

Manhattan Bridge

Mobility and Safety Improvements

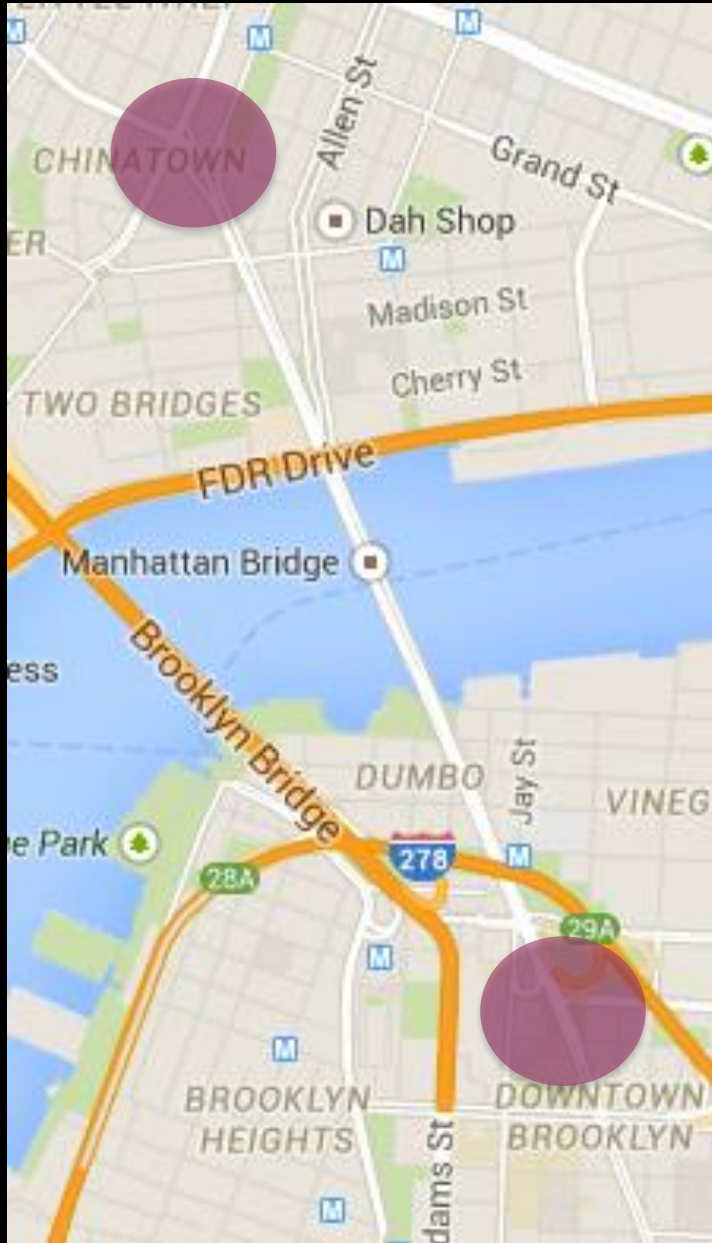
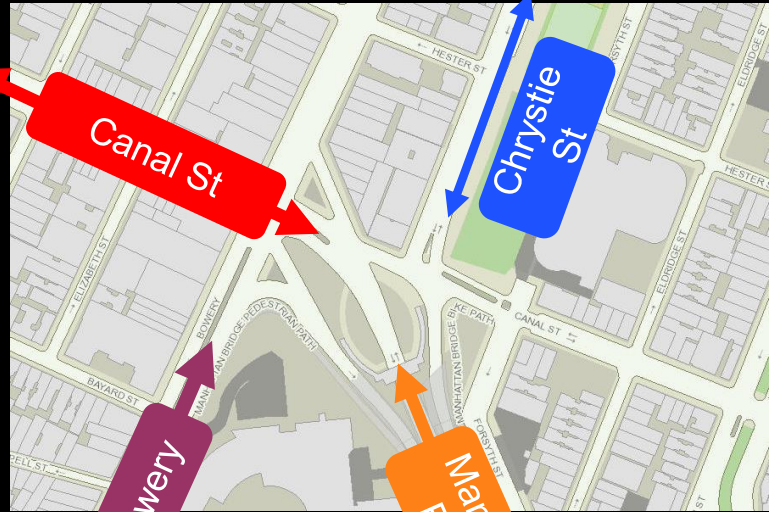
2015



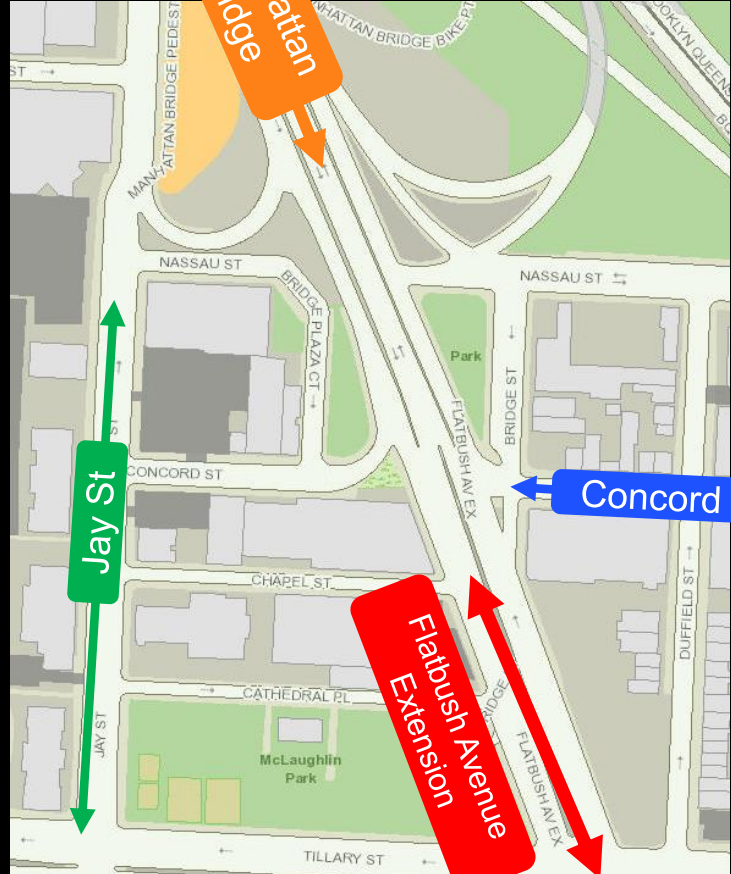
New York City Department of Transportation, Pedestrian Projects Group
Presented to the Brooklyn Community Board 2 Transportation Committee on May 19, 2015

