Fast Forward: Bronx Bus Network Redesign Final Plan

December 2, 2019

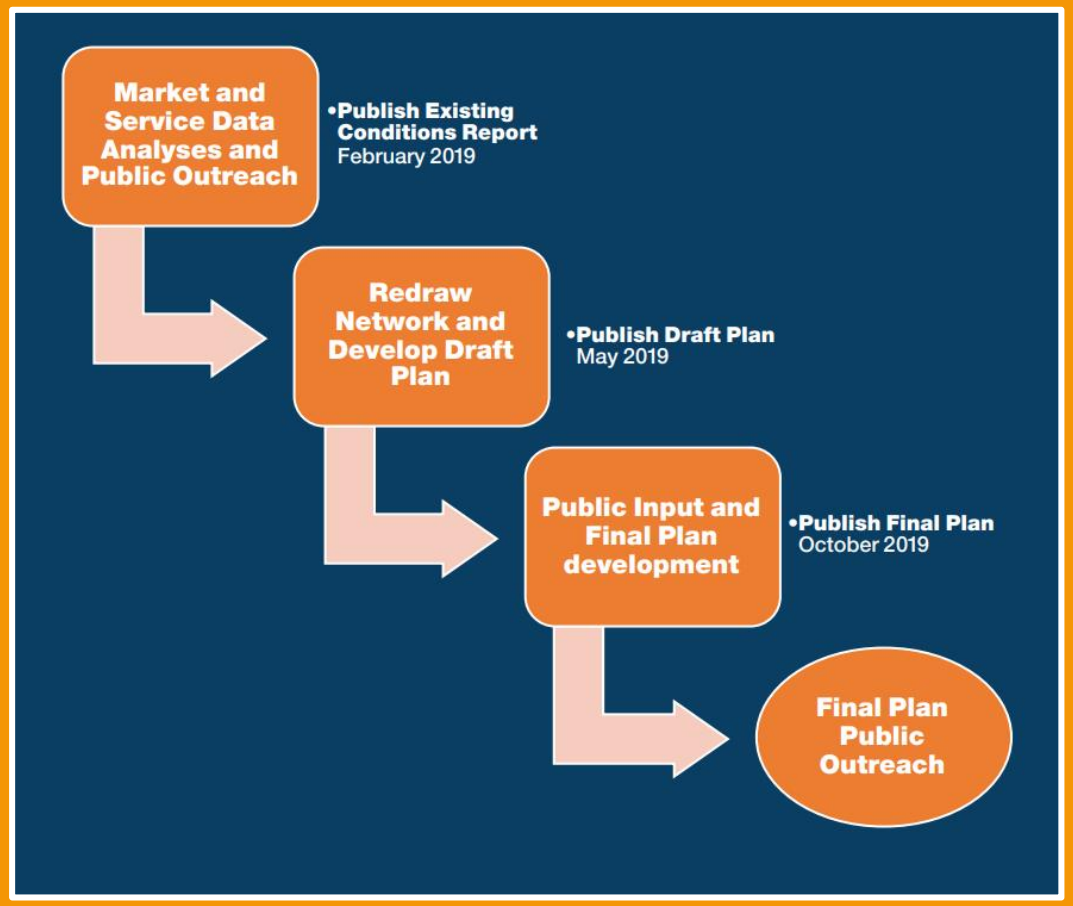
Why redesign the Bronx bus network?

- Our customers asked us to take a fresh look at bus service in the Bronx and make improvements that will:
  - Provide them with shorter travel times
  - Means less time spent waiting and wondering where the bus is
- Speed
  - Bus speeds continue to decline year by year
  - Bronx buses are some of the slowest in the nation, traveling at less than 7 mph
  - Slower bus speeds are primarily caused by growing congestion in the area, in turn worsening reliability
- Service Reliability
  - Our customers have told us that Bronx buses are not the most reliable and that buses are often slow and sitting in traffic
  - The effects of congestion are heavily felt among Bronx bus customers because for many of them, buses are their only travel option
- Ridership Decline
  - Bus ridership in the Bronx has been decreasing rapidly since 2016
  - The decline is due to slower bus speeds; modal shifts to other transportation (subway and TNCs); and demographic shifts

What We Have Done So Far

Project Background & Process

- **The Bronx Bus Network Redesign kicked off in Fall 2018**
- **It is NYCT's first-borough-wide bus network redesign and is a part of the** Fast Forward Plan **initiative to Reimagine the Bus Network**



Outreach Summary

200	✓Subway stations with digital screens ran digital messages systemwide at time of posting
50	✓Social media posts promoting the Bronx Bus Network Redesign
13	✓On-street engagement events in the Bronx and Upper Manhattan in July and August
11	✓Community Board presentations in the Bronx and Manhattan
9	✓Open Houses in the Bronx (8) and Upper Manhattan (1)
6	✓Workshops to introduce the project
3	✓Videos of our presentations to the Joint Borough Service Cabinet/Borough Board available on Bronxnet.org
2	✓Fast Forward Community Conversations
1	✓Update to the public timeline with explanation to support transparency
✓	✓Met with all stakeholders who requested a meeting or phone call

Outreach Summary

16,000	✓Pamphlets handed out by our street team or distributed on buses
15,000	✓Unique project webpage views
6,000	✓Posters printed for distribution on buses and in subway stations
2,419	✓Digital screens on buses ran digital messages systemwide at time of posting
2,000	✓Average views per social media post
1,300	✓Surveys completed between June and August
1,150	✓Comments received via webmail, phone, twitter and mail
1,000	✓Survey cards distributed

Redesign Strategies

More Direct Routings

- Streamlined complex, circuitous routings to make them more simple, straight, and direct
- Bus routes with straight and direct routing tend to be more reliable

Bus Stop Balancing

- Every bus stop is a trade-off between convenience of access to the bus and the speed and reliability of service
- NYC buses have the shortest average stop distance (805 ft.) of any major city
- Improved stop spacing in the Bronx (from 880 feet to 1,100 feet) to get customers where they are going faster

Improved Connectivity

- Improved east-west bus connections which are crucial for intra-borough travel
- Improved connections to the subway lines
- Improved crosstown access to Manhattan

Increased Frequency

- Improved frequency for 11 local routes on 9 key corridors to create an all-day frequent network

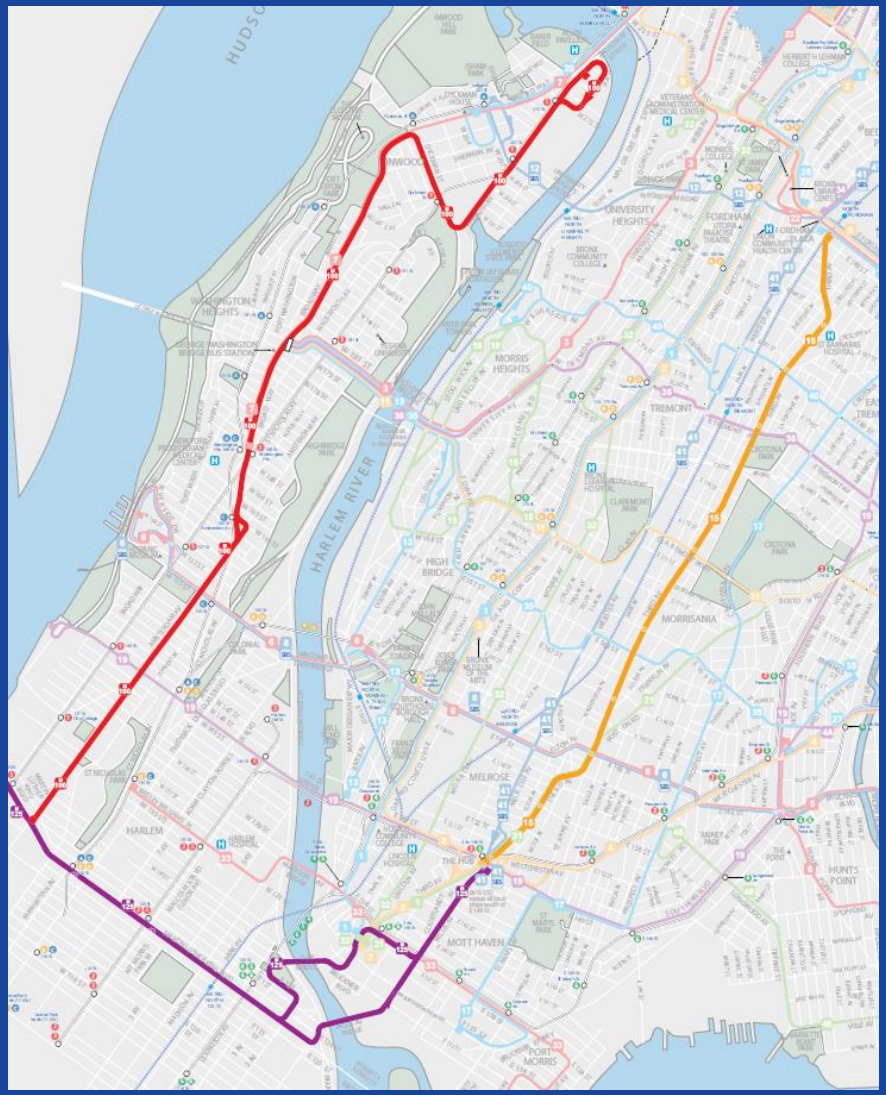
More Bus Priority

- NYCDOT has identified 10 key transit priority corridors in the Bronx
- Bus lanes and other priority treatments would provide the biggest benefit to customers
- NYCDOT, with MTA, continues to expand Transit Signal Priority (TSP) in the Bronx

