



Minnesota Ave SE Bus Priority

ANC 7B and 7F

September 2021



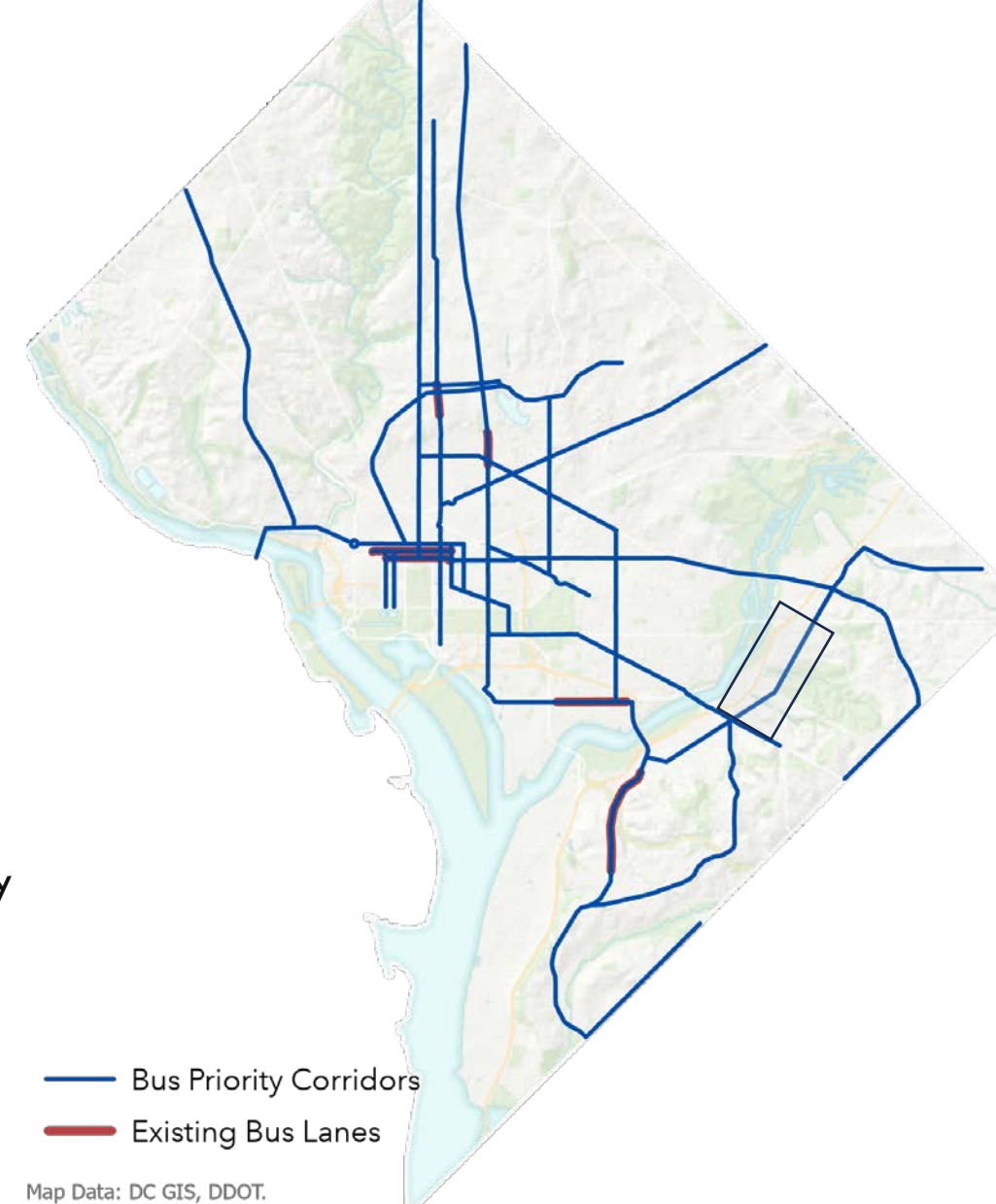
Agenda

- Bus Priority Program
- Needs Assessment
- Corridor Concepts
- Project Timeline



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.
- Bus priority network spans approximately 70 miles across the District
 - Over 60% of District residents live within 1/4 mile of a bus priority corridor



Value of Bus Priority

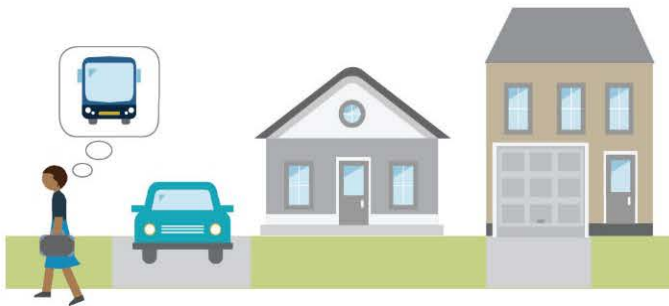
1. I spend more time at home with loved ones.



2. I spend less time waiting for the bus.



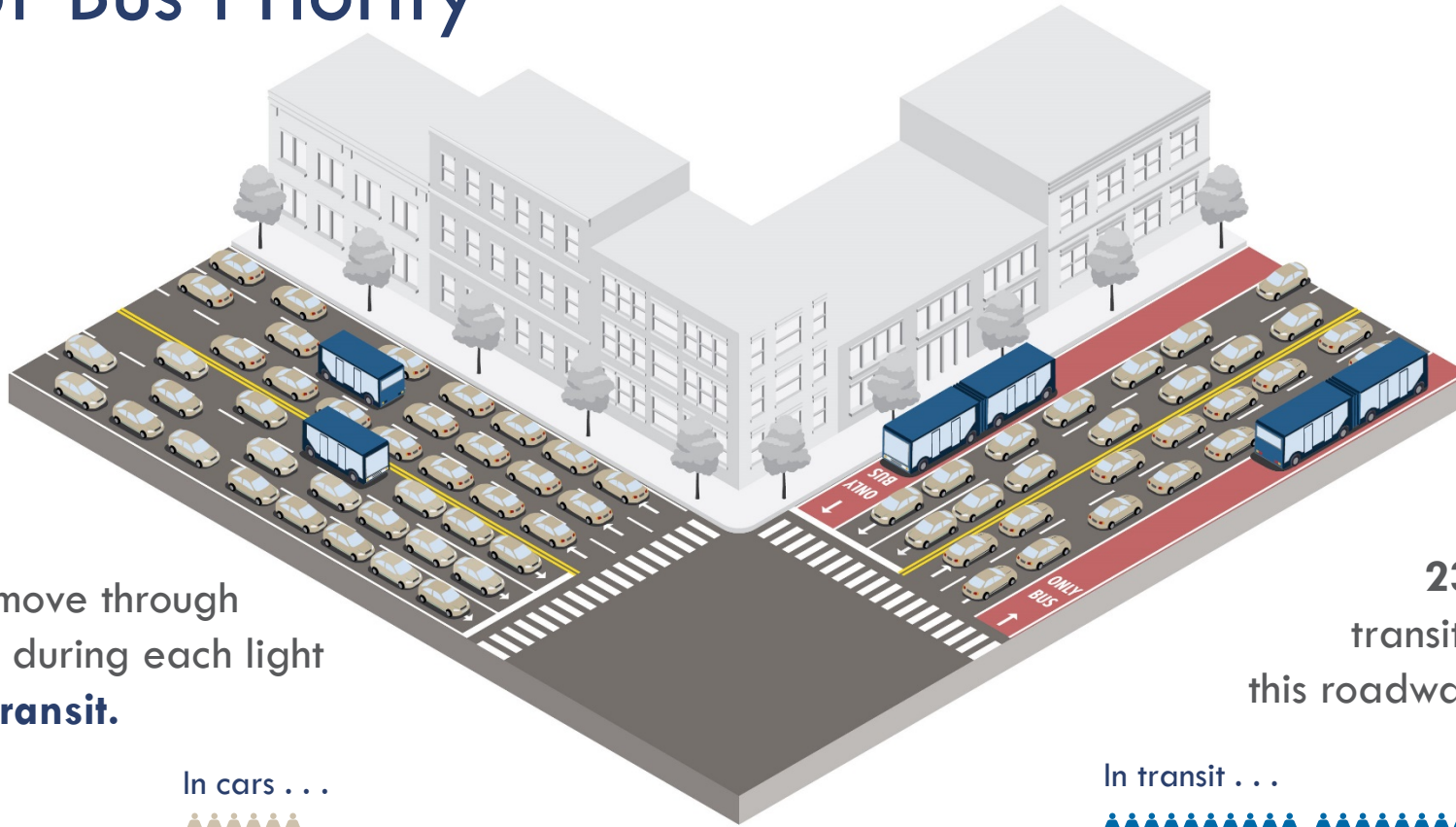
3. I can travel farther and reach more destinations.



