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SR 7 MULTIMODAL IMPROVEMENTS CORRIDOR STUDY

Working Group North

January 27, 2016

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Agenda

- Public Engagement Summary
- Safety Review
- Multimodal Network
- Hubs/Hot-Spots

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Public Engagement

- Meetings
- Field Surveys

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Public Outreach

- **Oakbrook Condominiums, January 26, 2016**
- **Broward College Student Life & Development, January 21, 2016**
- Ascension Peace Presbyterian Church, January 13, 2016
- Kiwanis Club, January 12, 2016
- Davie-Cooper City Chamber of Commerce, January 7, 2016
- Advisory Board Gateway Development Office, December 10, 2015
- SR 7 Smart Growth Partnership Lunch and Learn, November 24, 2015
- **E-Townhall Meeting, November 10, 2015**
- Hollywood Gardens West Civic Association, September 10, 2015
- Broward Estates Civic Association, September 8, 2015
- Saint George Civic Association, September 8, 2015
- The Johnson Street Business District, August 12, 2015

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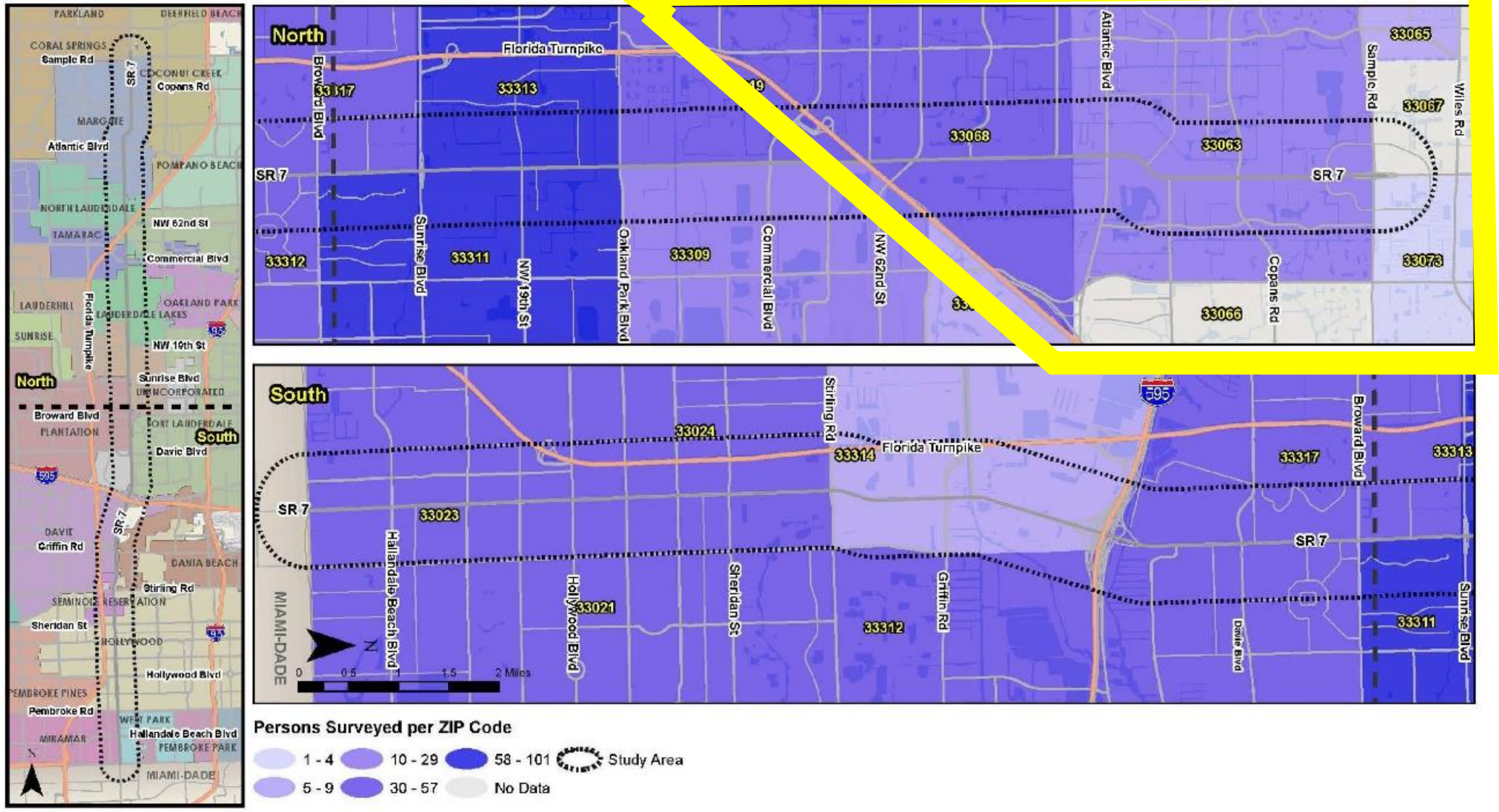
Public Participation Levels



