

Livingston Street Transit Priority Study

CB 2 Meeting – Project Concept Discussion

May 18, 2023



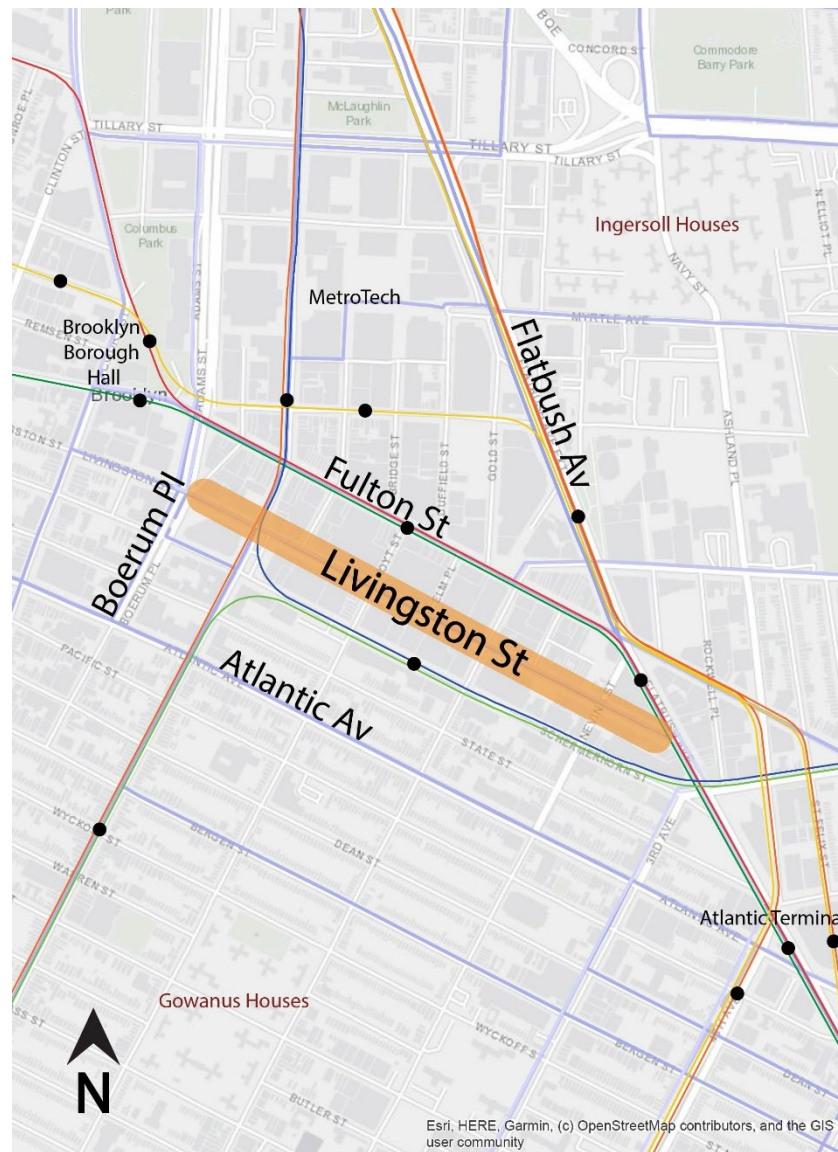
Outline

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

Introduction

Why Livingston St

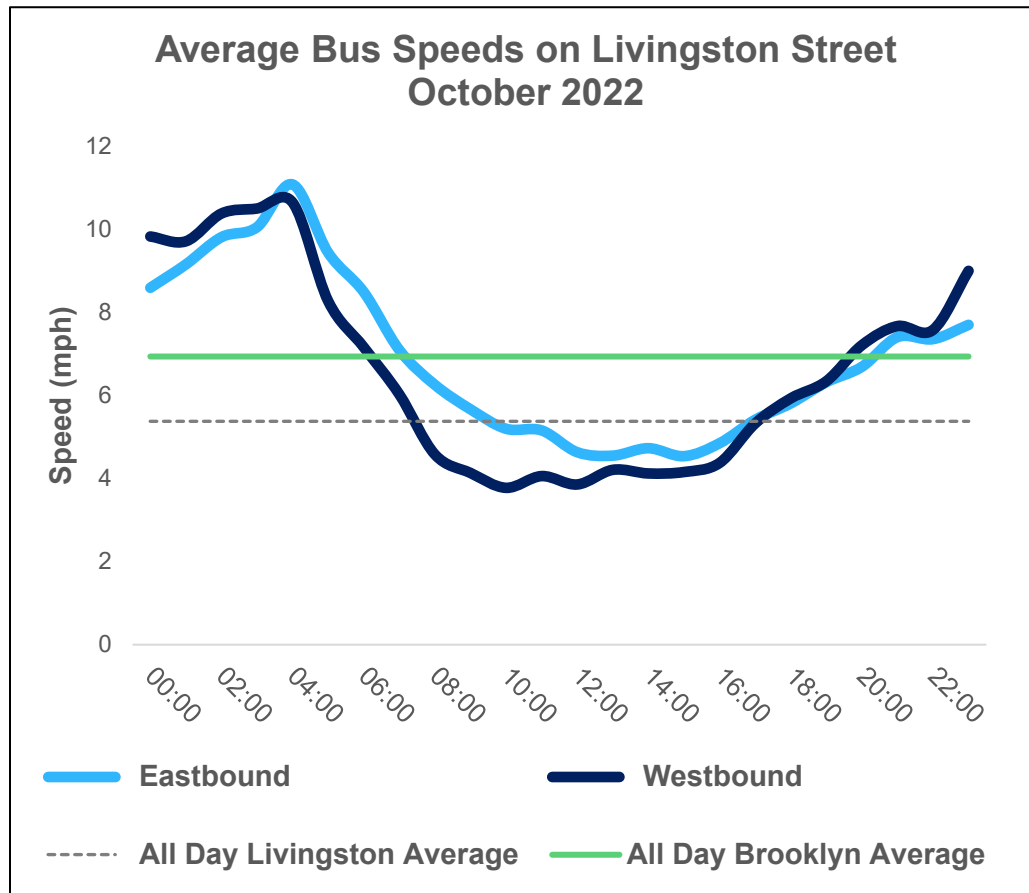
- Crosstown bus service connects riders to many local bus routes, Borough Hall, Fulton Mall, and stations for the **2** **3** **4** **5** **A** **C** **G**