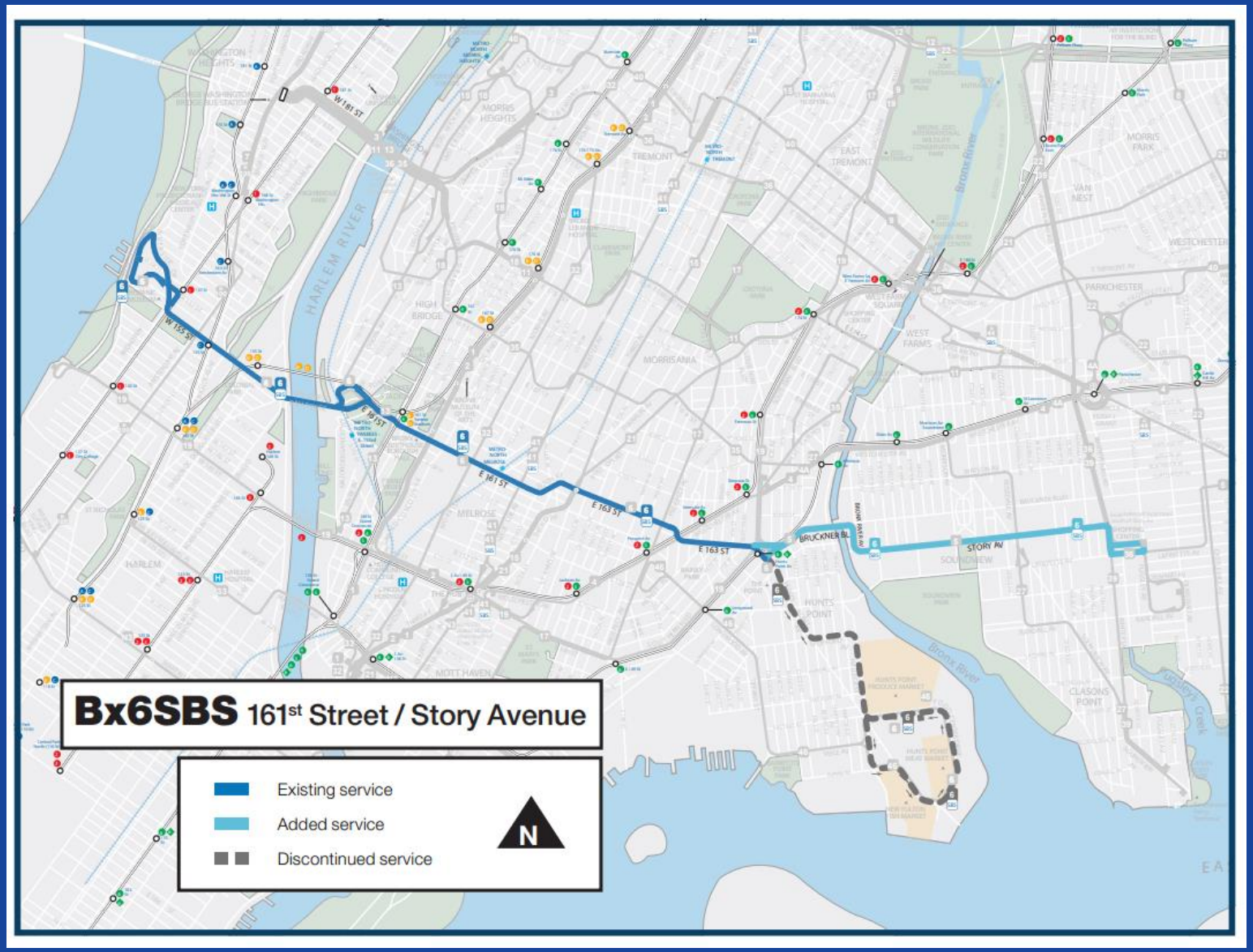
Proposed Final Plan

More Direct Routings

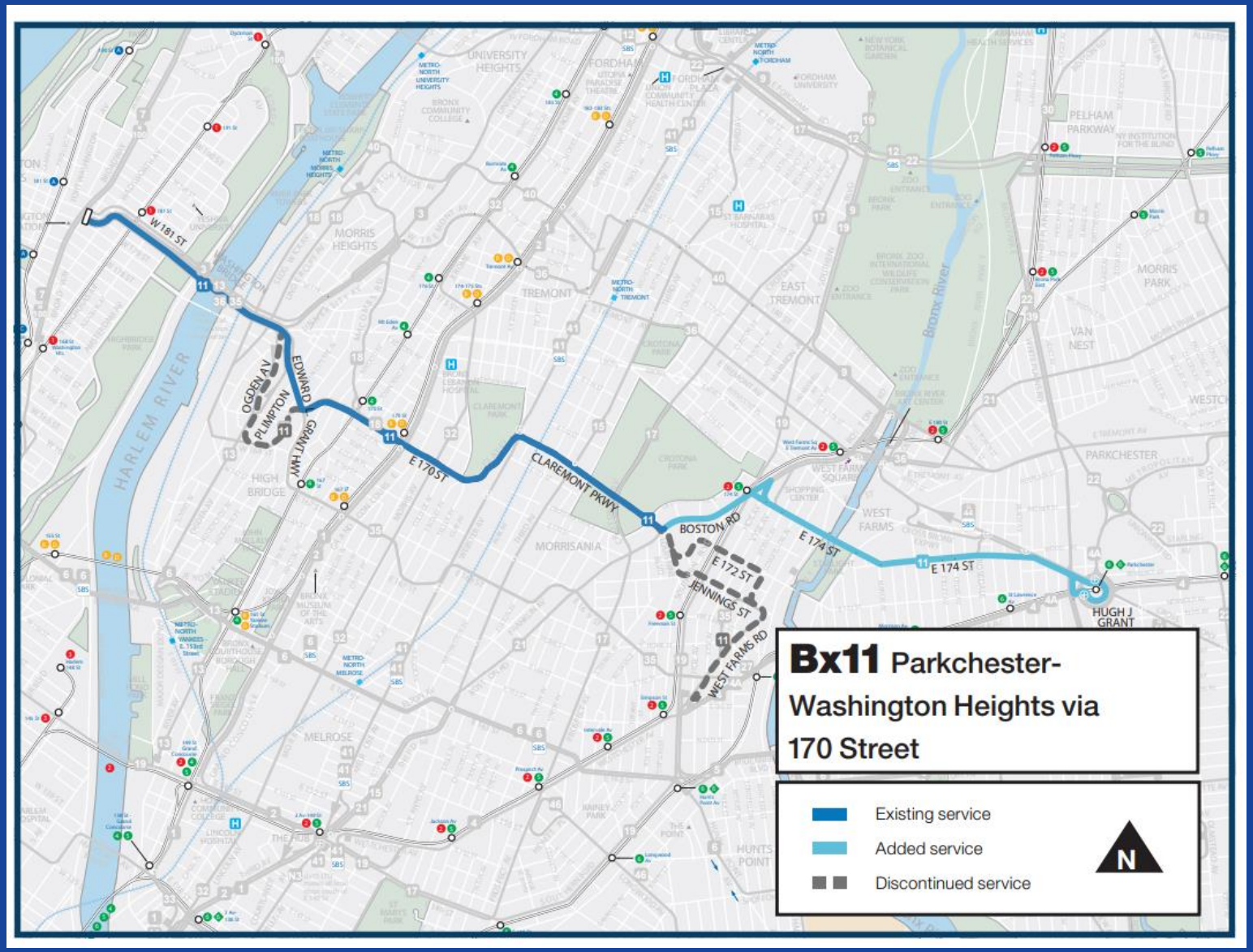
- 18 total route changes are proposed with 2 new routes
  - Bx4A
  - Bx6 SBS
  - Bx11
  - Bx15
  - Bx18
  - Bx24
  - Bx25 (new)
  - Bx28
  - Bx29
  - Bx30
  - Bx34
  - Bx35
  - Bx36
  - Bx40
  - Bx42
  - Q50 Ltd
  - M100
  - M125 (new)



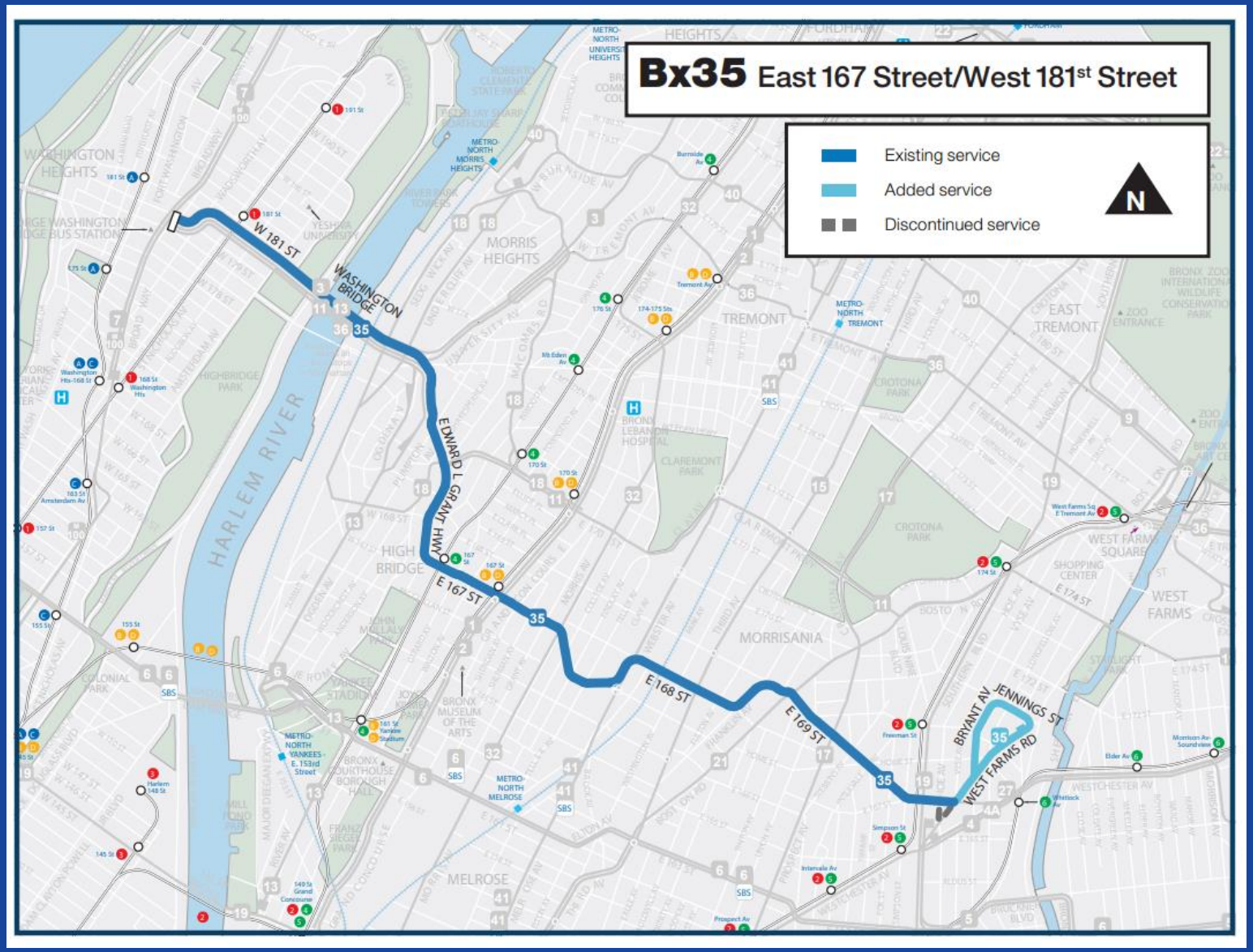
Bx6 SBS


Bx6SBS 161st Street / Story Avenue
Existing service
Added service
Discontinued service
N
HARLEM RIVER
Bronx River
W 181 ST
W 155 ST
E 161 ST
E 163 ST
BRUCKNER BL
STORY AV

