

# Livingston Street Transit Priority Study

CAB Meeting #2 – Project Concept Discussion

May 11, 2023



# Outline

---

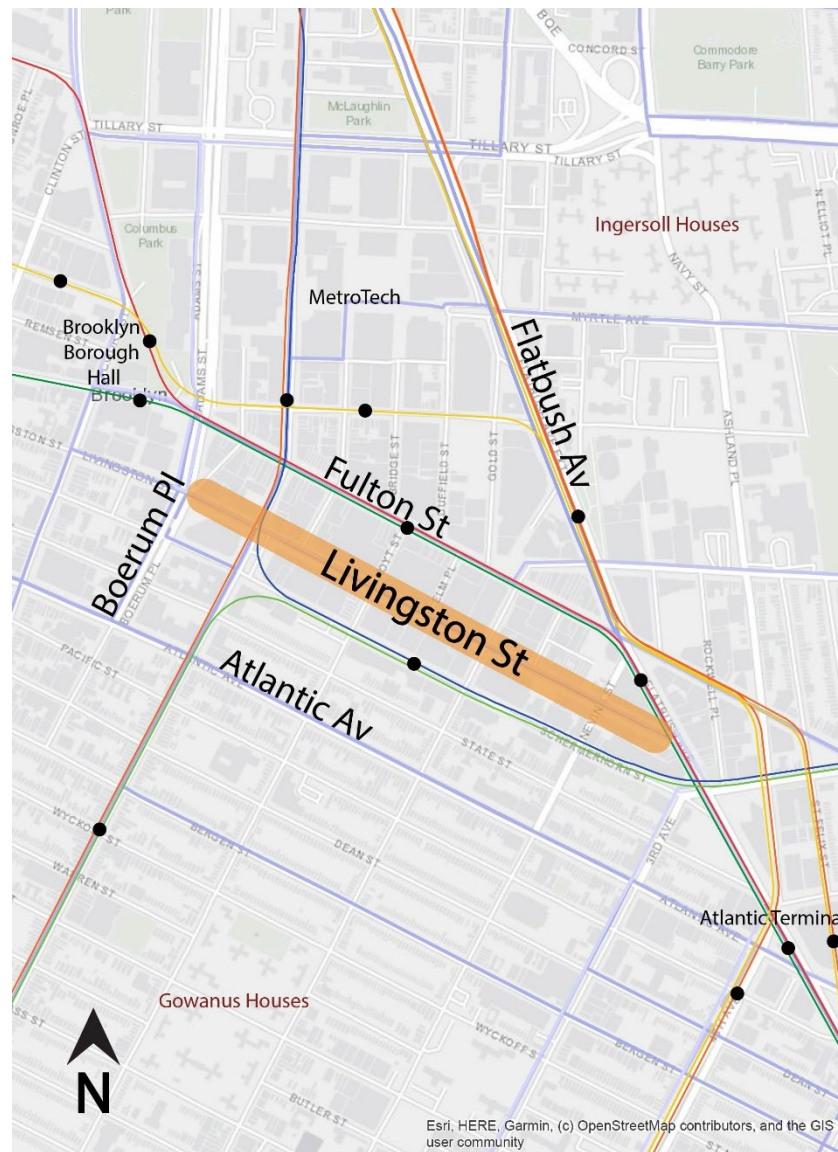
- Introduction
- Livingston Street Existing Conditions Recap
- Project Proposal
- Next Steps

# Introduction



# Why Livingston St

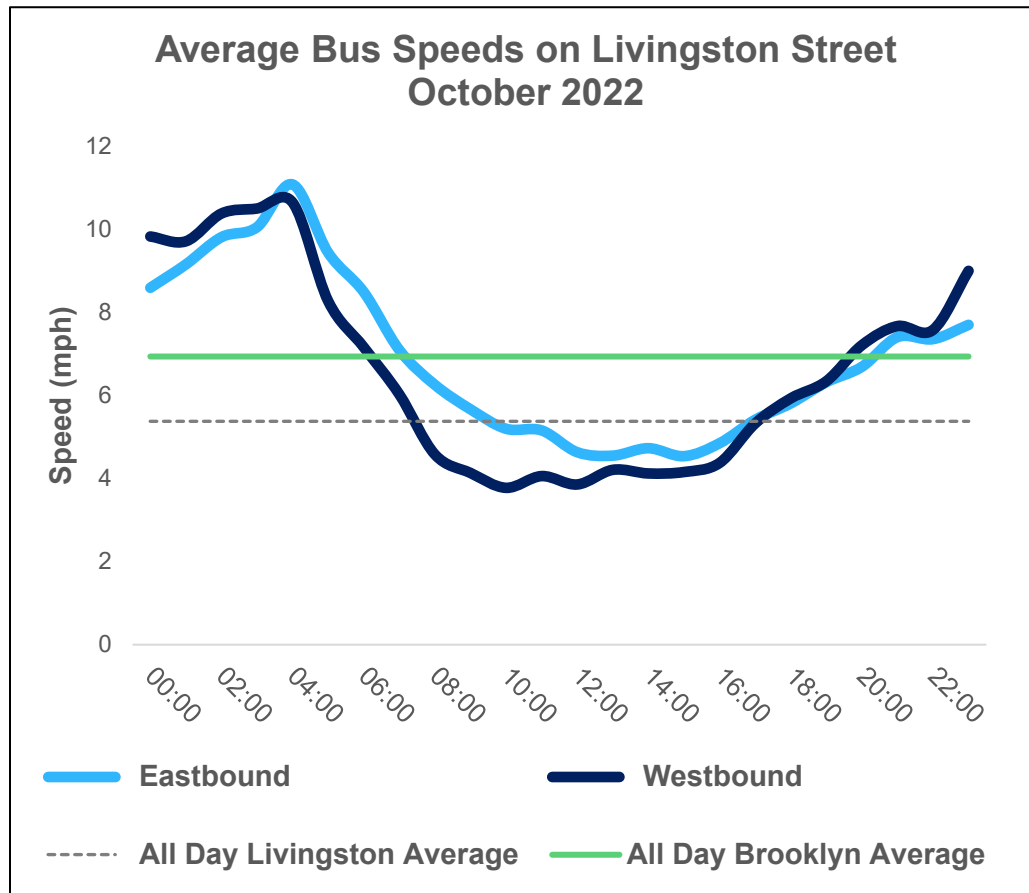
- Crosstown bus service connects riders to many local bus routes, Borough Hall, Fulton Mall, and stations for the **2** **3** **4** **5** **A** **C** **G**
- Vision Zero Priority Zone
- Identified as bus priority corridor in NYC DOT's Streets Plan and MTA's Brooklyn Bus Network Redesign
- Current bus lanes are consistently blocked by parked vehicles, negatively affecting bus speeds and reliability for passengers