Project Area

Manhattan Side



Brooklyn Side



Background

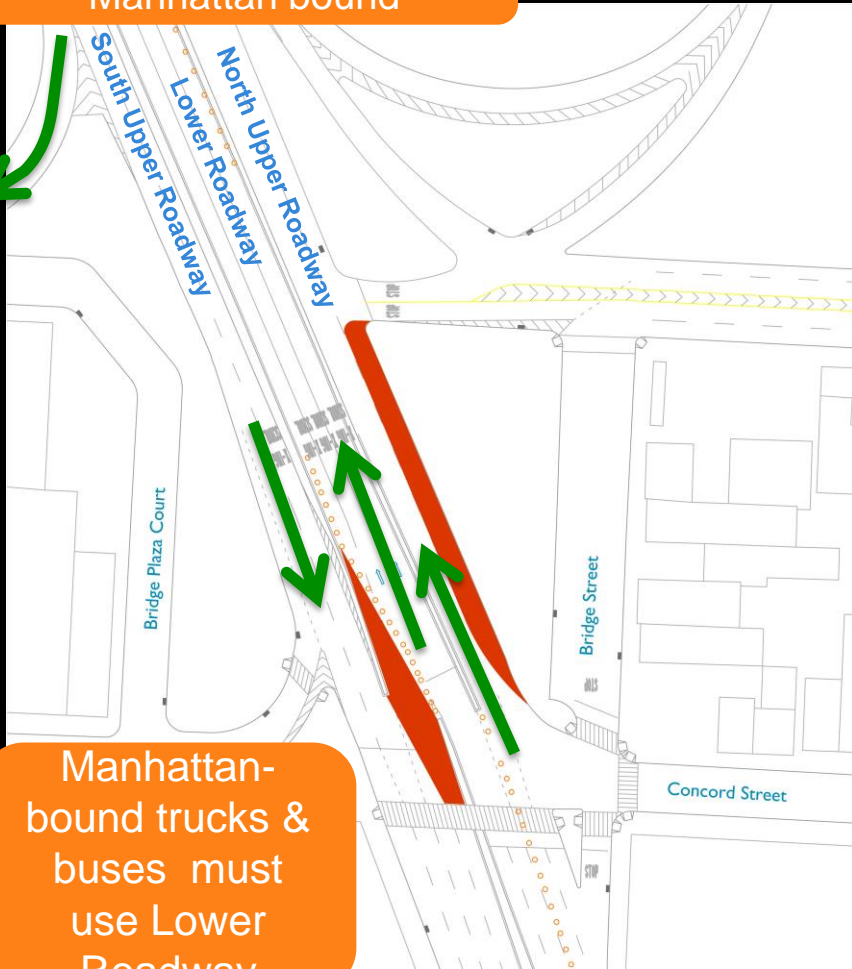
- Daily reversal of the Lower Roadway leads to confusion traffic operations
- Manhattan mouth of the bridge has received numerous pedestrian safety improvement requests
 - Vision Zero intersection
 - High Crash Corridor (in top 10% of locations in Manhattan resulting in fatalities or sever injuries)



Existing Operations

Lower Deck is only Brooklyn bound 30 out of 168 hours per week

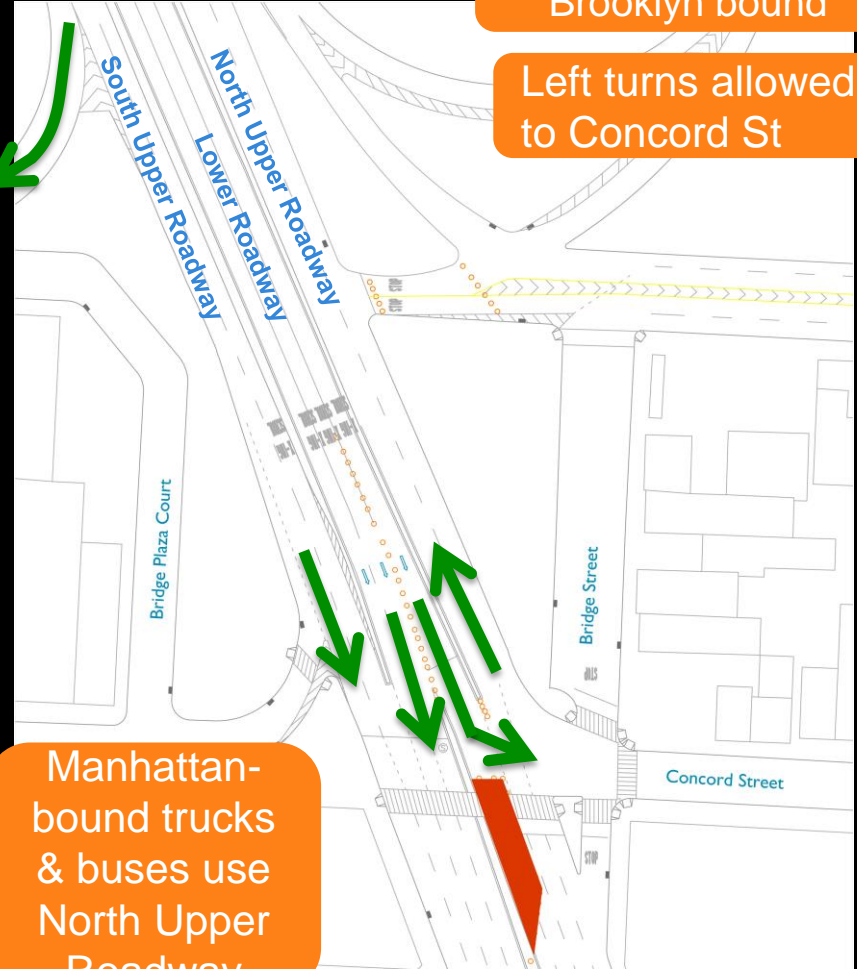
All other times Lower Deck: Manhattan bound