Source: SR 7 Intercept Survey

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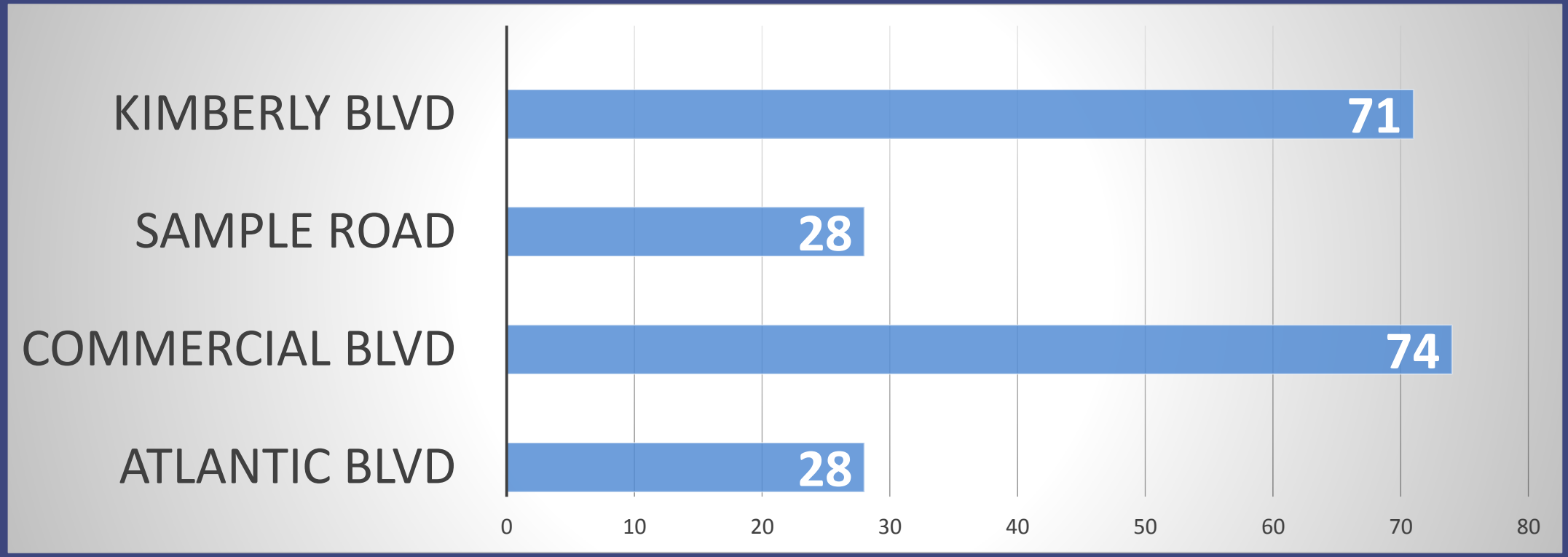
Survey Respondents



