

# Hennepin Avenue South Midblock Crossing Evaluation

July 26, 2019



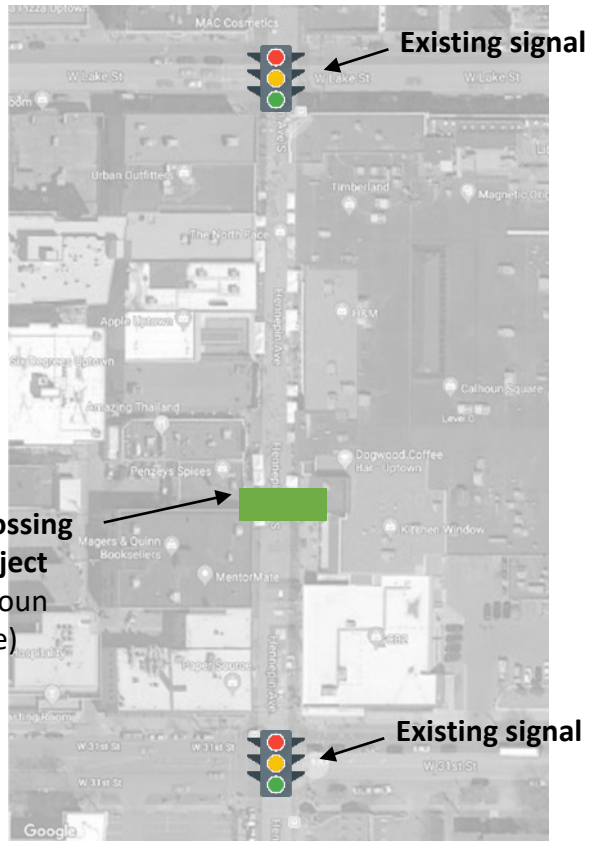
# Overview

- Hennepin Ave S was reconstructed between Lake St and 36<sup>th</sup> St W in 2018-2019
- The block between Lake St and 31<sup>st</sup> St includes many businesses and high pedestrian activity (3,000+ people walking/day)
- During project development, a high number of pedestrians were observed crossing midblock to access destinations along the street
- A raised midblock crossing was included in the design and constructed with the project
- This evaluation aims to understand the effectiveness of the midblock crossing