# Existing Conditions

# Study Corridor Bus Speeds

- Average weekday daily ridership for routes serving Livingston is around 50,000.
- MTA runs 33 eastbound & 32 westbound peak hour buses on Livingston St.
- Buses move slower on Livingston St (average around 5 mph) than on other streets in Brooklyn (average Brooklyn bus speeds are around 7 mph).
- Bus speeds are consistently slow throughout the daytime hours, particularly in the westbound direction due to blocked bus lanes and heavier westbound traffic.



Source: MTA

# Traffic Volume

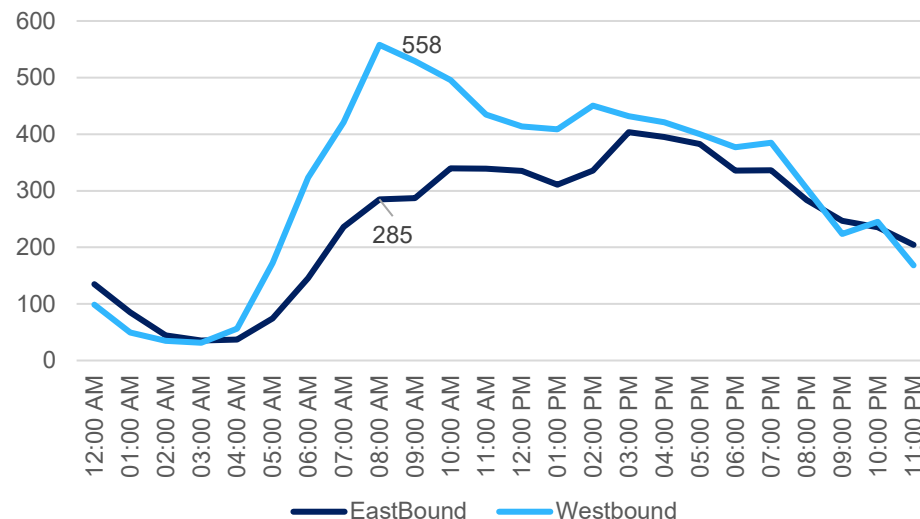
## Livingston St between Elm St and Bond St

Westbound peak:  
558 vehicles Weekdays 8-9 AM

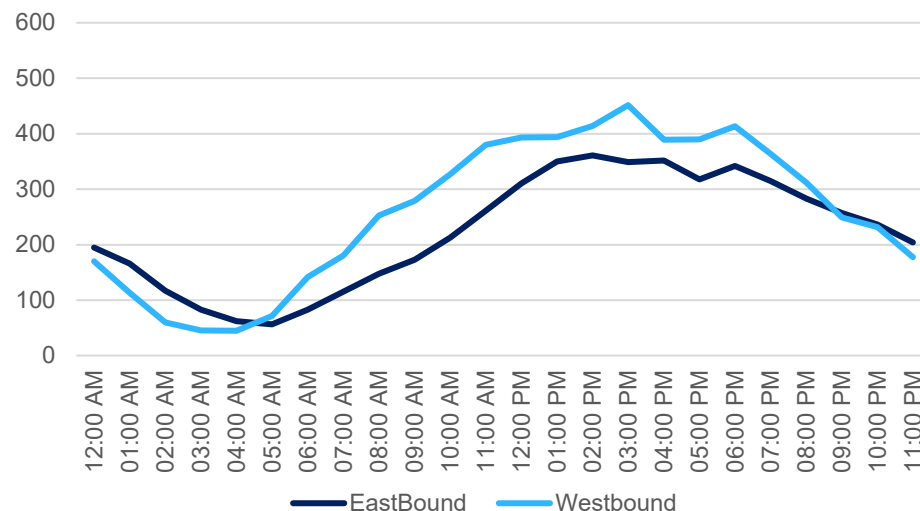
Eastbound peak:  
400 vehicles Weekdays 3-4 PM