4. Emergency vehicles can respond to emergencies without delay.

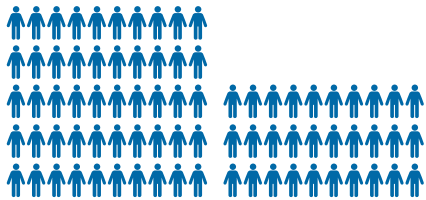


Value of Bus Priority



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

In transit . . .

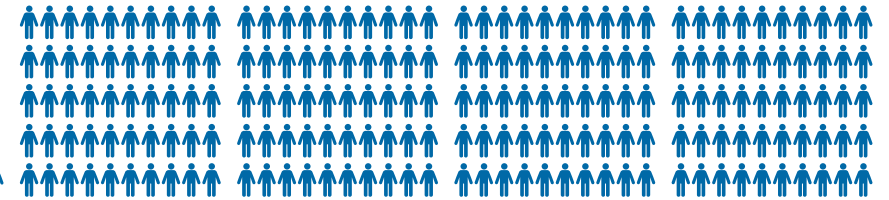


In cars . . .



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

In transit . . .



In cars . . .

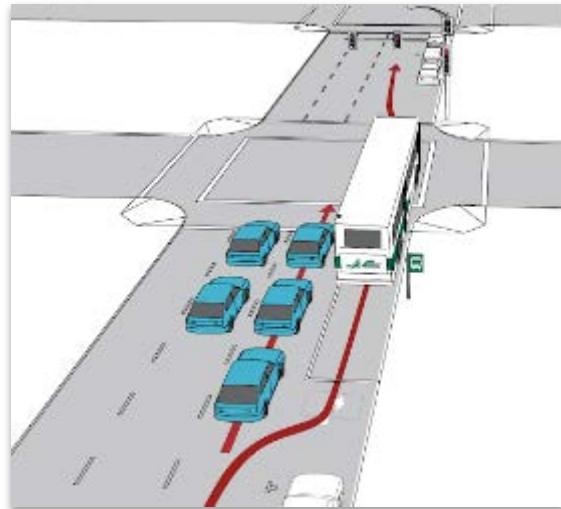


Bus Priority Toolbox

Examples of DDOT's 20+ ways to make riding the bus better:



Bus lanes
Reduce congestion delay



Queue jumps
Buses get to the front of the line



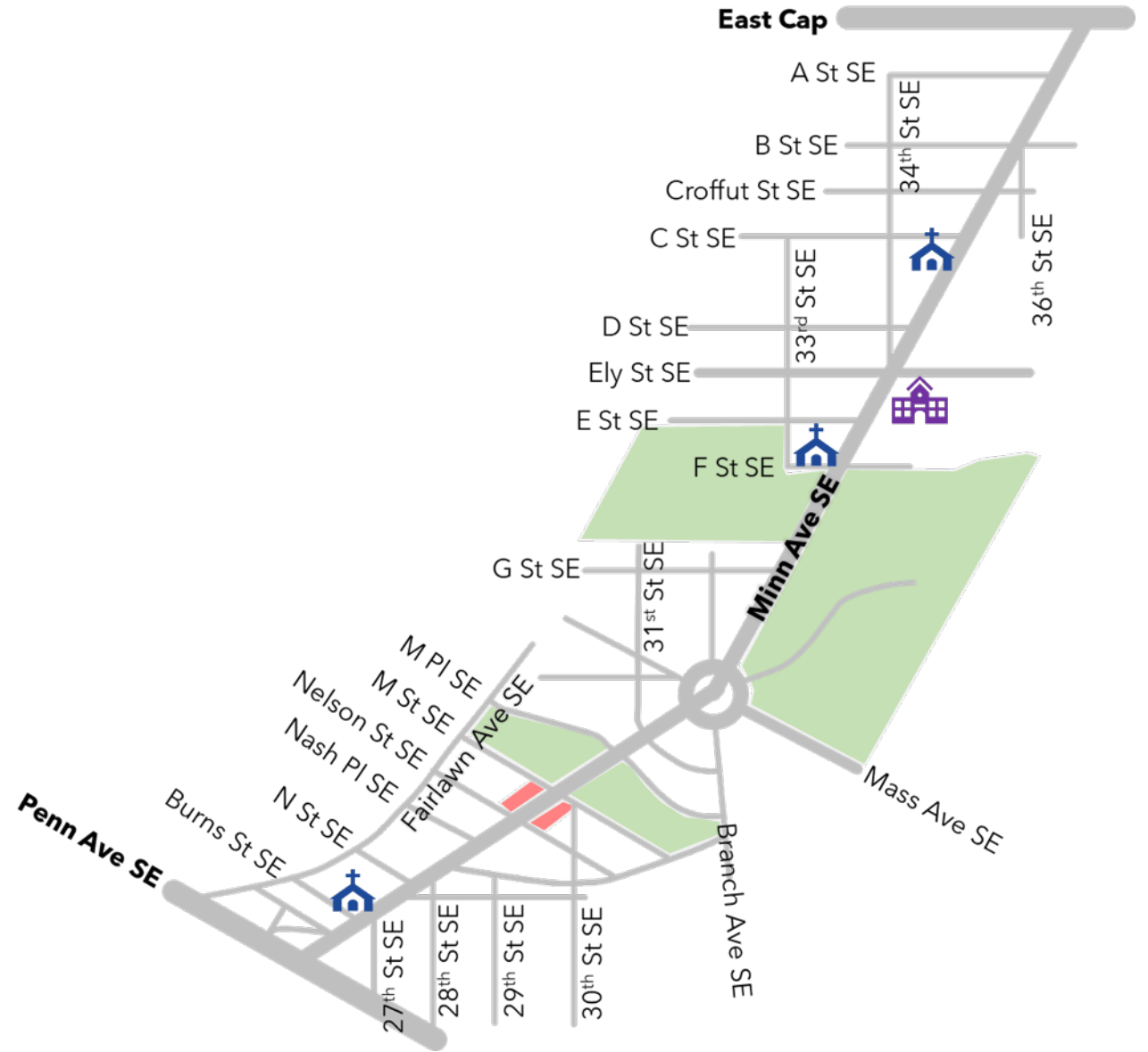
Bulb-outs
Buses board from the travel lane and provide more space for passengers to wait



Transit signal priority
Give buses more green time

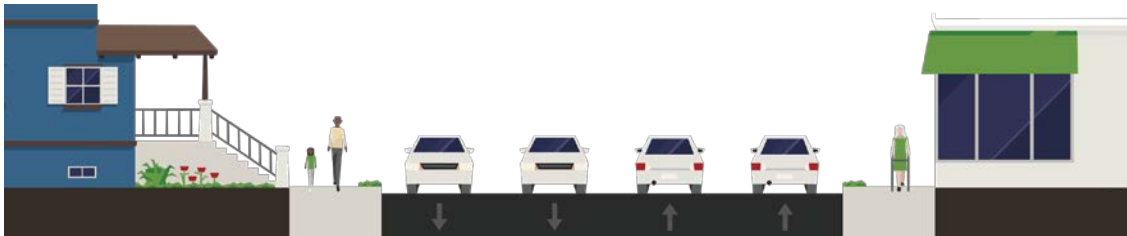
Land Use




- Mostly medium density residential
- Commercial retail at Nelson St SE
- Kimball Elementary is biggest transit trip generator
- Ft Dupont is popular park for weekend activity