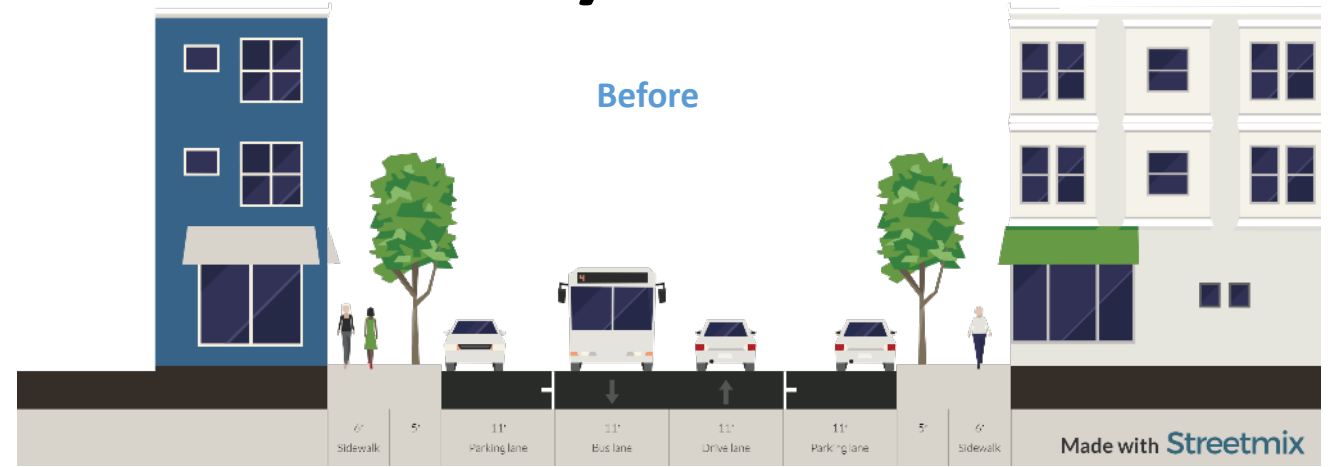




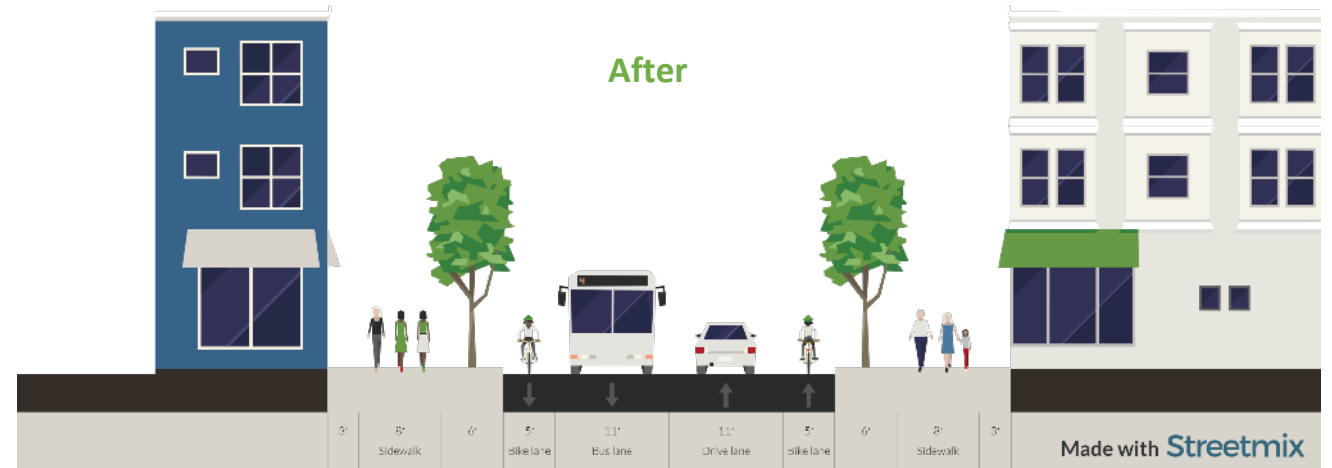
# Project Design (Lake-31<sup>st</sup> Street)



Raised midblock crossing installed with project (aligned with Calhoun Square entrance)



44' crossing



32' crossing

## Midblock crossing design

- Marked crosswalk and pedestrian crossing signs
- Narrowed crossing distance from 44' to 32'
- Roadway raised to sidewalk level evaluation (30 mph design speed)
- No active warning devices
- No on-street parking





