

Church Row Neighborhood: Sustainable and Equitable Transportation Plan



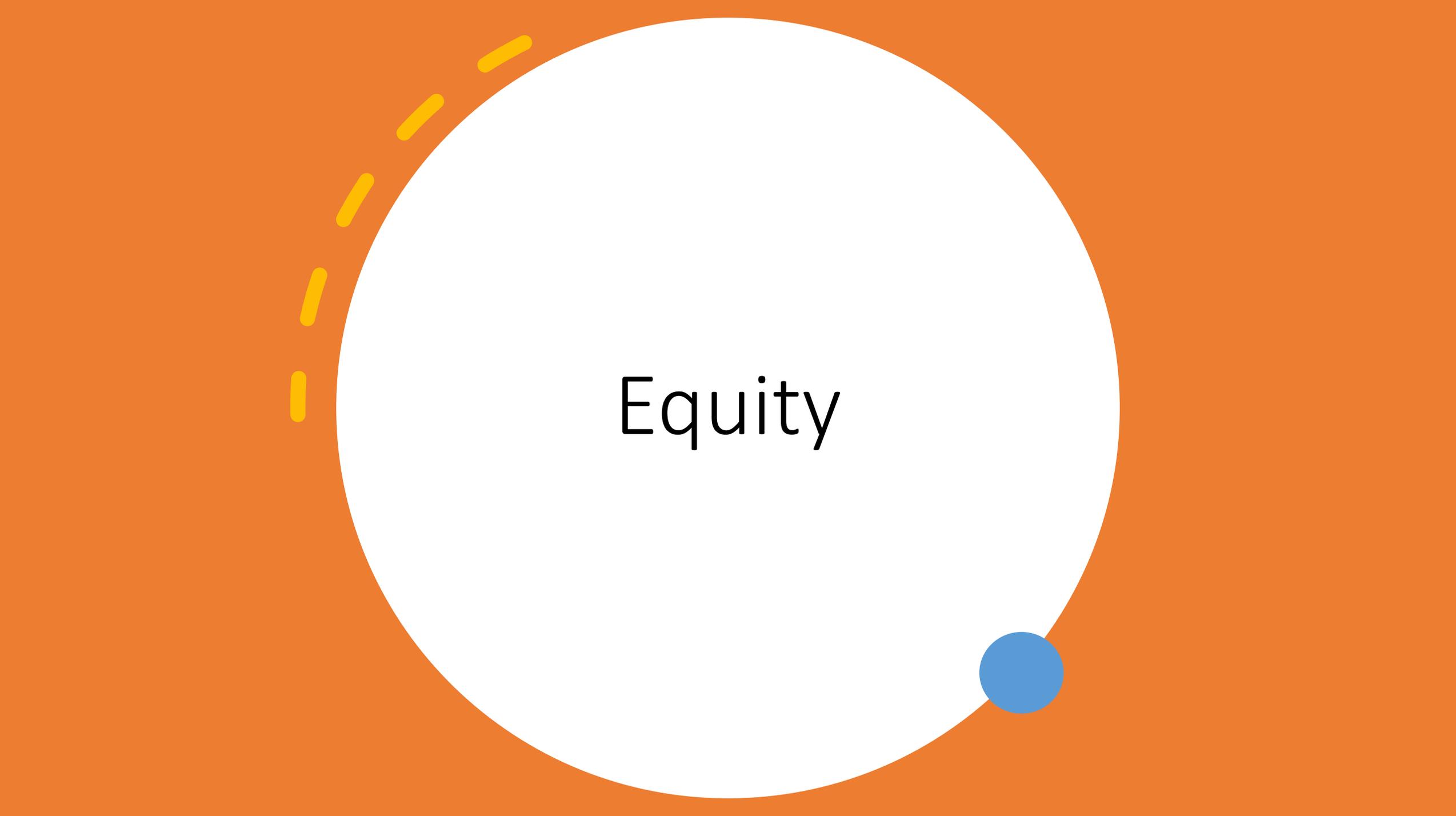
The University of Iowa
School of Planning and Public Affairs
Iowa Initiative for Sustainable Communities
December 2020



Introduction

- Historic neighborhood
- Isolated by US Highway 63 and 218
- Diverse population
- 21% of households lack a vehicle





Equity

Demographics

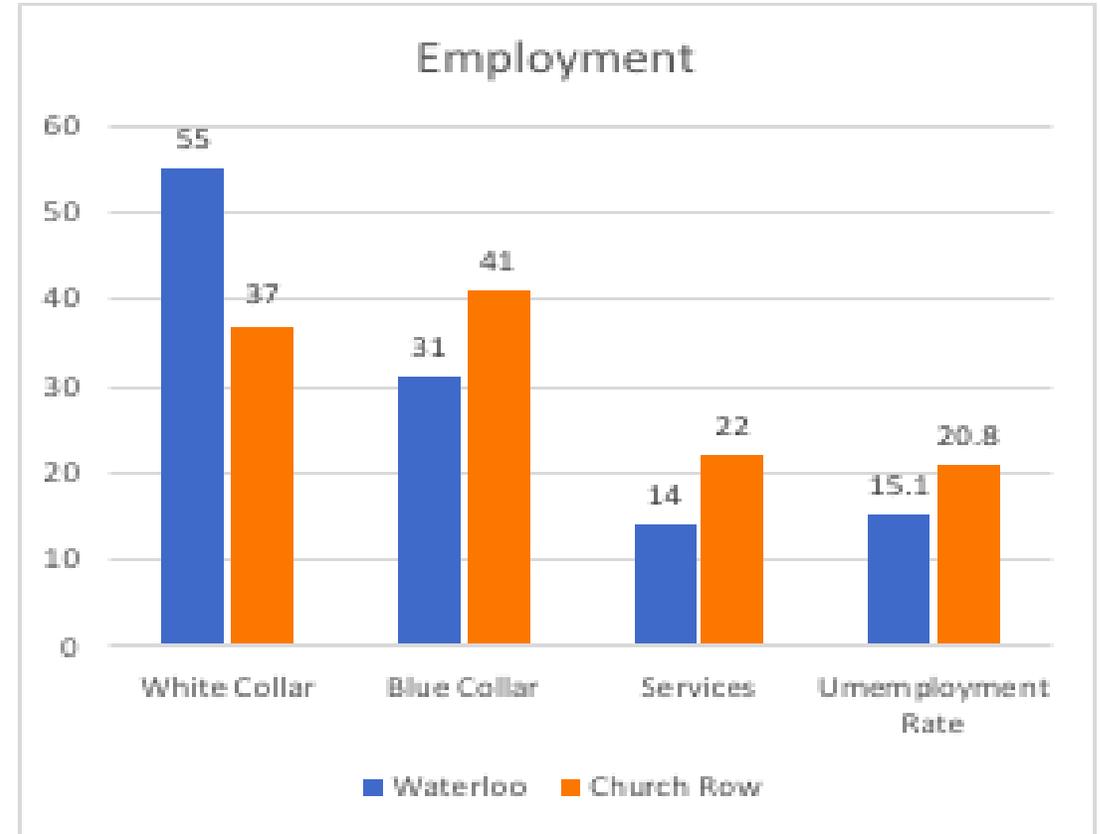
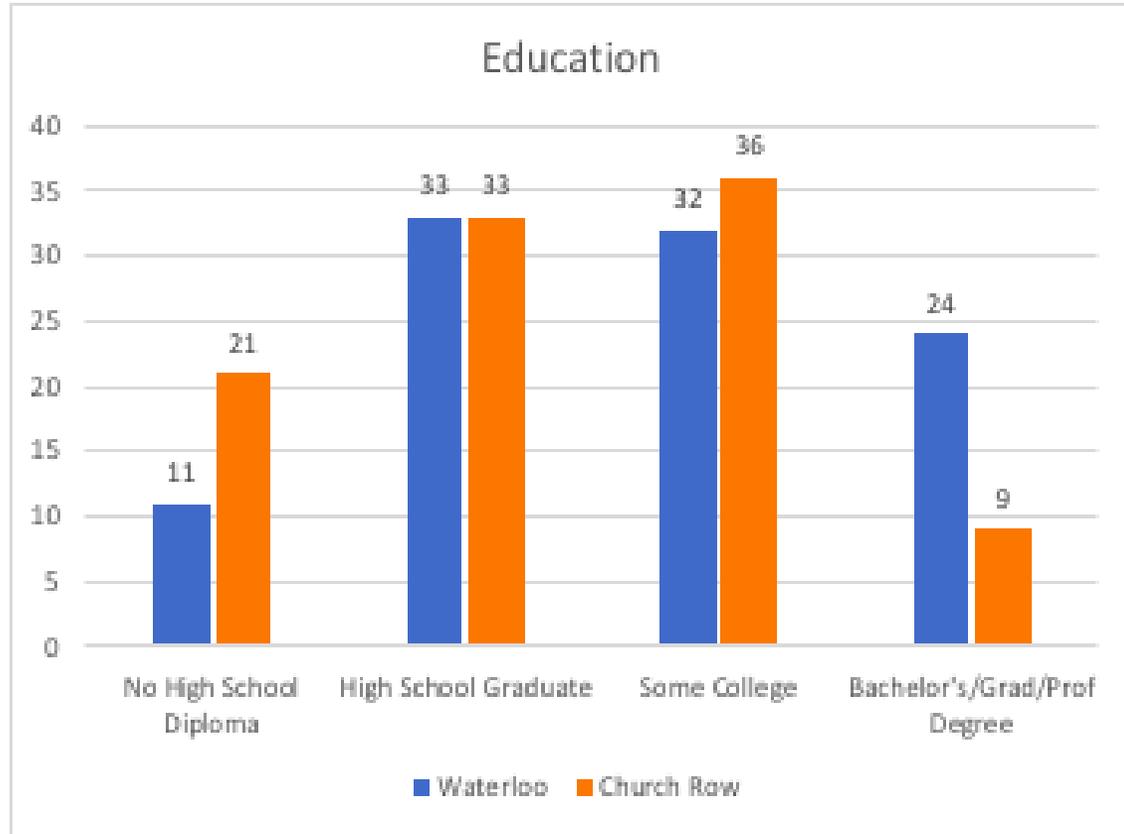
Church Row