- Vision Zero Priority Zone
- Identified as bus priority corridor in NYC DOT's Streets Plan and MTA's Brooklyn Bus Network Redesign
- Current bus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

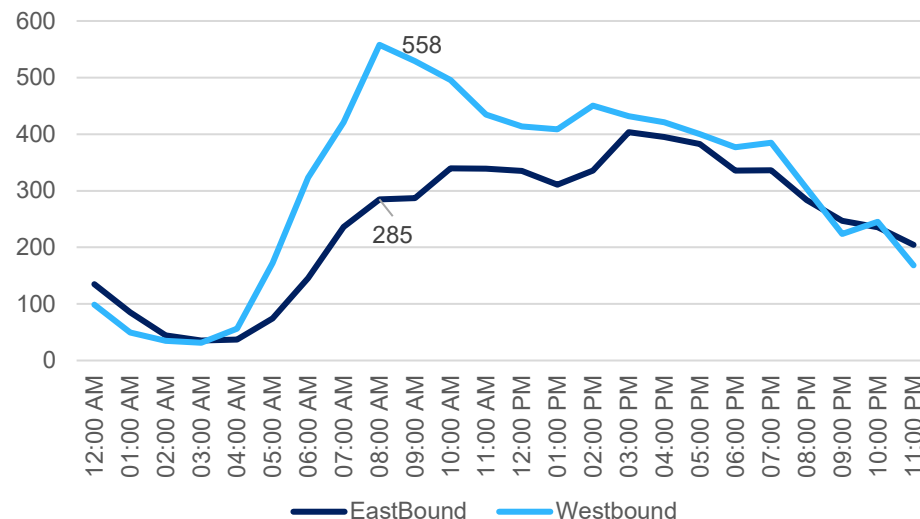
Livingston St between Elm St and Bond St

Westbound peak:
558 vehicles Weekdays 8-9 AM

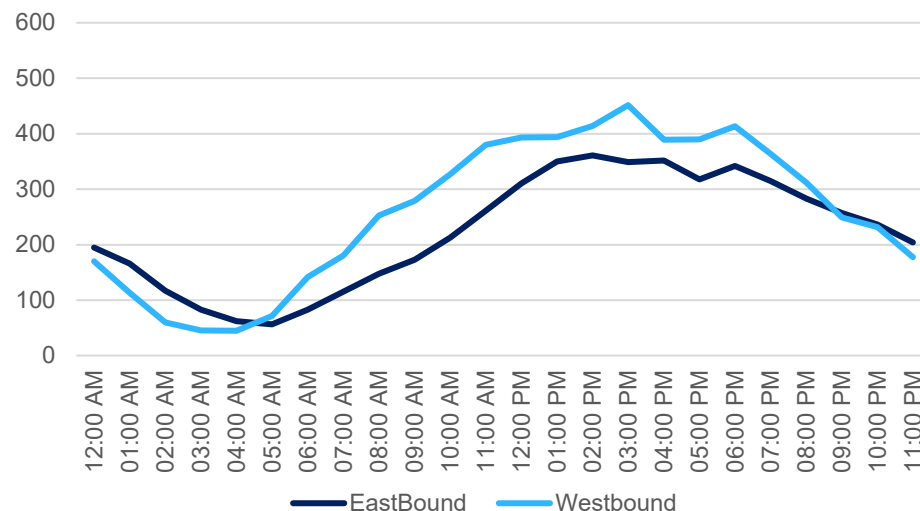
Eastbound peak:
400 vehicles Weekdays 3-4 PM