Manhattan-bound trucks & buses must use Lower Roadway

3-9PM Lower Deck: Brooklyn bound

Left turns allowed to Concord St



Manhattan-bound trucks & buses use North Upper Roadway

 Road Closure

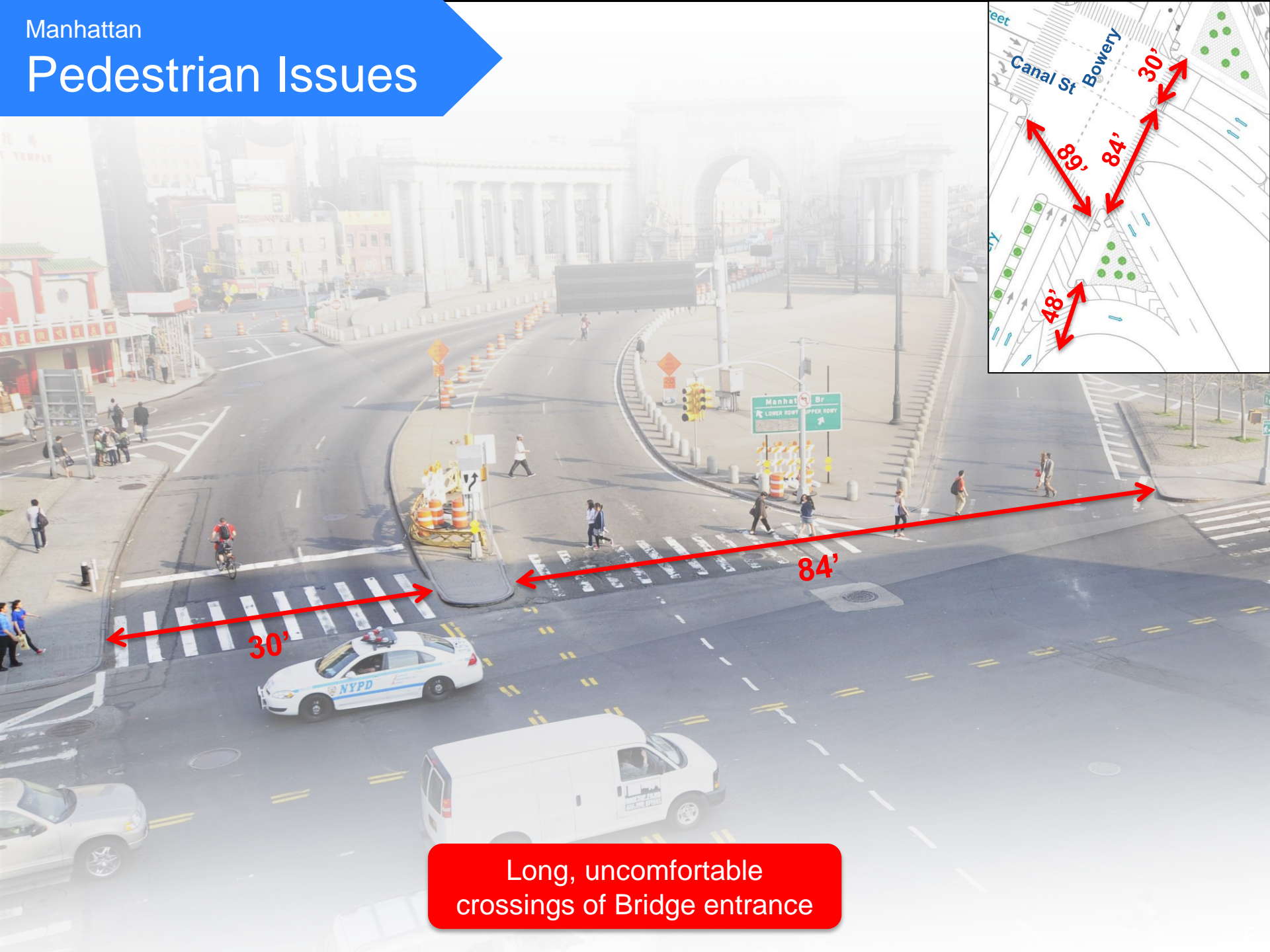
Pedestrian Issues

Unmarked & uncontrolled crossing
with high-speed vehicle conflict

High pedestrian
volume (1,525)
In peak hour



Pedestrian Issues