- 53% White
- 19% Asian
- 18% Black
- 26% younger than 14
- 2.2% speak Asian or Pacific Island language and no English
- 418 households with disability
- \$30,000 median income
- \$74,000 median housing value
- 21% owner occupied

Waterloo

- 75% White
- 2% Asian
- 16% Black
- 20% younger than 14
- 0.2% speak Asian or Pacific Island language and no English
- 7,171 households with disability
- \$47,000 median income
- \$114,000 median housing value
- 62% owner occupied

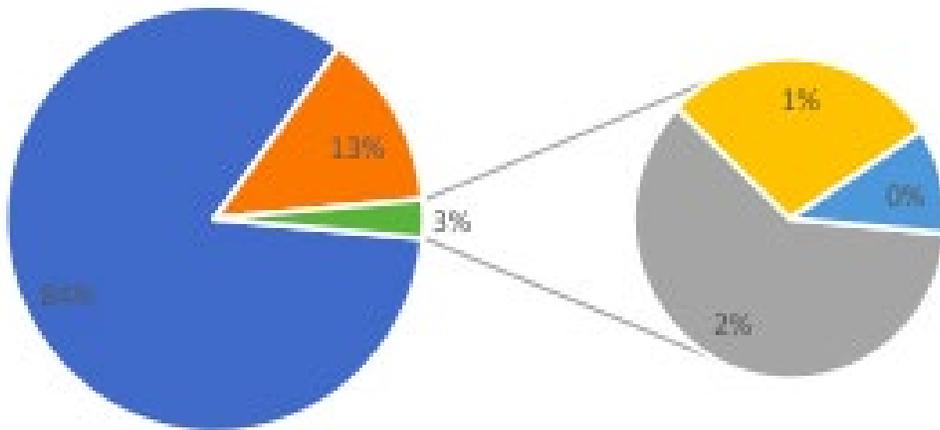
Education and Employment



Transportation Equity

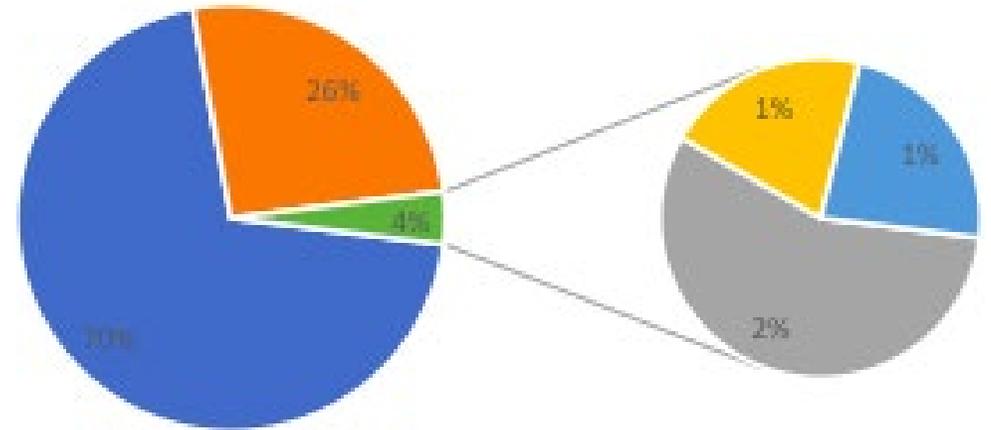
Transportation to Work: Waterloo

■ Drive Alone ■ Carpool ■ Walk ■ Public Transportation ■ Bike



Transportation to Work: Church Row

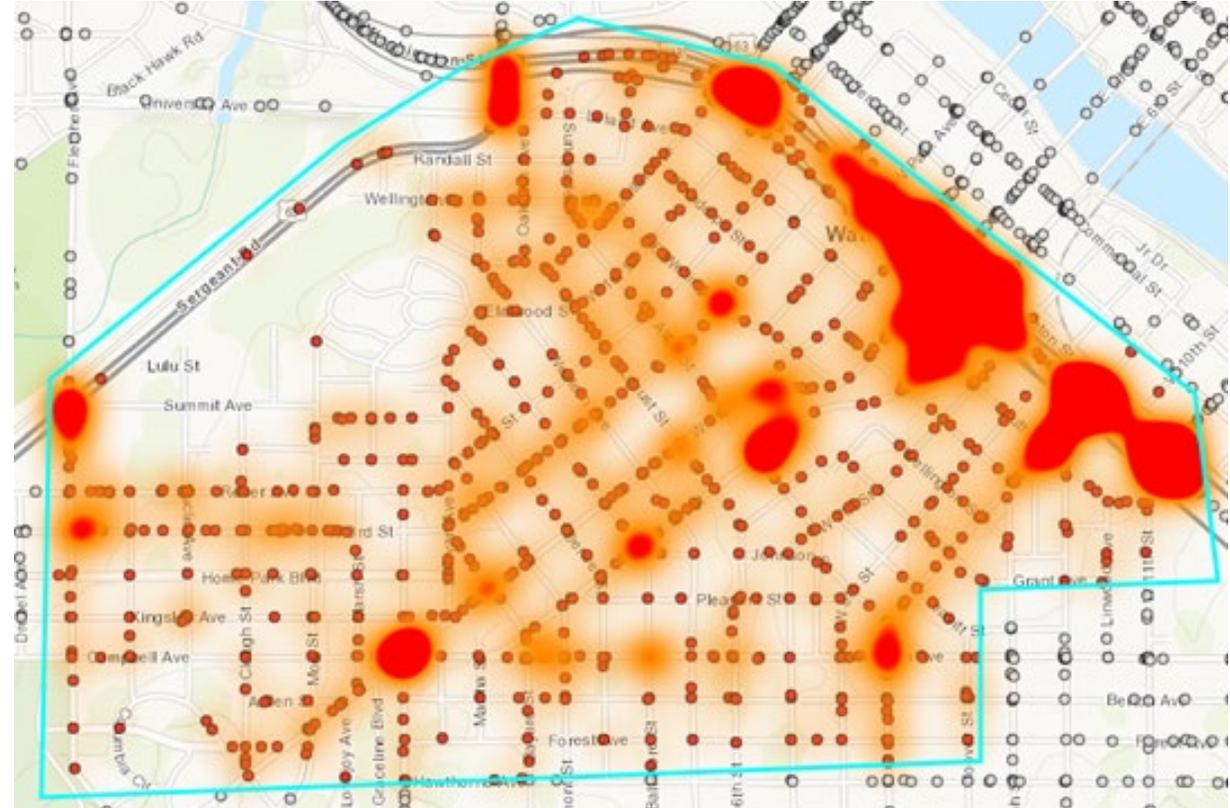
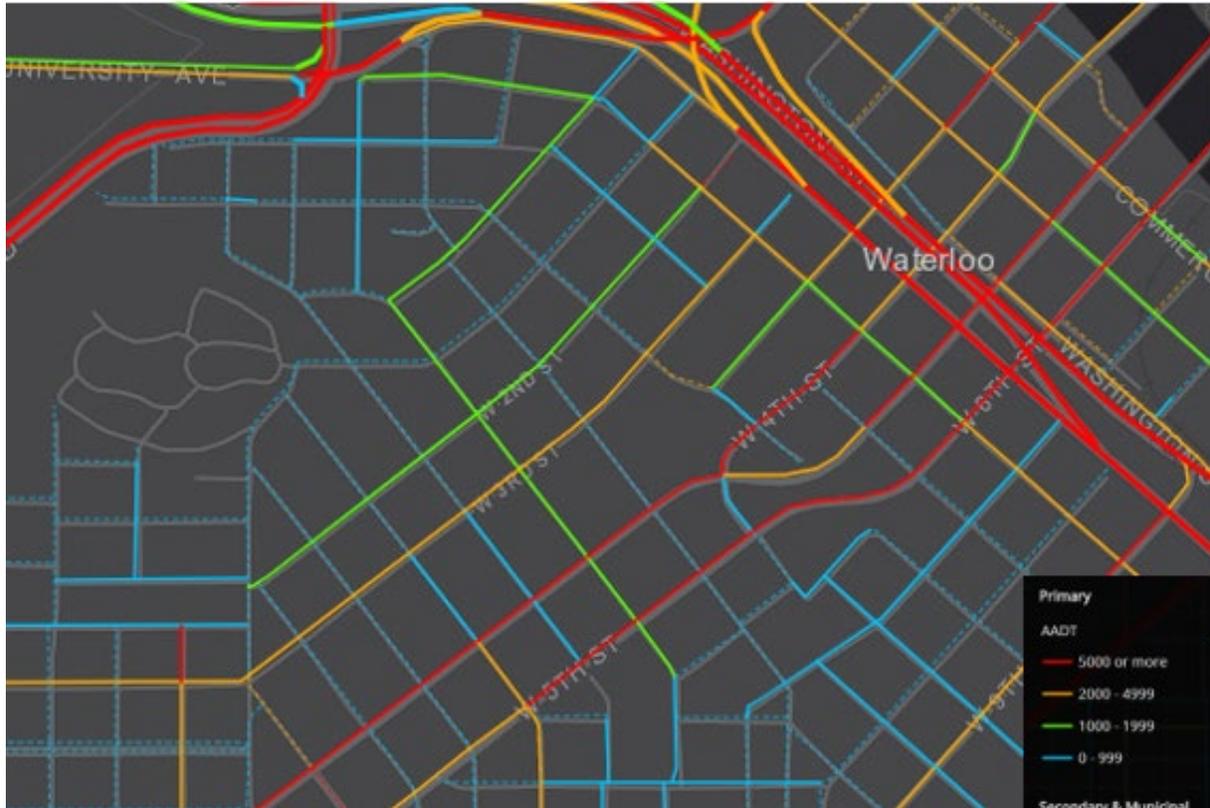
■ Drive Alone ■ Carpool ■ Public Transportation ■ Walk ■ Bike