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



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

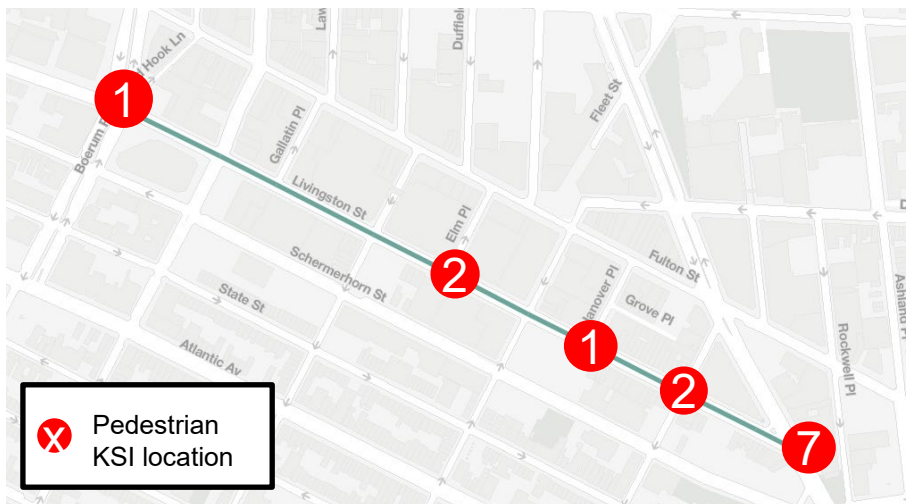


ATR counts taken October 11 to 23, 2022

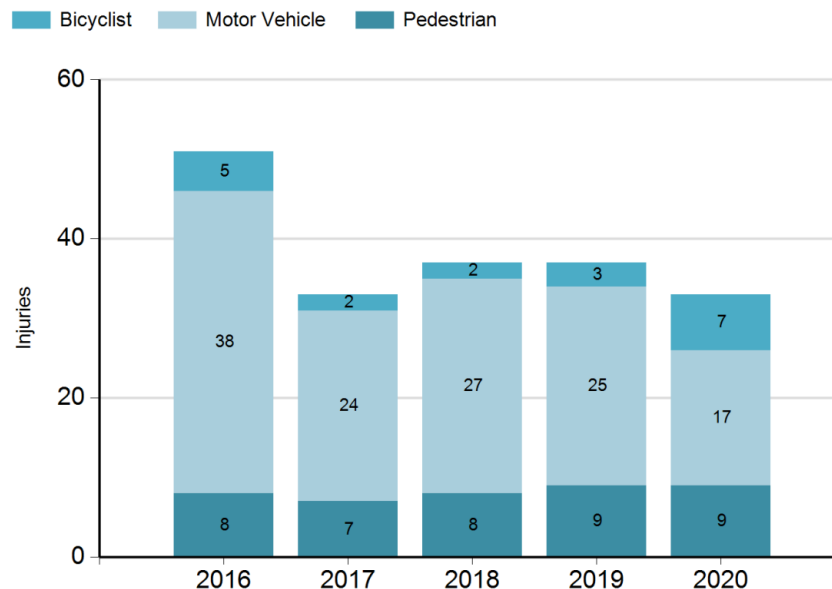
Crash History

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)