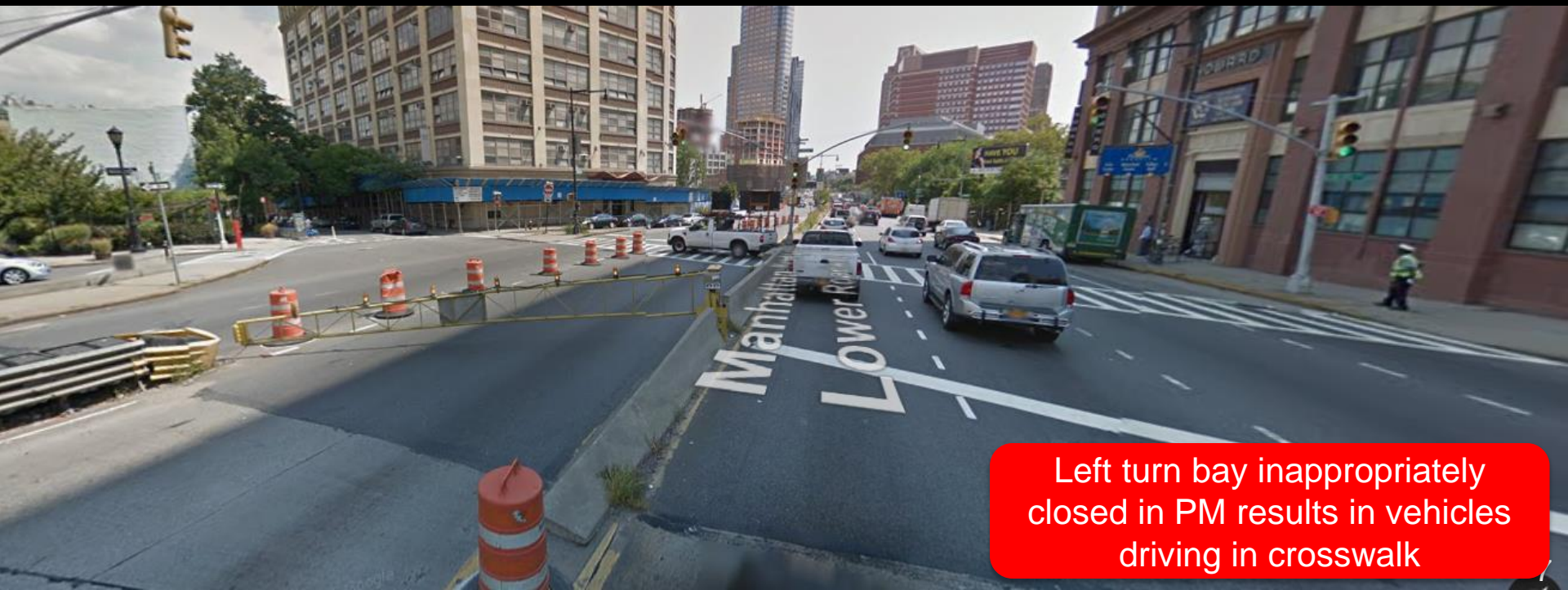


Long, uncomfortable crossings of Bridge entrance

Pedestrian Issues

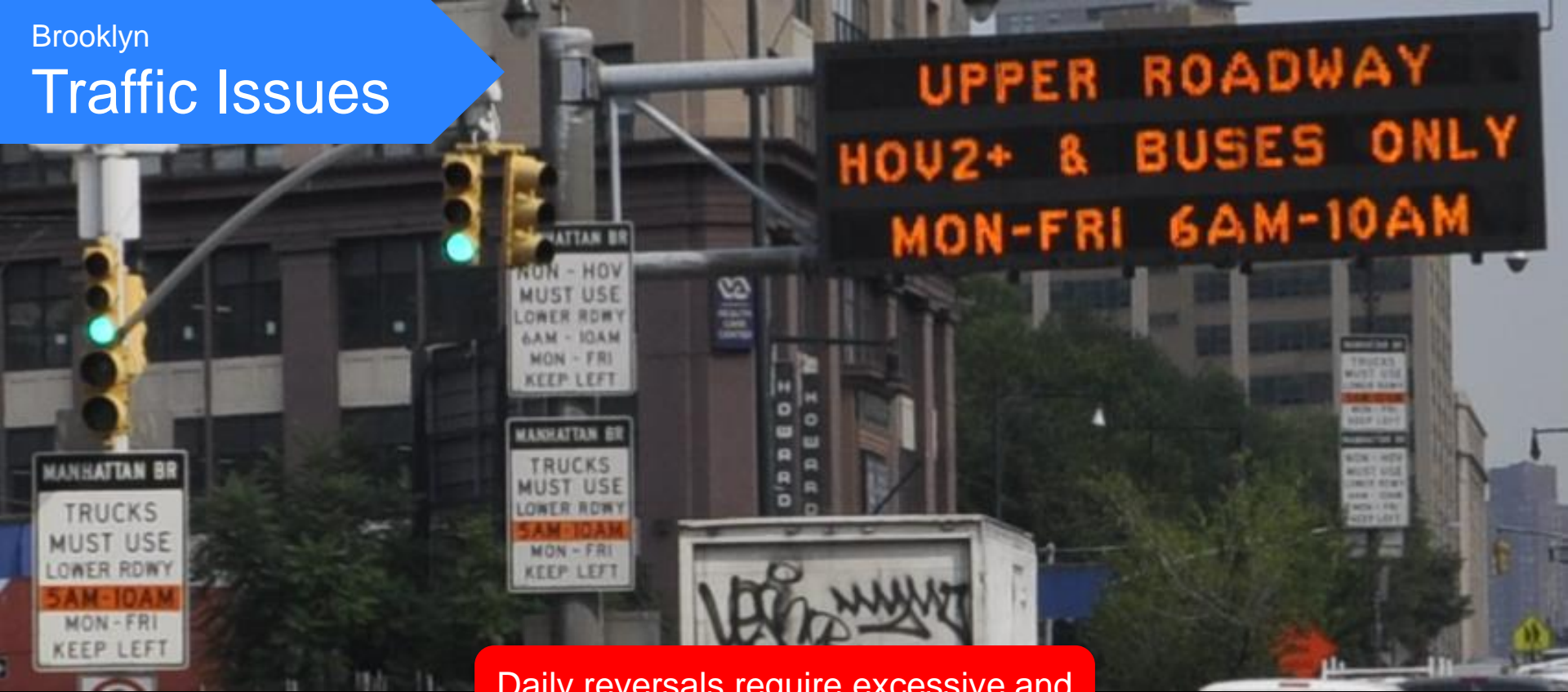


Highway-like treatment:
median with jersey barrier



Left turn bay inappropriately
closed in PM results in vehicles
driving in crosswalk

Brooklyn
Traffic Issues



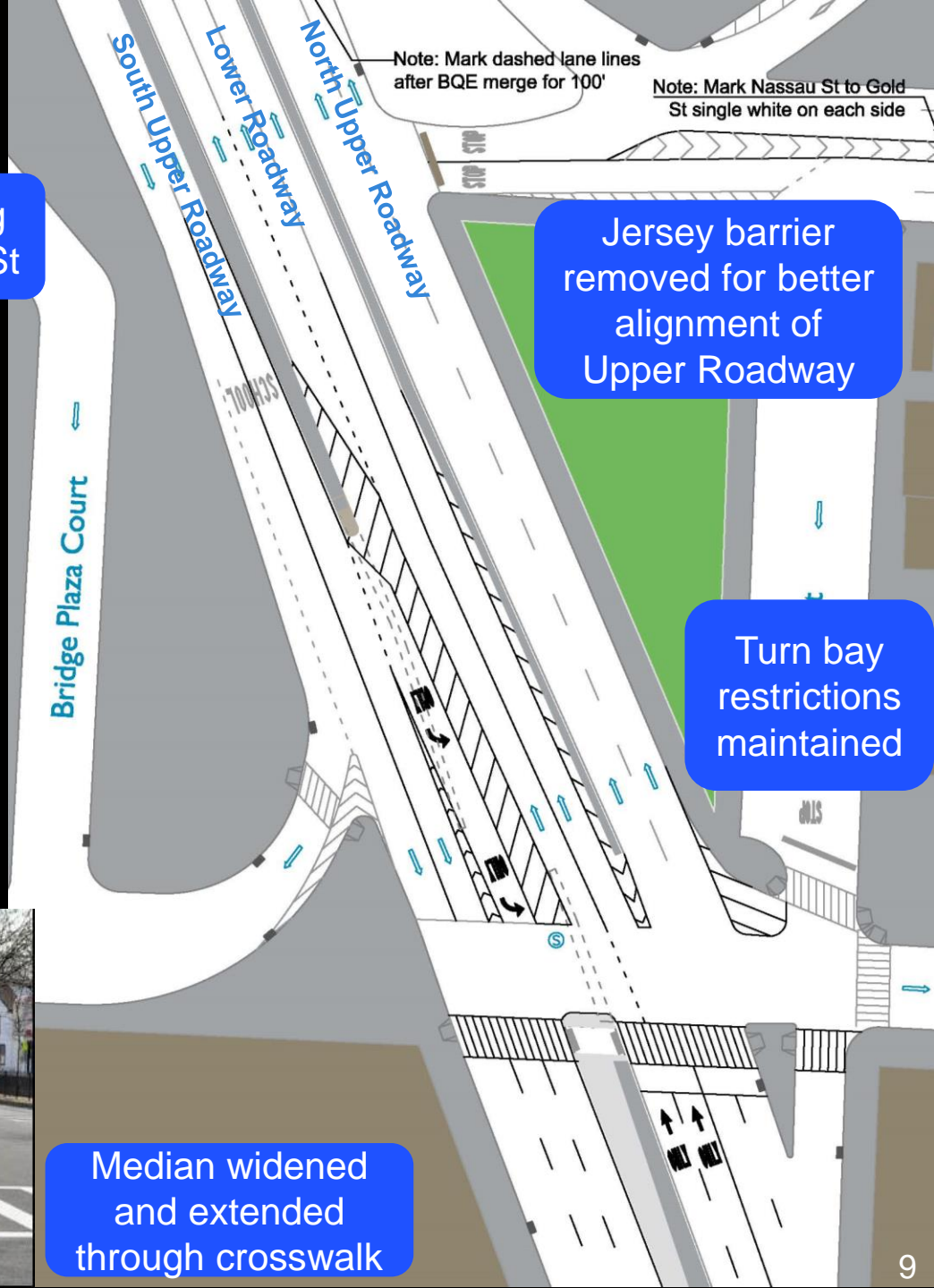
Daily reversals require excessive and complicated signage