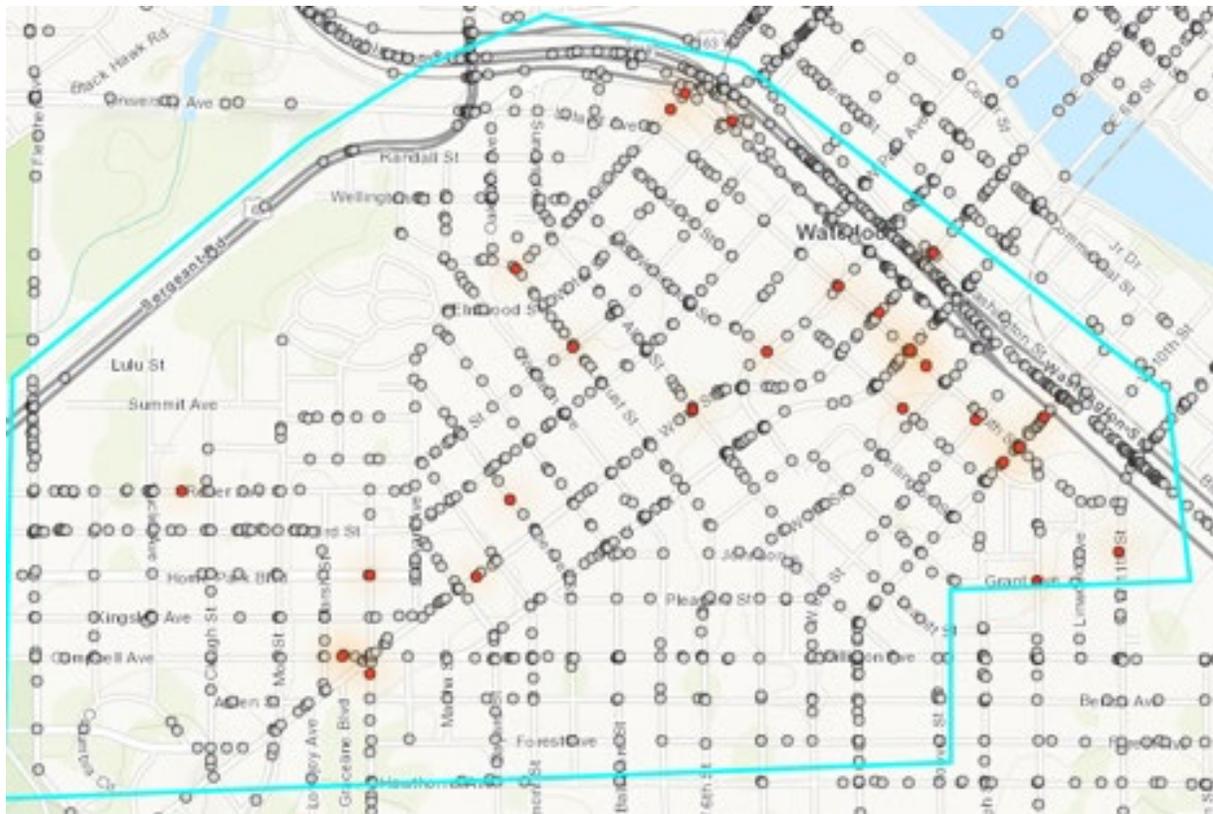
Safety

Accident Heatmaps

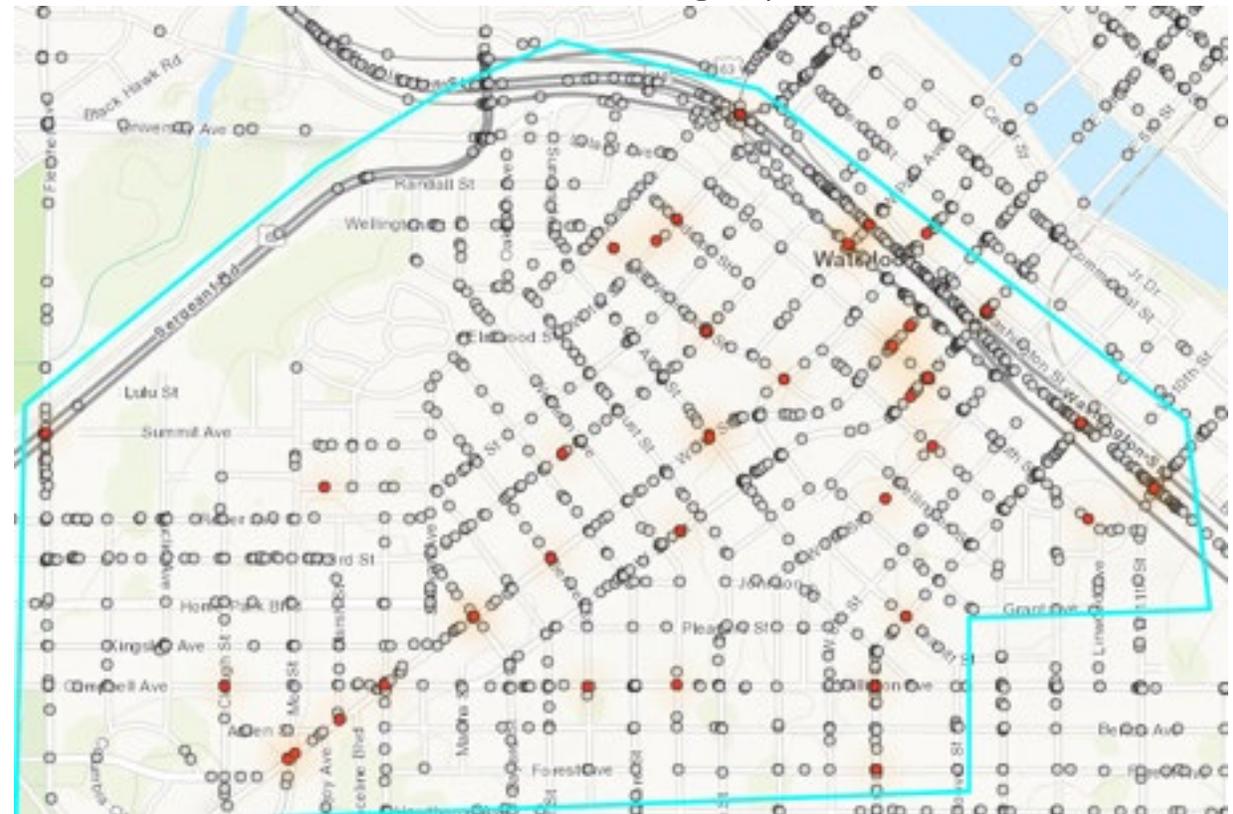


Accident Heatmaps cont.

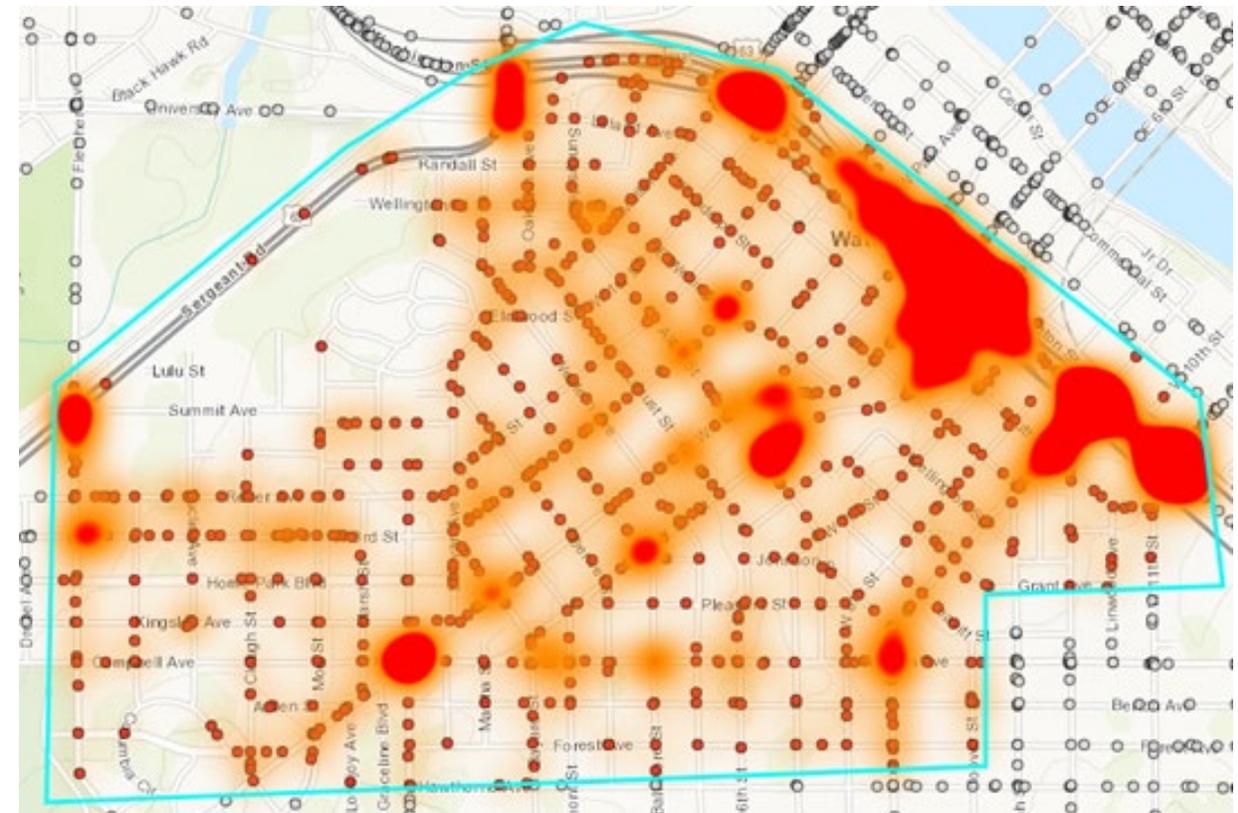
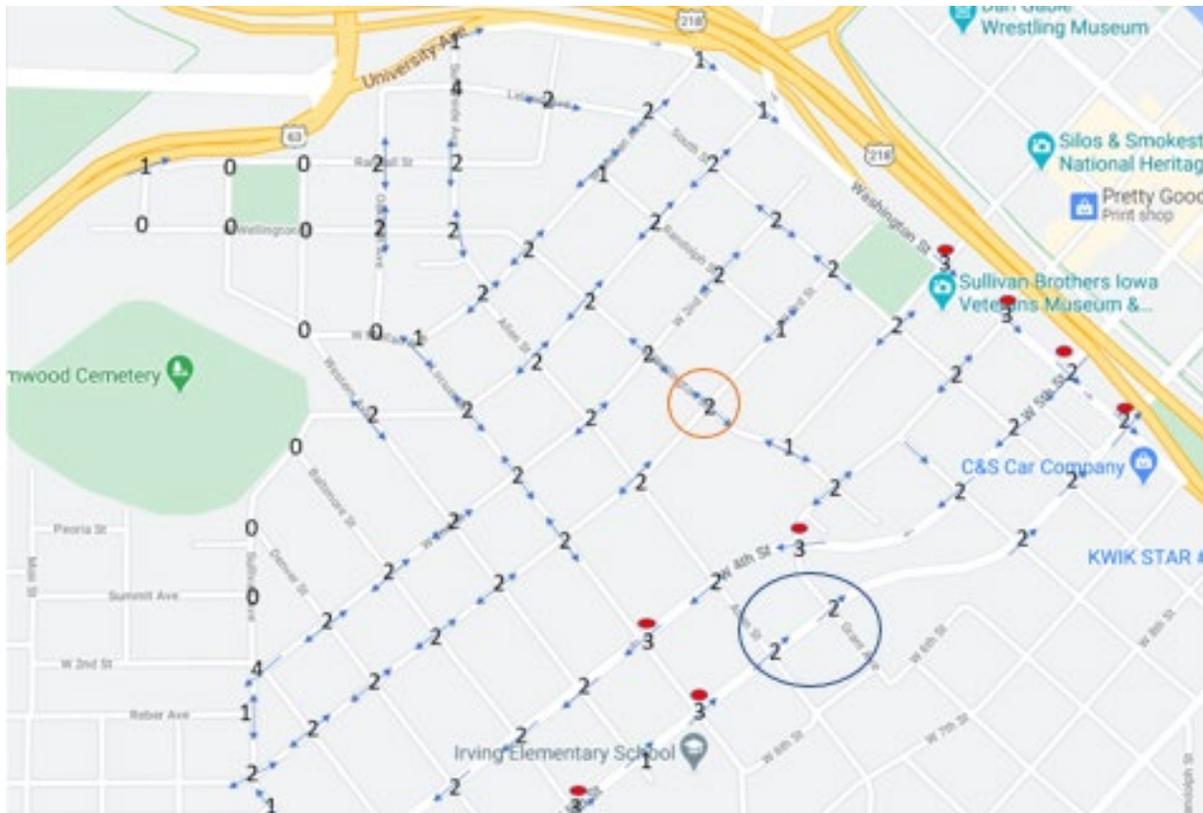
Accidents involving a bicycle



Accidents involving a pedestrian



Heatmap vs. Intersection Type



Recommendations: 6-Way Intersection





Other Recommendations

- 4-Way Stops
- More two-way streets.
- 9-10 ft. lanes.
- Transverse markings.