### Average **Weekday** Vehicles between Elm St and Bond St



### Average **Weekend** Vehicles between Elm St and Bond St

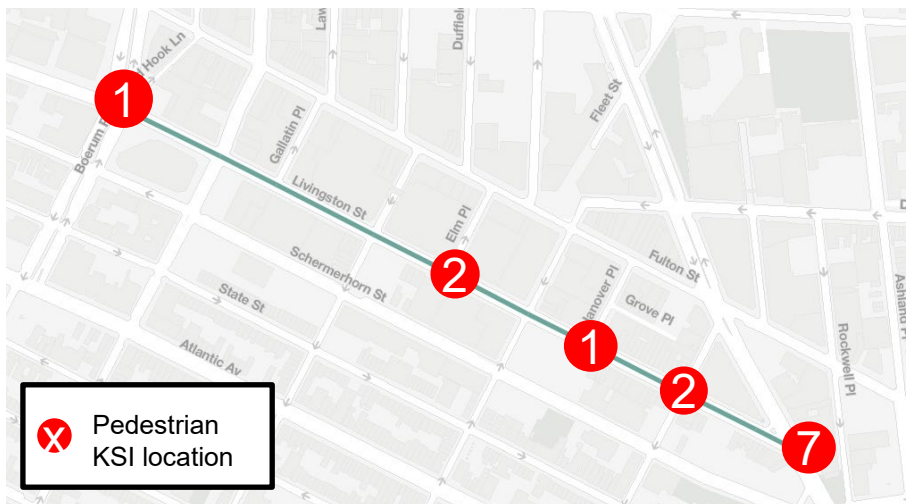


ATR counts taken October 11 to 23, 2022

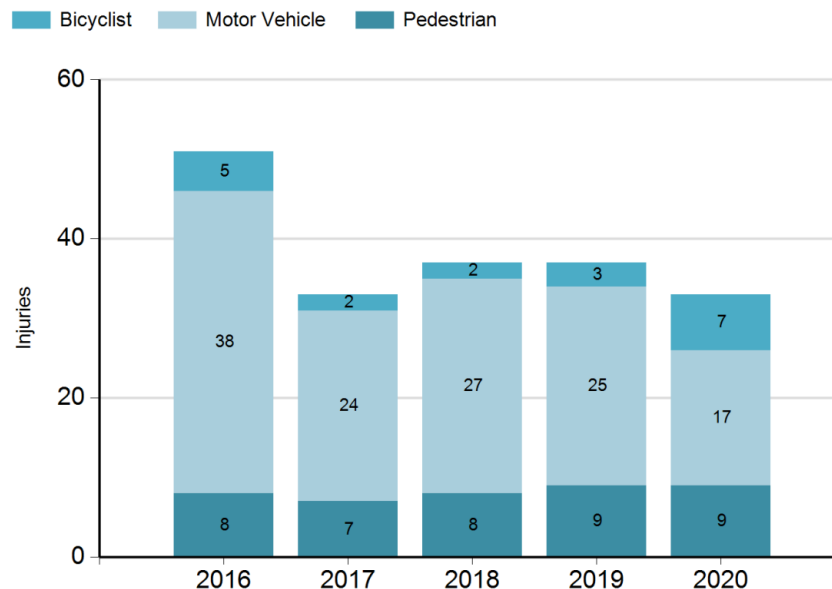
# Crash History

## Pedestrian Killed and Seriously Injured (KSI) – 2016 to 2020

- Most common pedestrian injury is turning vehicles striking pedestrians crossing with the signal.
- Flatbush Ave @ Livingston saw seven pedestrians being seriously injured.
- No pedestrian fatalities occurred on the corridor from 2016-2020.



Injuries by Year, 2016-2020 (5 Years)



Vehicle Action Versus Ped Action, 2016-2020 (5 Years)

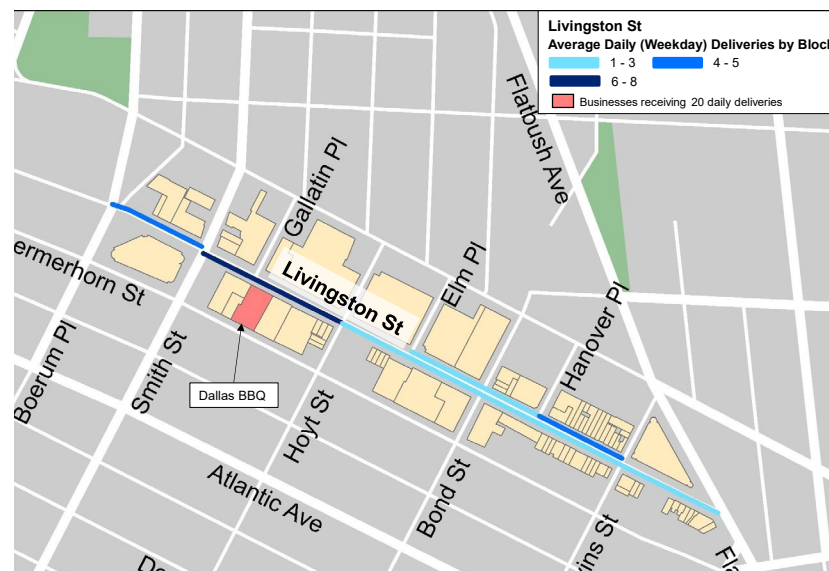
	Crossing with Signal	Crossing against Signal	Crossing No Signal, Marked Crosswalk	Crossing No Signal or Crosswalk	Others	Unknown	Total
Left Turn	15	0	1	0	2	0	18
Right Turn	6	0	0	0	0	0	6
Going straight	0	4	0	1	2	1	8
Making U Turn	0	0	0	0	0	0	0
Backing	0	0	0	1	1	1	3
Other	0	0	0	1	1	1	3
Unknown	1	0	0	0	2	0	3
Total	22	4	1	3	8	3	41