Before





After





Before





After





SELLERS

SEE

Penzeys Spices

metrotransit.org

6 DOWNTOWN

1270

BAR & REST

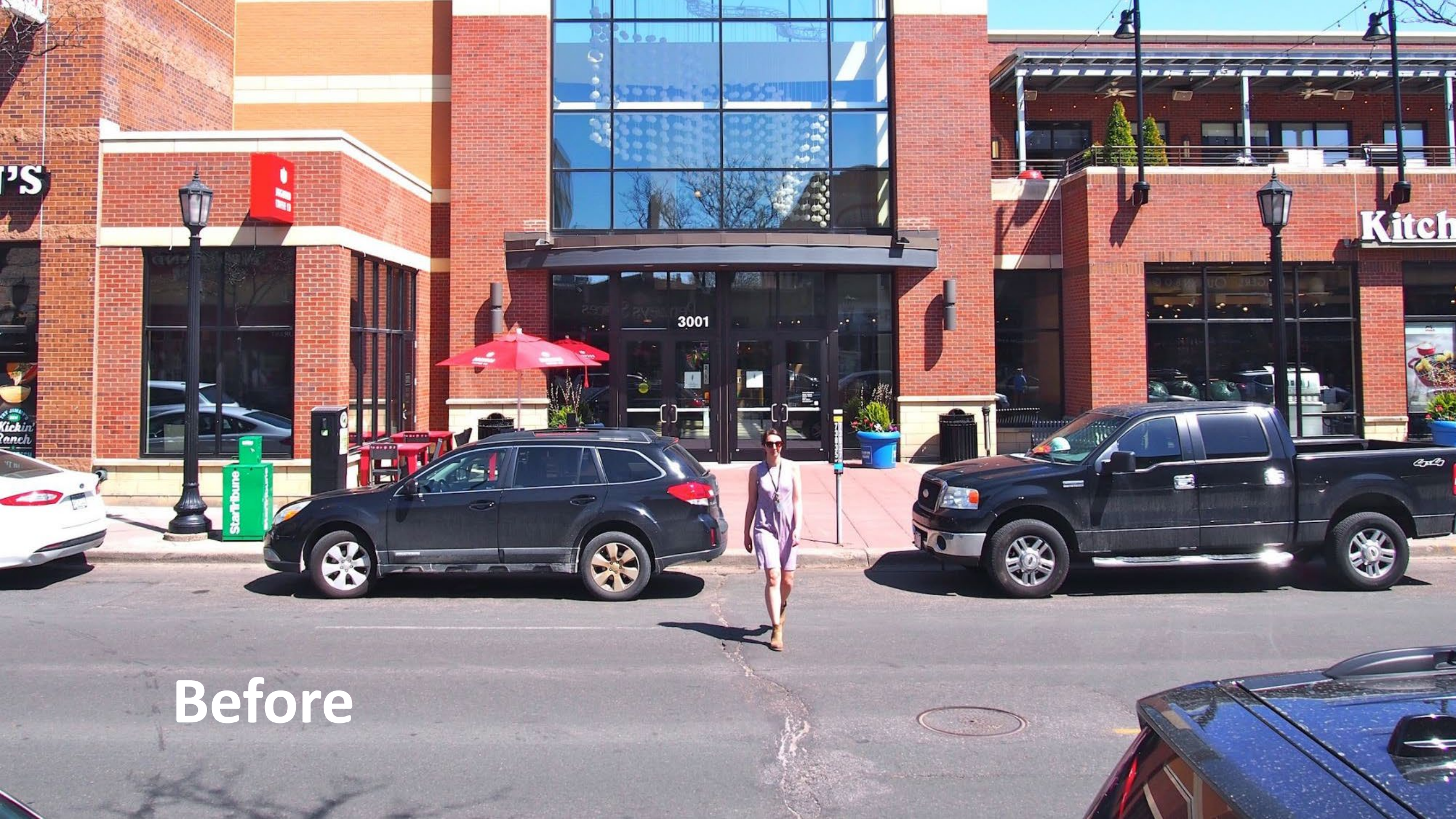
Before





After





Before





After



# Evaluation Questions

**Following the reconstruction of Hennepin Avenue South and the installation of the midblock crossing:**

- Did pedestrian behavior change?
- Did driver behavior change?

