### 42<sup>nd</sup> Street Transit Improvements

Community Board 6 | June 3, 2019









## **PRESENTATION OVERVIEW**

- 1. Project Background
- 2. Existing Conditions & Analysis
- 3. Proposal
- 4. Summary / Next Steps







Project Background







## **BETTER BUSES ACTION PLAN**

- Mayor's 2019 State of the City
  - Improve bus speeds 25% by 2020
- Better Buses Action Plan released April 2019
  - 24 priority projects announced for 2019 to increase bus speeds across all 5 boroughs

#### **Better Buses Action Plan**







### **BETTER BUSES ACTION PLAN**

- 42<sup>nd</sup> St identified as priority 2019 project due to:
  - Slow bus speeds & unreliable bus travel times
  - High ridership & high volume of buses
  - Major crosstown multimodal corridor

BETTERBUSES







## **AREA BUS SPEEDS IN CONTEXT**

AM/PM Peak Hour Bus Speed Averages

- Citywide: 7.7 MPH
- Manhattan: 5.6 MPH
- 42<sup>nd</sup> Street: 4.0 MPH







42<sup>nd</sup> St Project Corridor

X68

## **IMPORTANCE TO BUS NETWORK**

- 8 different MTA bus routes across 3 boroughs use 42<sup>nd</sup> St
  - M42 Manhattan Route
  - X68 Queens Route

BETTERBUSES

M42°

- 6 Staten Island Express Bus Routes
- ~16,000 daily MTA bus passengers
- Up to 210 buses per hour travel along 42<sup>nd</sup> Street
- Bus delays on 42<sup>nd</sup> St can impact reliability city-wide



IM26 25

51101012121200

SIM8/8X

SIM30



## 42<sup>ND</sup> STREET CORRIDOR

- Major commercial corridor in midtown
- Important east-west commuter corridor with major transit hubs (PABT, Times Sq, Grand Central)
- Popular tourist area with heavy foot traffic





### 42<sup>ND</sup> ST IS MULTI-MODAL



PM Peak Hour Screen-line on 42<sup>nd</sup> Street @ 8<sup>th</sup> Ave\*

 42<sup>nd</sup> Street travelers use a variety of modes, with nearly one-third traveling by bus during the PM peak

\*Source: Feb 2019 traffic & sidewalk screen-line counts. Occupancy factors: 30 persons/bus, 1.3 persons/other vehicles







### **ALLOCATING STREET SPACE**





## **CROSSTOWN TRANSIT CORRIDORS**

- NYCDOT has retrofitted several crosstown corridors to meet modern street design standards & transit needs:
  - 86 St
  - 79 St
  - 34 St
  - 23 St
- Street width and traffic volumes are similar to 34<sup>th</sup> St or 23<sup>rd</sup> St, which suggests a similar design on 42<sup>nd</sup> St would be appropriate









**Existing Conditions & Analysis** 







## **BUS TRAVEL TIMES**

M42 Running Time (Min, end to end)								
Direction	Day	Time of Day						
		12-6am	6-10am	10am-3pm	3-7pm	7pm-12am		
EB	Weekday	18.8	33.1	34.4	29.4	24.3		
	Weekend	18.7	20.7	29.1	30.8	25.2		
WB	Weekday	15.8	26.4	32.1	35.2	22.6		
	Weekend	16.4	19.1	27.8	29.3	23.2		

Source: MTA NYCT

- Bus travel times are nearly double their overnight times throughout the day
- Trips are consistently long starting with the AM peak hour and through the PM peak
- On average, M42 buses spend more than 40% of their time stalled in traffic, at red lights, or crawling







## **BUS RELIABILITY ISSUES**

- Bus running time is unreliable even within the same time period due to varying traffic conditions day to day
- Runs can vary by 20-40 minutes, leading to bus bunching, long/unpredictable waits at the bus stop, and crowding on the bus



Source: MTA NYCT





## **CURB ACTIVITY**

- Fieldwork and video analysis
- Summary of findings:
  - Bus lanes are underused due to very narrow width (9') and occasional blockages by other vehicles
  - Quick pick-up/drop-off activity common along corridor
  - Commercial loading activity is high and durations are short (<1 hr)</li>









Proposal









### **TRANSIT STREET DESIGN TOOLKIT**











## **EXISTING CONDITIONS**



- Existing roadway conditions do not meet current DOT standards for lane widths. Typical lane widths are 10'-11' for general travel lanes and 11'-12' for bus lanes.
- 42 St is marked for 2 travel lanes with 1 curbside bus lane in each direction (in effect 7-10 AM, 4-7 PM except Sunday). However, it rarely functions that way due to loading needs and traffic conditions.









#### PROPOSED CROSS SECTION (MIDBLOCK & INTERSECTIONS WITH NO TURNS)



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#### PROPOSED CROSS SECTION (AT INTERSECTION WITH TURNS)









### **PROPOSED DESIGN SAMPLE BLOCK**









## **PROPOSED TURN RESTRICTIONS**

Location	Turn Direction	Current Regulation	New Regulation
7 Av	Right turn EB to SB	Permitted All Times for All Vehicles	Restricted All Times for All Vehicles
/ AV	Left turn WB to SB	Restricted All Times Except Buses	Restricted All Times for All Vehicles
6 Av	Left turn EB to NB	No Turns 7am-7pm Ex Sunday	Restricted All Times for All Vehicles
	Left turn WB to SB	No Turns 7am-7pm Ex Sunday	Restricted All Times for All Vehicles
Lexington Av	Right turn EB to SB	No Turns Ex Buses 7-10am, 4-7pm Mon-Fri	No Turns 7am-7pm for All Vehicles





## **PLANNED BUS STOP CHANGES**



Park Ave – 3<sup>rd</sup> Ave: 3 stops within 2 short blocks in each direction

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## **PLANNED BUS STOP CHANGES**



 Consolidate Lex Ave and 3<sup>rd</sup> Ave stops to single stop in each direction to improve stop spacing, more closely matching standard spacing along rest of 42<sup>nd</sup>

24

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#### **PROPOSED BUS LANE HOURS & CURB REGULATIONS**

- Offset bus lanes (lanes not against the curb) will be in effect 24/7
- Curbside bus lanes will be in effect 7 AM – 7 PM all days, except at bus stops or other existing No Standing Anytime
  - 7 PM 7 AM hours allocated to metered commercial/truck loading
- Other curb space allocated to metered commercial/truck loading, hotel loading zones, authorized parking







#### **PROPOSED BUS LANE HOURS & CURB REGULATIONS**



Summary / Next Steps









### SUMMARY

- Current design of 42<sup>nd</sup> St does not meet the demands of most street users
- Street design changes will
  - Improve bus speeds and reliability
  - Make commercial metered parking/loading space available throughout the day and overnight to reduce illegal standing and daytime congestion
  - Improve turns off of 42<sup>nd</sup> Street at key intersections
  - Restrict some turns to improve safety and traffic flow





## **IMPLEMENTATION SCHEDULE**

- June 2019: Corridor design presentation to Community Boards 4, 5, & 6
- **Summer 2019:** Adjustments to plan as needed, street design implementation
- Fall 2019: Post-implementation data collection
  & monitoring







# **THANK YOU!**

## **Questions**?