Brooklyn Proposal

Improve signal timing
at Jay St and Sands St

Lower Roadway
Manhattan-bound at all times



Example median treatment

Traffic Issues



Existing to be removed



Install simpler signage

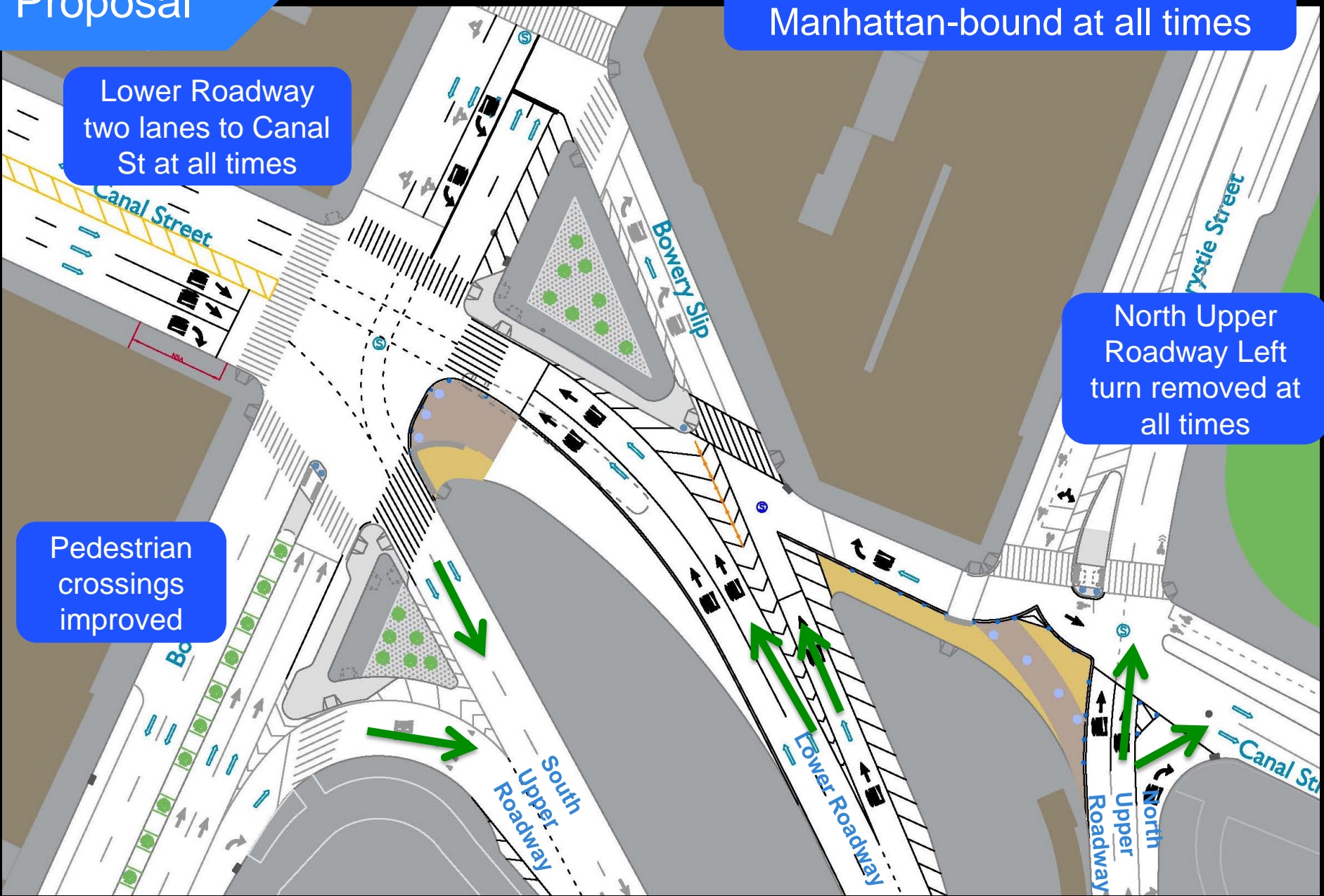
Manhattan Proposal

Lower Roadway
Manhattan-bound at all times

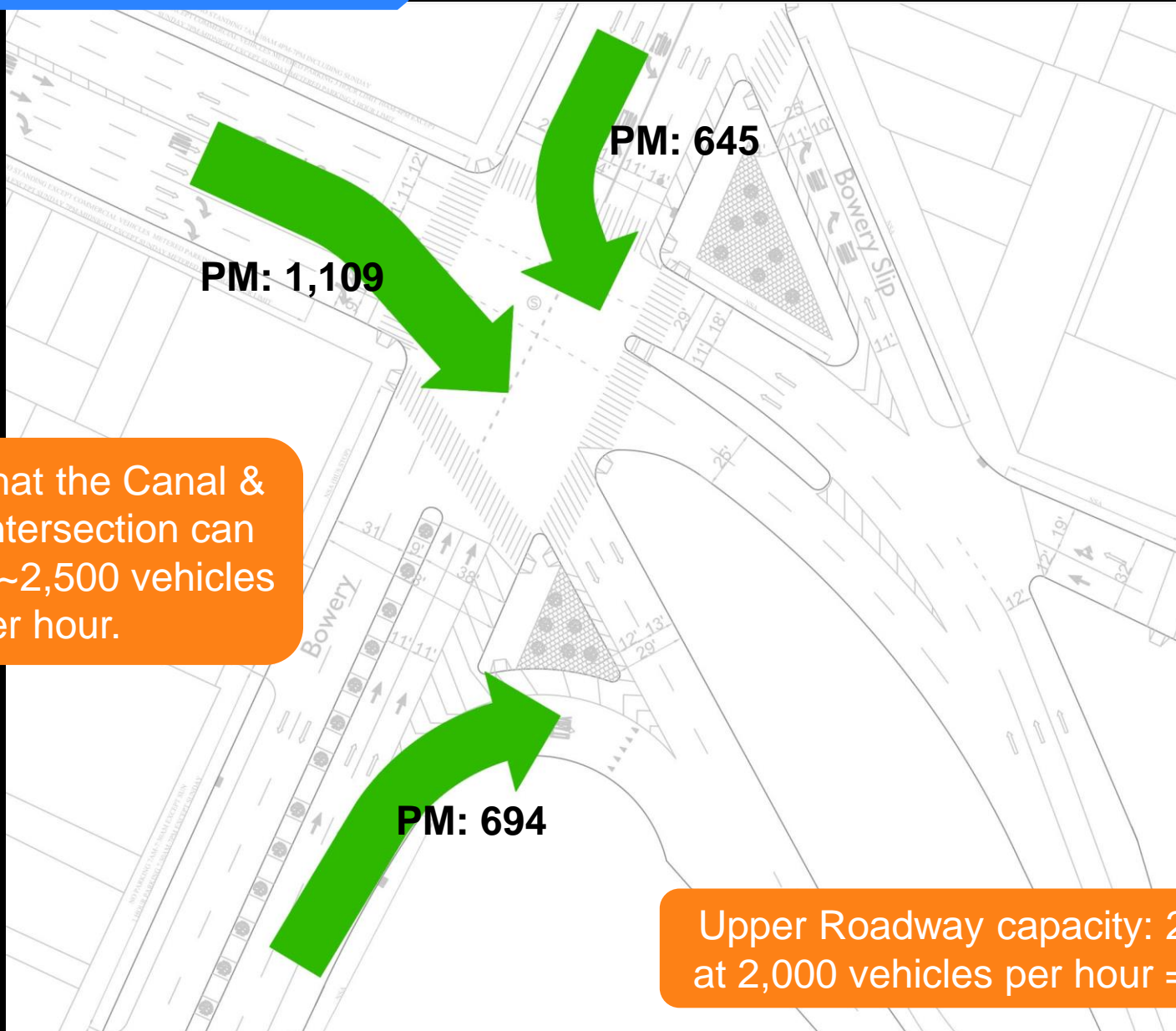
Lower Roadway
two lanes to Canal
St at all times