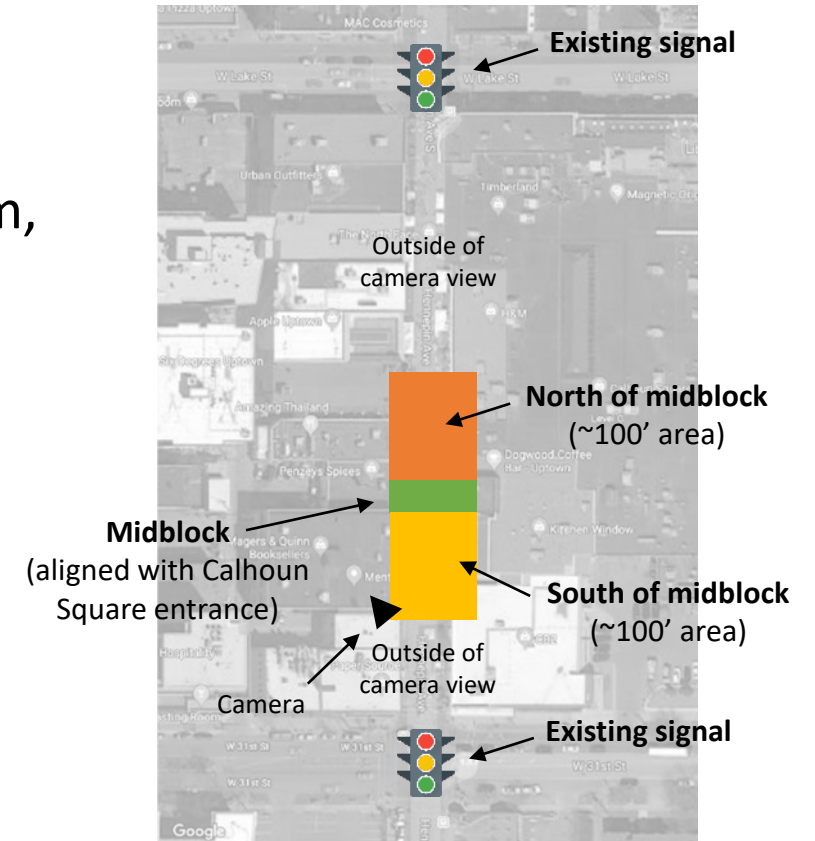




# Evaluation Methodology

- **16 hours of video observations (6am-10pm)**
  - Before: Friday, February 17, 2017 (unseasonably warm, sunny, 63 F)
  - After: Tuesday, July 2, 2019 (light rain in morning, sunny afternoon 87 F)
- **Observed behavior:**
  - Number of pedestrian crossings
  - Pedestrian crossing location – see map
  - Pedestrian crossing experience
    - No delay (no driver present)
    - Waited for gap (driver present)
    - Driver yielded (driver present)
  - Driver AADT and speeds