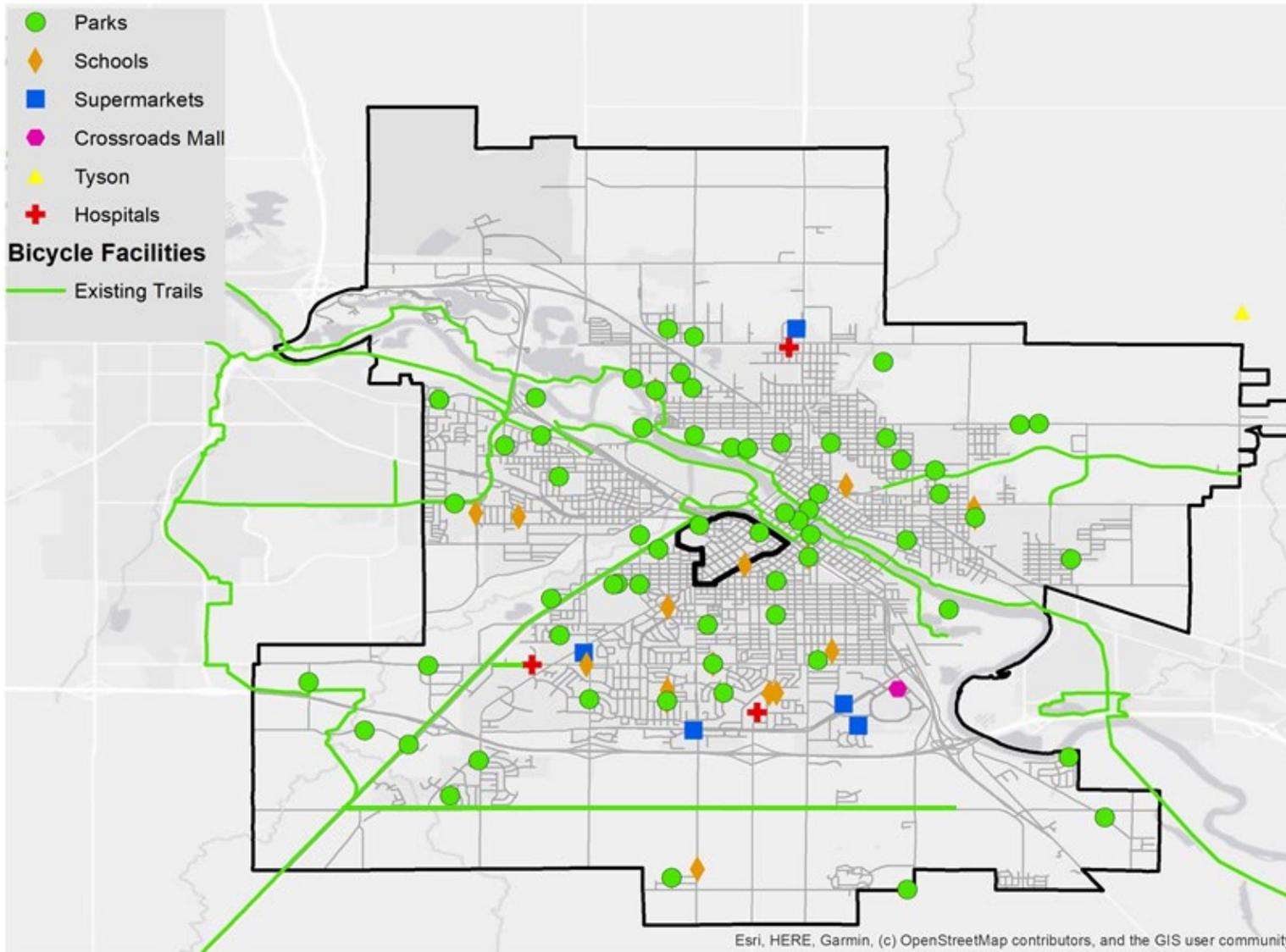


Accessibility

Accessibility

- Church Row Neighborhood has 107 businesses and nonprofits
- 1.5 miles away from a supermarket, pharmacy, or medical center
- City's largest park spaces inaccessible





Bicycle Trails

- Bike trails good for recreation
- Church Row blocked from accessing bike trails by Highway 63 and U.S. 218
- Does not allow access to employment, healthcare, or shopping



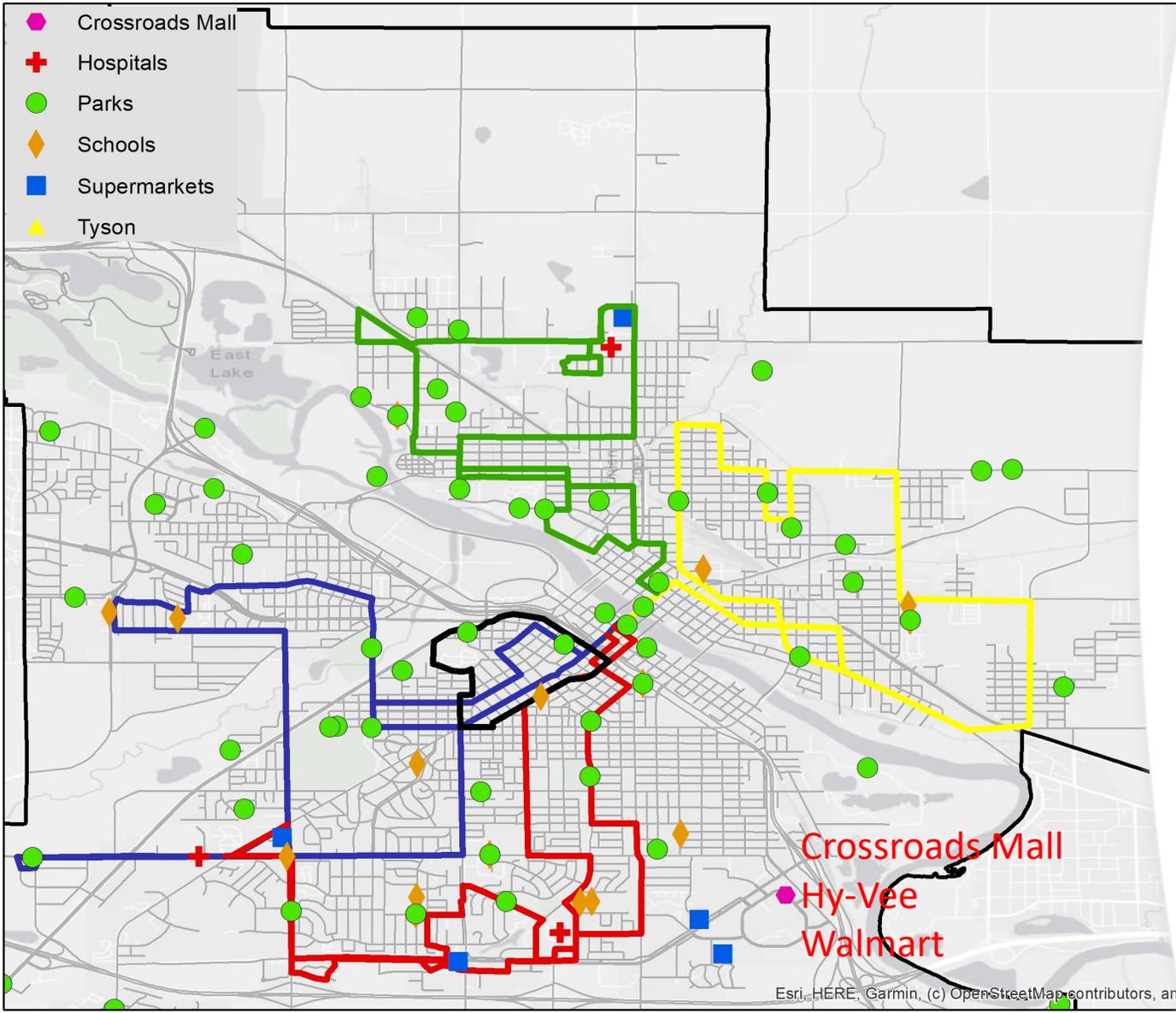
Highway 63: Pedestrian Underpass

- Safely connect Church Row to bicycle trail network
- Allow safe access to Hope Martin Memorial Park
- Potential funding available