North Upper
Roadway Left
turn removed at
all times

Pedestrian
crossings
improved



Traffic Considerations

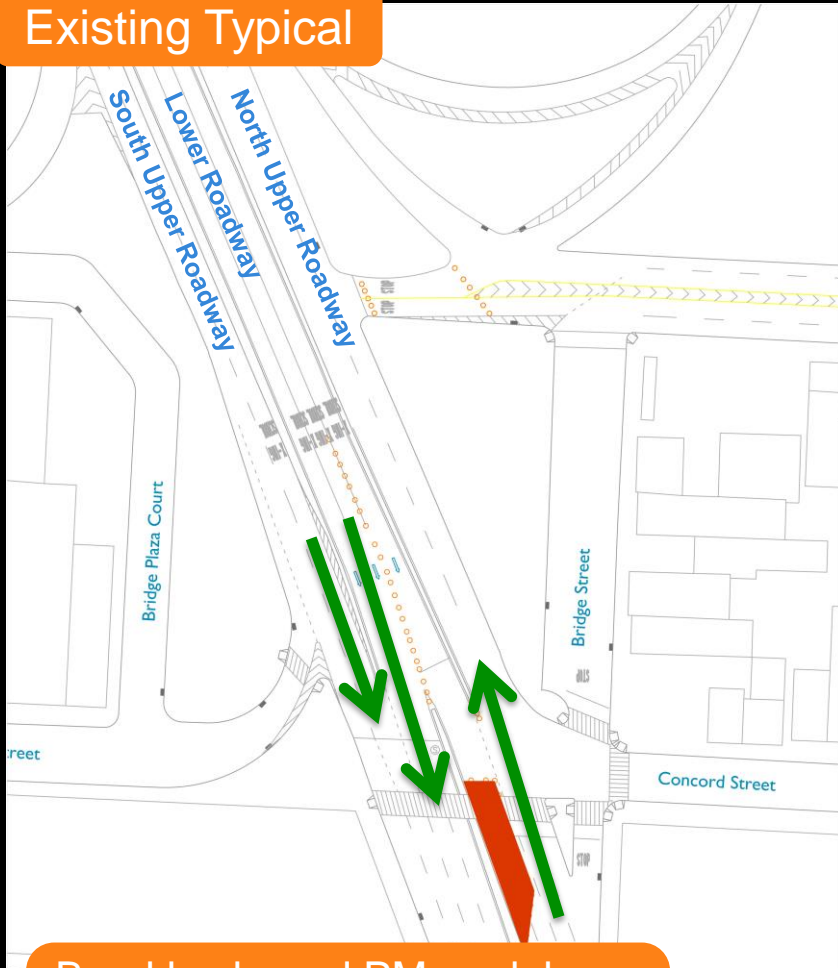


Limit to what the Canal & Bowery intersection can process = ~2,500 vehicles per hour.

Upper Roadway capacity: 2 lanes at 2,000 vehicles per hour = 4,000

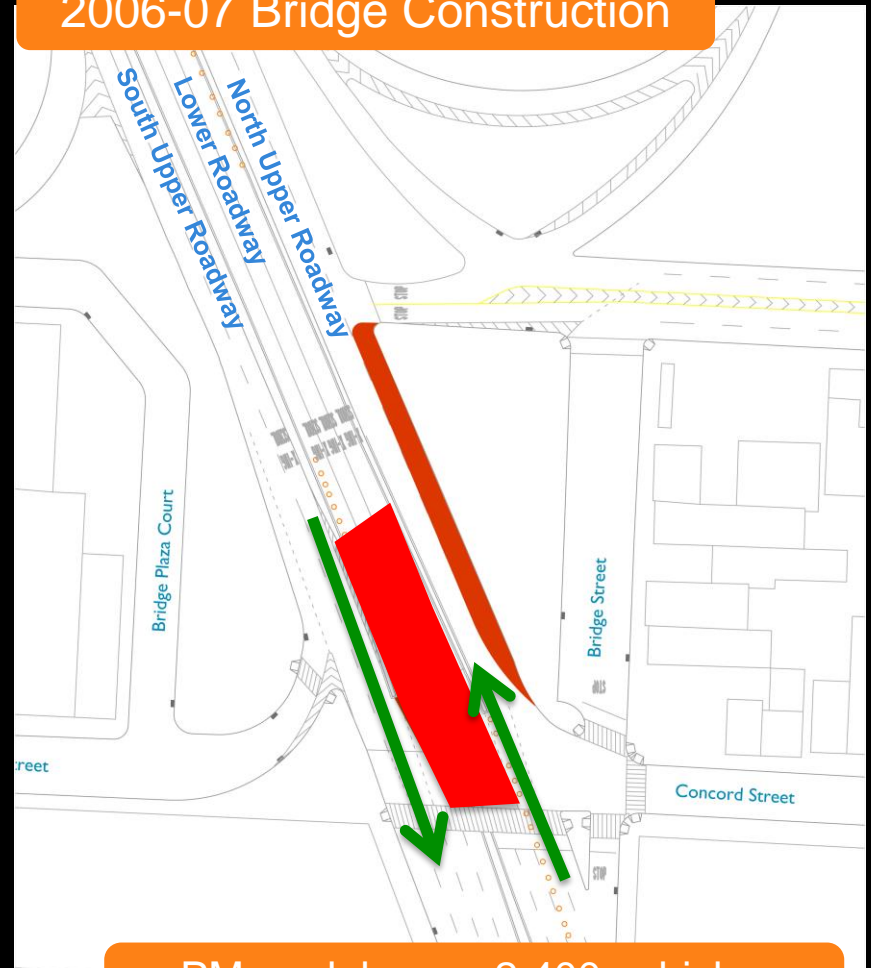
Traffic Considerations

Existing Typical



Brooklyn bound PM peak hour:
2,550 spread over Upper and
Lower Roadways

2006-07 Bridge Construction



PM peak hour: ~2,400 vehicles
accommodated on Upper Roadway
during Lower Roadway closure