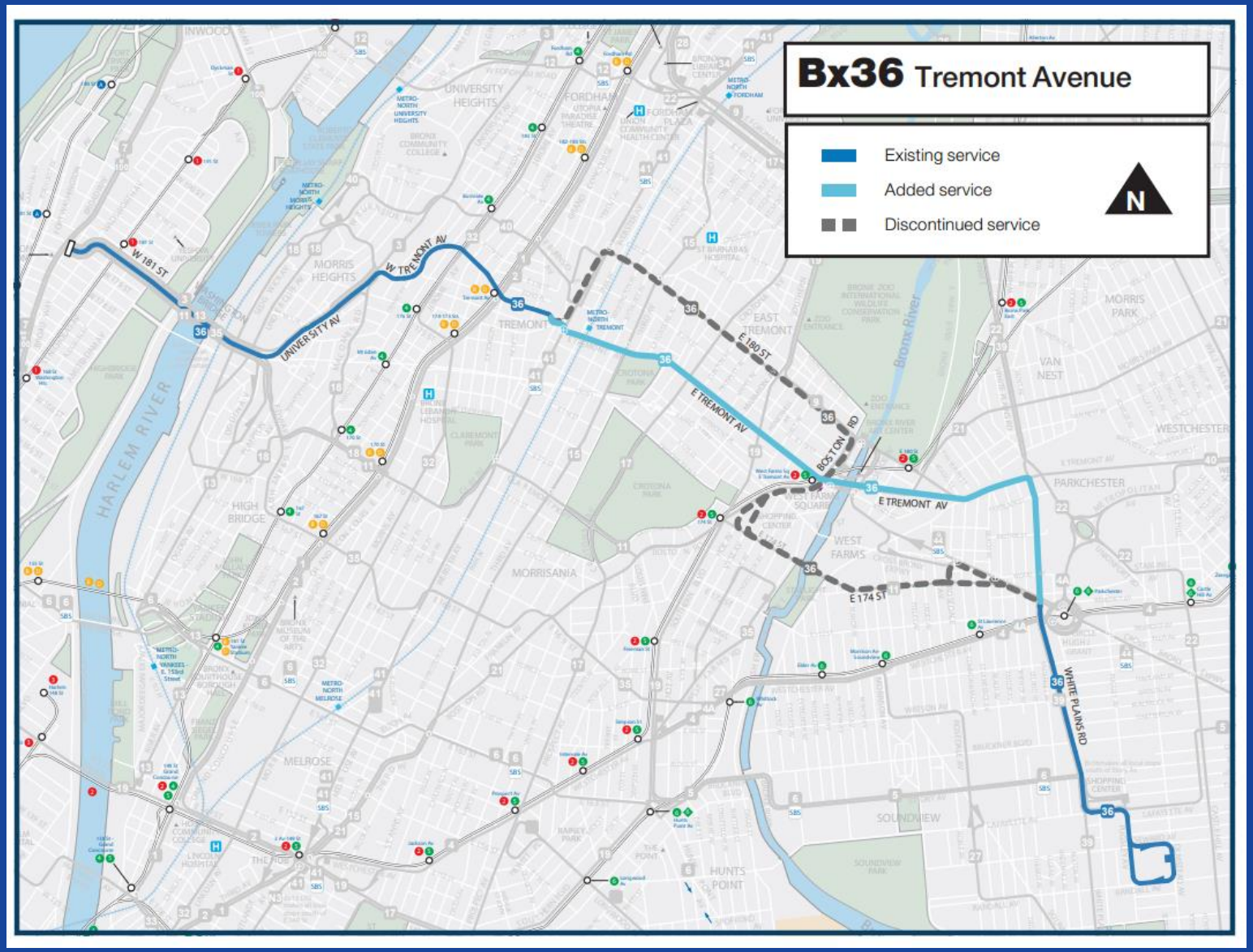
Bx11


W 181 ST
OGDEN AV
PLIMPTON
EDWARD L
GRANT HWY
E 170 ST
CLAREMONT PKWY
BOSTON RD
E 172 ST
JENNINGS ST
WEST FARMS RD
E 174 ST
E 174 ST
HUGH J GRANT
HARLEM RIVER
Bronx River
Bx11 Parkchester-Washington Heights via 170 Street
Existing service
Added service
Discontinued service
N

Bx35

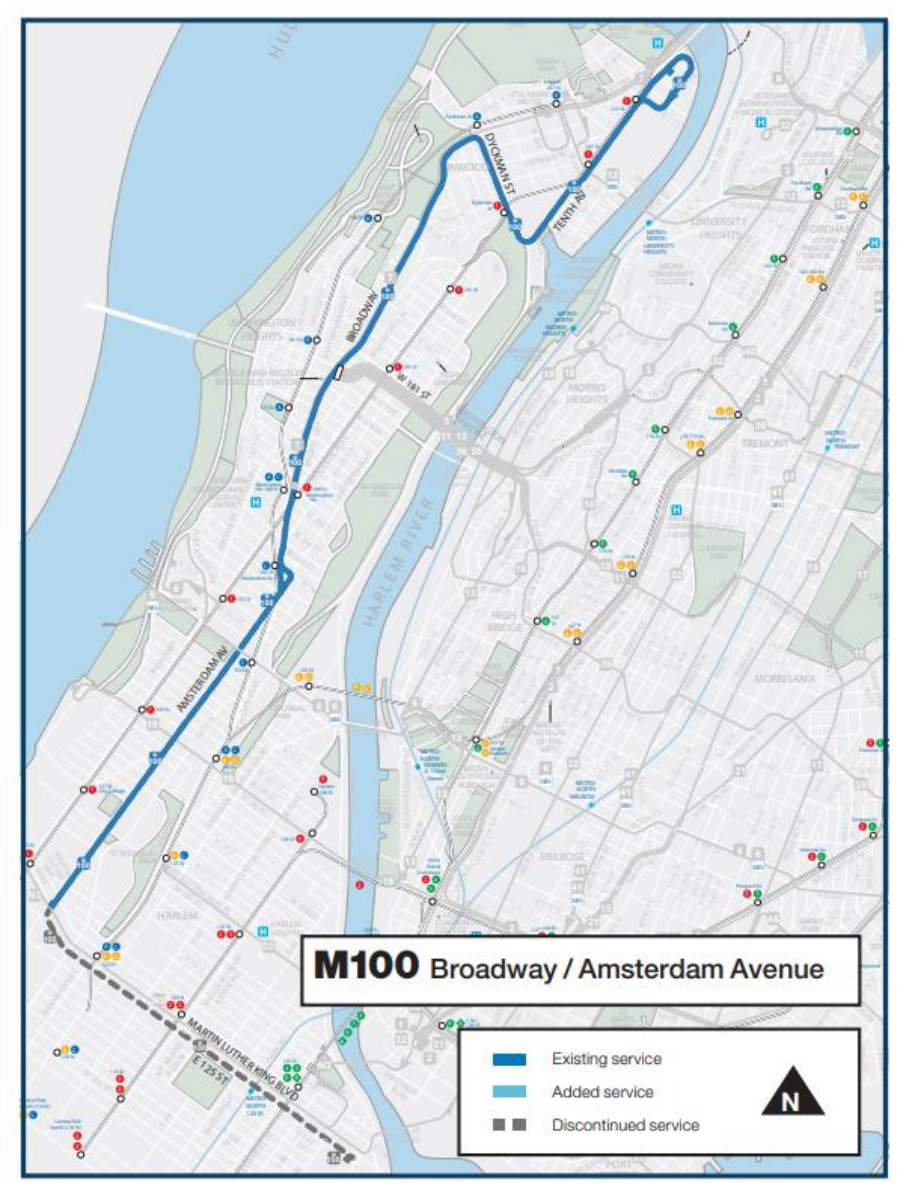

Bx35 East 167 Street/West 181st Street
Existing service
Added service
Discontinued service
N
W 181 ST
WASHINGTON BRIDGE
EDWARD L GRANT HWY
E 167 ST
E 168 ST
E 169 ST
BRYANT AV
JENNINGS ST
WEST FARMS RD
HARLEM RIVER
MORRISANIA
MELROSE
MORRIS HEIGHTS
TREMONT
EAST TREMONT
WEST FARMS
HIGH BRIDGE
CROTONA PARK
METRO-NORTH MORRIS HEIGHTS
METRO-NORTH TREMONT
METRO-NORTH MELROSE
METRO-NORTH YANKEES-E. 153rd Street