3rd Street Connector

- Connect Sergeant Trail to 218 Trail
- Create safe crossing of Sergeant Road
 - High visibility crosswalks
 - Pedestrian island
- Wayfinding signs combined with traffic calming along 3rd Street





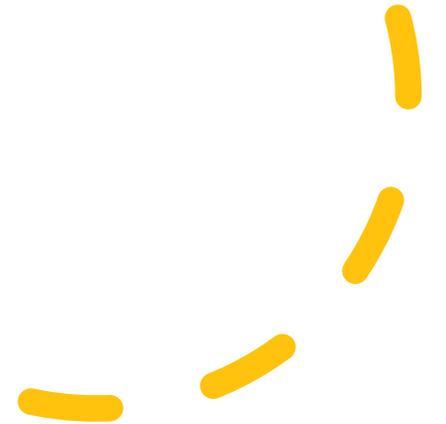
Bus Route

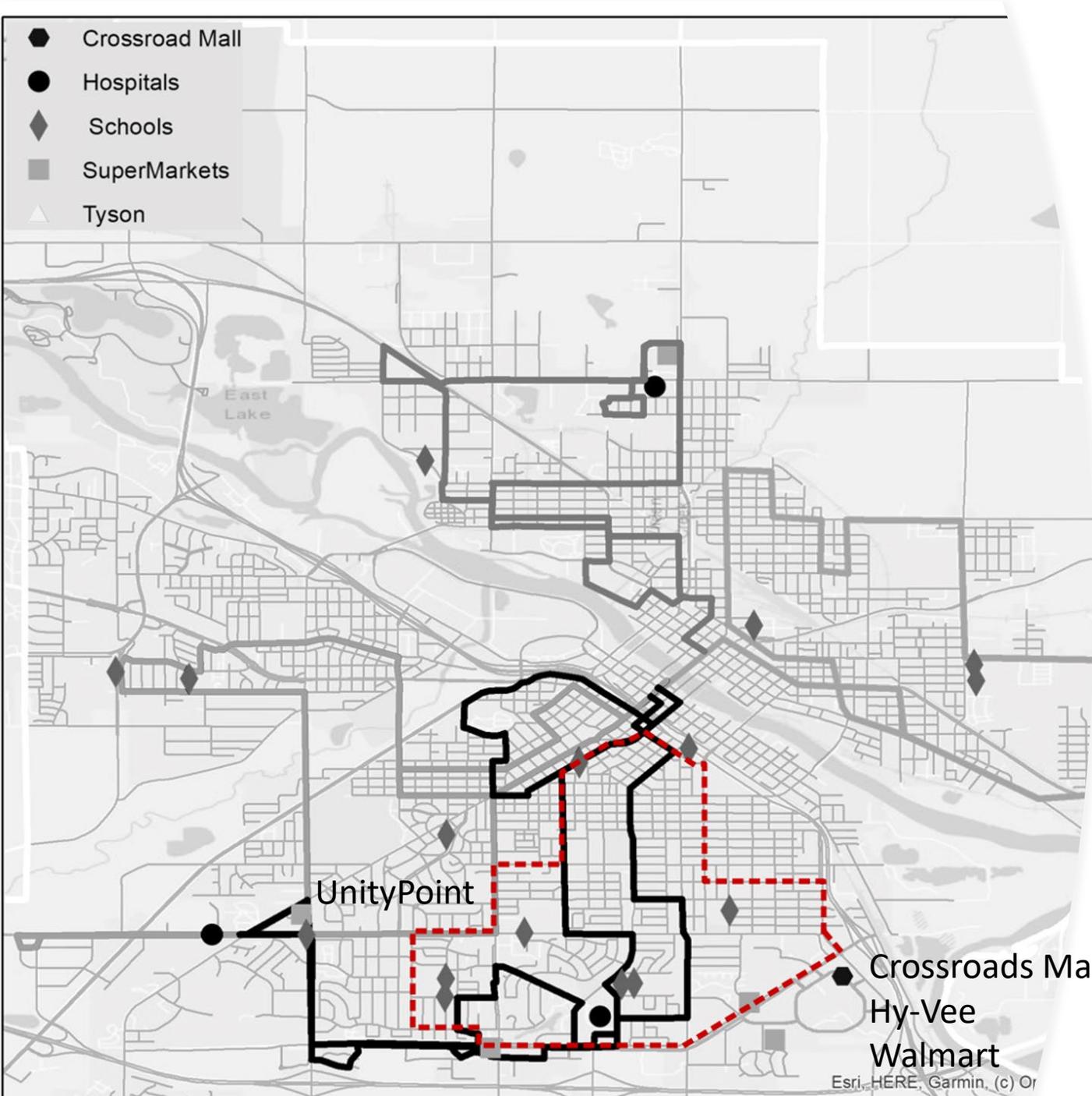
- Does cut through Church Row
- Does not connect to Tyson
- Does not connect to Crossroads Mall



Curb-to-Curb Van Service

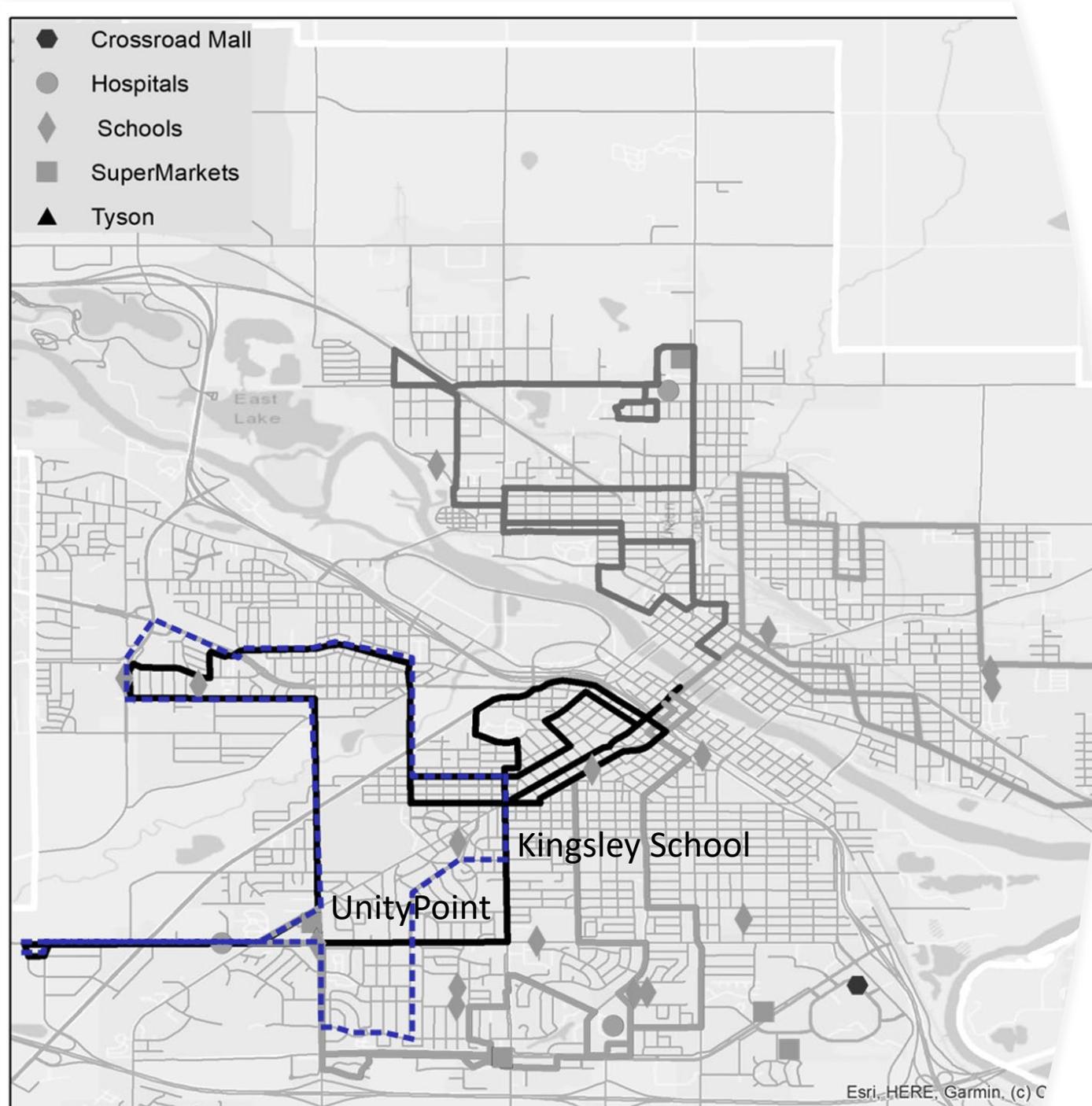
- Based on Horizons' Neighborhood Transportation Service in Cedar Rapids, IA
- Provide affordable curb-to-curb service when Metropolitan Transportation Association's buses are not in use
- Rides must be scheduled 24 hours in advance