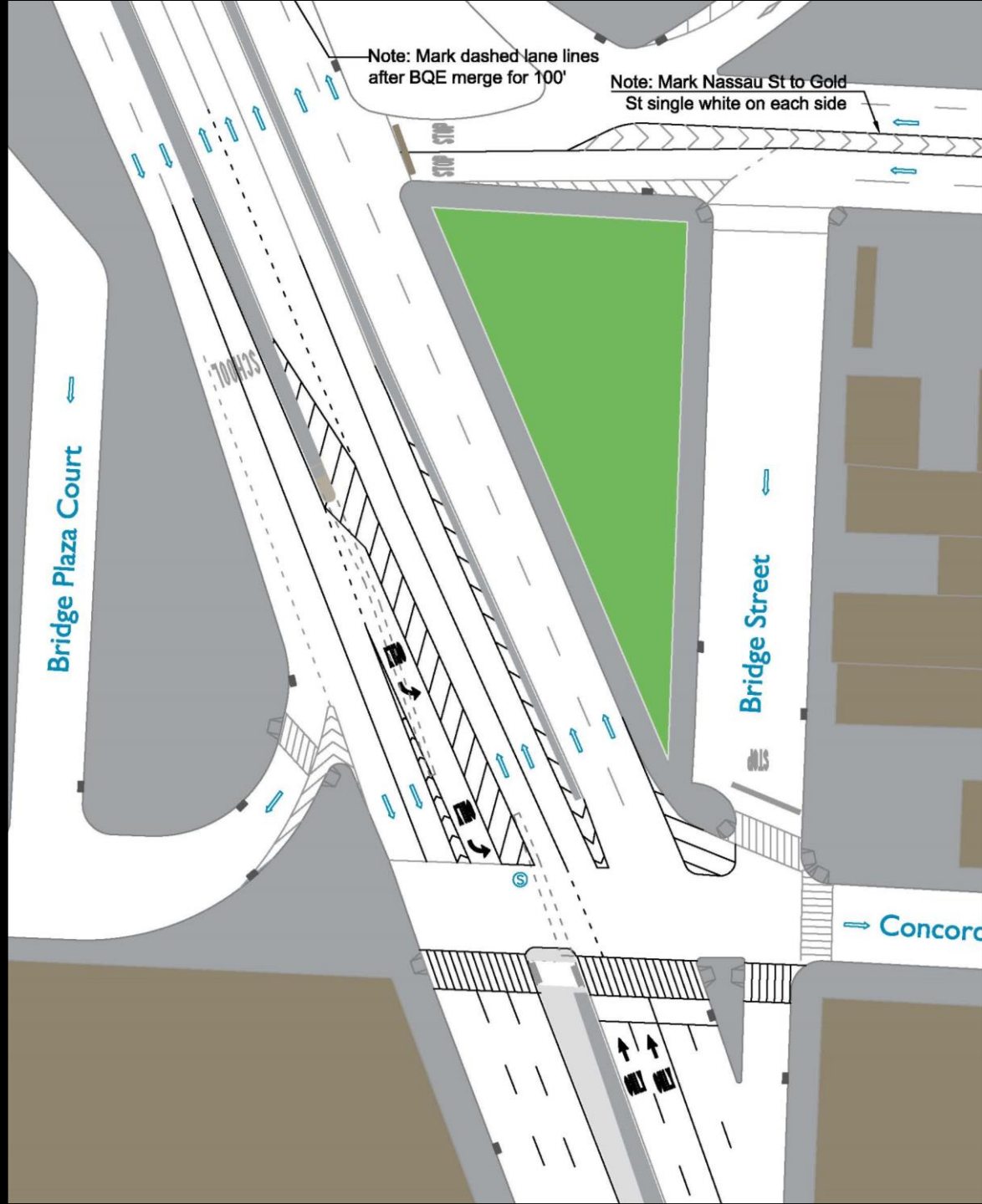
Benefits

- Improves pedestrian access and safety
- Clarifies traffic movements
- Maintains traffic capacity



Summary

- Maintain Lower Roadway Manhattan-bound at all times
- Remove jersey barrier to better integrate South Upper Roadway into Concord St intersection
- Clarify signage
- Widen and extend median
- Adjust signal timing at Jay St



www.nyc.gov/dot

Thank
You

CONCORD ST

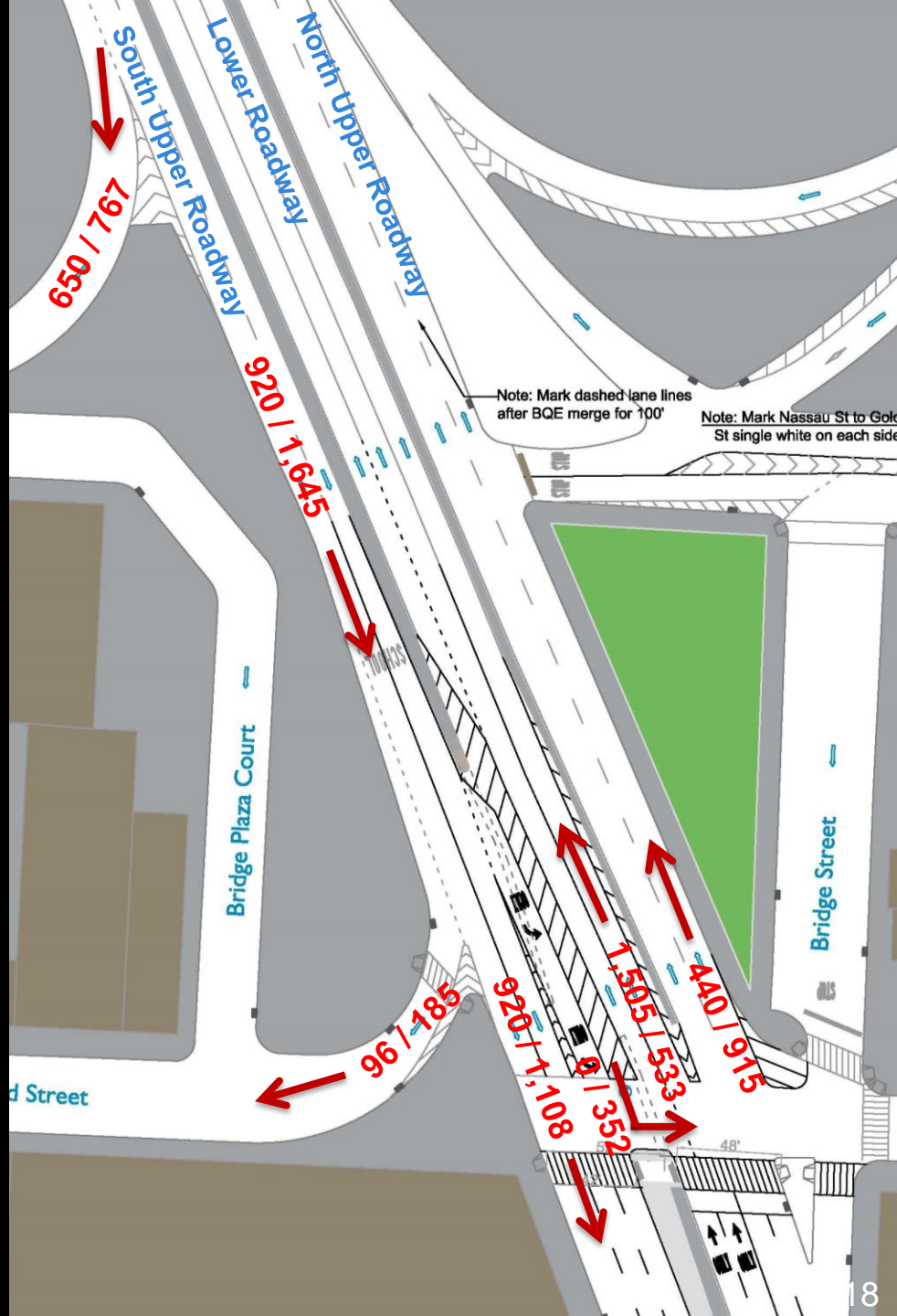
MANHATTAN BR.
TRUCKS
MUST USE
LOWER RDWY
5AM - 3PM
MON - FRI
KEEP LEFT

Manhattan Bridge
LOWER RDWY
Canal St west
UPPER RDWY
Canal St east
ALL TRUCKS
5AM - 3PM
MON - FRI
HOV 2+ & BUSES
8AM - 10AM MON - FRI
OTHER TIMES ALL TRAFFIC