Bx36



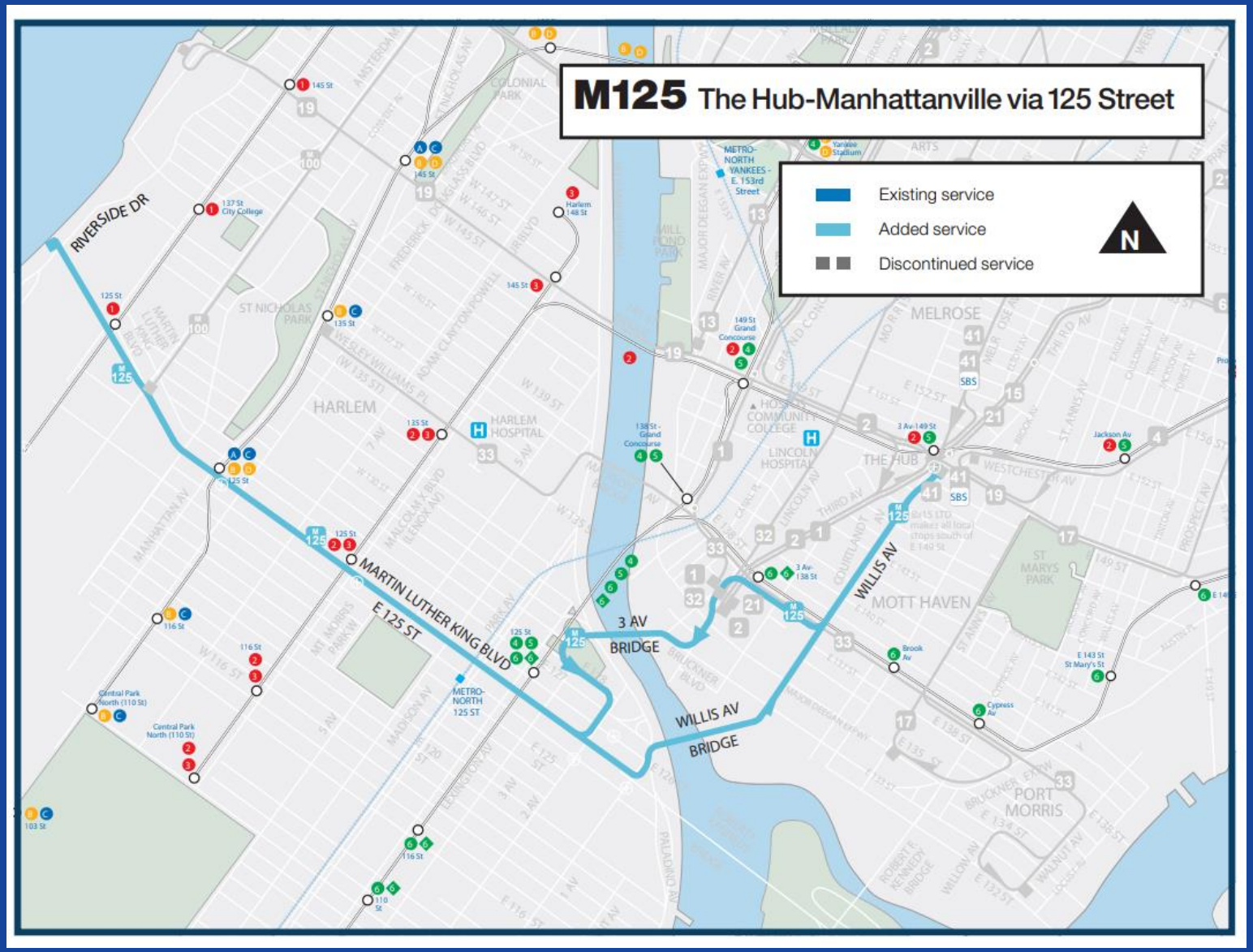
New York City Transit

M100

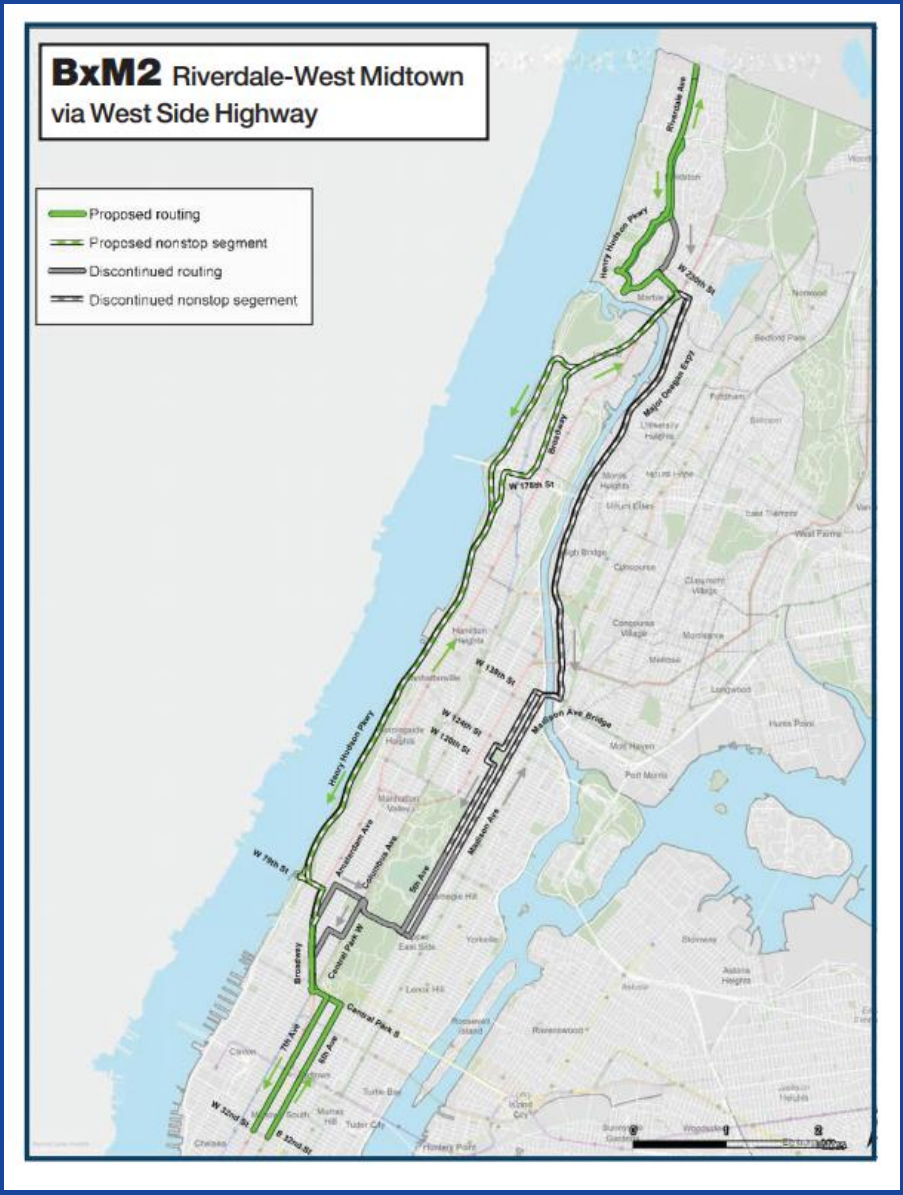


New York City Transit

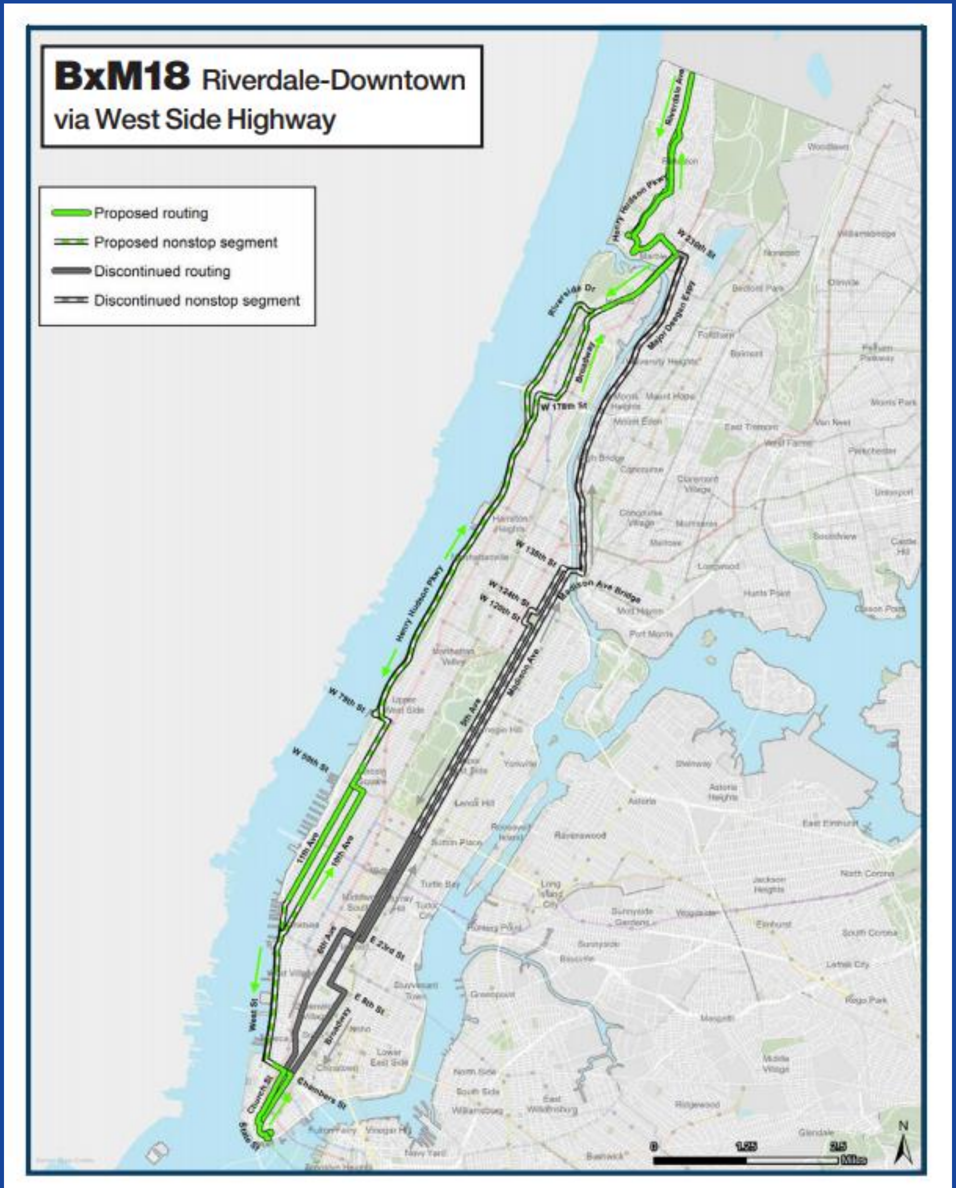
M125


M125 The Hub-Manhattanville via 125 Street
Existing service
Added service
Discontinued service
N
RIVERSIDE DR
MARTIN LUTHER KING BLVD
E 125 ST
3 AV BRIDGE
WILLIS AV BRIDGE
WILLIS AV
HARLEM
MELROSE
MOTT HAVEN
PORT MORRIS
THE HUB
ST NICHOLAS PARK
ST MARYS PARK
METRO-NORTH 125 ST
METRO-NORTH YANKEES - E. 153rd Street
HARLEM HOSPITAL
LINCOLN HOSPITAL
HOSTOS COMMUNITY COLLEGE