Recommendations

- Reroute Red Line
- Provides accessibility to schools
- Connect central Waterloo to Crossroads Mall



Recommendations

- Reroute the Blue Line
- Reduce transit traffic inside the neighborhood
- Extend access to schools



Walkability

Existing Conditions: Walkability Assessment



Existing Conditions: 401 W 4th St



Active Transportation Focus

3rd Street – looking North



4th Street – looking South

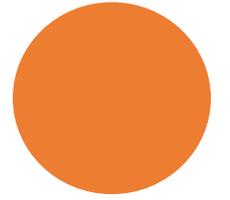


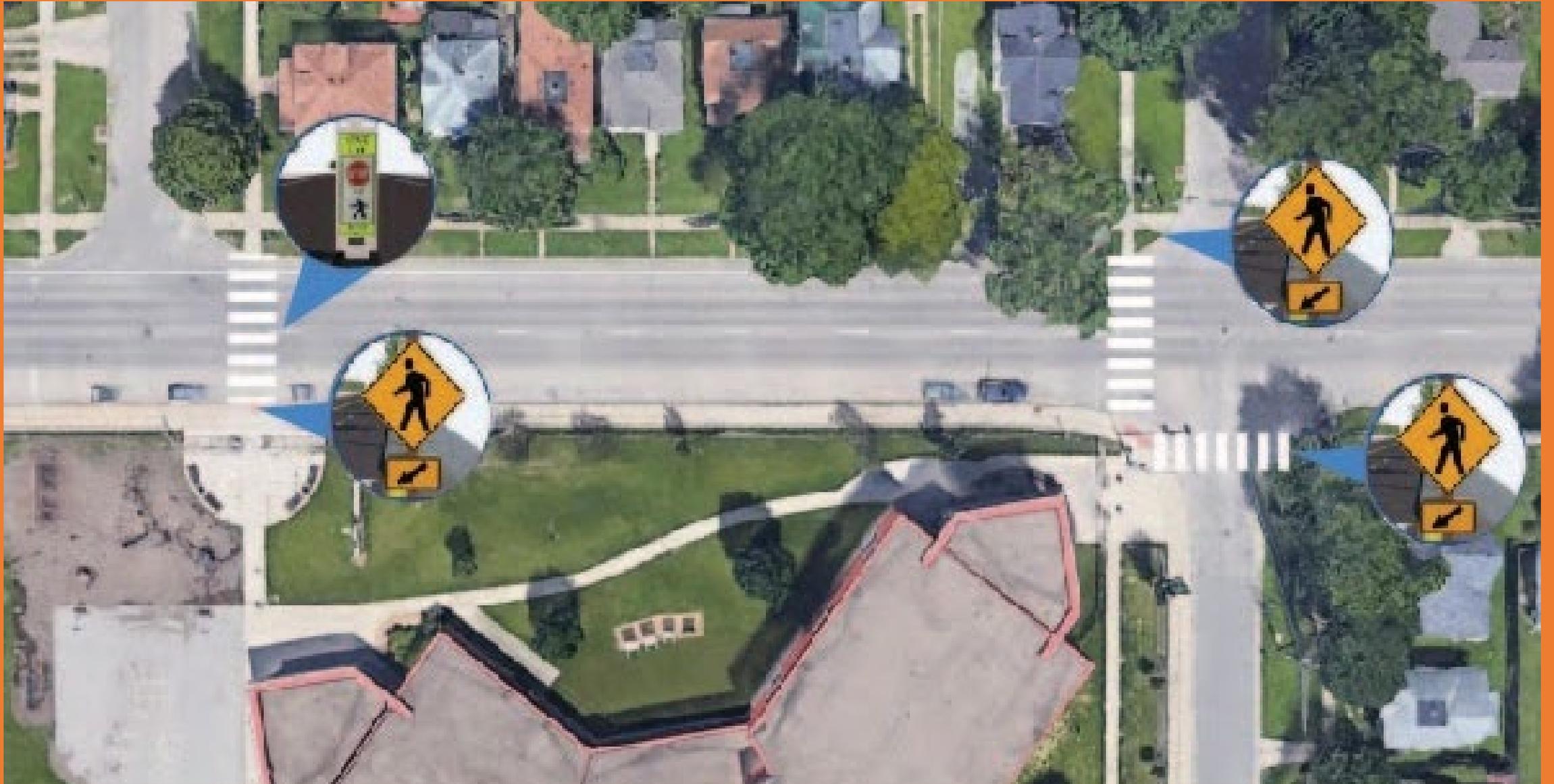
5th Street – looking South



High Visibility Cross Walks

- High-visibility ladder, zebra, and continental crosswalk markings have been shown to improve yielding behavior.
- Most effective high visibility crosswalks:
 - Combination of treatments including
 - Warning beacons or signals
 - Signage and striping
 - Geometric enhancements
 - Most effective at improving pedestrian safety





NACTO Recommendations

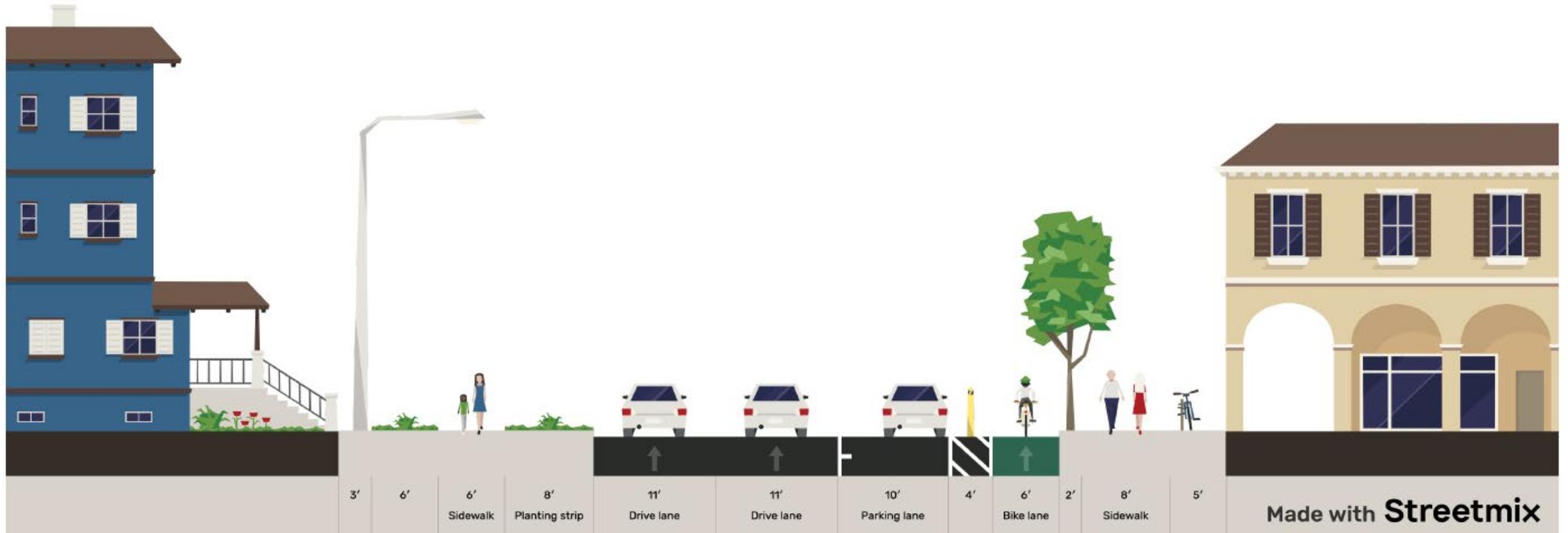
Recommendations for Lane Width

- Lanes greater than 11 ft should not be used as they may cause unintended speeding
- Travel Lane widths of 10 ft generally provide adequate safety in urban settings and discourage speeding
- Parking lane width of 7-9 ft are generally recommended. In certain cases, especially where loading is present, lanes can be up to 15 ft wide