Source: NYC DOT Traffic Safety Data Viewer

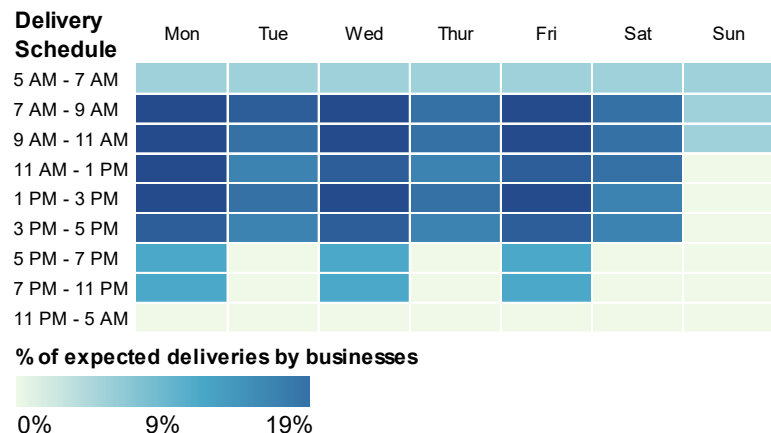


# Delivery Operations

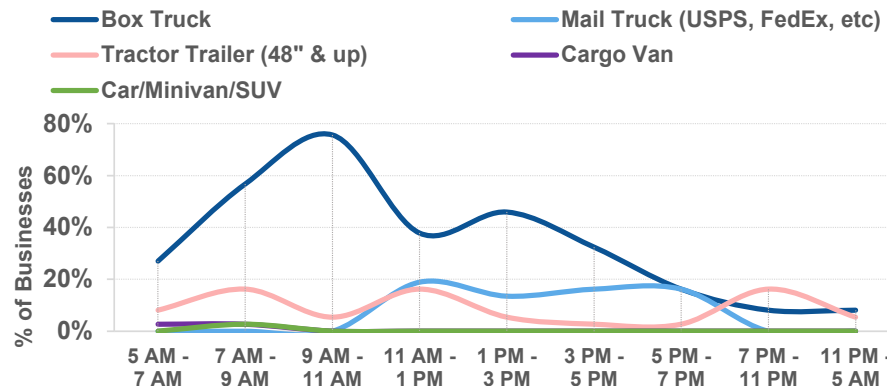
- Livingston St is a busy commercial corridor, with many new high density residential buildings
- Deliveries tend to be delivered via box trucks, and most businesses expect deliveries between 7 AM and 5 PM on weekdays.



Anticipated delivery schedule, according to businesses



Spread of vehicles delivering by hour



Source: Public survey of businesses conducted on street Sept 23, 28 2022

# Project Proposal

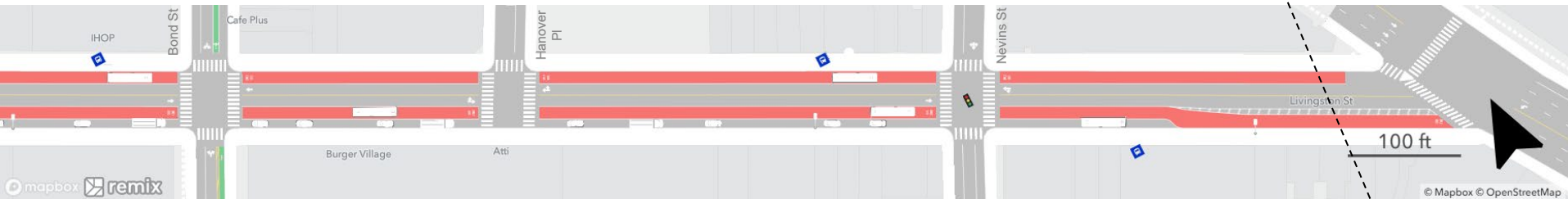
# Livingston St, Bond St to Flatbush Ave

- Two-way busway on the south curb
- One-way westbound for general traffic.
- New left turn bay and bus boarding island at Nevins St.
- Safety improvements at Flatbush Avenue.
- Painted pedestrian space at Bond St and Hoyt St.
- Removal of westbound bus stop at Bond St, in line with MTA's Brooklyn Bus Network Redesign released on December 1, 2022.