BxM2

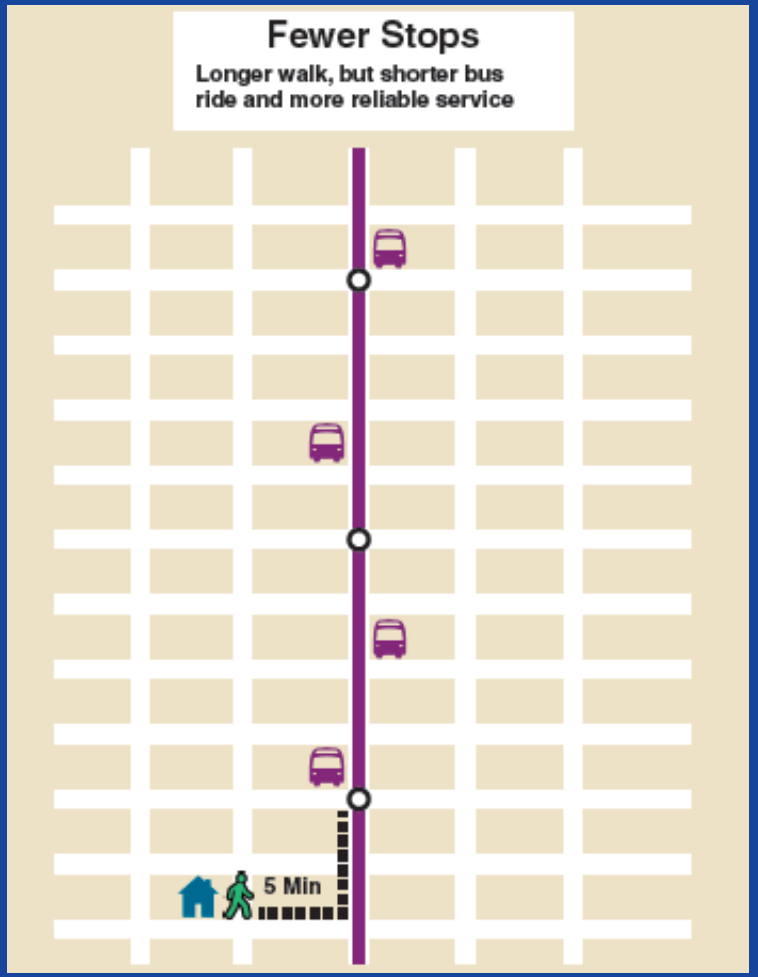

BxM2 Riverdale-West Midtown
via West Side Highway
Proposed routing
Proposed nonstop segment
Discontinued routing
Discontinued nonstop segement
Riverdale Ave
Henry Hudson Pkwy
W 230th St
Major Deegan Expy
Broadway
W 178th St
W 135th St
W 125th St
W 120th St
Madison Ave Bridge
Henry Hudson Pkwy
W 79th St
Amsterdam Ave
Columbus Ave
5th Ave
Madison Ave
Broadway
Central Park W
Central Park S
7th Ave
6th Ave
W 32nd St
E 32nd St

BxM18


BxM18 Riverdale-Downtown
via West Side Highway
Proposed routing
Proposed nonstop segment
Discontinued routing
Discontinued nonstop segment

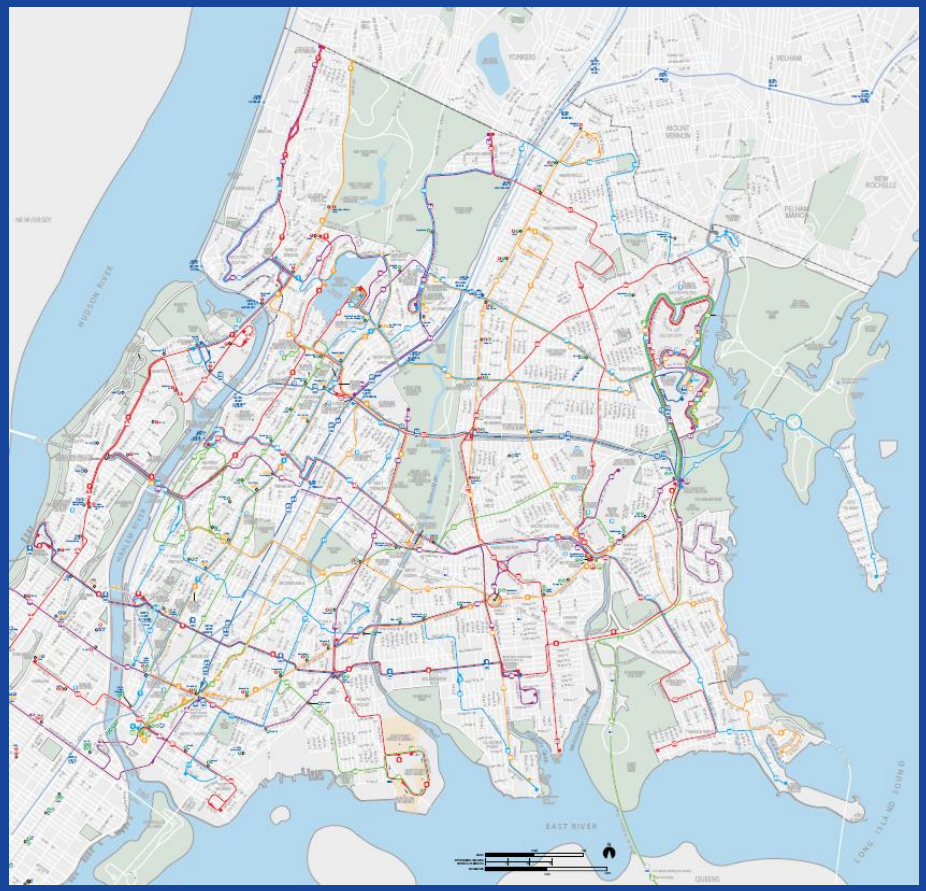
Bus Stop Balancing

- **400** Local/Limited stops are proposed for removal
- This would improve average stop spacing from every 882 feet to every **1,100** feet
- For every bus stop removed 20 seconds is shaved off a customer's commute
- Those routes with fewer stop removals are due to severe drawbacks (such as elevation) and community impacts if spacing was more aggressive
- Maintained stops that provided connection to subway stations and other bus routes
- Maintained stops with heavy ridership, specifically those used by populations for whom a removal would present a significant burden (e.g. retirement communities, hospitals, schools)