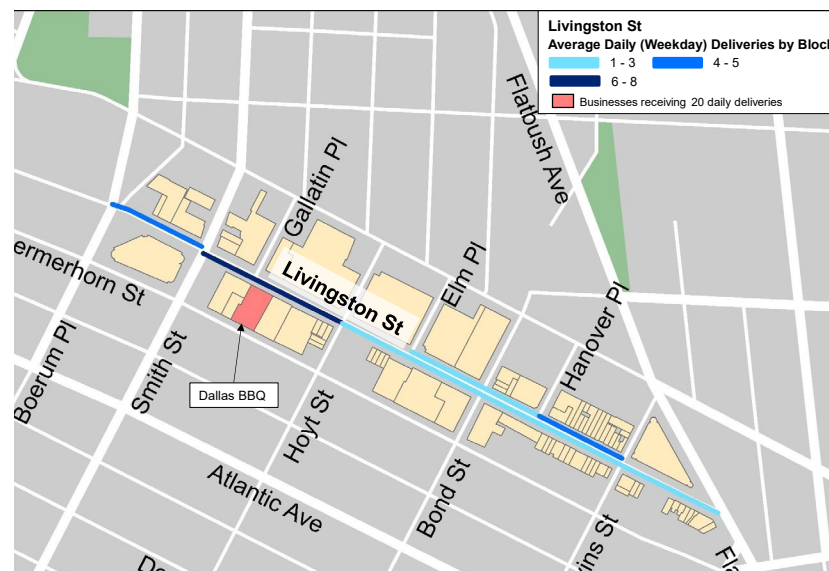
Vehicle Action Versus Ped Action, 2016-2020 (5 Years)

	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

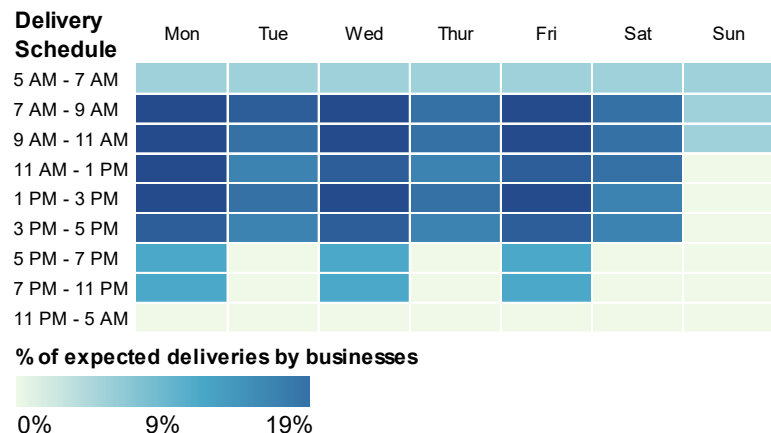
Source: NYC DOT Traffic Safety Data Viewer

Delivery Operations

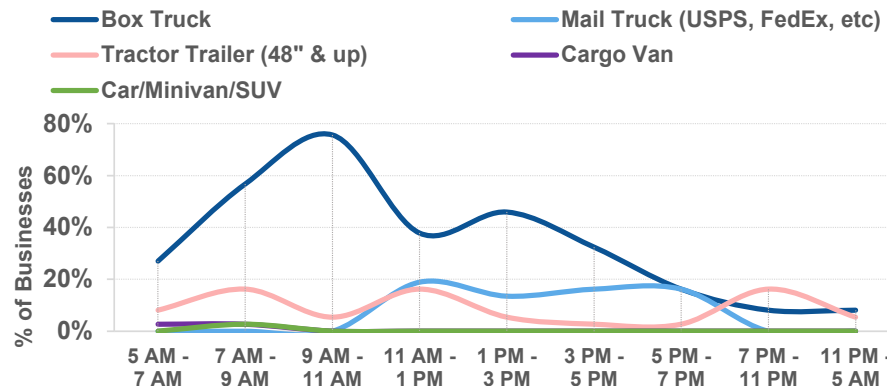
- Livingston St is a busy commercial corridor, with many new high density residential buildings
- Deliveries tend to be delivered via box trucks, and most businesses expect deliveries between 7 AM and 5 PM on weekdays.



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

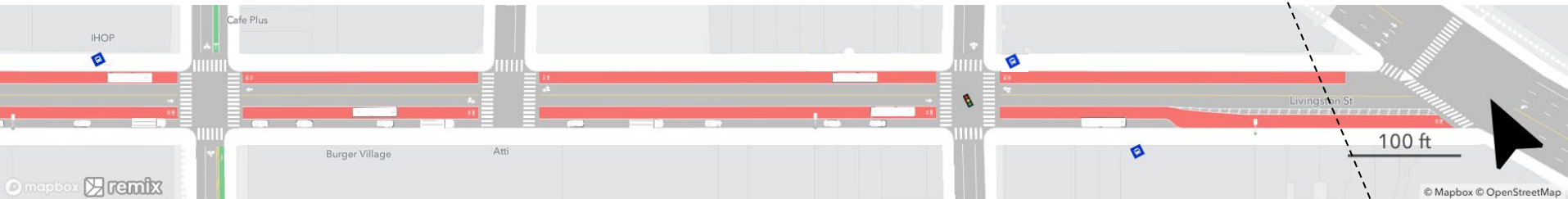
Livingston St, Bond St to Flatbush Ave

- Two-way bus lanes on the south curb.
- One-way westbound for all other vehicles.
- New left turn bay and bus boarding island at Nevins St.
- Safety improvements at Flatbush Avenue.
- Close southbound Flatbush slip lane onto Livingston St.
- Removal of westbound bus stop at Bond St, in line with MTA's Brooklyn Bus Network Redesign released on December 1, 2022.