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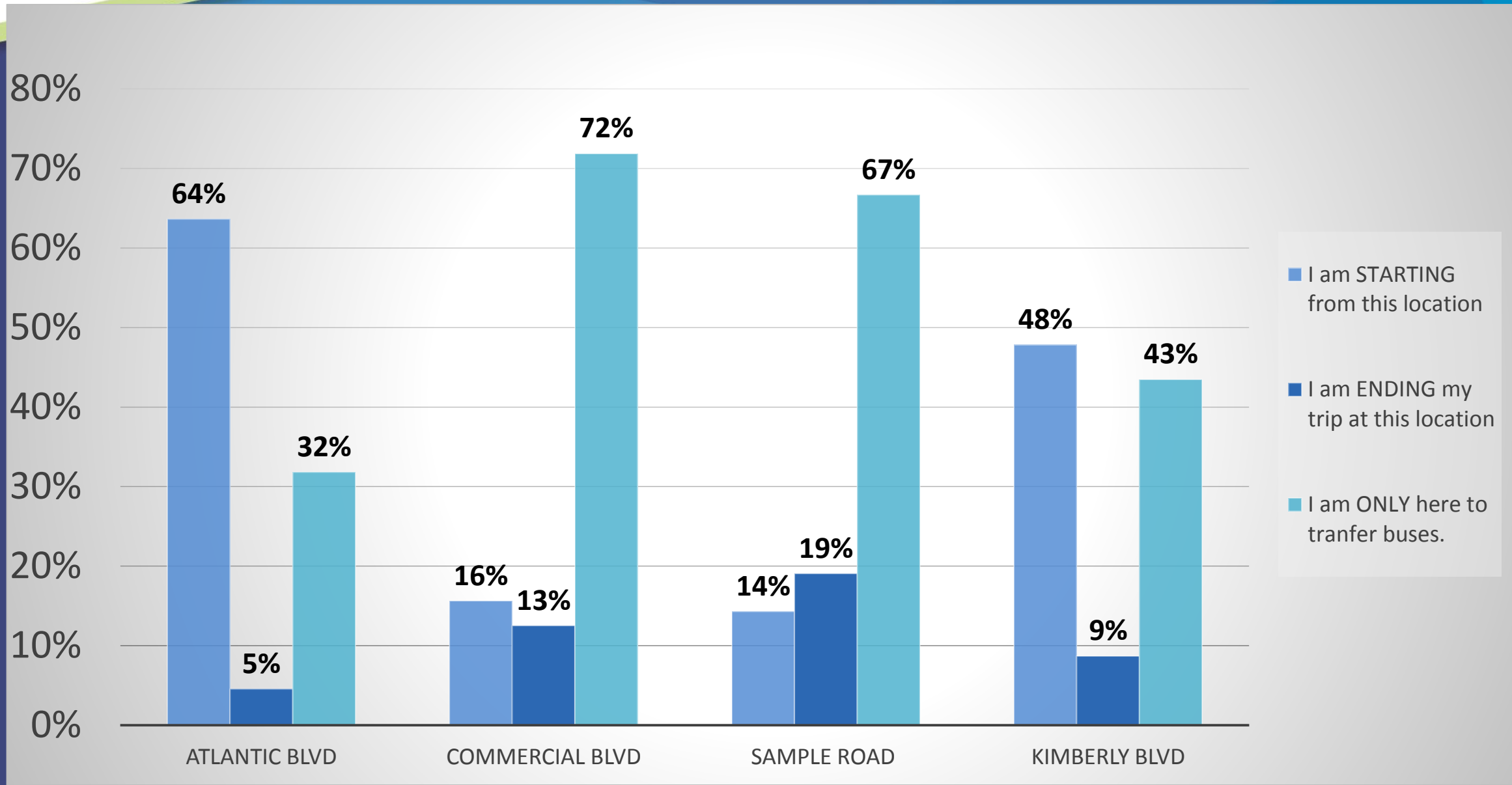
Bus Purpose