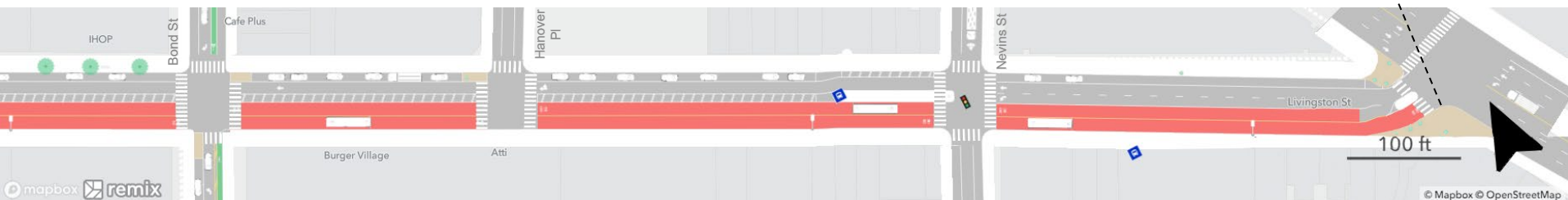


*Union Ave, BK (2011)*

**Existing Conditions**



**Proposed Conditions**

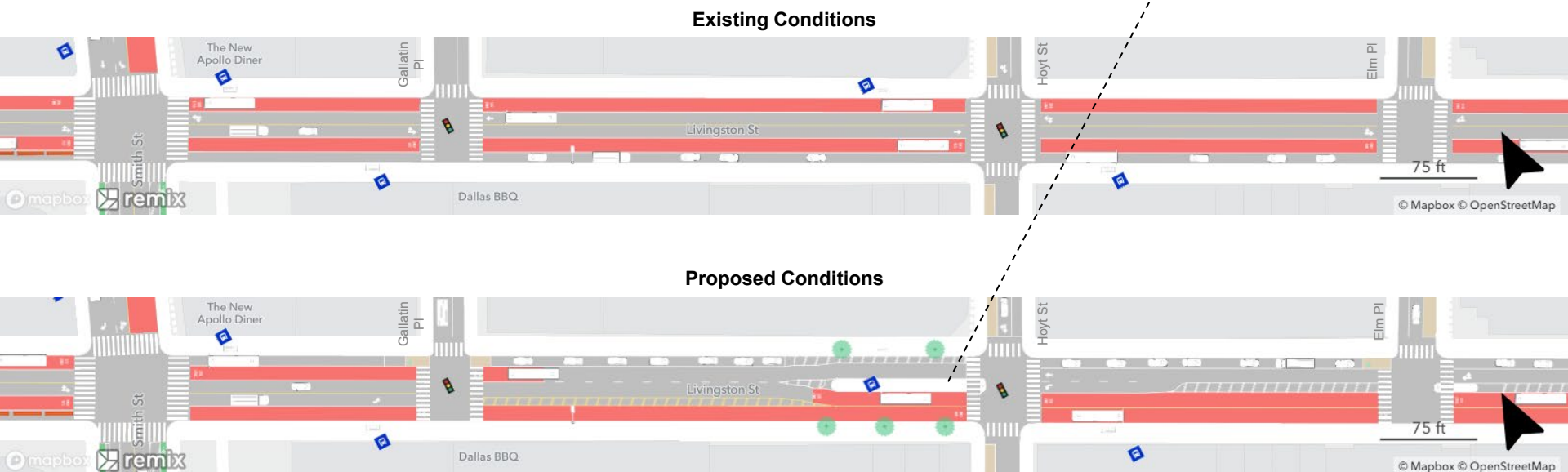


# Livingston St, Smith St to Elm Pl

- New concrete pedestrian island and painted ped space at Elm Place and new bus boarding island at Hoyt St.
- West of Hoyt St, westbound buses transition to offset lane.
- New painted ped space at Gallatin Place.
- Eastbound traffic allowed on Livingston St until Gallatin Place, to allow access to MetroTech.
- Construction at MTA Building precludes improvements west of Smith St for 2023.



