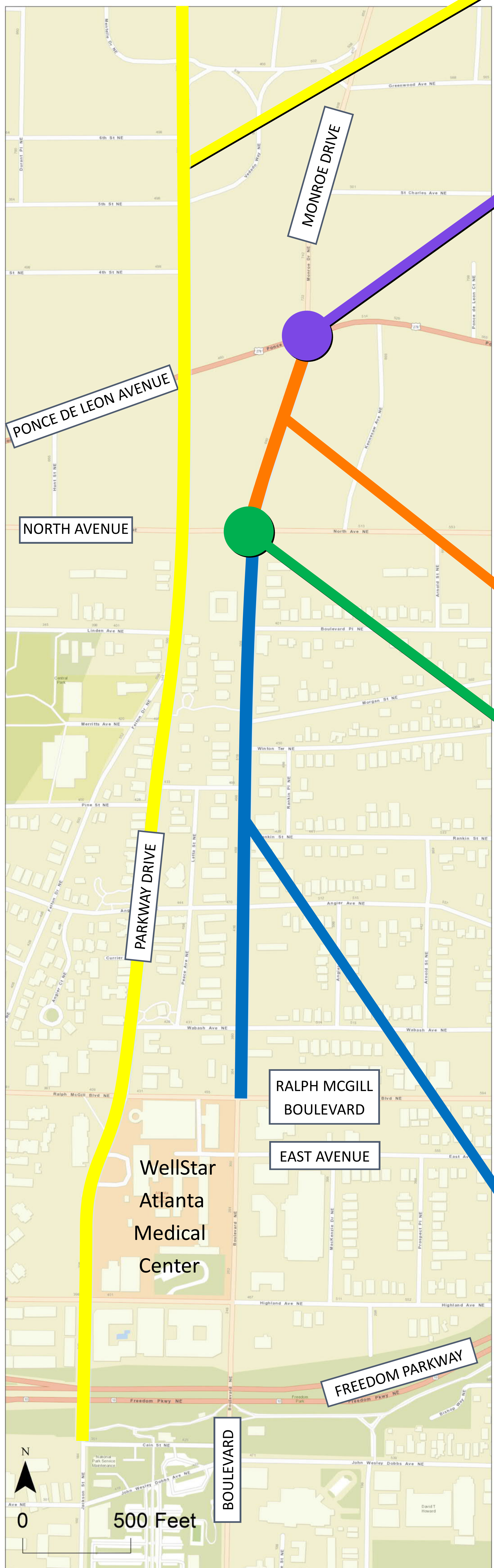


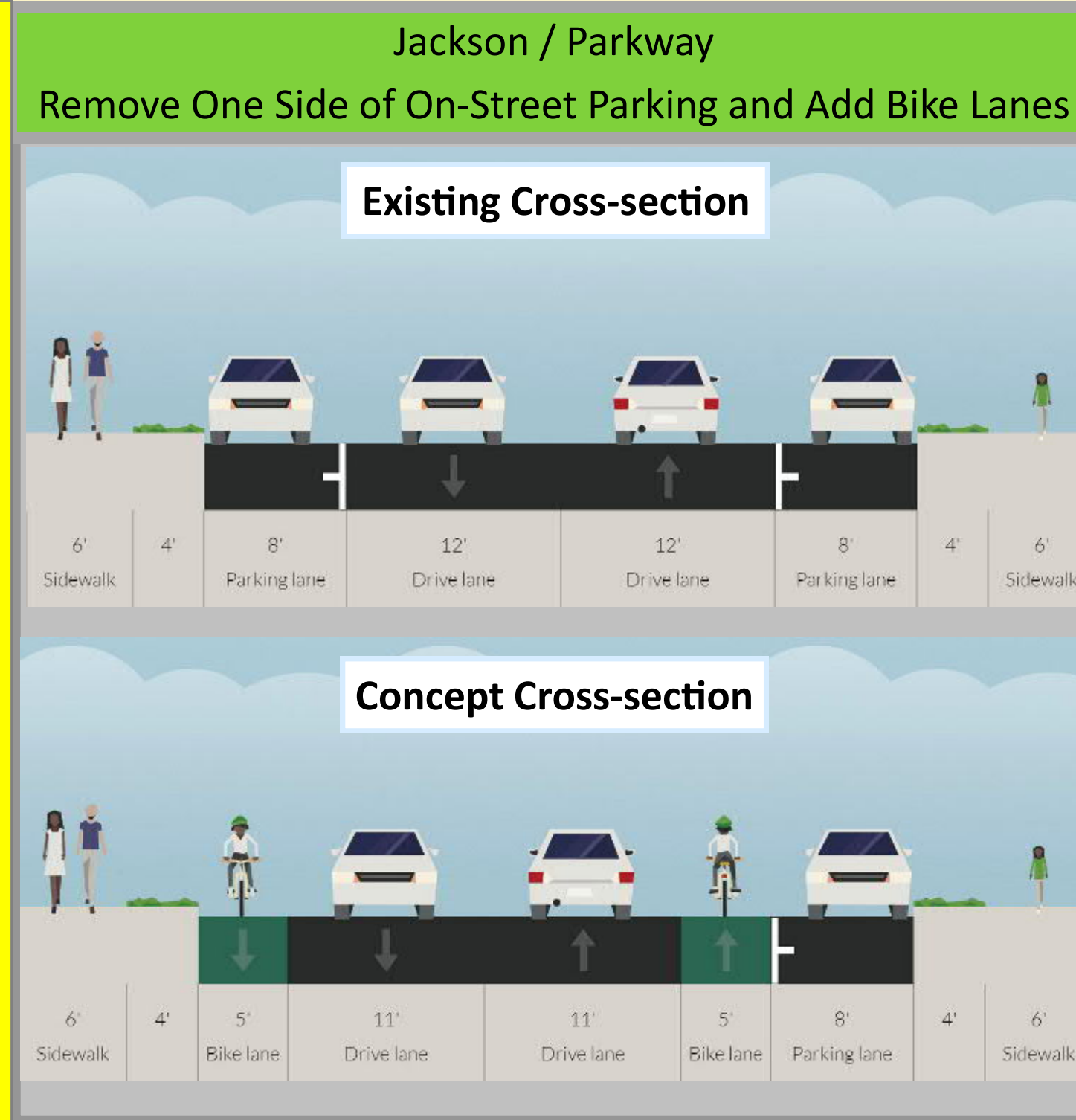
Monroe Drive / Boulevard Complete Streets: Improvement Opportunities