Safety Analysis & General Recommendations

- Crash Data
- Best Practice Countermeasures

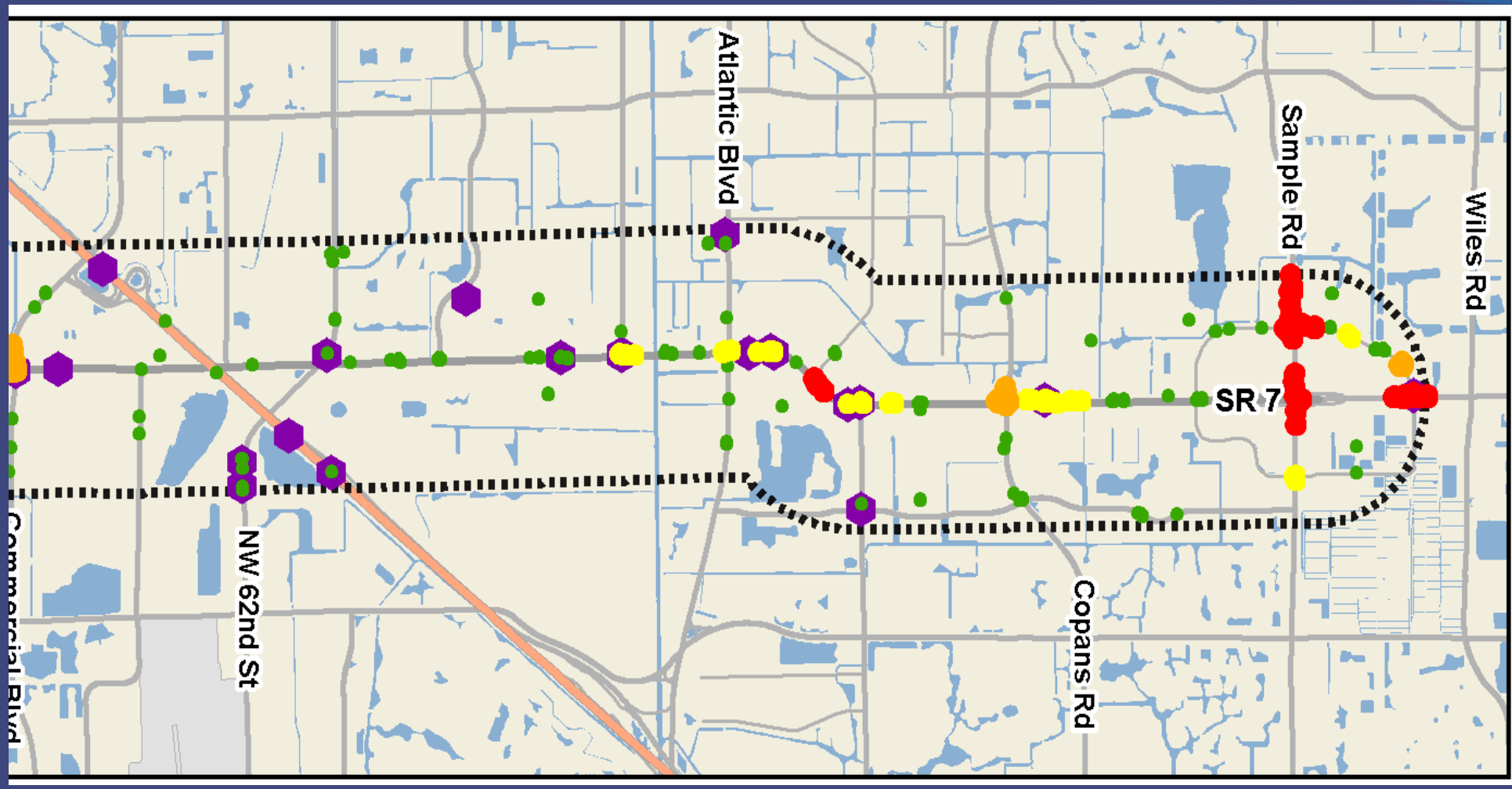
Severe Crashes

Severe injury crashes

- 1-4 severe injuries
- 5-8 severe injuries
- 9-13 severe injuries
- >13 severe injuries (max 38)