## Pedestrian crossing locations

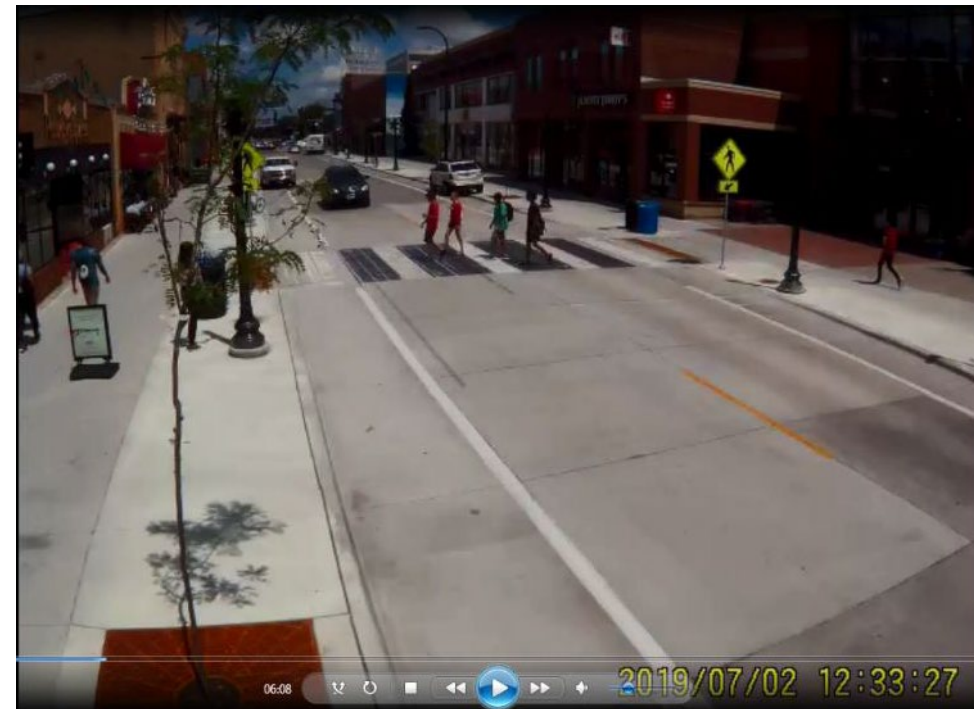




# Evaluation Methodology



Before video



After video

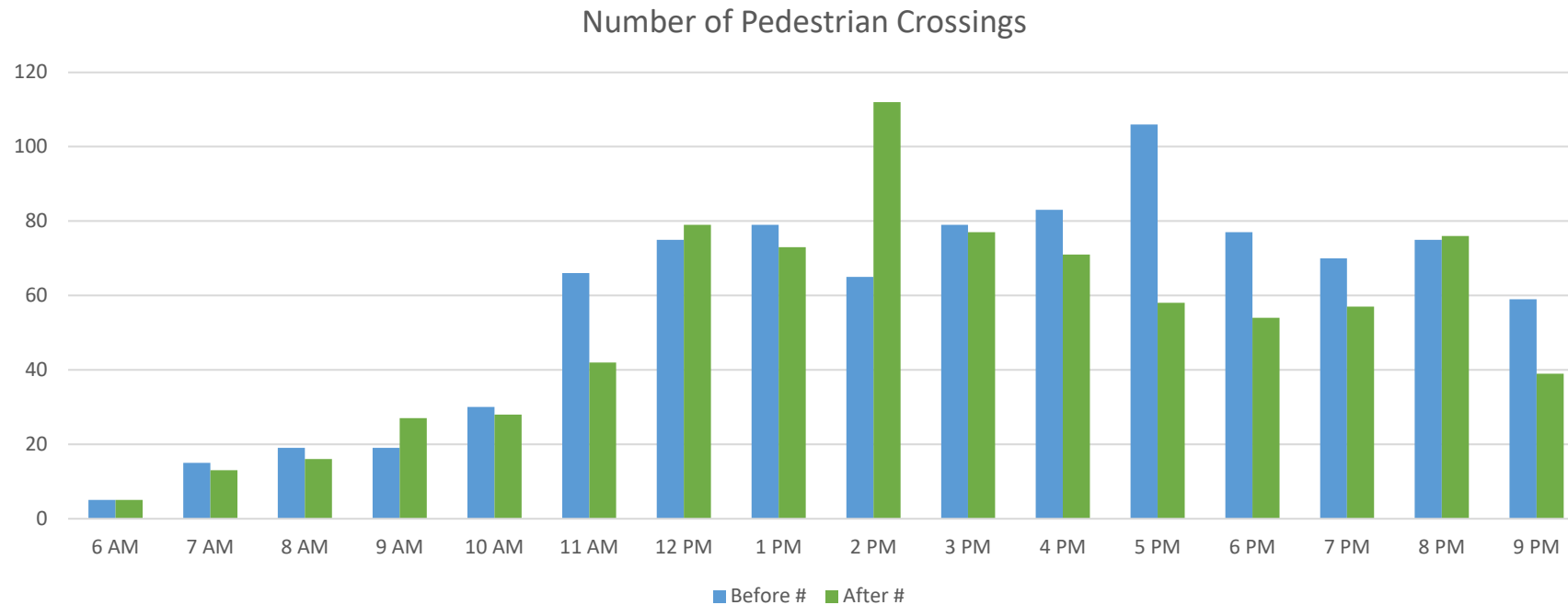




# Results: Number of pedestrian crossings

The number of pedestrian crossings decreased slightly, but was still high

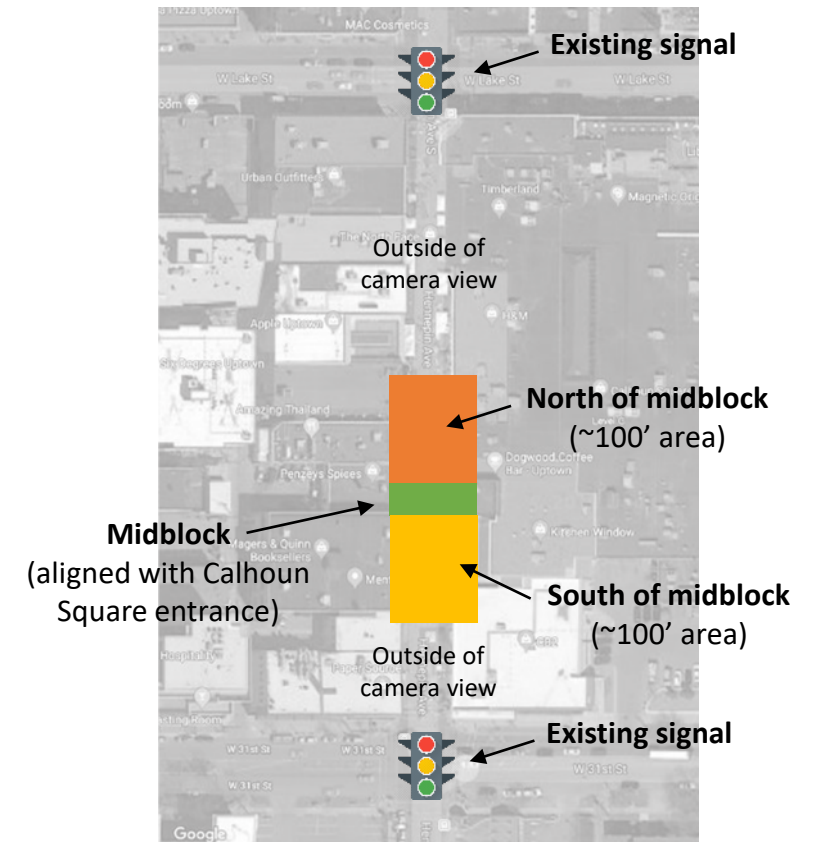
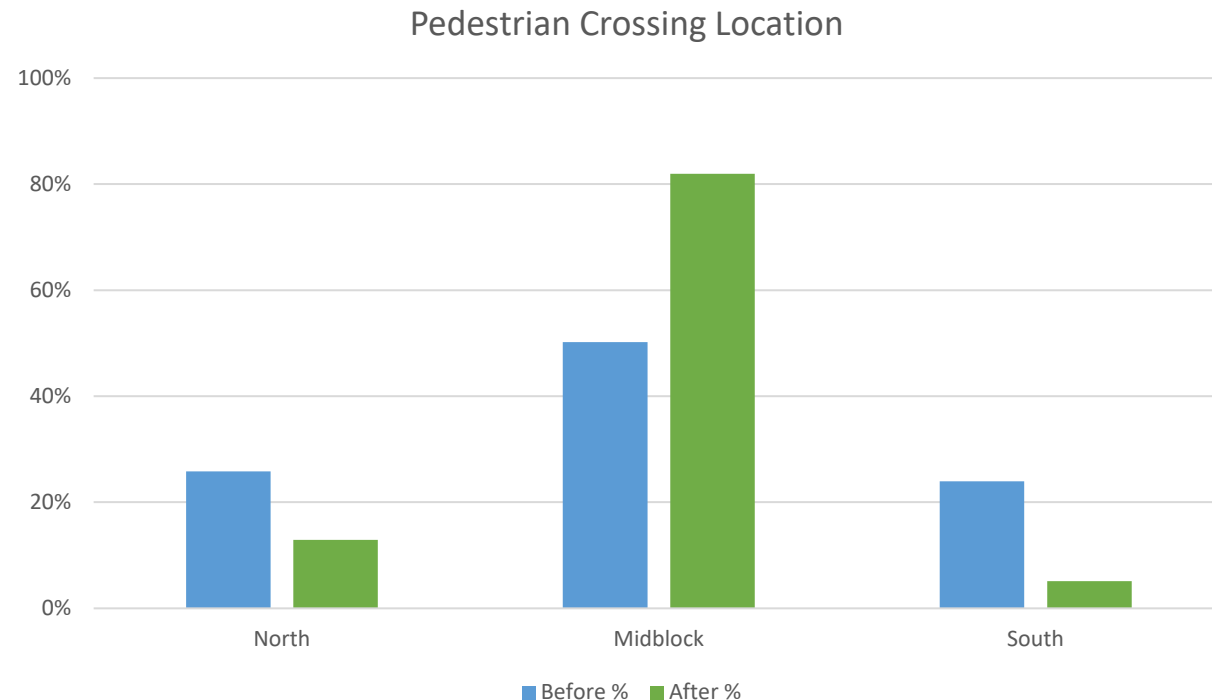
- Before: 922 pedestrian were observed crossings in 705 groups
  - Many people were observed walking to/from parked vehicles on Hennepin Ave S
- After: 827 pedestrians were observed crossing in 566 groups
  - There was no on-street parking on Hennepin Ave S during the after conditions





# Results: Pedestrian crossing location

- After installation, a greater share of pedestrians crossed at the midblock location

