ridership growth (+39%) compared to the system-wide growth rate (+20%).



# Summary of Findings

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## Enable Sustainable Mobility

### Bus

The impact of the bus lane during the pilot was inconclusive, with mixed results on bus trip times and reliability. However, the bus lane is expected to be crucial in the future for accommodating the Bus Network Redesign, which aims to enhance bus priority and improve overall transit efficiency along the corridor.

Future population/employment growth require transit enhancements in the Seaport. With bus transportation the only feasible option for near-term transit enhancements, there are key and critical investments that are urgently needed to improve bus connections and reliability.

# Summary of Findings

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## Improve Safety for Bikes & Pedestrians

### Speeding

The pilot project saw a notable reduction in speeding along Summer Street. Before the pilot, approximately 26% of vehicles were recorded traveling over 40 MPH. This figure dropped to 8% one month into the pilot and further decreased to 7% after five months, indicating a sustained improvement in driving behavior and enhanced safety for all road users.

The reduction in speeding is a critical achievement as it directly impacts the safety of all road users, particularly cyclists and pedestrians. High vehicle speeds significantly increase the risk and severity of accidents. By lowering the proportion of vehicles exceeding 40 MPH, the pilot has created a safer environment, which is essential for encouraging more sustainable modes of transportation and ensuring the well-being of the community. This improvement aligns with the project's goals to enhance safety and promote a more bike- and pedestrian-friendly urban space.

# Summary of Findings

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## Accommodate Economic Activity

### Commuting

The Summer Street Pilot Project aimed to better accommodate commuters and residents by improving infrastructure for buses and bikes while protecting access to the region's port facilities.

The introduction of dedicated bus lanes and enhanced biking facilities provided more reliable and efficient transportation options. These improvements made it easier for people to commute to work and navigate the area without relying on cars, thereby laying the seeds for reducing traffic congestion and promoting sustainable transportation. By prioritizing these modes, the pilot project sought to create a more accessible and livable urban environment for all.

# Summary of Findings

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## Accommodate Economic Activity

### Port Access

Truck activity remained consistent throughout the Summer Street Pilot Project. While truck traffic experienced slight travel time increases due to the new infrastructure, it benefited from a safer street environment and improved separation from bikes.

The enhanced safety measures reduced the likelihood of accidents involving trucks and cyclists, creating a more secure travel corridor. Additionally, the prospect of future enhancements to the bus-truck lane holds promise for further improving travel times and efficiency for truck traffic, ensuring that the needs of commercial vehicles are met alongside those of other road users.