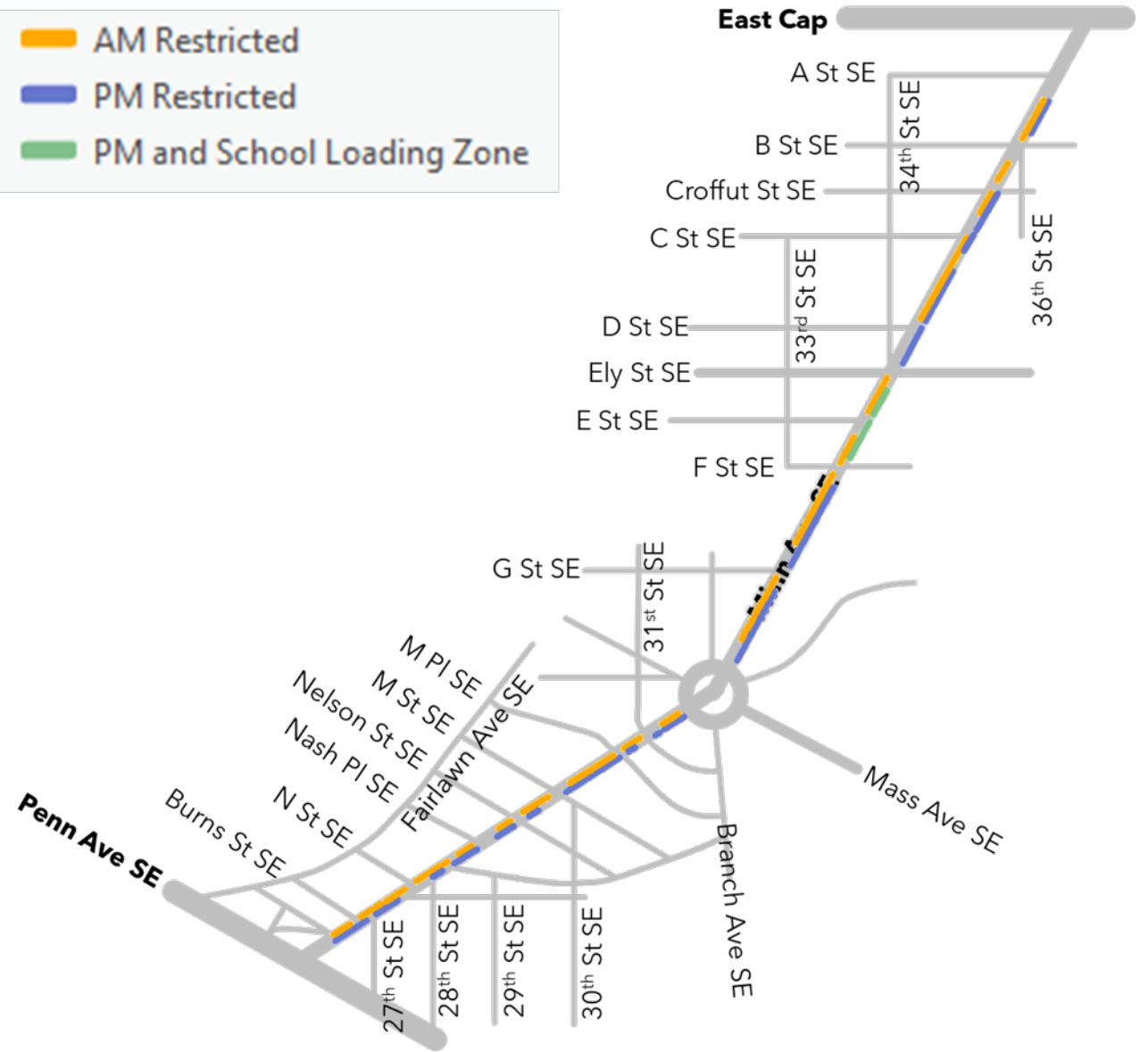


Roadway Characteristics

- 1.4 miles, from Pennsylvania Ave SE to A St SE
- 40' Roadway; Four 10' lanes

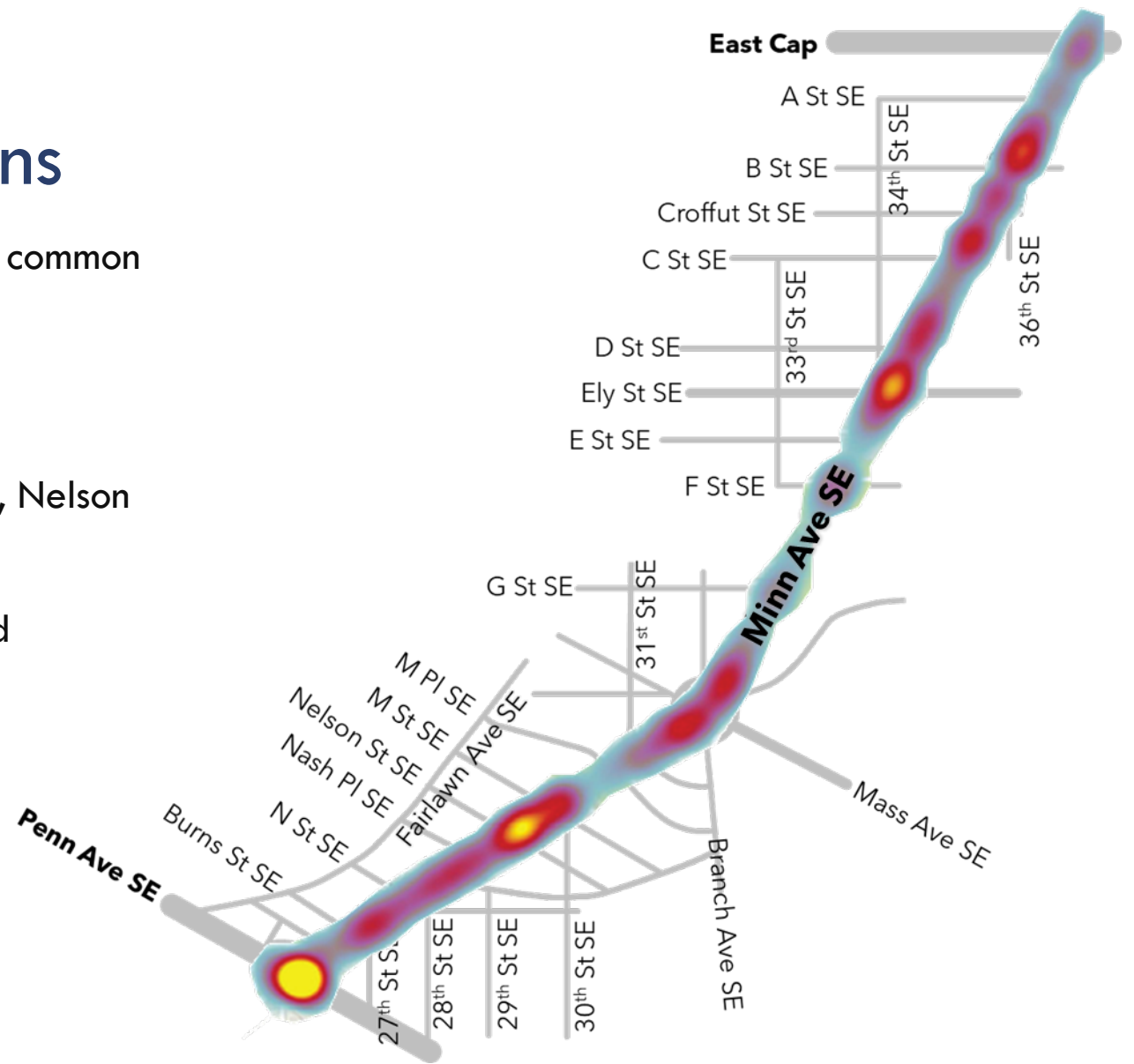


	AM Restricted
	PM Restricted
	PM and School Loading Zone



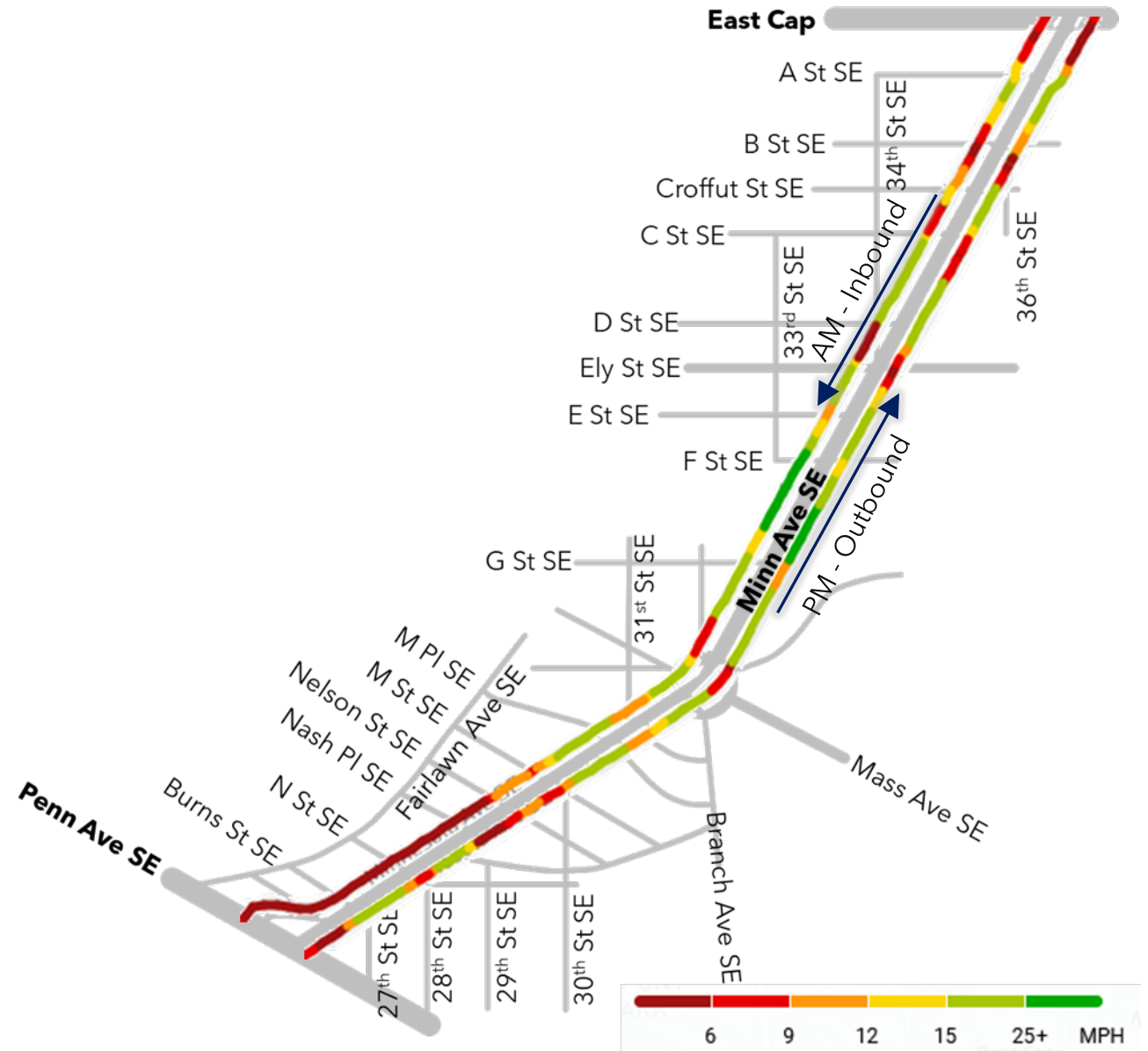
Traffic Safety and Operations

- Rear end and failure to stay in lane crashes are most common
 - Drivers merging into non-parking lane
 - Drivers changing lanes to avoid left turn queue