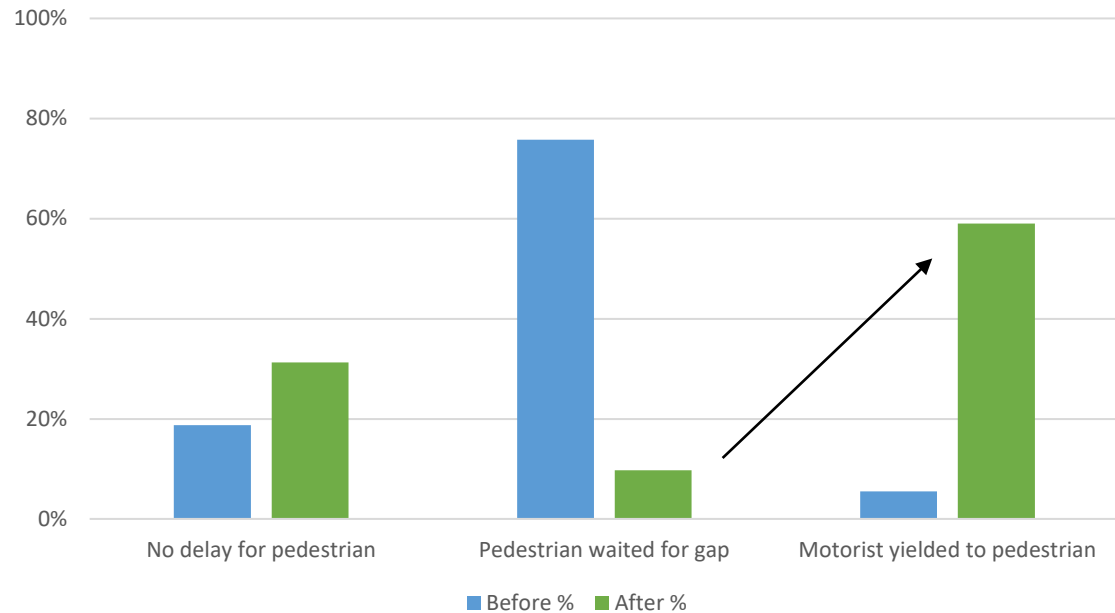




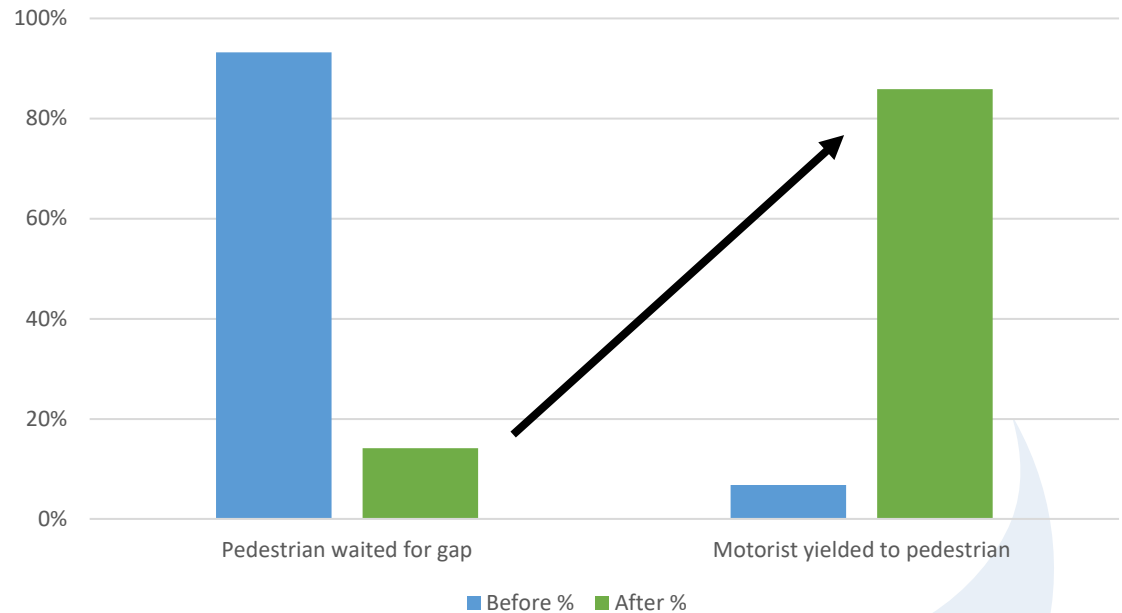
# Results: Driver yielding

After installation, driver yielding behavior improved from 7% --> 86%

Pedestrian Crossing Experience  
(all events, including no driver present)



Pedestrian Crossing Experience  
(when driver present)





# Results: Driver speeds

After installation, driver speeds decreased.

Measure	Before (2018)	After (2019)
ADT	9,918	8,263
85 <sup>th</sup> percentile	27.5 mph	↓ 25 mph
95 <sup>th</sup> percentile	30.5 mph	↓ 29 mph





# Conclusions

## **The midblock crossing was found to be very effective:**

- Pedestrian crossings remained high after installation
- Pedestrian crossings became more predictable - midblock pedestrian crossings were more concentrated around the Calhoun Square entrance after installation
- Driver yielding increased substantially after installation
- Driver speeds decreased after installation

## **Other observations**

- During the video observations dozens of vehicles parked or stopped in the bike lane. Additional improvements should be considered to remove obstructions in the bike lane and further improve sightlines at the midblock crossing