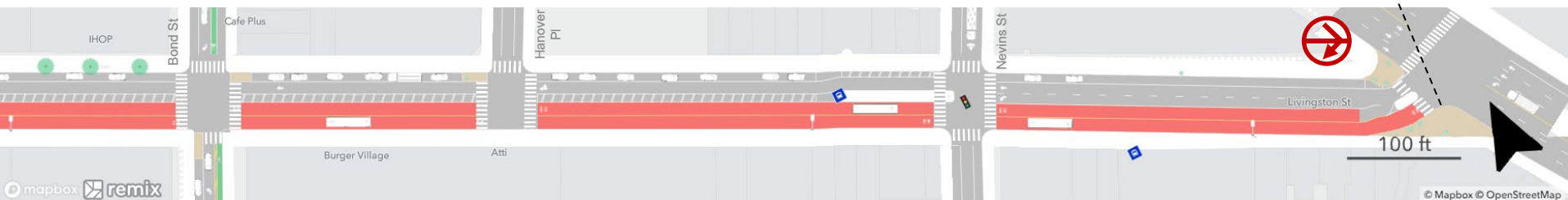


Union Ave, BK (2011)

Existing Conditions



Proposed Conditions

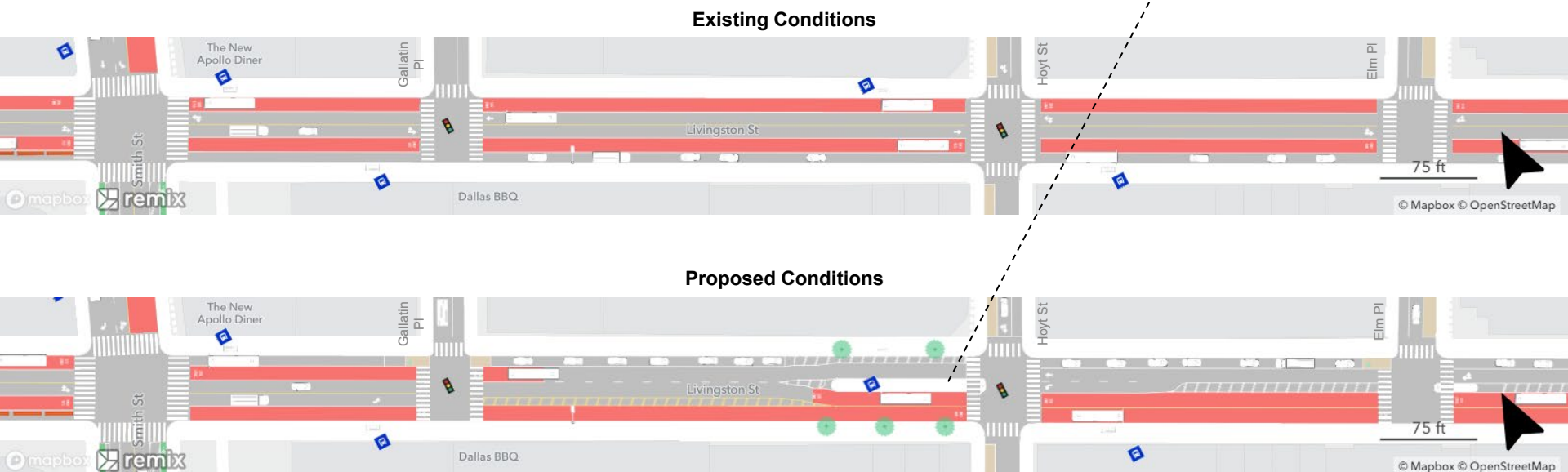


Livingston St, Smith St to Elm Pl

- 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.
- All other eastbound vehicles allowed on Livingston St until Gallatin Place, to allow access to MetroTech.
- Construction at MTA Building precludes improvements west of Smith St for 2023.

