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 severe injuries)
Brooklyn

Existing Operations

- All other times Lower Deck: Manhattan bound
- 3-9PM Lower Deck: Brooklyn bound
- Left turns allowed to Concord St

- Manhattan-bound trucks & buses must use Lower Roadway
- Lower Deck is only Brooklyn bound 30 out of 168 hours per week
- Manhattan-bound trucks & buses use North Upper Roadway
Manhattan
Pedestrian Issues

Unmarked & uncontrolled crossing with high-speed vehicle conflict

High pedestrian volume (1,525) In peak hour
Long, uncomfortable crossings of Bridge entrance
Brooklyn 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

Median widened and extended through crosswalk

Turn bay restrictions maintained

Lower Roadway Manhattan-bound at all times

Improve signal timing at Jay St and Sands St

Jersey barrier removed for better alignment of Upper Roadway

Example median treatment
Brooklyn Traffic Issues

Install simpler signage

Existing to be removed

Manhattan Bridge

<table>
<thead>
<tr>
<th>LOWER RDWY</th>
<th>UPPER RDWY</th>
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</thead>
<tbody>
<tr>
<td>Canal Street West</td>
<td>Canal Street East Chrystie Street</td>
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</table>
Manhattan Proposal

Lower Roadway Manhattan-bound at all times

Lower Roadway two lanes to Canal St at all times

Pedestrian crossings improved

North Upper Roadway Left turn removed at all times
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
Brooklyn
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

Road Closure
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