*Kings Hwy, BK*

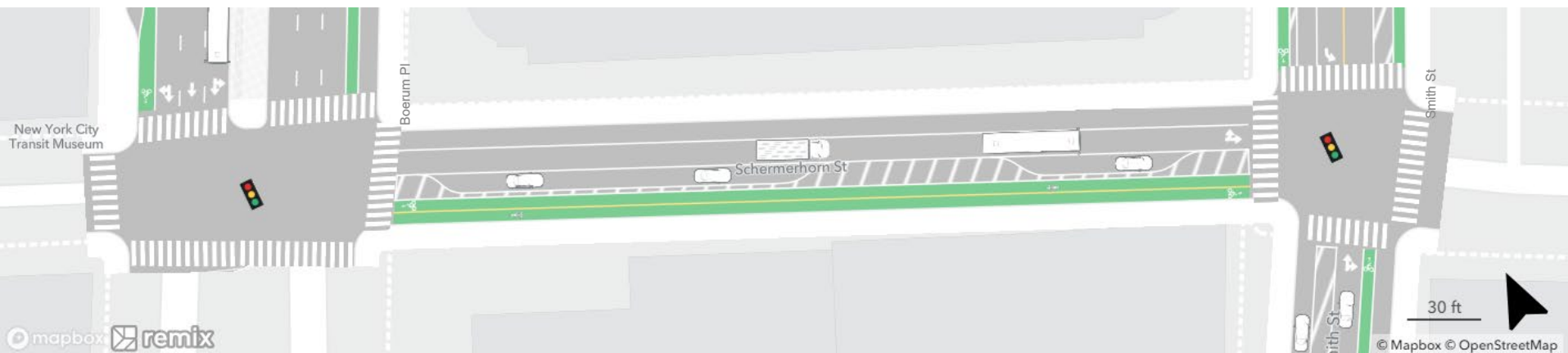




# Schermerhorn St, Boerum Pl to Smith St

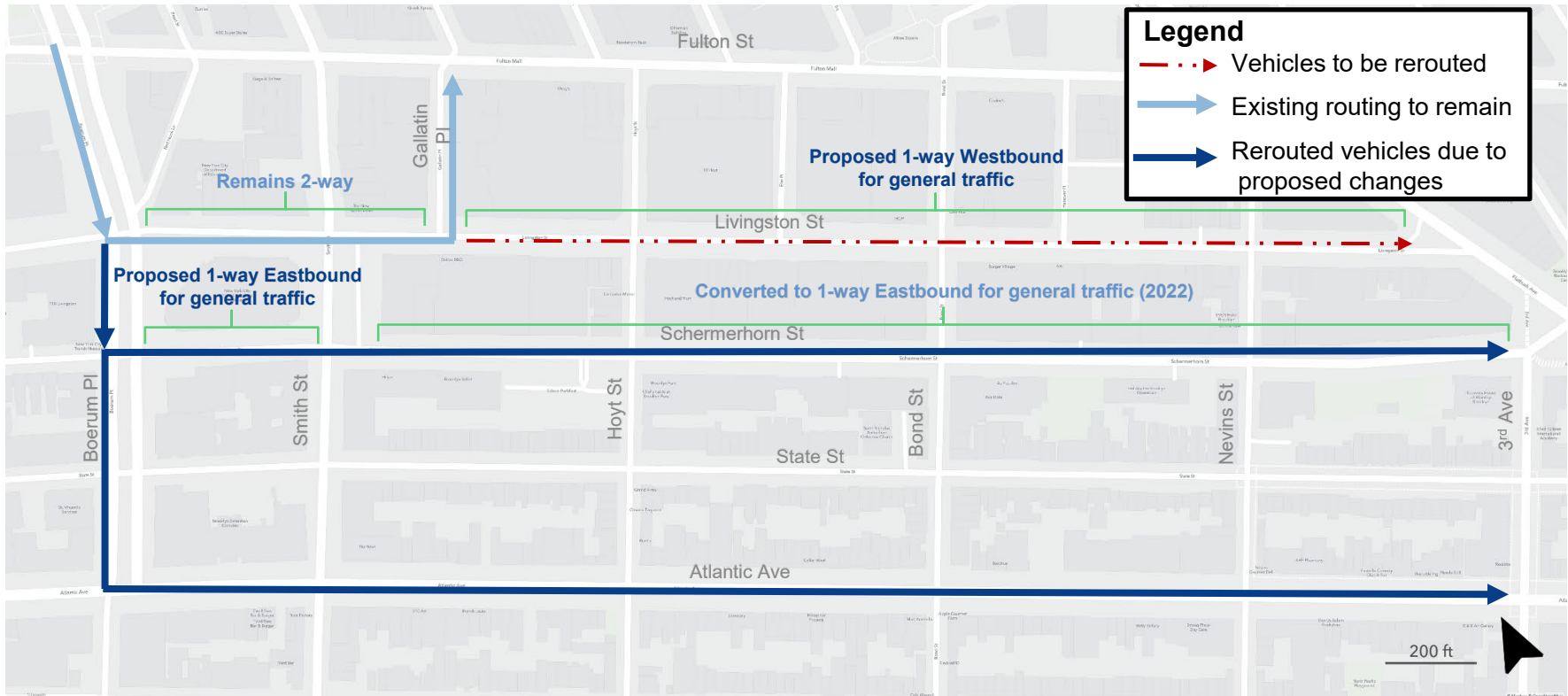
- No changes proposed on Livingston St between Boerum Place and Smith St.
- Proposed direction switch on Schermerhorn, between Boerum and Smith St, allows eastbound travel from Boerum Place to Flatbush Avenue.
- Creates an alternate route for existing eastbound Livingston traffic traveling to Flatbush Ave.