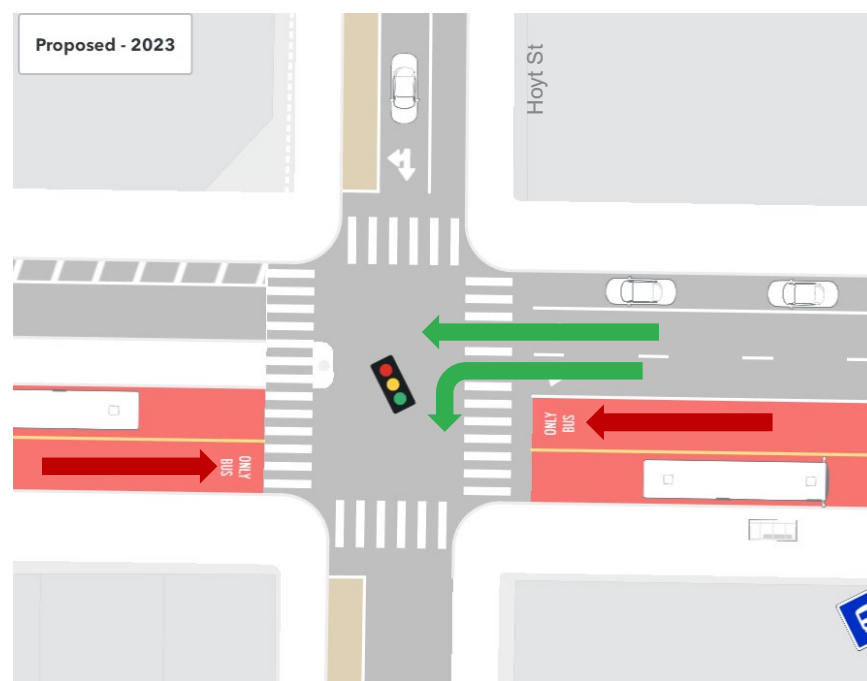
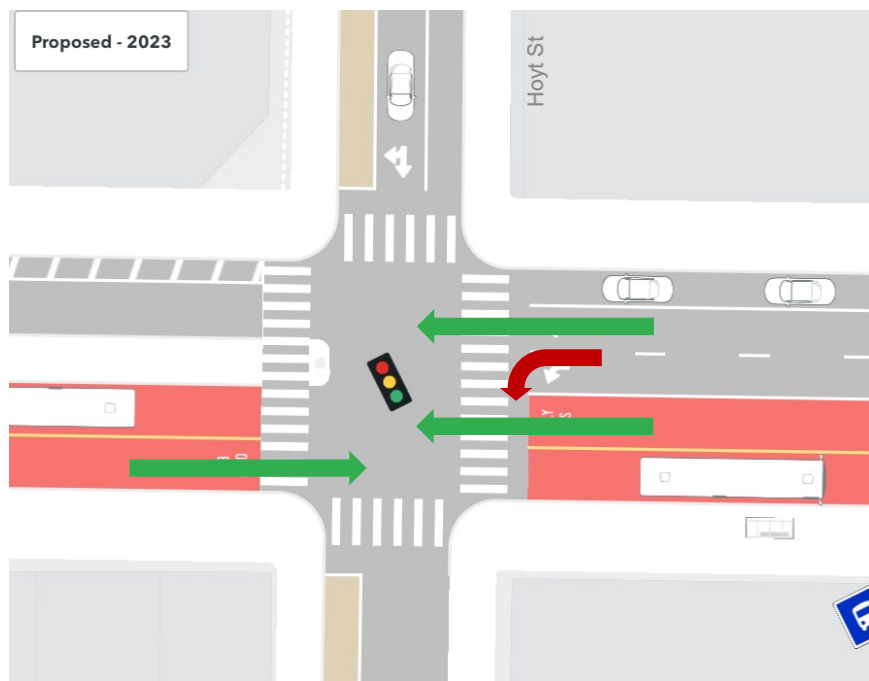