- Most crashes occur at B St SE, Ely PI SE, Randle Circle, Nelson PI SE, and Pennsylvania Ave SE
- Congestion is most severe in AM rush hour, southbound approaching Pennsylvania Ave SE



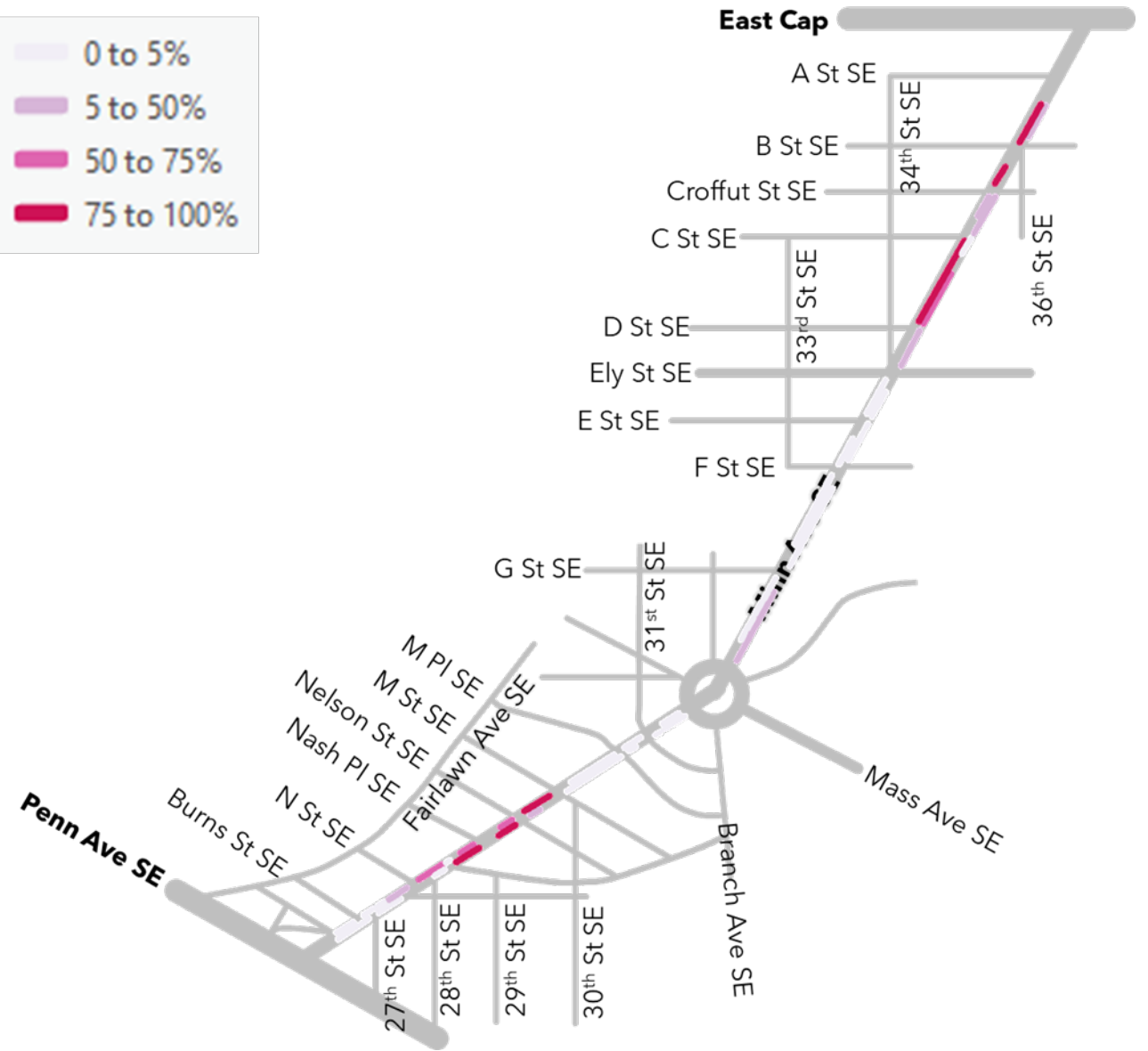
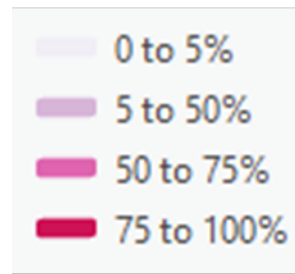
Bus Operations

- 10-15 minute bus frequency
- 4,000 passengers per day
- Highest boardings at Ely St SE and Penn Ave SE
- Delay through most of the corridor is related to traffic signals and passenger boarding
- Congestion severely impacts bus speed on southbound Penn Ave approach.