Proposed Conditions



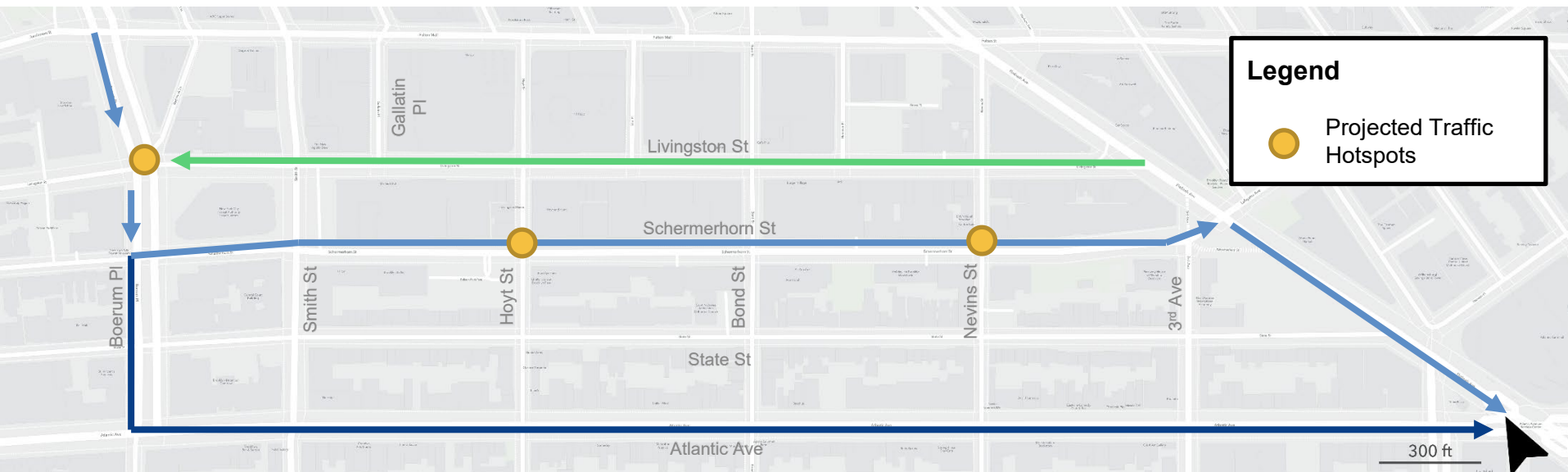
# Traffic Analysis Approach - Proposed Condition

- Proposed to retain eastbound Livingston between Smith and Gallatin Place.
- Vehicles traveling eastbound from Boerum PI to Flatbush Ave via Livingston assumed to reroute to either Schermerhorn St or Atlantic Avenue.
  - Rerouting based on existing travel pattern data to model a worst-case scenario.



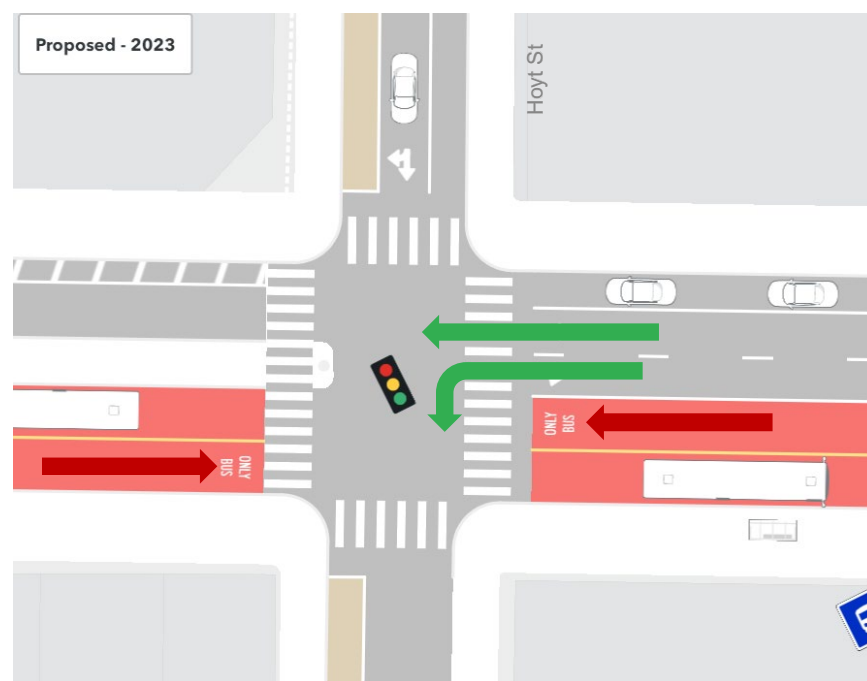
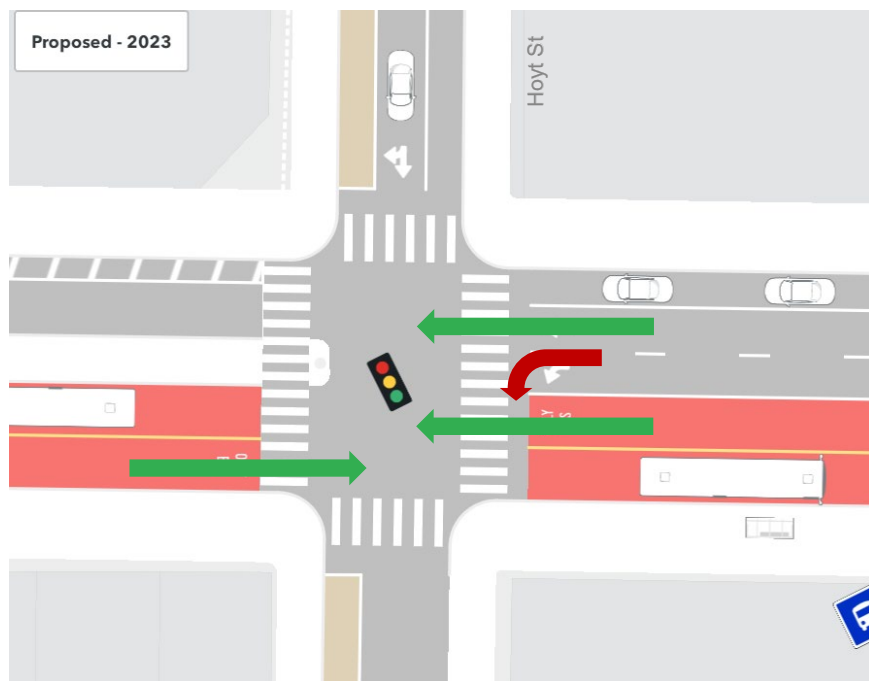
# Traffic - What to Expect in Proposed Condition