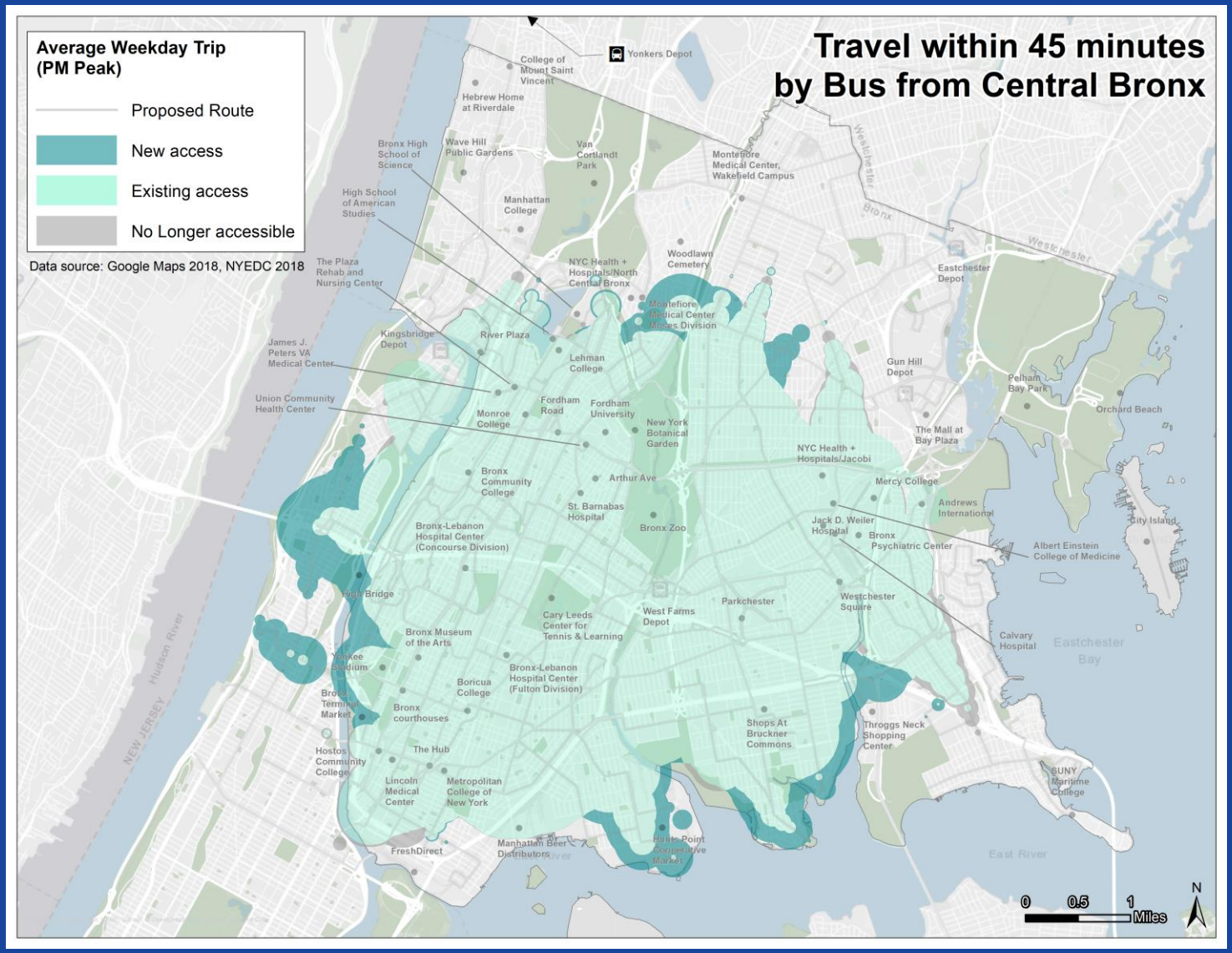


Improved Connectivity

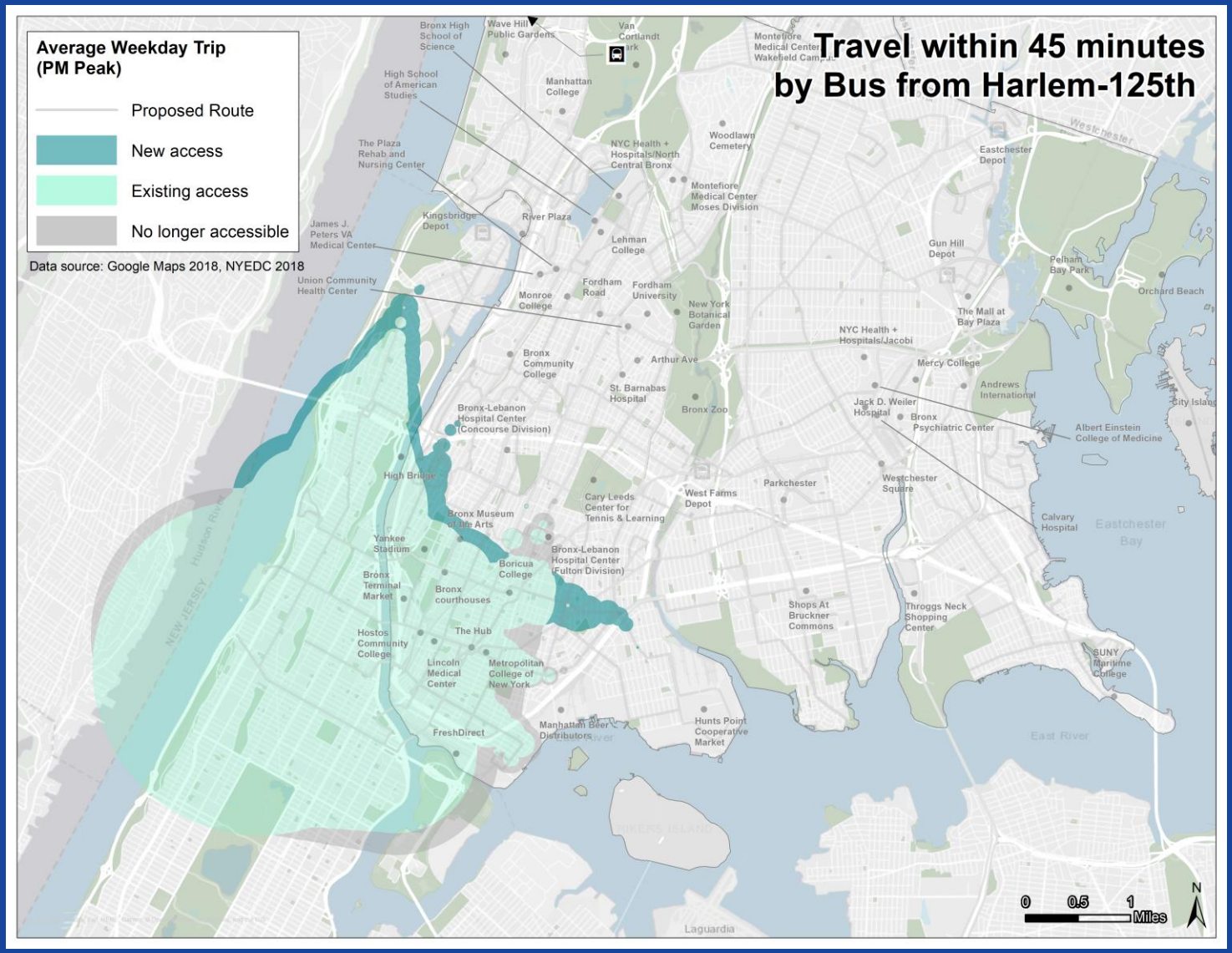
- Ease of connections at key transfer locations
- Route alignment changes bring new access for customers
  - Bx6 SBS extension to Soundview
  - Bx11 extension to Parkchester
  - Bx18 extension in High Bridge
  - Bx25 new service from Northern Co-op City to Bedford Park
  - Bx30 reroute to Boston Rd
  - Bx34 reroute to terminate at Fordham Plaza
  - Bx35 extension to West Farms
  - Bx40/42 new connection to E 180 St 2 5 station



Improved Connectivity



Improved Connectivity



Increased Frequency

Route	Frequency (min.)	Proposed (min.)	Proposed Frequency - Weekday (min.) AM Peak	Midday	PM Peak	Evening	Overnight	Proposed Service Span - Weekday SB/WB	NB/EB
Bx1	15-or-better	15-or-better	–	–	–	12	–	4:15 AM - 5:45 am 6:45 pm - 12:45 am	5:15 am - 6:45 am 8:00 pm - 1:45 am
Bx1 LTD			8	10	8	–	–	5:45 am - 6:30 pm	6:45 am - 8:00 pm
Bx2	15-or-better	15-or-better	8	9	8	15	–	5:00 am - 11:30 pm	6:00 am - 1:00 am
Bx1/2 Combined	8-or-better	8-or-better	4	5	4	7	–		
Bx3	8-or-better	8-or-better	6	7	7	8	–	5:15 am - 12:45 am	5:30 am - 1:30 am
Bx4	30-or-better	15-or-better	10	15	12	15	–	5:00 am - 12:45 am	5:30 am - 1:30 am
Bx4A	30-or-better	15-or-better	12	15	12	15	–	5:30 am - 12:00 am	5:30 am - 1:00 am
Bx4/4A Combined	15-or-better	8-or-better	6	8	6	8	–		
Bx5	15-or-better	15-or-better	5	12	8	9	–	5:00 am - 12:45 am	5:15 am - 1:15 am
Bx6	15-or-better	8-or-better	6	8	6	8	60	24 hours	24 hours
Bx6 SBS	15-or-better	15-or-better	8	12	10	10	–	5:30 am - 9:15 pm	5:30 am - 9:45 pm
Bx7	15-or-better	15-or-better	7	11	7	7	–	4:45 am - 1:30 am	4:45 am - 12:45 am
Bx8	15-or-better	15-or-better	9	13	10	12	–	6:00 am - 10:30 pm	5:30 am - 9:30 pm
Bx9	8-or-better	8-or-better	5	8	5	8	45	24 hours	24 hours
Bx10	15-or-better	15-or-better	6	10	8	9	40	24 hours	24 hours
Bx11	15-or-better	8-or-better	5	8	6	8	40	24 hours	24 hours
Bx12	15-or-better	15-or-better	10	12	9	13	40	24 hours	24 hours
Bx12 SBS	8-or-better	8-or-better	4	5	5	6	–	5:15 am - 10:00 pm	5:00 am - 11:00 pm
Bx13	15-or-better	8-or-better	4	8	4	6	–	5:30 am - 1:00 am	5:00 am - 12:30 am
Bx15	15-or-better	15-or-better	8	12	9	10	30	24 hours	24 hours
Bx15 LTD	15-or-better	15-or-better	7	11	8	12	–	5:00 am - 6:45 pm	5:30 am - 7:45 pm
Bx15 Combined	8-or-better	8 or better	4	6	4	6	30		
Bx16	30-or-better	30-or-better	7	20	10	17	–	5:00 am - 1:15 am	5:30 am - 12:30 am
Bx17	15-or-better	15-or-better	6	12	9	12	–	4:30 am - 12:45 am	4:15 am - 12:00 am
Bx18	30 or better	30-or-better	10	20	10	17	–	5:00 am - 1:00 am	5:00 am - 12:45 am
Bx19	8-or-better	8-or-better	7	8	7	8	45	24 hours	24 hours
Bx20	Peak Only	Peak Only	17	–	16	–	–	7:30 am - 9:00 am 3:45 pm - 8:00 pm	7:00 am - 8:30 am 3:30 pm - 7:30 pm
Bx21	15 or better	15-or-better	7	10	8	10	45	24 hours	24 hours
Bx22	15-or-better	15-or-better	7	12	8	10	60	24 hours	24 hours
Bx23	30-or-better	30-or-better	6	20	6	15	–	5:30 am - 1:00 am	4:45 am - 11:45 pm
Bx24	30-or-better	30-or-better	30	30	30	30	60	24 hours	24 hours
Bx25	-	30-or-better	17	24	18	24	–	5:45 am - 10:45 pm	6:30 am - 11:30 pm