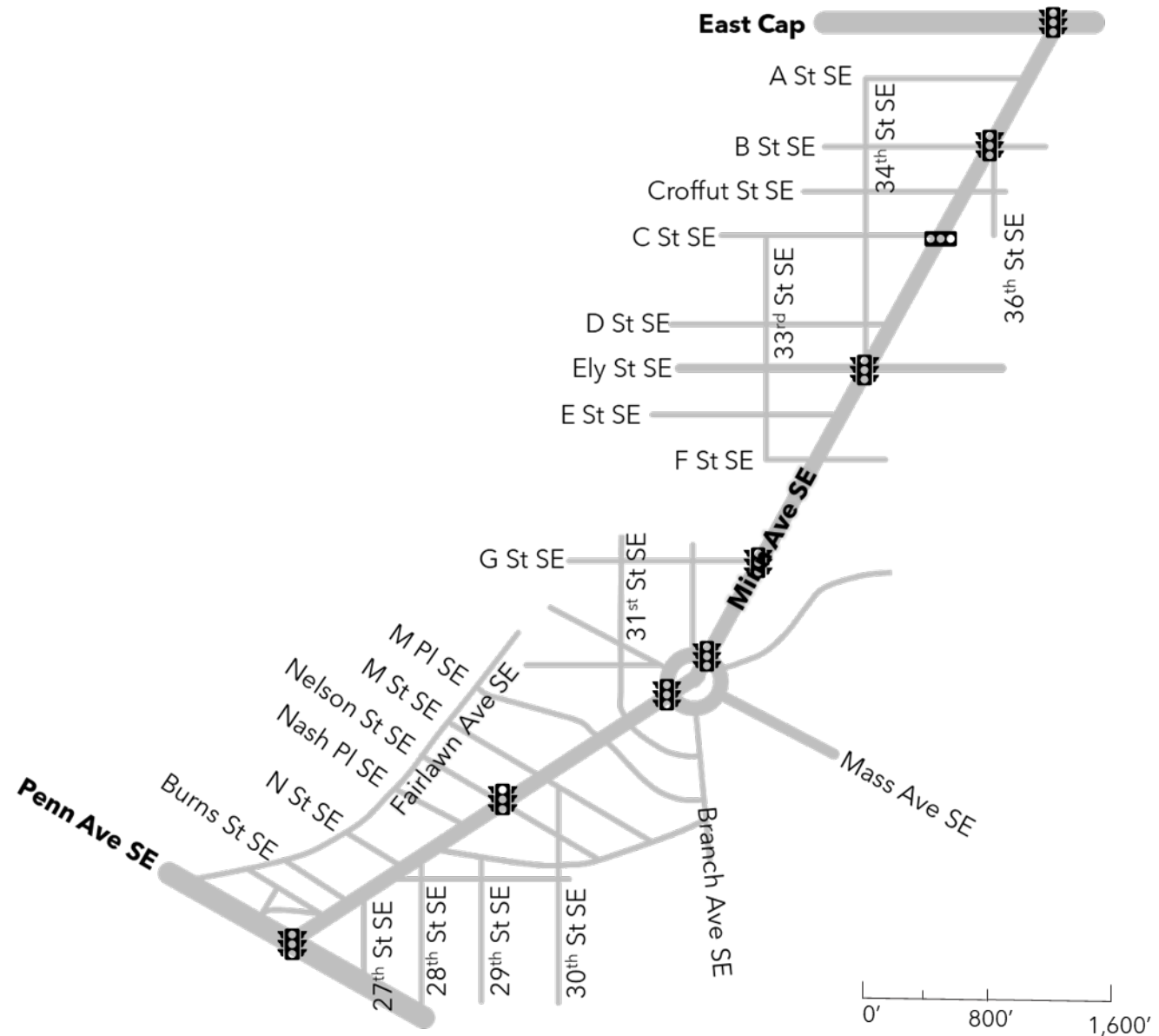
Parking Occupancy Rate

- Limited demand for parking in many areas.
- High parking demand First Baptist Church, Nelson St retail, Ft Dupont, Kimball Elementary School loading zone.



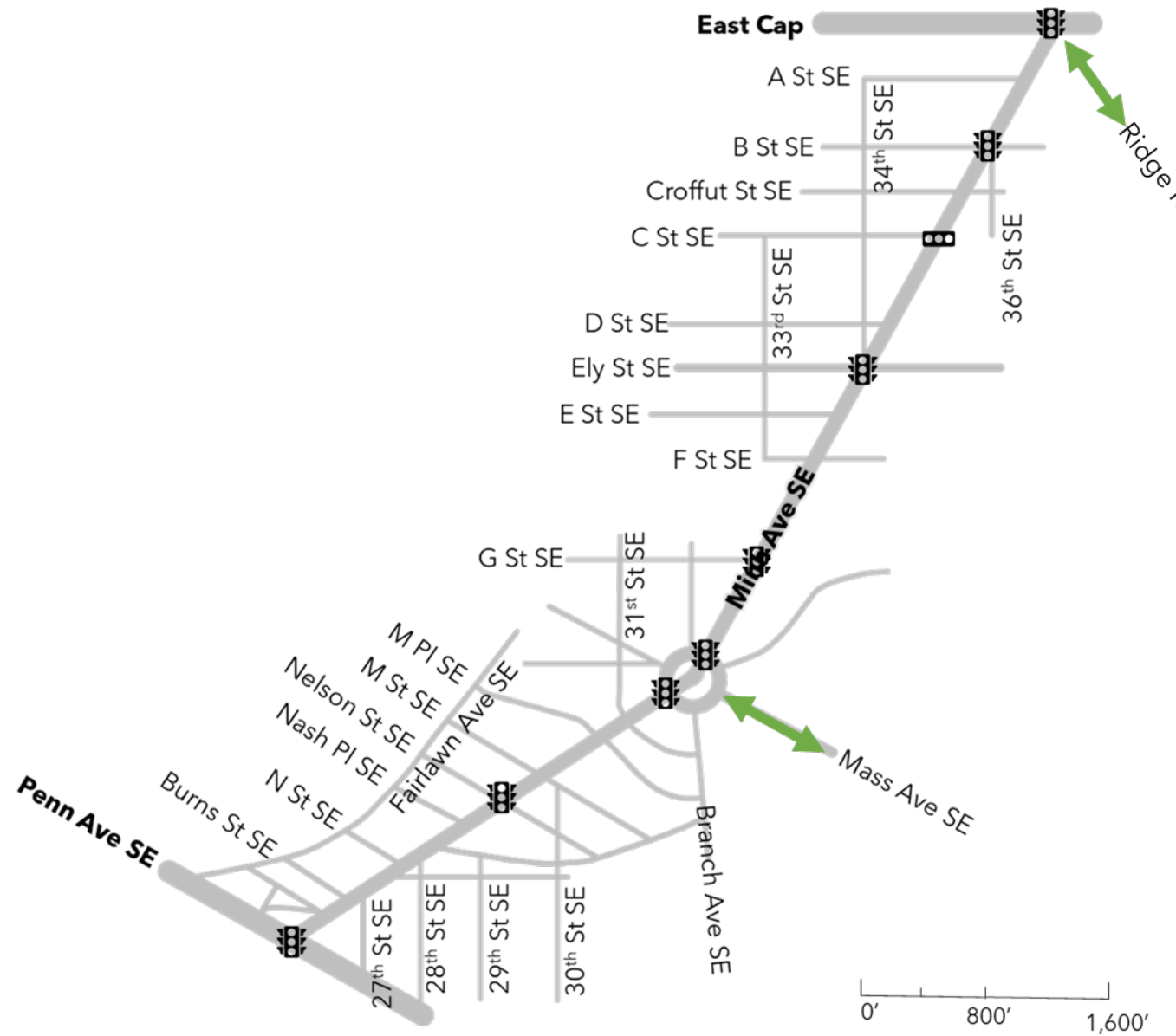
Traffic Analysis

- ~1,000 veh/hr south of Randle Cir
~700 veh/hr north of Randle Cir
- Southbound AM travel is slowest at 6.5 min. Travel time is about 4 minutes otherwise.
- Main source of delay is Penn Ave southbound approach



Bike Network

- Bike lanes connect to Minn Ave at Ridge Rd and Mass Ave
- Neighborhood streets are low traffic, comfortable for biking
- Minn Ave, Penn Ave, and East Cap are significant barriers for biking



Corridor Concepts

Proposed Concept Vocabulary

Bike Lanes



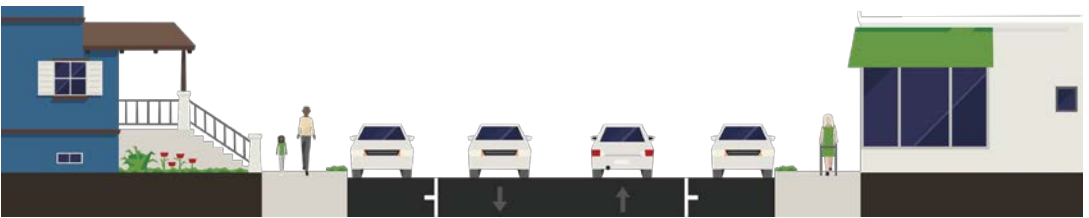
Proposed Concepts

- Both provide parking during rush hour
- Both include a southbound bus lane in the AM peak approaching Penn Ave SE
- Both enhance the pedestrian environment and improve safety.
- Both allow buses to make in-lane stops using bus bulb-outs or boarding islands.
- One option includes a bike lane and removes parking from one side of the street.

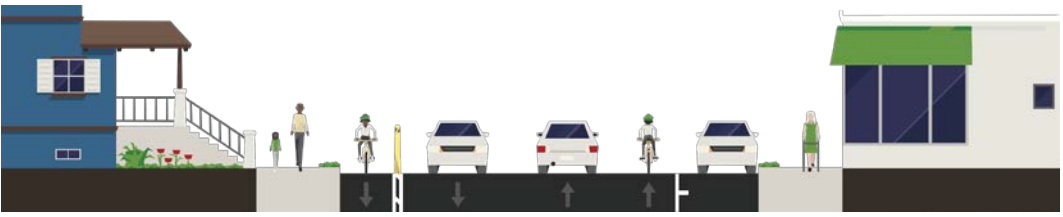
	Alternative 1	Alternative 2	Construction Date
Bus Stop Rebalancing	X	X	2022
Bus lane expansion	X	X	2023
Curb Extensions	X	X	2022
Bus bulb-outs	X		2022
Boarding islands		X	2022
Bike Lanes		X	2023