Recommendations for Bike Lanes

- On streets with high traffic volume, regular truck traffic, high parking turnover, or speed limit > 35 mph, consider treatments that provide greater separation between bicycles and motor traffic such as: Buffers, Left side, and Cycle tracks
- Buffered Lanes: Buffer should be at least 18 inches wide

5th Street: One-way Redesign



5th Street: One-way Redesign

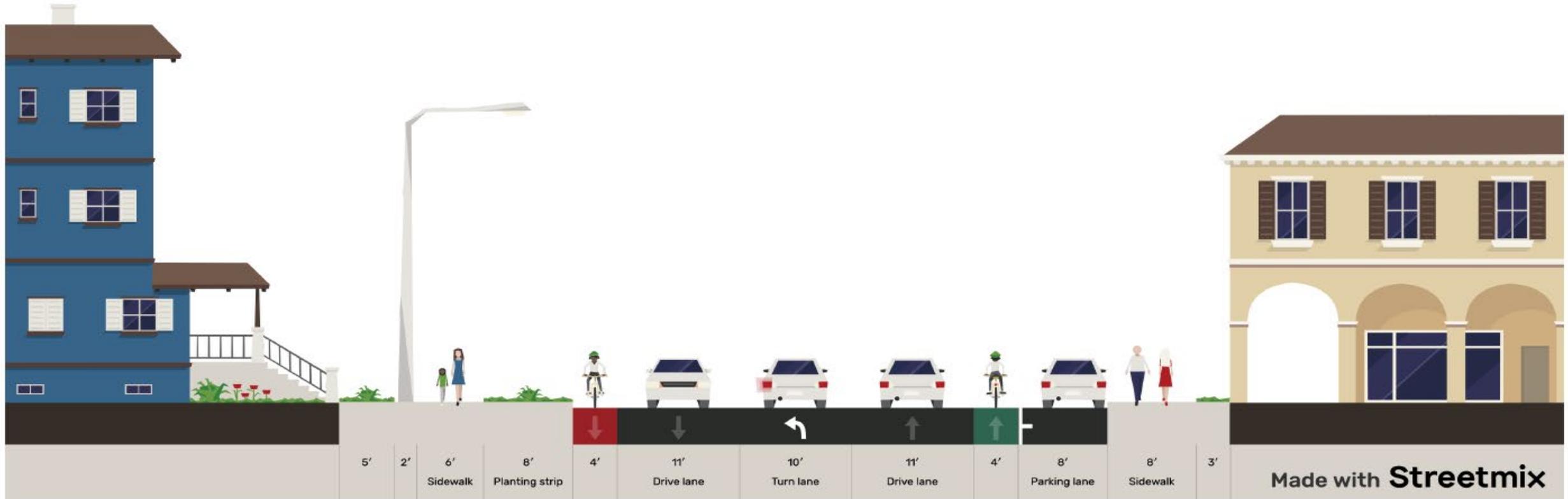
Before



After



5th Street: Two-way Redesign



5th Street: Two-way Redesign

Before



After



3rd Street Recommendations

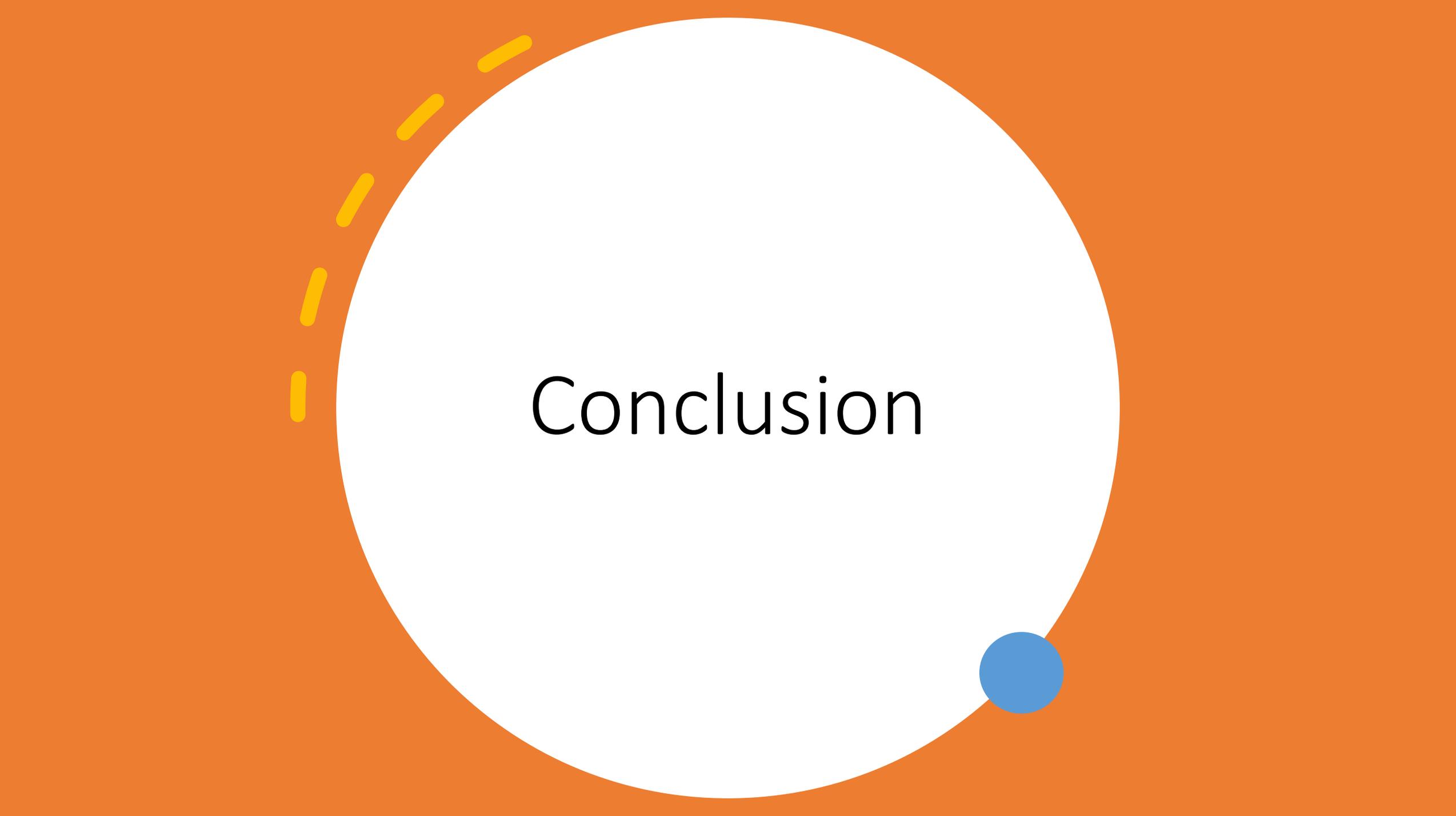
- Stop Signs
- Lane Lines
- Bus Stop Amenities
 - Benches
 - Shelters
 - Trash cans



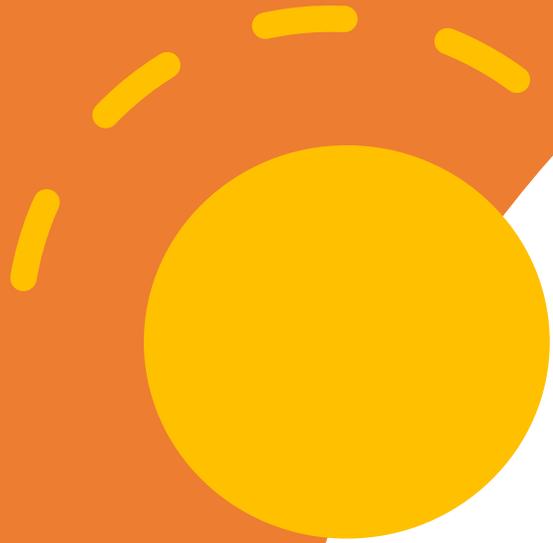


4th Street Recommendations

- Redesign to a 2-Lane Road
- High Visibility Crosswalks
- Bike Lanes
- Roundabout the intersection of 4th/5th/Kimball



Conclusion



Thank You!