No change in frequency Increase in frequency Decrease in frequency

Increased Frequency

Route	Frequency (min.)	Proposed (min.)	Proposed Frequency - Weekday (min.)					Proposed Service Span - Weekday	
			AM Peak	Midday	PM Peak	Evening	Overnight	SB/WB	NB/EB
Bx26	15-or-better	**30-or-better**	**17**	**24**	**18**	**24**	-	5:30 am - 11:00 pm	6:15 am - 11:45 pm
Bx25/26 Combined	-	**15-or-better**	9	12	9	12	-		
Bx27	15-or-better	15-or-better	5	12	6	9	40	24 hours	24 hours
Bx28	15-or-better	15-or-better	**10**	15	**11**	**13**	40	24 hours	24 Hours
Bx38	15-or-better	15-or-better	**10**	15	**11**	**13**	-	5:45 am - 9:45 pm	6:45 am - 10:00 pm
Bx28/38 Combined	8-or-better	8-or-better	**5**	8	6	**7**	40		
Bx29	30-or-better	30-or-better	15	30	15	20	**40**	**24 hours**	**24 hours**
Bx30	15-or-better	15-or-better	8	13	9	12	-	5:15 am - 11:30 pm	6:00 am - 12:00 am
Bx31	15-or-better	15-or-better	8	12	9	12	-	5:15 am - 1:15 am	4:45 am - 12:45 am
Bx32	30-or-better	30-or-better	9	13	11	20	-	6:00 am - 12:00 am	6:15 am - 11:30 pm
Bx33	30-or-better	30-or-better	15	24	16	30	-	5:00 am - 12:30 am	4:30 am - 12:00 am
Bx34	30-or-better	30-or-better	13	20	16	20	-	5:00 am - 1:00 am	5:00 am - 12:30 am
Bx35	15-or-better	15-or-better	6	10	8	10	60	24 hours	24 hours
Bx36	15-or-better	15-or-better	9	9	8	10	50	24 hours	24 hours
Bx36 LTD	15-or-better	15-or-better	10	-	11	-	-	"6:45 am - 9:00 am 3:00 pm - 6:15 pm"	"6:45 am - 10:00 am 2:45 pm - 7:30 pm"
Bx36 Combined	15-or-better	15-or-better	5	9	5	10	50		
Bx39	15-or-better	15-or-better	6	12	10	13	60	24 hours (overnight north of Gun Hill Rd)	24 hours (overnight north of Gun Hill Rd)
Bx40	30-or-better	30-or-better	15	17	15	17	60	24 hours	24 hours
Bx42	30-or-better	30-or-better	15	17	15	15	-	4:30 am - 1:00 am	4:00 am - 12:45 am
Bx40/42 Combined	15-or-better	15-or-better	8	9	8	8	60		
Bx41	15-or-better	15-or-better	12	12	11	11	60	24 hours	24 hours
Bx41 SBS	15-or-better	**8-or-better**	8	**8**	8	**8**	-	5:30 am - 9:00 pm	6:00 am - 9:45 pm
Bx46	30-or-better	30-or-better	30	30	30	30	-	6:00 am - 12:00 am	5:30 am - 11:30 pm
Q50 LTD	30-or-better	30-or-better	15	30	15	24	-	3:30 am - 12:00 am	4:25 am - 1:15 am
M100	15-or-better	15-or-better	8	8	9	12	-	4:15 am - 12:15 am	5:15 am - 1:15 am
M125	-	8-or-better	8	8	8	8	60	24 hours	24 hours

No change in frequency Increase in frequency Decrease in frequency

Express Bus Schedule Changes

- All service reductions are guideline-based
- Numerous routes showed extremely low ridership, especially in the reverse peak direction
- On weekends, most buses carry fewer than 10 passengers per trip across a 14-16 hour service span
- We also reduced span in the reverse-peak direction where ridership was extremely low
- We reinvested much of the savings into insuring our scheduled running time more accurately matches road conditions, hence, improving overall reliability

Route	Proposed Frequency - Weekday (min.)					Proposed Service Span - Weekday	
	AM Peak	Midday	PM Peak	Evening	Overnight	SB/WB	NB/EB
BxM1	8	30	12	30	-	5:30 am - 4:45 pm	6:45 am - 12:45 am
BxM2	15	60	15	30	-	6:00 am - 3:00 pm	12:00 pm - 12:45 am
BxM3	20	60	20	60	-	5:30 am - 1:45 pm	3:00 pm - 12:00 am
BxM4	30	-	30	-	-	5:30 am - 7:30 am	4:30 pm - 6:30 pm
BxM5	30	-	30	-	-	5:30 am - 7:30 am	4:30 pm - 6:30 pm
BxM6	20	-	15	60	-	5:30 am - 8:45 am	3:15 pm - 12:15 am
BxM7	10	60	7	10	-	4:45 am - 3:00 pm	12:00 pm - 1:30 am
BxM8	10	60	7	30	-	5:30 am - 12:00 pm	1:00 pm - 12:15 am
BxM9	6	60	8	30	-	4:45 am - 3:00 pm	1:00 pm - 12:15 am
BxM10	10	60	10	30	-	5:30 am - 10:00 pm	7:00 am - 12:15 am
BxM11	10	60	15	20	-	5:30 am - 1:00 pm	1:15 pm - 12:15 am
BxM18	20	-	30	-	-	5:45 am - 7:45 am	4:15 pm - 7:15 pm

No change in frequency Increase in frequency Decrease in frequency

Next Steps

Outreach

- We will be out and about in the Bronx and Manhattan to hear from customers & other stakeholders
- Detailed information for public input sessions will be on the project website closer to publication:
  - Community Board presentations
  - Pop-up events and informational sessions
  - Open houses
- We also have an alternative Trip Planner available on the project website to allow customers to test out their travel options

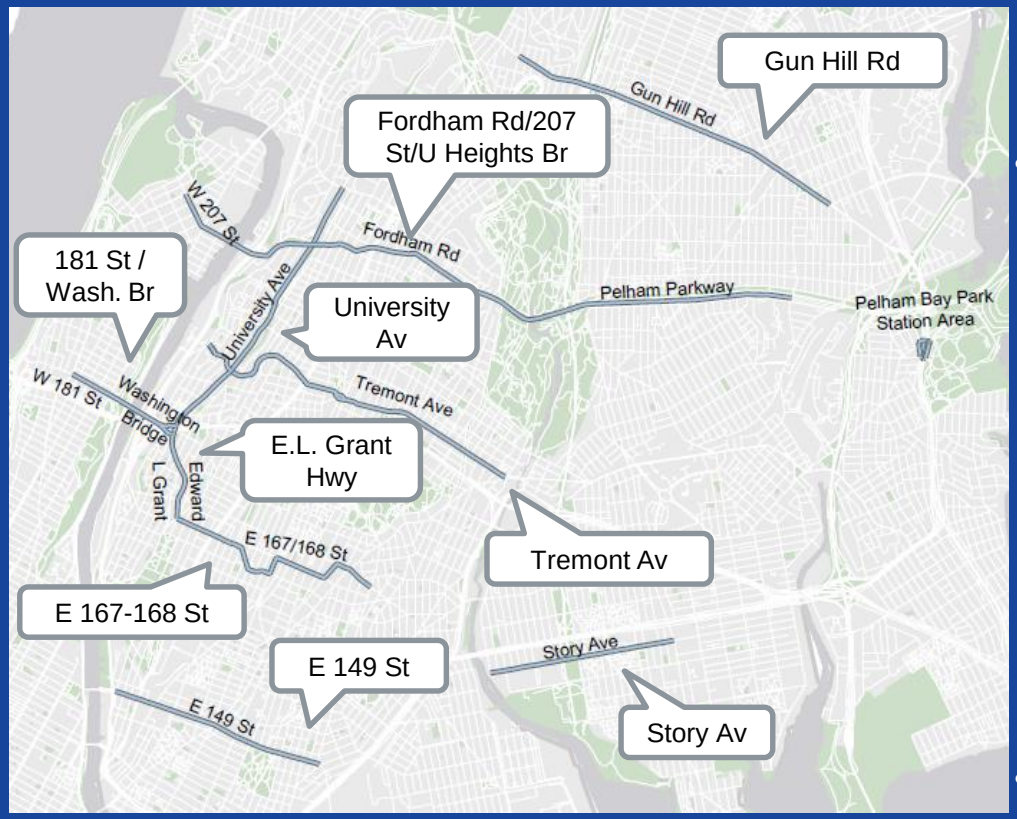
Implementation

- Following outreach, we will begin to finalize the Bronx Bus Network Redesign Plan & prepare for implementation
- You will continue to hear from us as we grow closer to implementation

- Key Dates
  - Winter 2020
    - Public Hearing on Plan
    - MTA Board votes on Plan
  - Summer/Fall 2020
    - Implementation

NYC DOT Bus Priority Corridors

Identified Bus Priority Corridors



- NYC DOT analyzed 46 major Bronx corridors to identify where bus lanes and other treatments would speed up buses and allow the MTA to operate more frequent service
- The analysis ranked potential bus-priority corridors using the following criteria:
  - Demand for bus service
  - Bus performance (speed and reliability)
  - Service levels proposed by MTA
  - Neighborhood demographics
  - Feasibility of implementation
- NYC DOT selected 10 of the highest ranking corridors and has begun studying bus priority projects to accompany the network redesign, with work beginning in 2020

NYCDOT Bus Priority Toolkit

- NYC DOT has developed and implemented bus priority treatments to provide faster, more reliable bus service:
  - New bus lanes
  - Upgraded bus lanes
  - Protected bus lanes
  - Bus boarders
  - Bus queue jump signals
  - Curb management
  - Pedestrian safety
  - Bus stop accessibility
  - Turn restrictions
- Other bus-supportive technologies: Transit Signal Priority (TSP) and Real-Time Passenger Information (RTPI)
- Better Buses Action Plan sets annual goals for bus improvements:
  - 10 miles of new bus lane
  - 5 miles of upgrades to existing bus lanes
  - 300 intersections of new TSP

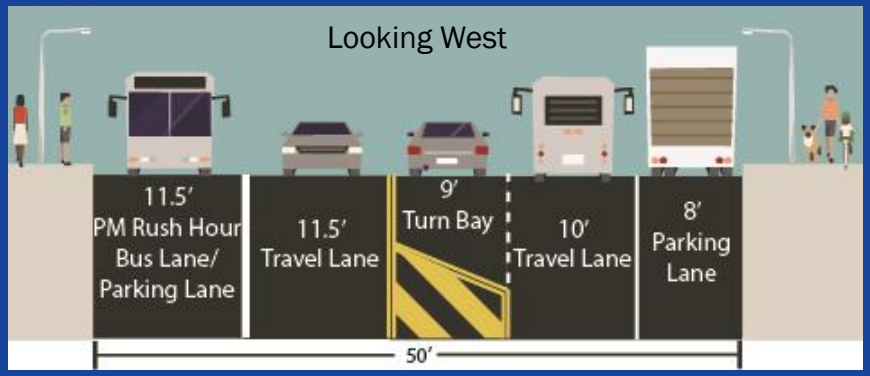
181 St & Washington Bridge

Broadway to Amsterdam Ave

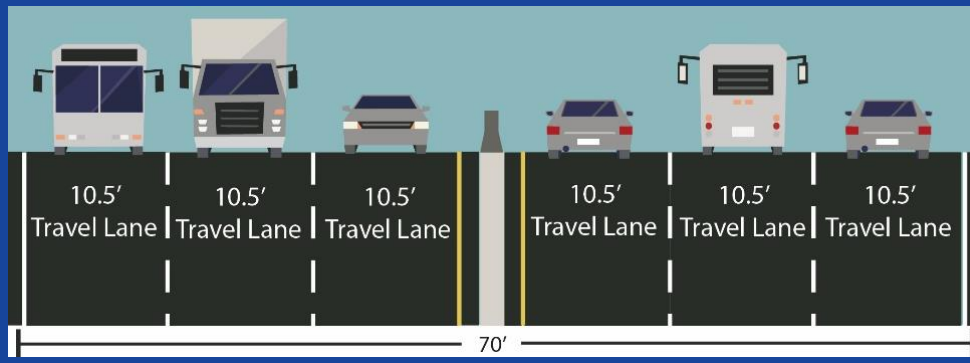
- Carries Bx3, Bx11, Bx13, Bx35, Bx36
  - 111,000 weekday riders of which 36,800 cross Washington Bridge
- Major destinations:
  - 2, 4, 5, B, and D trains in the Bronx
  - Commercial districts
  - VA Medical Center
  - Educational and cultural institutions
  - Yankee Stadium
- Bus Speeds:
  - 181 St: 3-4 mph
  - Washington Bridge: Buses travel under 10 mph for roughly 50% of the time
- Key issues:
  - Traffic and bus congestion
  - Primary link between Washington Heights and the Bronx