- Initial congestion likely as drivers get used to new street directions.
- Model projected additional traffic congestion on Schermerhorn St.
  - Continuing to review model and investigating potential improvements to reduce congestion.
- Future travel patterns are likely to change, as seen in past projects.
  - Traffic is likely to disperse throughout the larger network to reduce individual travel times.
    - Example: Southeast bound traffic may take Tillary St to Flatbush Ave.
  - Some drivers may choose to travel at off-peak times.
  - Some drivers may shift to other means of travel with an increase in bus speed and reliability.



# Traffic Accommodations

- New westbound Livingston left turn bays at Nevins St and Hoyt St.
  - Turn bays will get a green light separately from when the east-west bus lanes will have a green light.





# Pedestrian Realm Improvements

## Concrete Islands

- Bus boarding islands at Livingston @ Nevins St and Hoyt Street.
  - Concrete islands with bollards, fences and leaning bars for riders' safety and comfort.
- Pedestrian islands at Livingston @ Flatbush Ave and Elm Place.
  - Significantly reduces crosswalk length and adds physical protection for pedestrians.




## Painted Curb Extensions

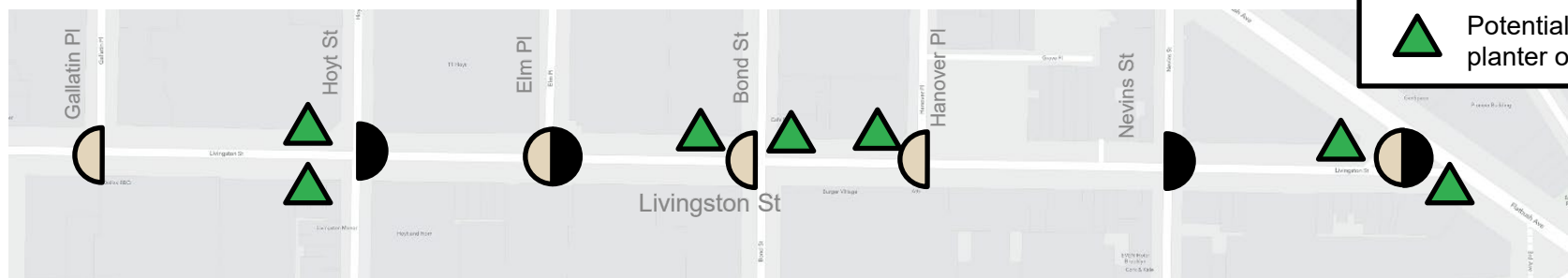
- Livingston St @ Flatbush Ave, Hanover Place, Bond St, Elm Place and Gallatin Place.
- Significantly reduces crosswalk length and adds space for pedestrians.
- Potential to partner with local sponsor to create artwork in painted space.

## Street Furniture and Plantings

- Coordinating with Parks Dept and utilities to potentially install trees on north curb sidewalk, including repurposing space used for existing north curb bus stops.
- Investigating stand-alone planters, potential to partner with local sponsor for plantings and maintenance.

### Legend

-  Proposed Painted Pedestrian Space
-  Proposed Concrete pedestrian space
-  Potential site for planter or tree pit



# Curb Regulations & Median Treatments

## Balancing the Needs of the corridor

- **Need for Loading Zones**
  - Loading demand due to high density residential and commercial uses on the corridor.
  - Consideration for Metered Commercial Vehicle regulations versus unmetered loading zones.
    - Metered Commercial Vehicle regulations implemented in Flushing as part of DOT's Main St Busway project.
- **Demand for Parking**
  - Daytime metered parking.
  - Overnight & Sunday non-metered parking.
- **Need for unobstructed Bus Lanes**
  - Median treatments may be used to discourage drivers from using the busway.
- **Need for Enforcement**
  - Regulations changes alone may not change actual behavior.
  - DOT and MTA Cameras to enforce bus lanes.
  - NYPD to enforce general traffic and curbside.



**A new Better Barriers treatment recently piloted on Edward L. Grant Highway**

# Next Steps

---

## May 2023

- Meet with stakeholders as needed
- Present to Community Board 2
- Refine plan based on public feedback

## Summer 2023

- Planned Implementation

## Post Implementation

- Review and adjust project if needed
- DOT may revisit west end of Livingston St project after construction at MTA building is finished and the redesign plan becomes closer to final.



# Thank You!

---

## Questions?



NYC DOT



NYC DOT



nyc\_dot



NYC DOT