Kings Hwy, BK



Traffic Accommodations

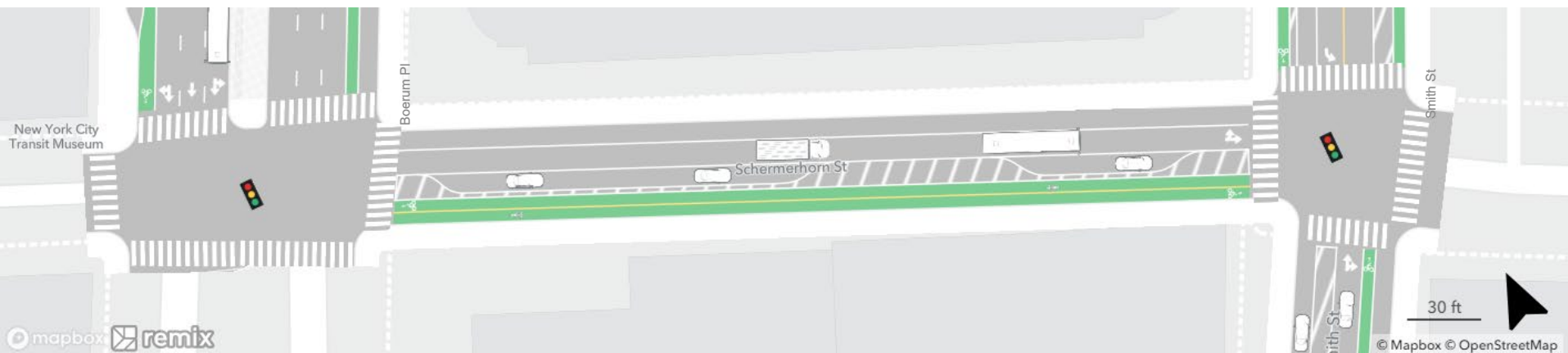
- New westbound Livingston left turn bays at Nevins St and Hoyt St.
 - Turn bays will get a green light separately from when the east-west bus lanes will have a green light.



Schermerhorn St, Boerum Pl to Smith St

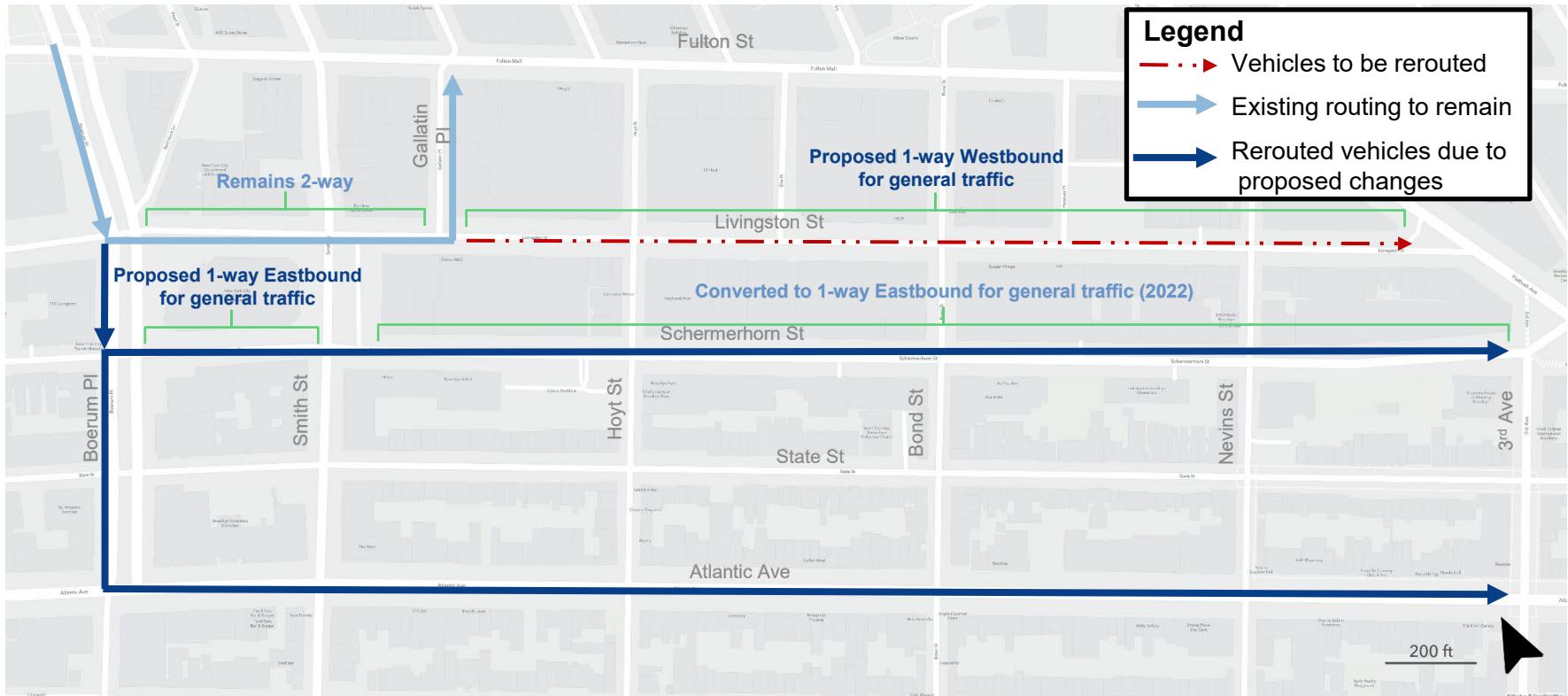
- No changes proposed on Livingston St between Boerum Place and Smith St.
- Proposed direction switch on Schermerhorn, between Boerum and Smith St, allows eastbound travel from Boerum Place to Flatbush Avenue.
- Creates an alternate route for existing eastbound Livingston traffic traveling to Flatbush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

