Columbia Rd NW Bus Priority

Presentation to ANC 1C Planning, Zoning, and Transportation Committee

March 16, 2022
Today’s Meeting

- DDOT goals and Bus Priority Program
- Project goals
- Corridor Overview
- Bus Priority Toolbox
- Solicit Feedback and Ideas
The District has committed to eliminating transportation-related serious injuries and deaths among all users of the street.

This project will include safety features and roadway design changes that will improve safety for all roadway users. This is in line with the District’s Vision Zero goal.
DDOT Goals - move dc

“The District will achieve 75% of all commute trips by non-auto modes by 2032”

**BUS**

“DDOT is committed to improving bus speeds and reliability”

**WALK**

“DDOT is committed improving economic equity and accessibility through safe, efficient, integrated transit options”

**& BIKE**

“DDOT is committed to integrating and expanding the bicycle and pedestrian network”
Bus Priority Program

- Corridors identified in moveDC (the District’s long-range transportation plan), based on bus ridership.

- The Bus Priority Program works to improve bus speed and reliability in these corridors, while often providing safety benefits as well.

- Bus priority network spans approximately 70 miles across the District
  - Over 60% of District residents live within ¼ mile of a bus priority corridor
Value of Bus Priority

1. I spend more time at home with loved ones.

2. I spend less time waiting for the bus.

3. I can travel farther and reach more destinations.

4. Emergency vehicles can respond to emergencies without delay.
Value of Bus Priority

126 people move through this roadway during each light cycle. **80 in transit.**

235 people on a road with transit-only lanes move through this roadway during each light cycle. **204 in transit.**
Project goals

moveDC (the District’s Long Range Statewide Transportation Plan) assigns Columbia Rd multiple priorities—Freight, Transit, and Bicycle

- Make Columbia Rd a safer corridor for all roadway users
  - Focus on vulnerable users – people walking and biking
- Improve bus travel time and reliability
Project timeline

- Needs Assessment (NOW) – complete in April
- Identify solutions – May through August
  - Present concept(s) this summer
- Refine Concept – September through January
  - Inform public of recommended concept
  - Issue NOI
- Construction – 2023
Columbia Rd NW Existing Conditions
Roadway Configuration

- 0.9 miles in length
- 16 intersections;
  - Six are signal controlled
  - Two are stop controlled
- Bus Service along entire length
- Gaps exist in bike lane near 18th St
- Residential parking zones:
  - South of Mintwood and Belmont
  - East of Ontario on north side
Roadway Configuration

1. 16th to Ontario

2. Ontario to Euclid

3. Euclid to Biltmore

4. Biltmore to California
Parking - Commercial

- PUDO (pickup/dropoff) and freight loading activity are difficult to relocate
- Existing demand exceeds block length on two blocks:
  - Champlain to Ontario (near Safeway)
  - 18th St to Biltmore (near Starbucks)
Traffic Operations

- Roadway provides diagonal connection through irregular street grid
- Transitions from two-way street to one-way pairs at 16th St and at CT Ave
- Moderate peak hour traffic volume
  - East of 18th: ~800
  - West of 18th: ~600
Bus Operations

- Routes served: L2, 42, 43, Circulator, [H1 out of service]
- Average Daily Bus Passenger: ~6,000 (2019)
- Daily bus stop ridership: 300-1,200 (2019)
- Peak Headway: 5 Minutes
- Average Bus Speed: <6 mph (2019; 2nd slowest roadway segment in District)
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- Provides access to work and services for low wage earners.
Bicycle Circulation

- Bicycle use is heavier east of 18th St
- Bicycle use is heavier going downhill
- New protected bike lane on CT Ave (begin construction in 2023) may change dynamics
Crashes

- 112 Crashes (MPD crash reports, 2018 to 2020)
- All involved bicyclists and pedestrians were injured
- 11 pedestrians
  - 8 were in crosswalk
  - 1 was unloading a truck
- 17 bicyclists
  - Door: 3
  - Parking: 3
  - Rear-end: 7
  - Left Turning: 4
- 17 drivers injured; crash type:
  - Turning: 4
  - Rear End: 10
  - Parking: 3

All Crashes (MPD reports, 2018-2020)
Project Toolbox – Safety Improvements

- “Vision Zero accepts that humans are fallible and will, at times, make poor choices that result in crashes.”
- “Designers must take necessary steps to ensure that the resulting crashes do not result in people being killed or seriously injured.”

Curb Extension
- Tightens curb radius to reduce turn speed
- Shortens crossing distance for pedestrians
- Increases visibility at crosswalks

Median Refuge
- Shortens crossing distance for pedestrians
- Requires alertness from drivers
- Simplifies pedestrian’s decision to cross at each lane of traffic

Lane Shift
- Requires alertness and speed reduction from drivers

Project Toolbox – Bus Lanes

- Bus lanes reduce delay resulting from congestion.

Curbside Bus lanes
- Eliminates parking during operations
- Allow part-time operations
- Illegal parking may cause bus delays

Offset Bus lanes
- Accommodates curbside access
- Reduces parking-based delay

Separated Bike-Bus lanes
- Provides increased accommodation of bikes and scooters in bus lanes
- Does not allow parking
Project Toolbox – Bus Stop Design

- Bus stop treatments improve safety and reduce delay at bus stops
- Designs vary and have been refined from previous installations

**Bus Stop Islands**
- Bicyclists ride between bus boarding area and sidewalk

**Shared Bike-Bus Stops**
- Bicyclists ride through boarding area
- Passengers wait on the sidewalk
- Bicyclists must yield during bus boarding

**Bus Bulb-outs**
- Effectively widens the sidewalk
Project Toolbox – Bus Stop Location

Before

After

Bus stop rebalancing
• Buses stop less often
• Shorter trips for everyone

Stop Relocation
• Farside stops are faster
• Stops with traffic signals are safer

Queue jumps
• Buses get to the front of the line
Project Toolbox – Bike lanes

- Different types of bicycle facilities are warranted in different contexts.
- Protected bike lanes increase safety for all roadway users.

Protected bike lane (PBL)
- Provides increased safety and reduced stress on busy roadways
- Provides buffer from car doors and protection from motor vehicle intrusion

2-way protected bike lane
- Offers smaller footprint than 1-way bike lane
- Challenging if there are complex and frequent intersections

Separated Bus-Bike Lane
- Subjectively: Offers greater comfort than dedicated bike lane, but less than PBL
Project Toolbox – Tradeoffs

- Roadway width is 50’
- Options to add functions:
  - Remove parking?
  - Daytime parking restriction?
  - 1-way conversion?
  - Block-by-block design?
- Constraints:
  - Accommodate commercial loading and access
  - Achieve project goals (enhanced safety and bus operations)
Provide comments:

For example:

- What is working well that shouldn’t change?
- What feels unsafe or inconvenient?
- What would you like to be able to do differently in the future?
- What do we need to know that can inform our plans?

**202.671.2376** (leave a voicemail or request a call back)

Kevin.Harrison@dc.gov

ddot.dc.gov/page/bus-priority

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