Proposed Concepts

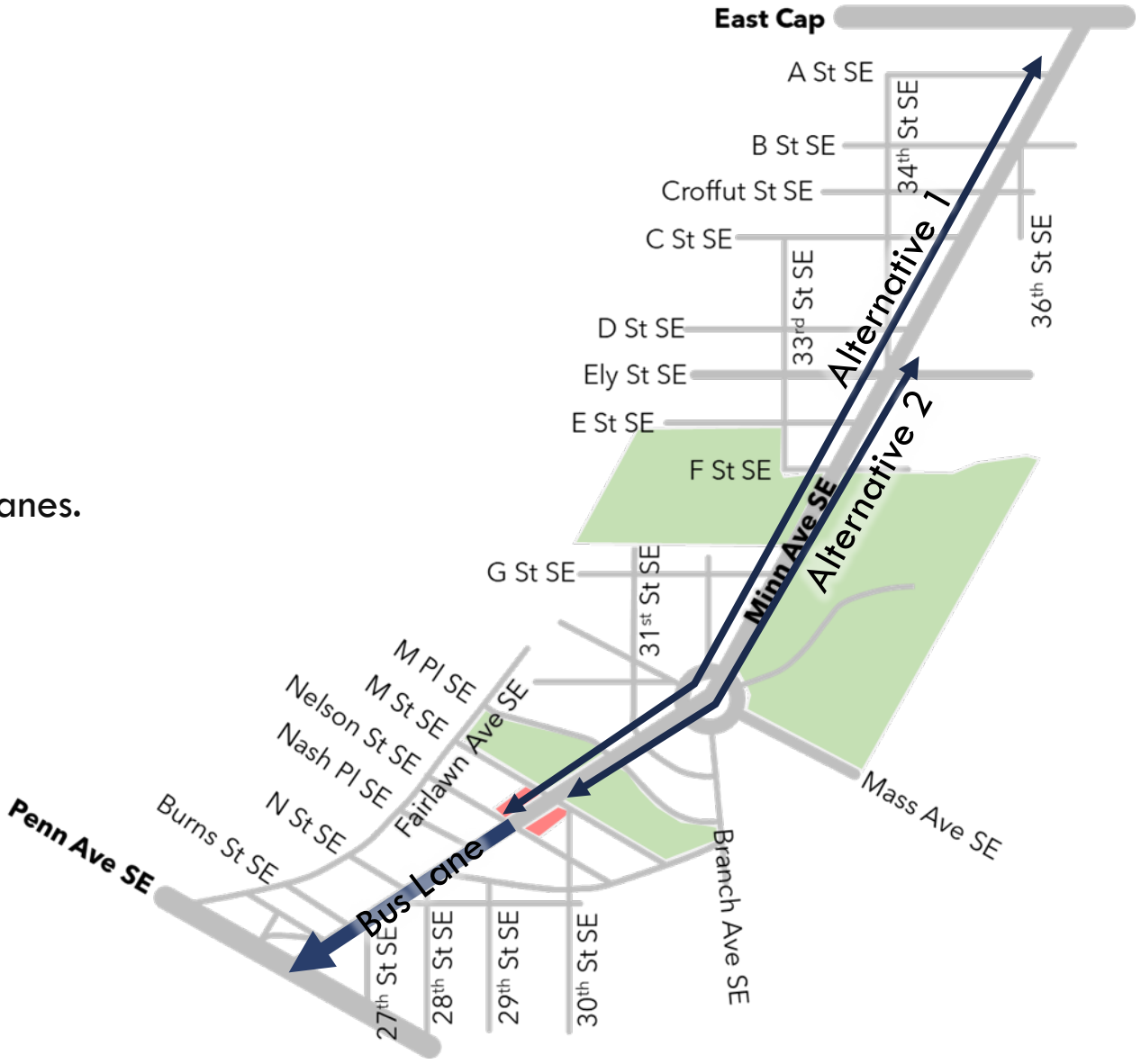
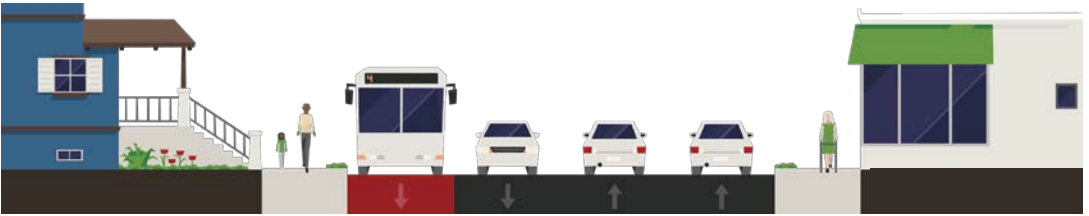
Alternative 1: Convert all parking to permanent



Alternative 2: Remove parking from one side of street for bike lanes.

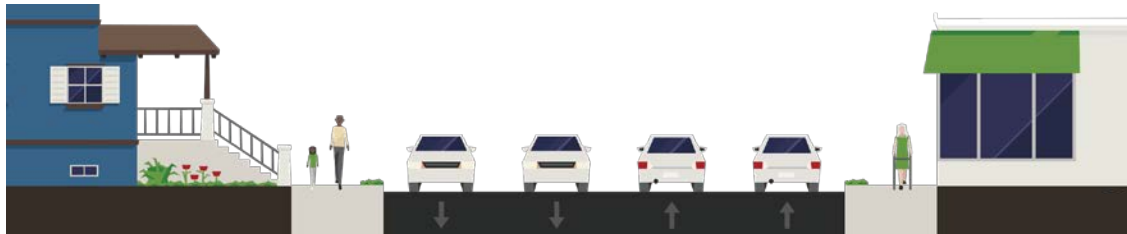


Bus lane: Provide south bound bus lanes for Penn Ave approach



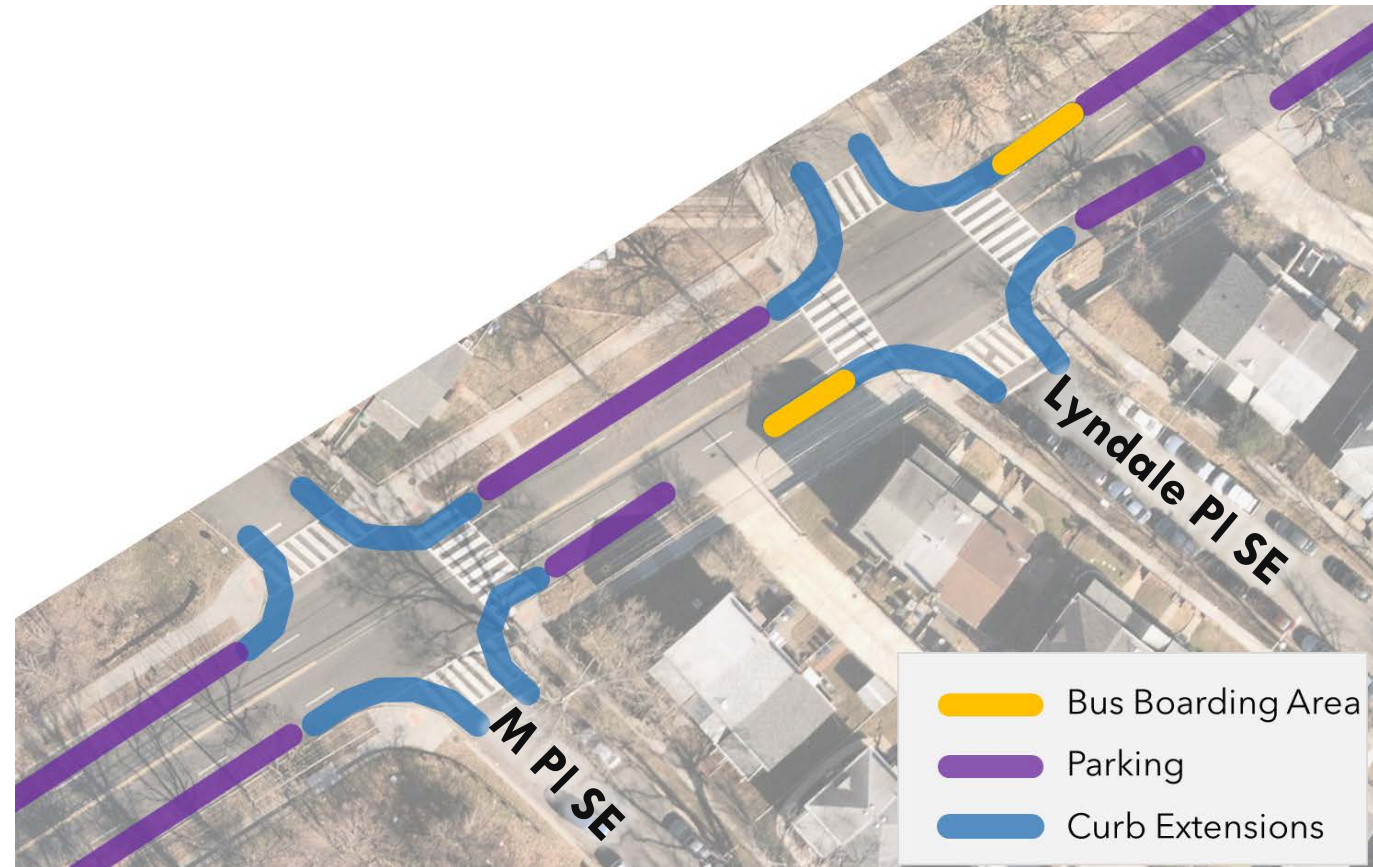
Existing Condition

- Scarce parking allows weaving between lanes and passing at high speeds.
- Intermittent parked cars make roadway unpredictable