181 St & Washington Bridge: Current Conditions

181 St



Washington Bridge

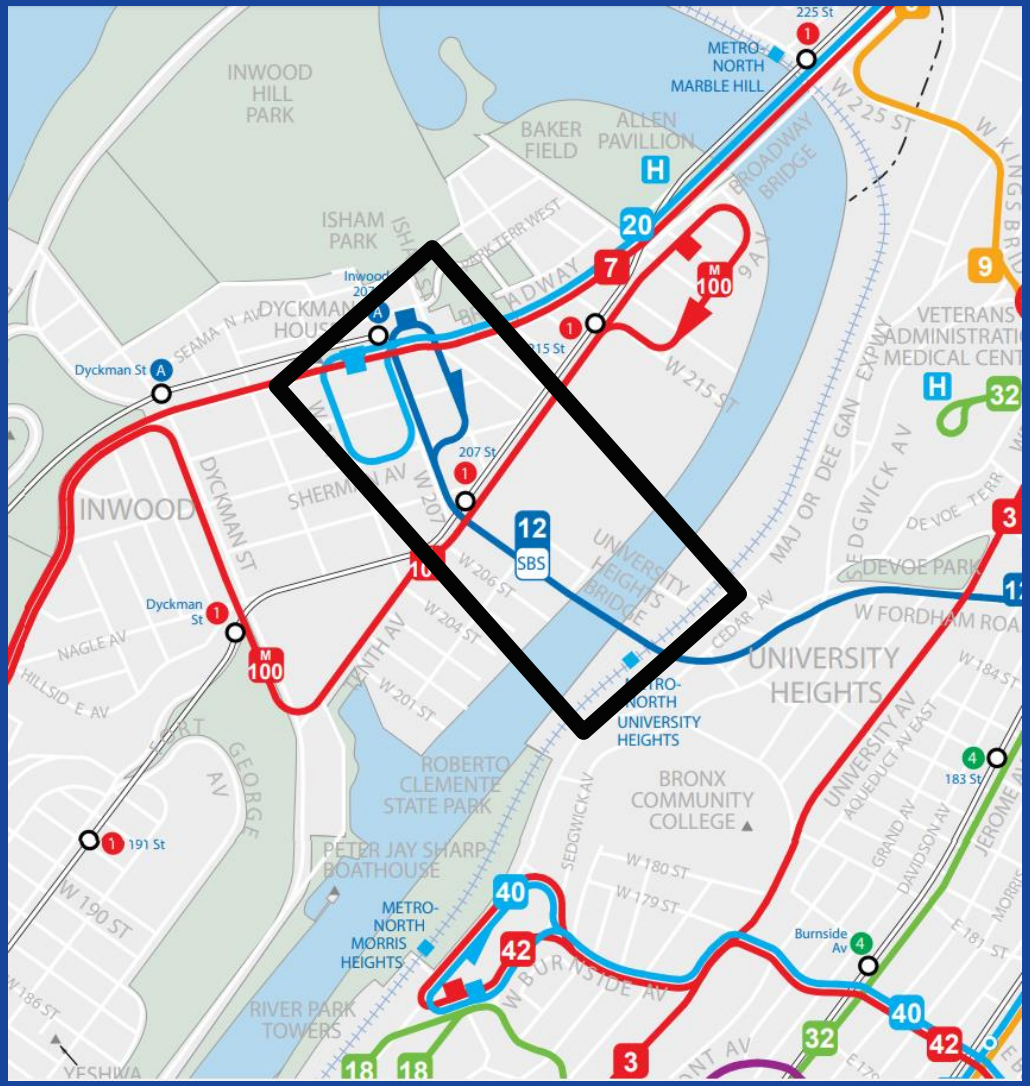


181 St and Audubon Ave, Looking East

Washington Bridge, Looking East

207 St & University Heights Bridge

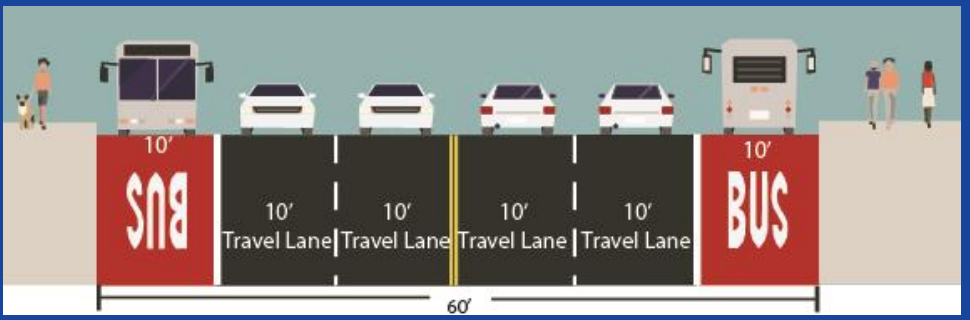
Broadway to University Heights Bridge



- Primarily carries Bx12 SBS from Broadway to the Bronx via the University Heights Bridge
  - 39,000 weekday riders
- Major destinations:
  - Fordham Rd Shopping District, Arthur Avenue, 207 St, and Fordham Plaza
  - Educational institutions
  - A, 1, 2, 4, 5, and B/D trains; Metro North
  - Bronx Zoo, NY Botanical Garden
- Bus speeds have significantly and consistently declined in recent years
- Key issues:
  - Traffic congestion
  - Heavy commercial and pedestrian activity

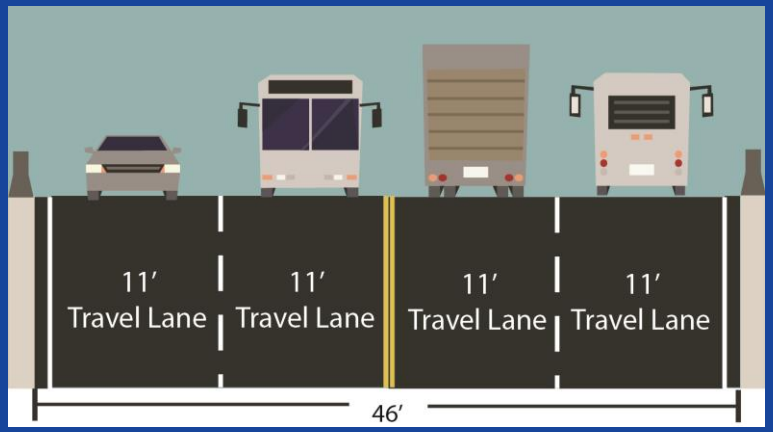
207 St & University Heights Bridge: Current Conditions

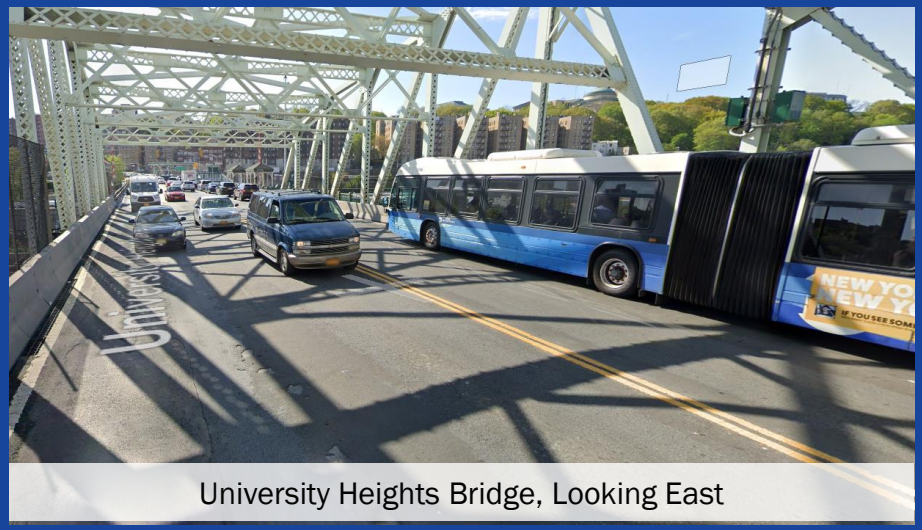
207 St



207 St at 10 Ave, Looking West

University Heights Bridge





University Heights Bridge, Looking East

Potential Treatments

Painted Curbside Bus Lanes:
- Provides bus priority
- Can provide parking/loading during off peak hours

Painted Curbside Bus Lanes (Church Ave, Brooklyn)

Offset Bus Lanes:
- Provides bus priority while maintaining curb access


Offset Bus Lanes (42 St, Manhattan)

Bus Queue Jump Signals:
- Allows for bus priority at intersections
- Particularly effective where there are lane reductions

Bus Queue Jump Signal (79 St, Manhattan)

Next Steps

Fall 2019

- Presentations to MN CB 12, Bx CBs
- Ongoing coordination with MTA
- Collect feedback from businesses
- Additional data analysis and plan development

Winter/Spring 2020

- Develop draft street design plan
- Present draft plan to community boards

Spring 2020

- Develop final street design plan
- Present final plan to community boards

Summer/Fall 2020

- Implement project improvements

Thank you

FastForward.mta.info
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#fastforwardNYC

New York City Transit