Fatalities

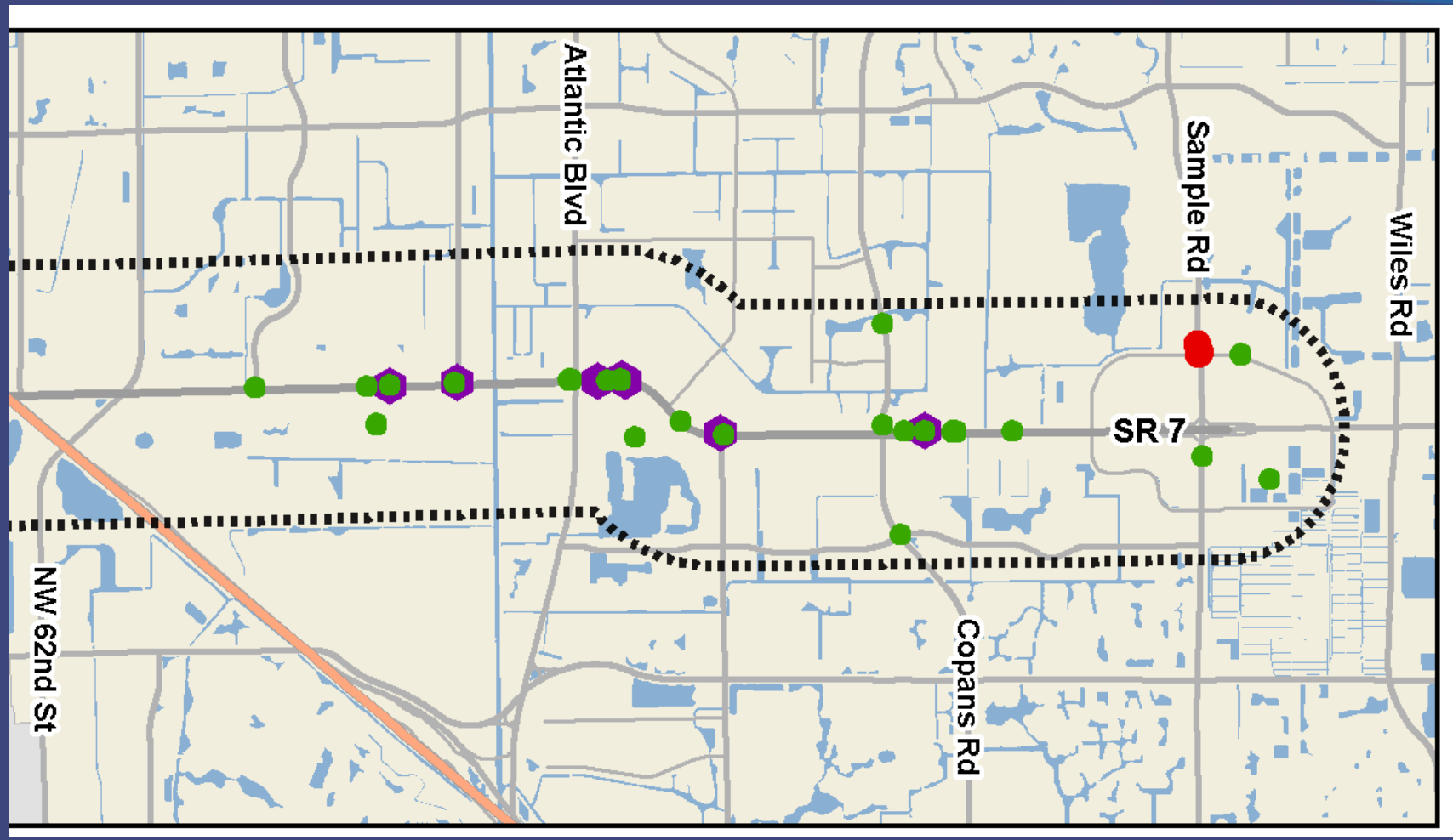
- 1-2 fatalities



Bicycle/Pedestrian Crashes

Bicycle and pedestrian crashes only:

- Severe injury crashes
  - 1-3 severe injuries
  - 4-6 severe injuries
- Fatalities
  - 1-2 fatalities



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Short-Term Improvement Concepts

Right-Turn Yield to Pedestrians Signs

R10-15 signs should be considered in locations where high-speed/high volume right turns are likely. Examples include locations where intersection skew allows for higher-speed movements or where dual right-turn lanes are provided.

Countdown Pedestrian Signals

Countdown pedestrian signals provide more definitive feedback to pedestrians than standard flashing “Don’t Walk” indications and have become standard in many jurisdictions throughout Florida. If installed, they should be timed such that the maximum “Walk” phase is provided and the countdown will reach zero concurrent with the thru phase going to amber.

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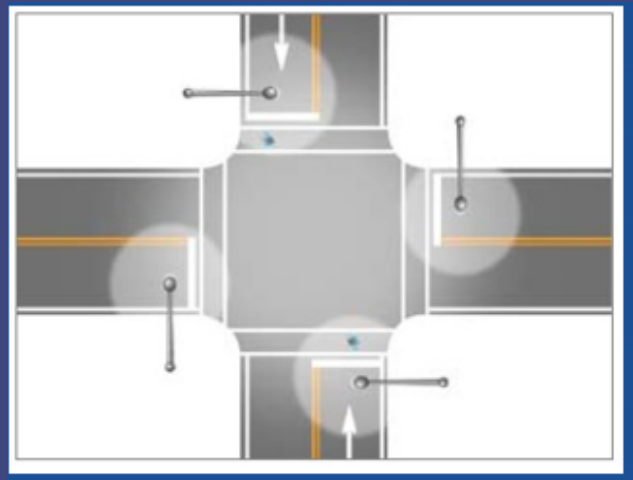
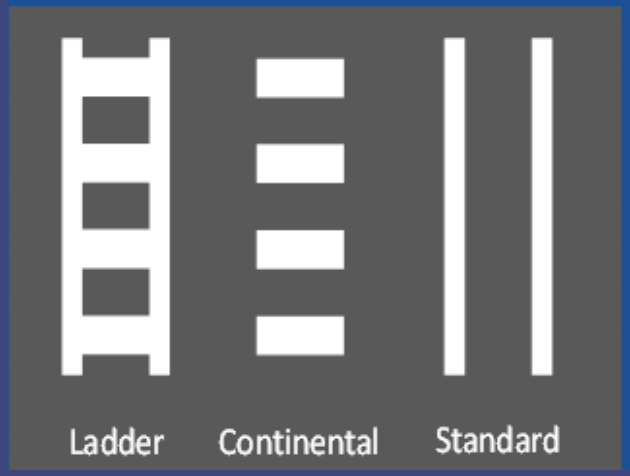
Short-Term Improvement Concepts



Intersection/Crosswalk Area Lighting

Roadway lighting is critical component of roadway safety and should be designed to provide the adequate illumination for all roadway users. There are many factors that affect roadway lighting (location, orientation, intensity, color, ambient light, etc.) and its effectiveness in increasing safety. New research on the placement of lighting in relationship to crosswalks is summarized in FHWA's *Informational Report on Lighting Design for Midblock Crosswalks*; Figure 1 provides an example of the preferred lighting locations.



High-Emphasis Crosswalk Markings

Crosswalks are a vital part of the pedestrian network; they define a designated crossing area for pedestrians and alert drivers to the likelihood of pedestrians. There are many different types of acceptable crosswalk markings/treatments, but the ladder crosswalk marking (Figure 2) is often considered the preferred treatment. The longitudinal markings, in addition to the parallel edge-line markings, of the ladder crosswalk, provide more surface area to be seen by drivers and are more visible from further distances.