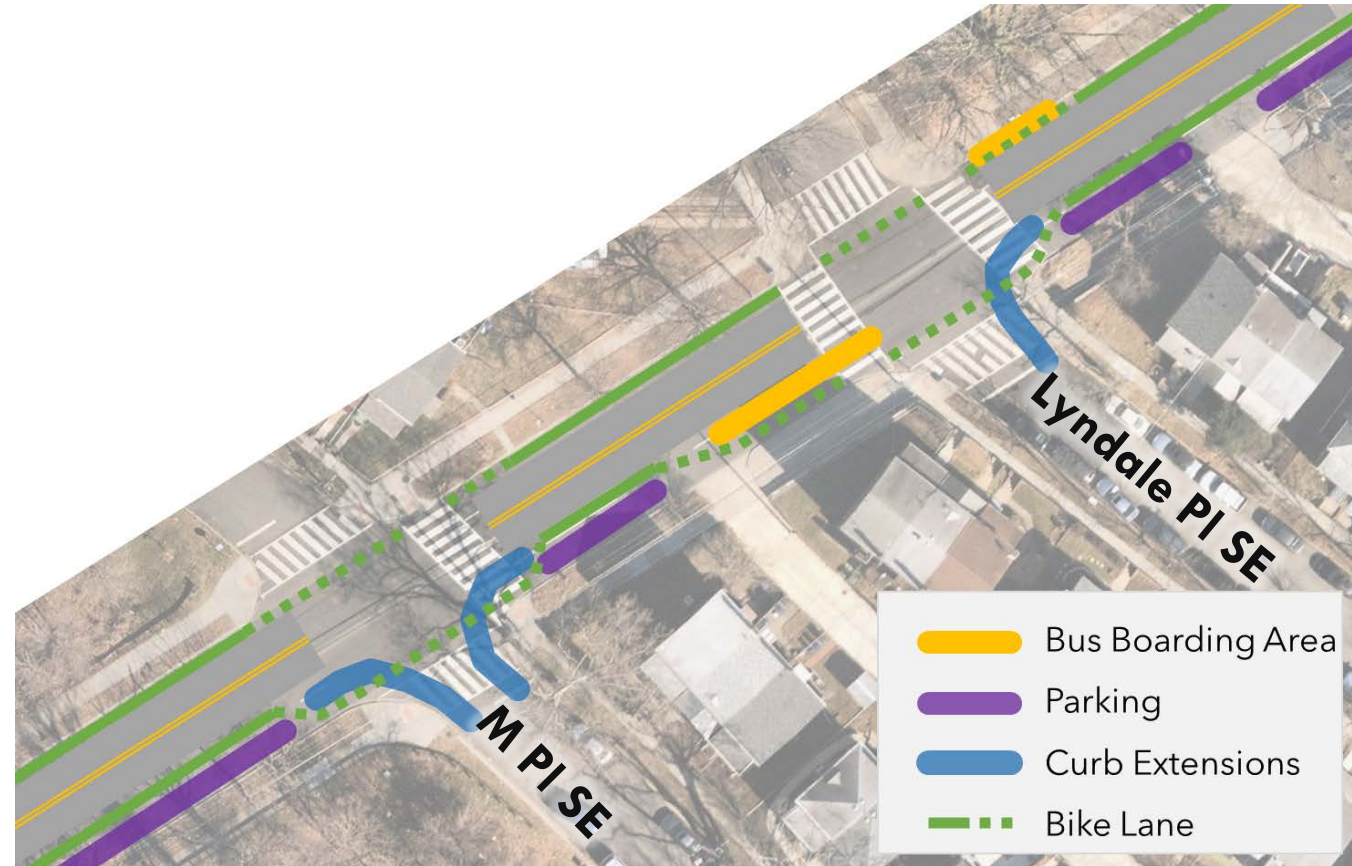
Alternative 1

- Curb Extensions in parking lane to shorten crossing distance. Adds “daylight” to intersections for better visibility.
- Bus bulb-outs expand bus waiting area and provide better bus service
- Could be implemented from Nelson Pl SE to A St SE



Alternative 2

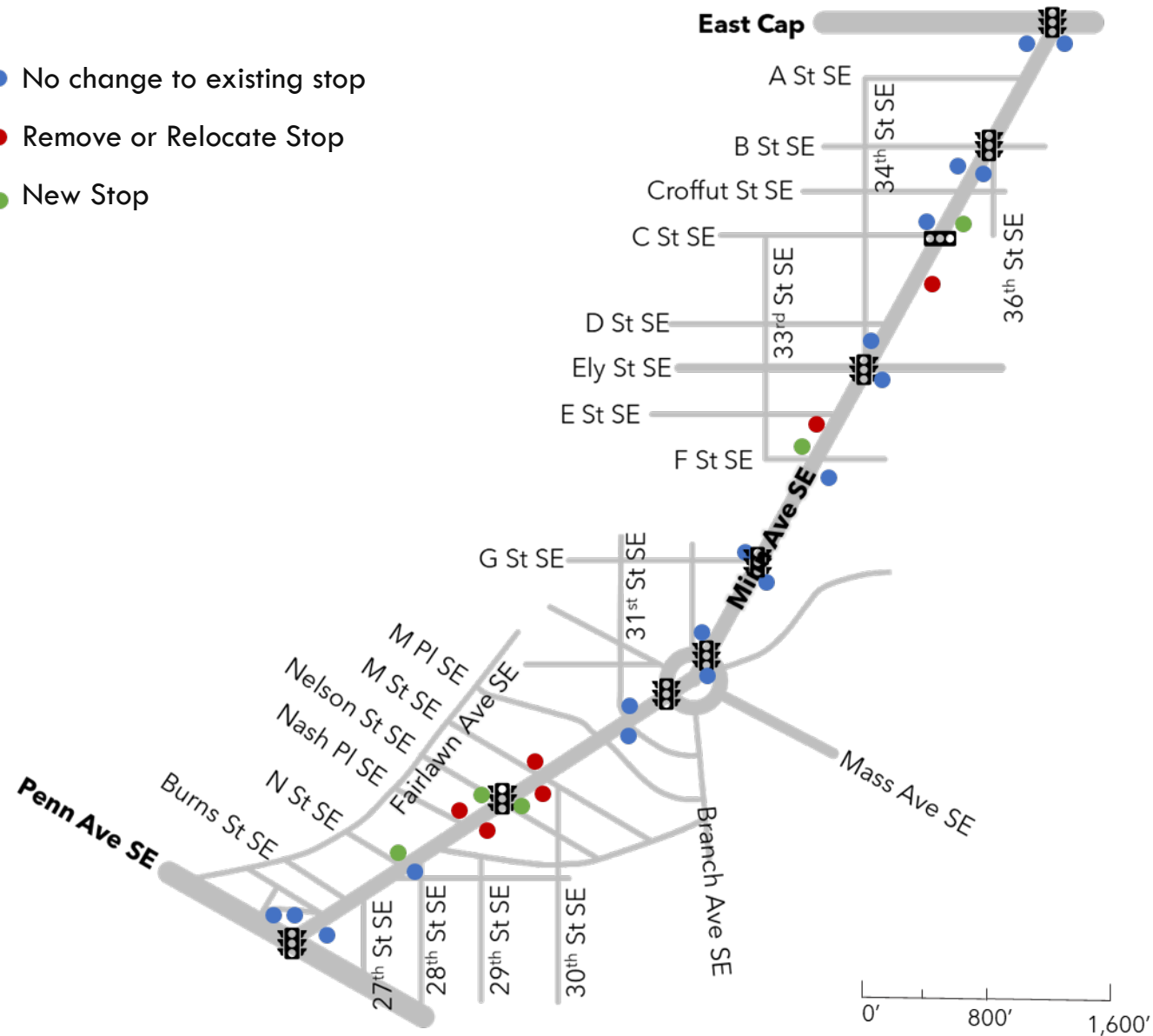
- Curb Extensions in parking lane to shorten crossing distance. Adds “daylight” to intersections for better visibility.
- Bus boarding islands expand bus waiting area and provide better bus service
- Bike lanes connect schools, parks, and retail to neighborhood streets
- Implementation from D St SE to M St SE would minimally impact areas where parking is needed.