Proposed Conditions



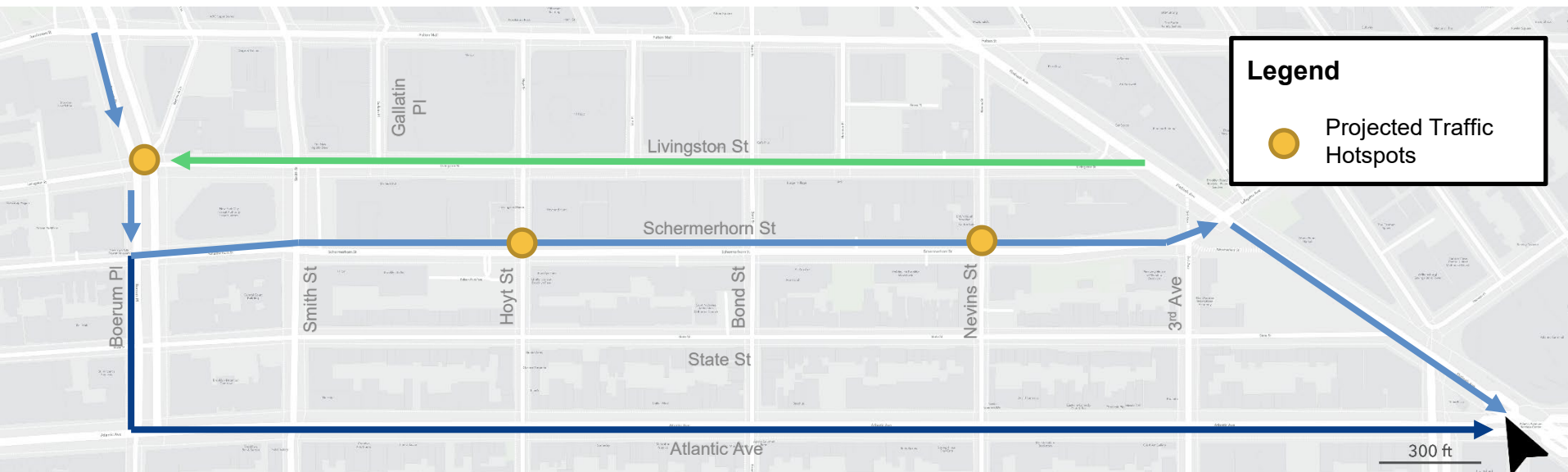
Traffic Analysis Approach - Proposed Condition

- 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.



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

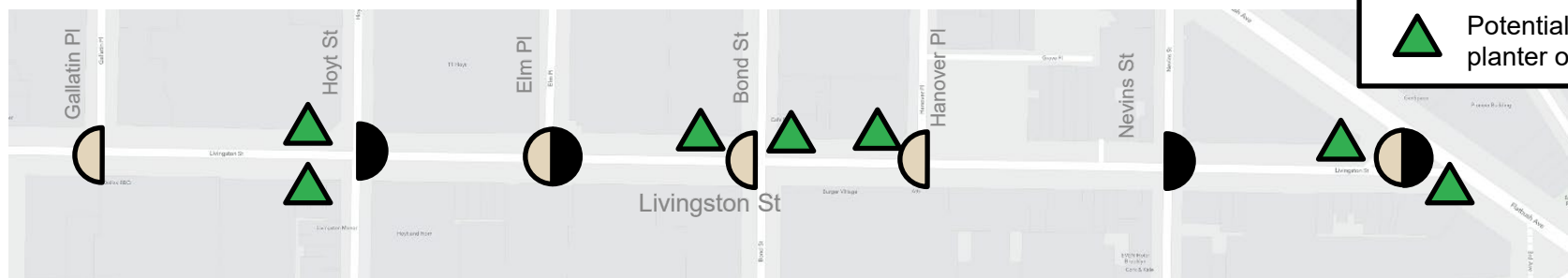
- Livingston St @ Flatbush Ave, Hanover Place, Bond St, Elm Place and Gallatin Place.
- Significantly reduces crosswalk length and adds space for pedestrians.
- Potential to partner with local sponsor to create artwork in painted space.

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
- 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?



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