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Multimodal Network

- Bike Network
- Sidewalk Network

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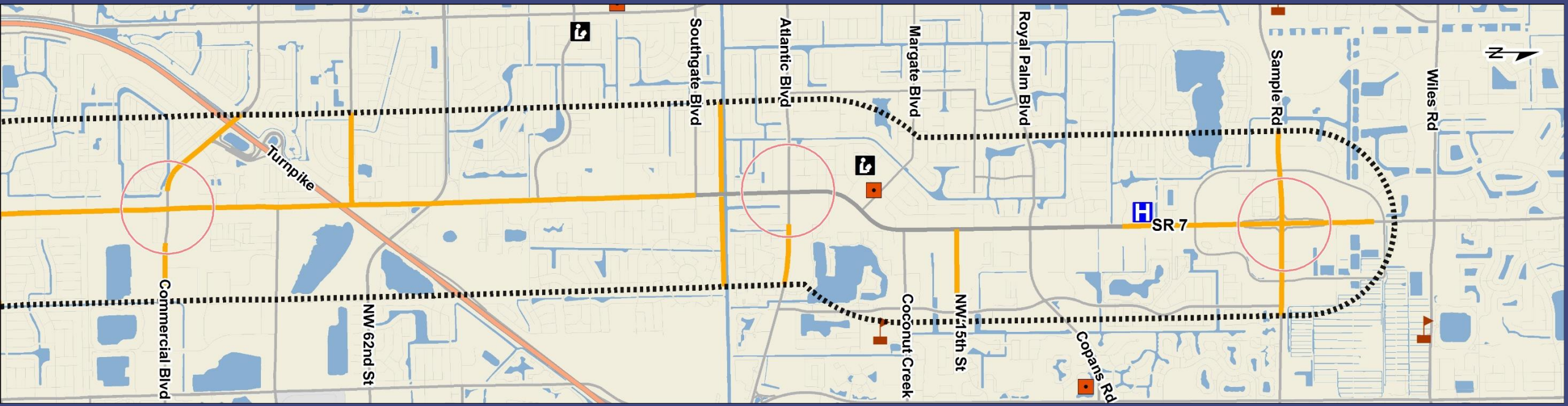
Multimodal Network
Existing Bike Facilities



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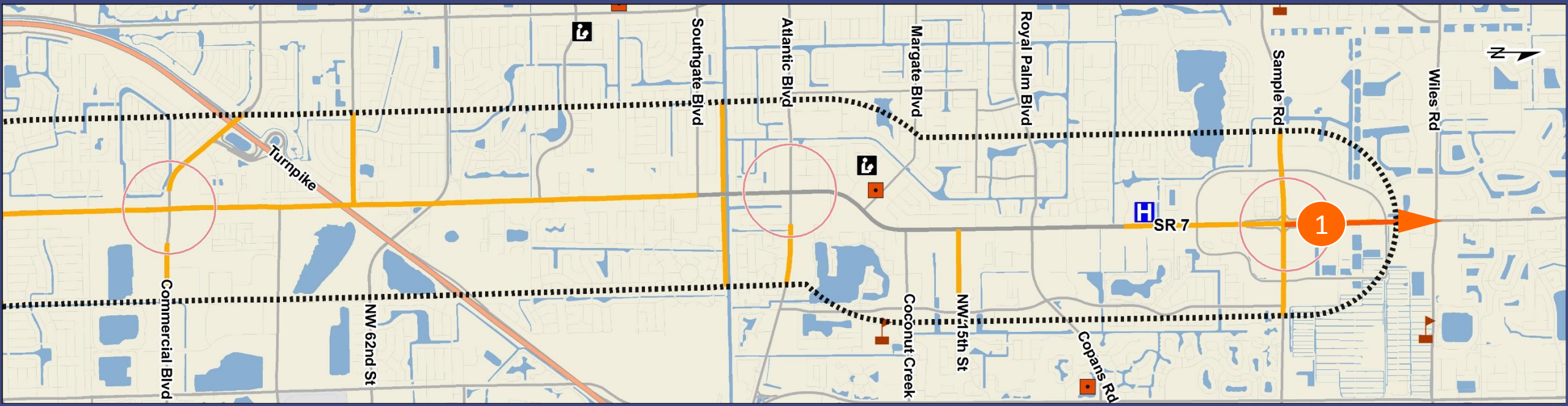
Multimodal Network
Programmed Bike Facilities