Bus Stop Rebalancing

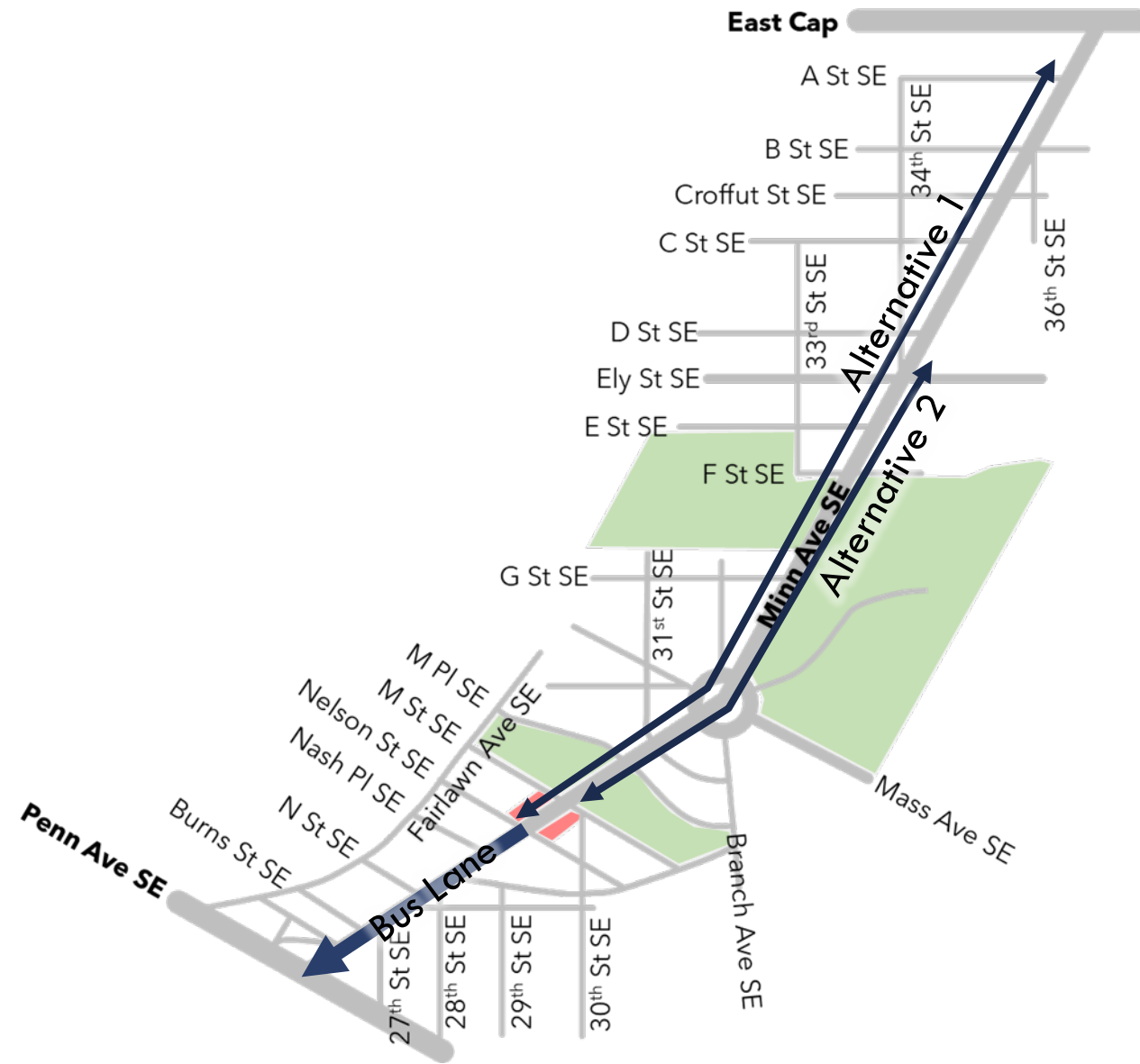
- Locating stops at signalized crosswalks is safer
- Farside stops allow buses to get through intersection faster (10-15 seconds) and allow transit signal priority (10-15 more seconds)
- Reducing the number of stops also reduces travel time by about 10 seconds

- No change to existing stop
- Remove or Relocate Stop
- New Stop



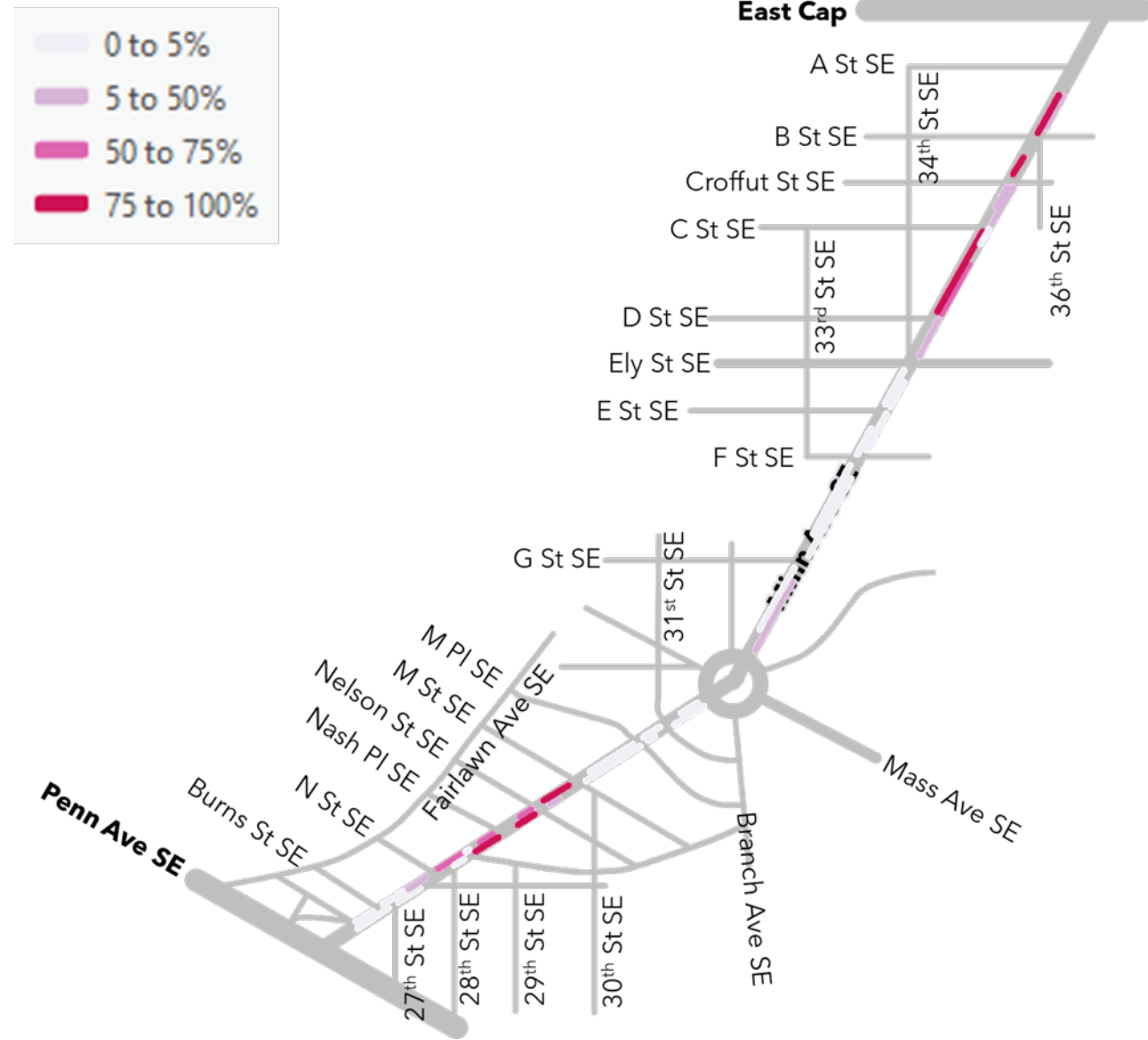
Alternative Comparison

- Transit Improvements – Both alternatives equally benefit transit
- Congestion –
 - Both alternatives have no impact on traffic outside of peak hour (85% of time)
 - During peak hour travel time could increase as much as 60 seconds. Further design will refine modelling.
- Safety – The bus is the safest way to travel. Both options offer improved safety for pedestrians, but bike lanes provide improved safety for people that bike.



Alternative Comparison

- Parking—
 - Alternative 1: Preserves all parking. Adds parking at rush hour
 - Alternative 2: Repurposes parking on west side of street from D St SE to M St SE for bike lanes



Next Steps

- Provide Comments by October 30th
- DDOT will design through the winter and spring 2022
- Notice of Intent in spring or summer 2022
- Construction in summer or fall 2022