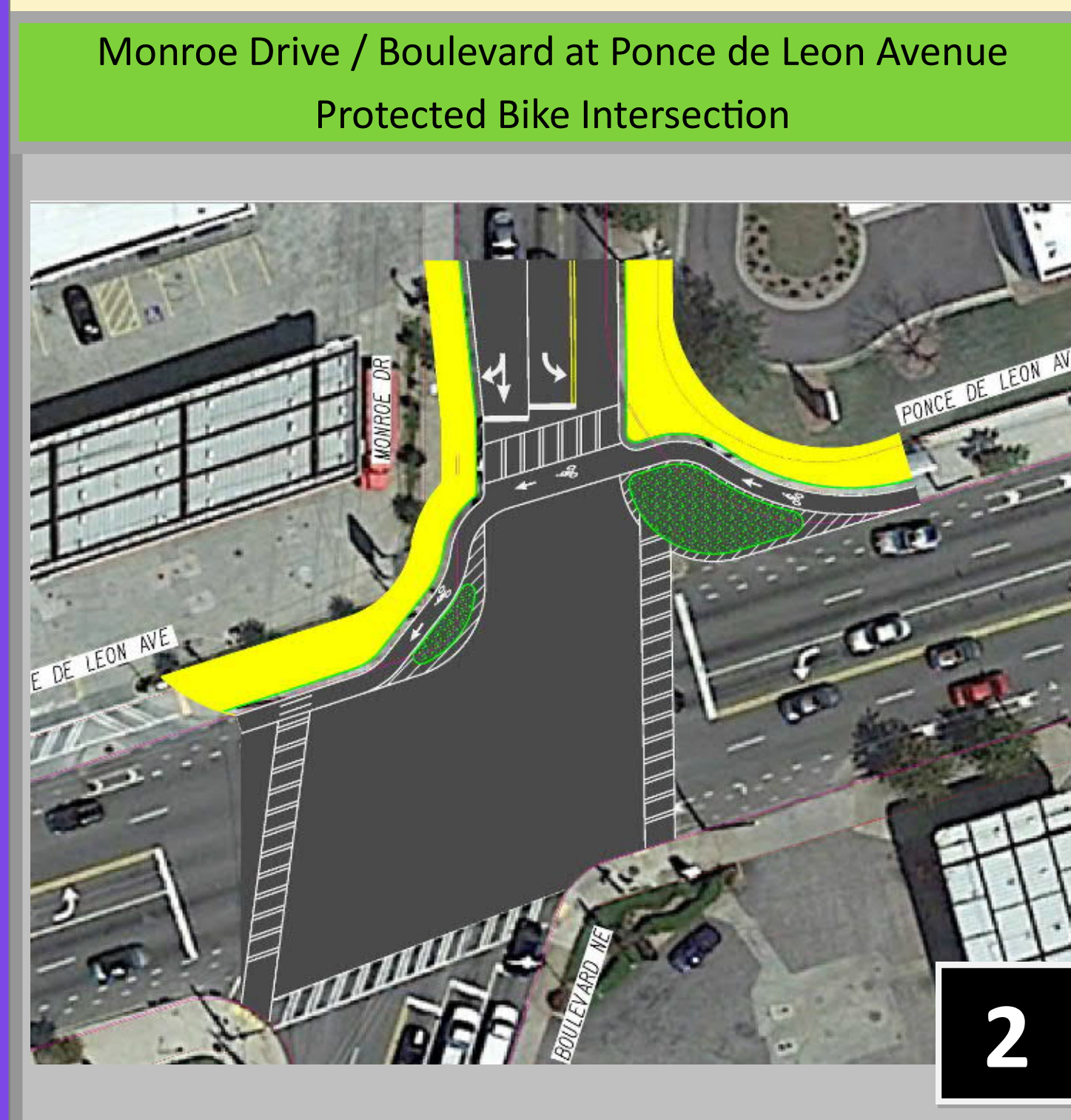
Ponce de Leon Ave to East Ave



Preliminary Design Concepts

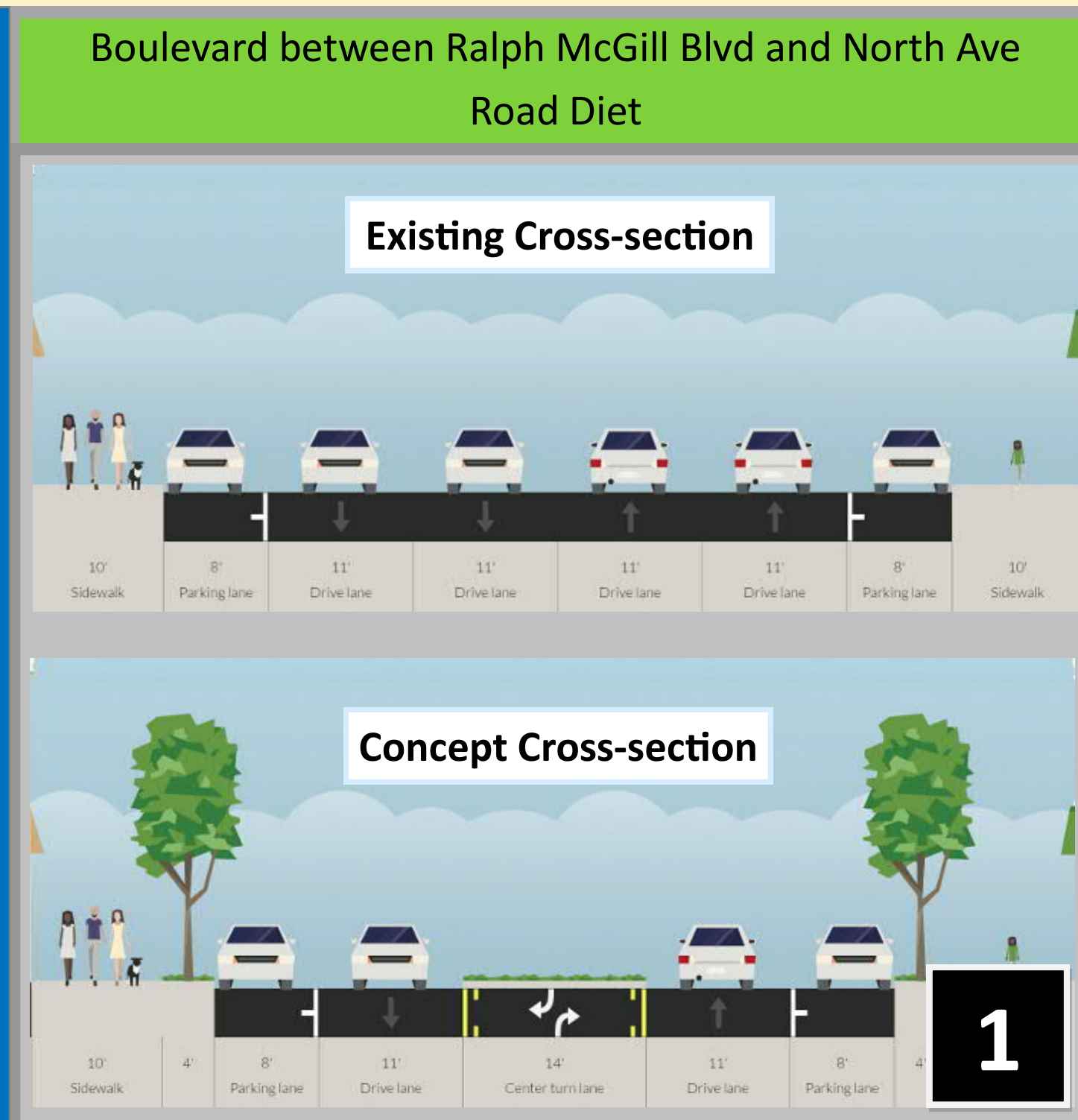


1 Addition of a leading pedestrian interval (LPI) to the signal at Ponce de Leon Avenue

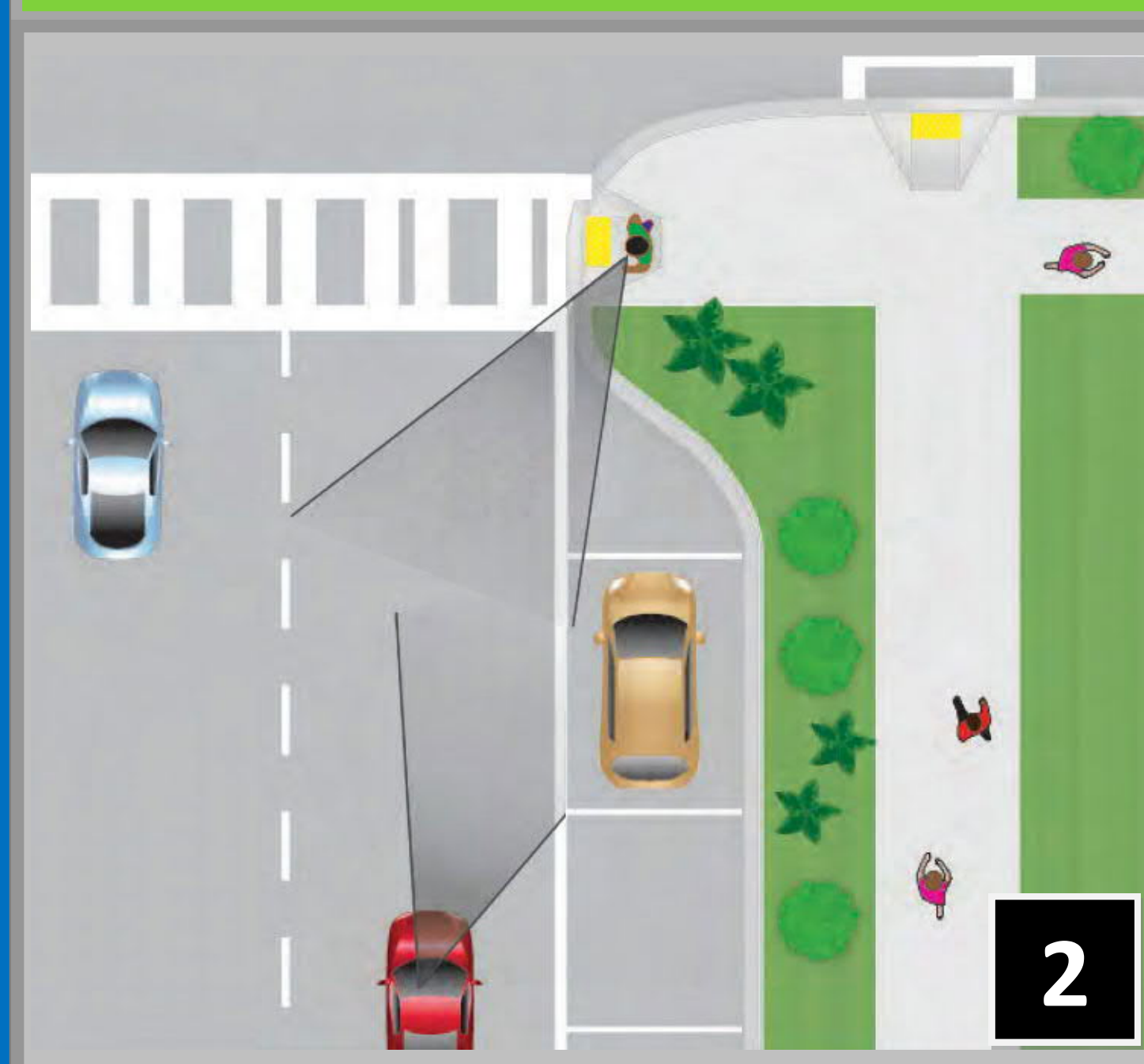


3 Installation of wayfinding signs on Boulevard between North Ave and Ponce de Leon Avenue

4 Addition of Eastbound Left Turn (Green Arrow) Phase on North Avenue at Boulevard



Boulevard between Ralph McGill Blvd and North Ave
Curb Extensions and Pedestrian Safety Improvements



Benefits & Impacts

Alternative Mode:

- Dedicated bike lanes

Safety:

- Potential to reduce vehicle/bicycle crashes

Performance:

- Parking survey found <50% parking utilization for existing conditions

Constructability:

- Plausible within existing right-of-way

Alternative Mode:

- Reinforces pedestrian right-of-way and increases visibility

Safety:

- Potential to reduce pedestrian crashes by 37%*

Performance:

- Increase in overall intersection delay by 10 seconds
- Increase in delay by 25 seconds for southbound approach

Constructability:

- Plausible within existing right-of-way

Alternative Modes:

- Reduced pedestrian / vehicle conflicts
- Shortens crossing distances
- Provides dedicated bicycle crossing

Safety:

- Enhanced safety expected due to minimized bicyclist exposure to vehicles**

Performance:

- Increase in westbound delay by 20-30 seconds

Constructability:

- Impacts to right-of-way of properties north of Ponce de Leon Ave
- Impacts to existing signal equipment

Safety:

- Enhanced safety resulting from reduced motorist confusion regarding lane choice

Performance:

- Negligible impacts on capacity or vehicle travel times

Constructability:

- Plausible within existing right-of-way

Safety:

- Potential to reduce injury crashes by 16%***

Performance:

- Decrease in east-west delays

Constructability:

- Plausible within existing right-of-way

Alternative Mode:

- Pedestrian refuge islands in median with reduced crossing distances

Safety:

- Potential to reduce crashes by 29%***

Performance:

- Increase in PM peak travel times by 2-3 minutes along the corridor
- Overall increase in intersection delays

Constructability:

- Plausible within existing right-of-way

Alternative Mode:

- Reduced crossing distance and increased safety at intersections

Safety:

- Enhanced pedestrian safety due to increased pedestrian visibility, and lower turning speeds

Performance:

- No significant change to vehicle travel times or delay

Constructability:

- Plausible within existing right-of-way

Comments and Concerns Addressed

BOULEVARD AT PONCE DE LEON AVENUE

- Add Leading Pedestrian Indicators to enable safe crossing (Boulevard Road Safety Audit)
- Create safer pedestrian crossings (Public Comment)

BOULEVARD AT PONCE DE LEON AVENUE

- Bicycle accommodations should be protected and/or separated from vehicular traffic (Public Comment)

BOULEVARD FROM RALPH MCGILL AVENUE TO NORTH AVENUE

- Support for road diet (Pubic Comment)
- Convert Boulevard to two lanes with a center turn lane (Public Comment)
- Add landscaped medians (Public Comment)

BOULEVARD FROM RALPH MCGILL AVENUE TO NORTH AVENUE

- On-street parking on Boulevard makes it dangerous for cars turning off of the side streets due to restricted visibility (Public Comment)
- Curb bulb-outs should be added at all intersections and mid-block crossings located where on-street parking is permitted (Boulevard Road Safety Audit)

* Safety Effectiveness of Leading Pedestrian Intervals Using the Empirical Bayes Method (Fayish and Gross, 2009)
 ** Road Factors and Bicycle-Motor Vehicle Crashes at Unsignalized Priority Intersections (Scheper et al., 2011)
 *** Highway Safety Manual (AASHTO, 2010)