1. Buffered Bike Lanes to Palm Beach County Line (2017)

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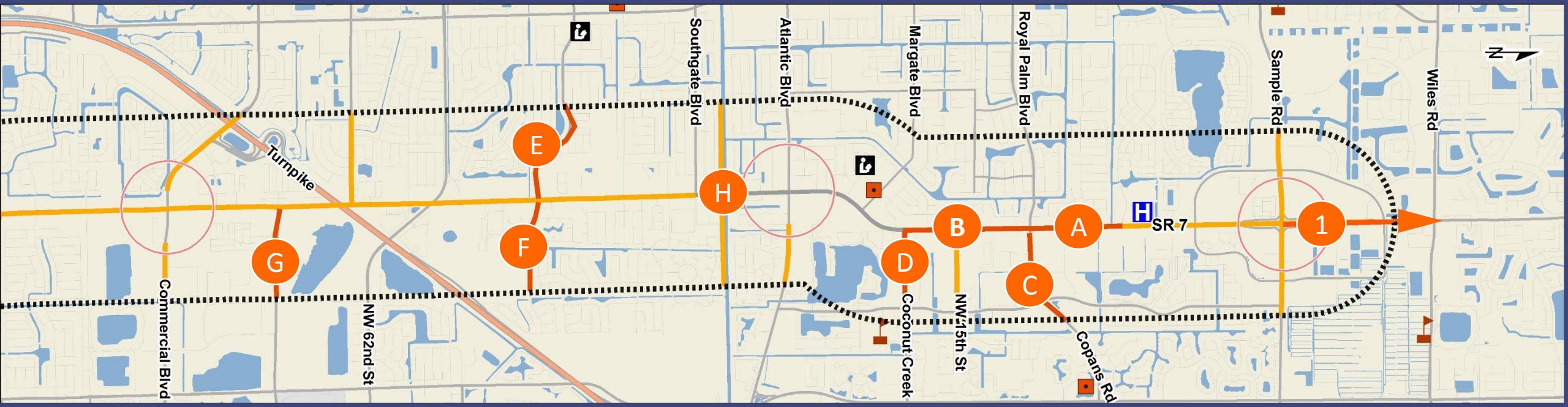
Multimodal Network
Proposed Bike Facilities



ID	Onstreet	From_	To	Recommendations
A	SR 7	Copans Rd	NW 31st St	Add bike lane between curb and sidewalk/widen sidewalk
B	SR 7	Coconut Creek Pkwy	Copans Rd	Add bike lane between curb and sidewalk/widen sidewalk
C	Copans Rd	SR 7	Hammock Blvd	Widen pavement for paved shoulder/bike lane
D	Coconut Creek Pkwy	SR 7	Banks Rd	Widen pavement for paved shoulder/bike lane
E	Kimberly Blvd	SW 64th Ter	SR 7	Widen pavement for paved shoulder/bike lane
F	SW 11th St	SR 7	SW 50th Ter	ROW exists to widen pavement or sidewalk
G	W Prospect Rd	SR 7	NW 35th Ave	Widen pavement for paved shoulder/bike lane
H	SR 7	Greenways C-14		Mid-block crossing for multi-use trail

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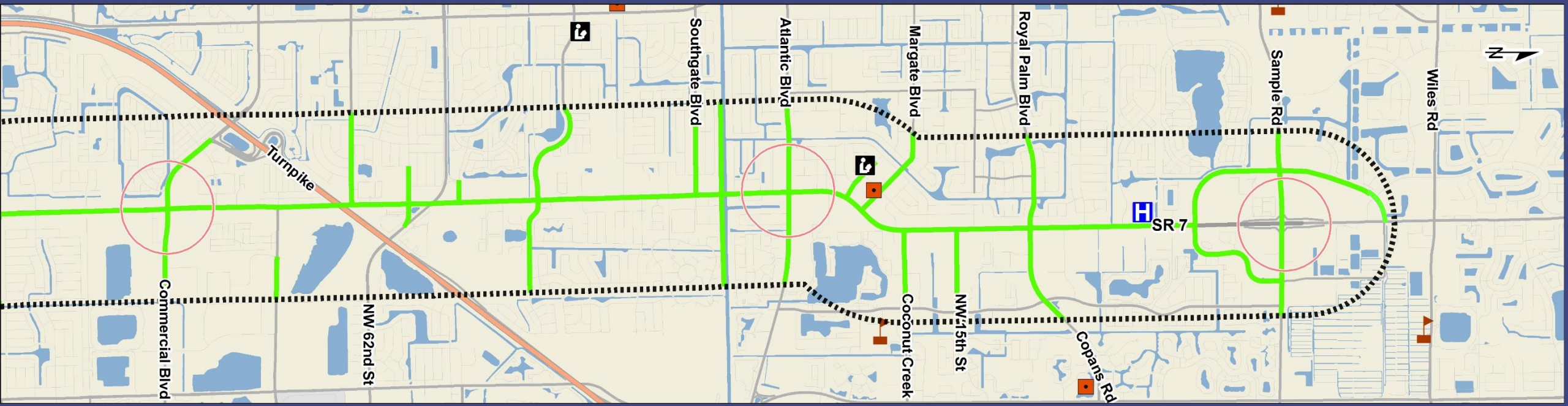
Multimodal Network
Existing Sidewalk Facilities