Appendix

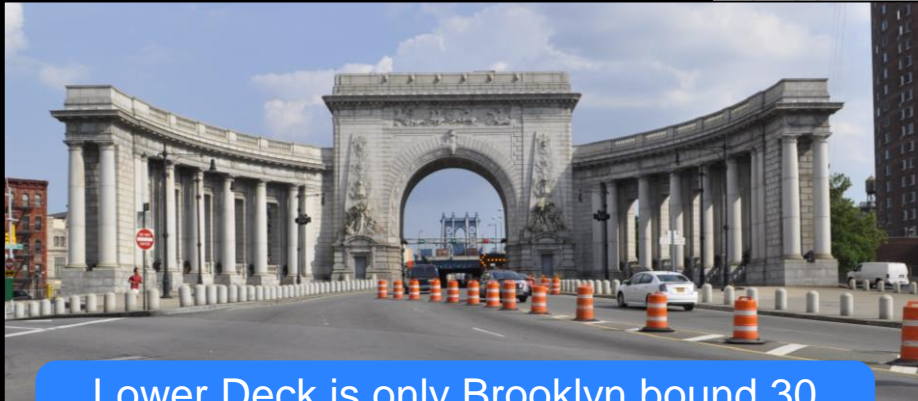
Proposed Volumes



AM / PM

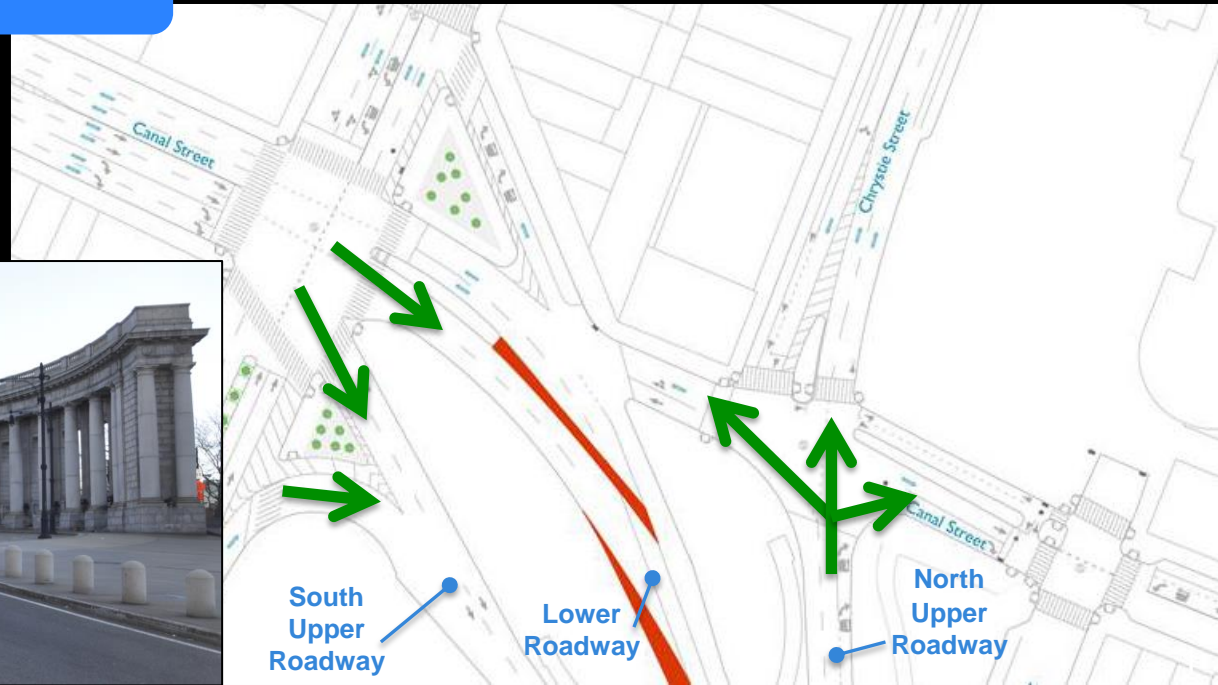
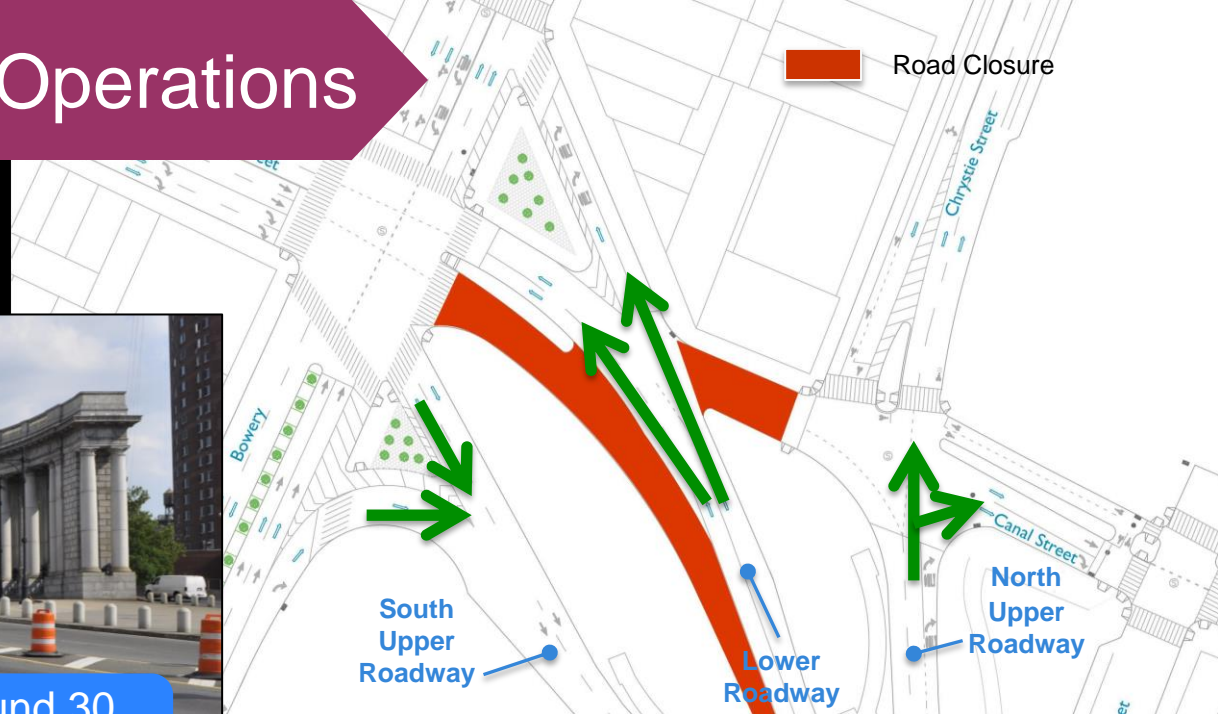
Manhattan Existing Operations

All other times Lower Deck:
Manhattan bound



Lower Deck is only Brooklyn bound 30
out of 168 hours per week

3-9PM Lower Deck:
Brooklyn bound



Traffic Considerations



Brooklyn bound PM peak hour
volume average: 2,549

Volume typically dispersed over
lower and upper decks

In 2006-7: ~2,400 vehicles in peak
hour were accommodated on
Upper Roadway during Lower
Roadway closure

Brooklyn Bound

5-6 pm

2,697 (2005)

2,409 (2006 Lower Closed)

2,402 (2007 Lower Closed)

2,482 (2008)

2,499 (2009)

2,490 (2010)

2,455 (2011)

2,781 (2012)

2,676 (2013)

2,602 (2014)

Source: NYC DOT Fall Screen Line
Data, East River Bridges