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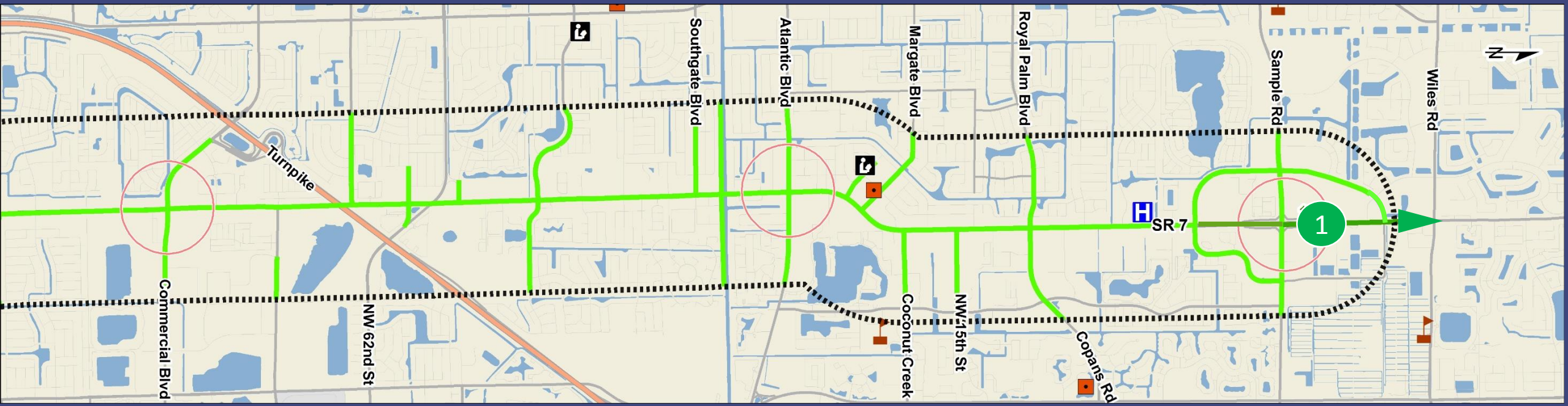
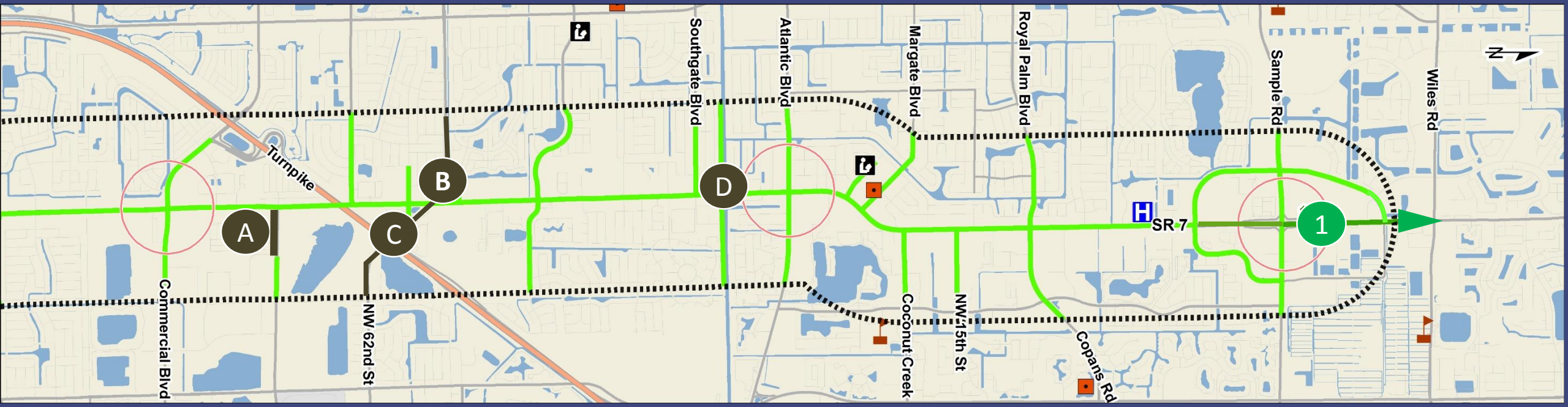
Multimodal Network
Programmed Sidewalk Facilities



1. Connect Sidewalks to Existing and Extend to Palm Beach County Line (2017)

Multimodal Network
Proposed Sidewalk Facilities



ID	Onstreet	From_	To	Recommendations
A	W Prospect Rd	SR 7	NW 35th Ave	ROW exists for sidewalks, both sides
B	W McNabb Rd	SW 66th Ave	SR 7	Sidewalk on N side connects to SR 7 via Blvd of Champions
C	Cypress Creek Rd	SR 7	NW 35th Ave	Sidewalk on S side connects to SR 7 via ramp sidewalk
D	SR 7	Greenways C-14		Mid-block crossing for multi-use trail

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Hub/Hot-Spot Discussion

- Design Concepts
- Sample Road (Turtle Creek Road)
- Atlantic Boulevard
- Kimberly Boulevard
- Margate City Center

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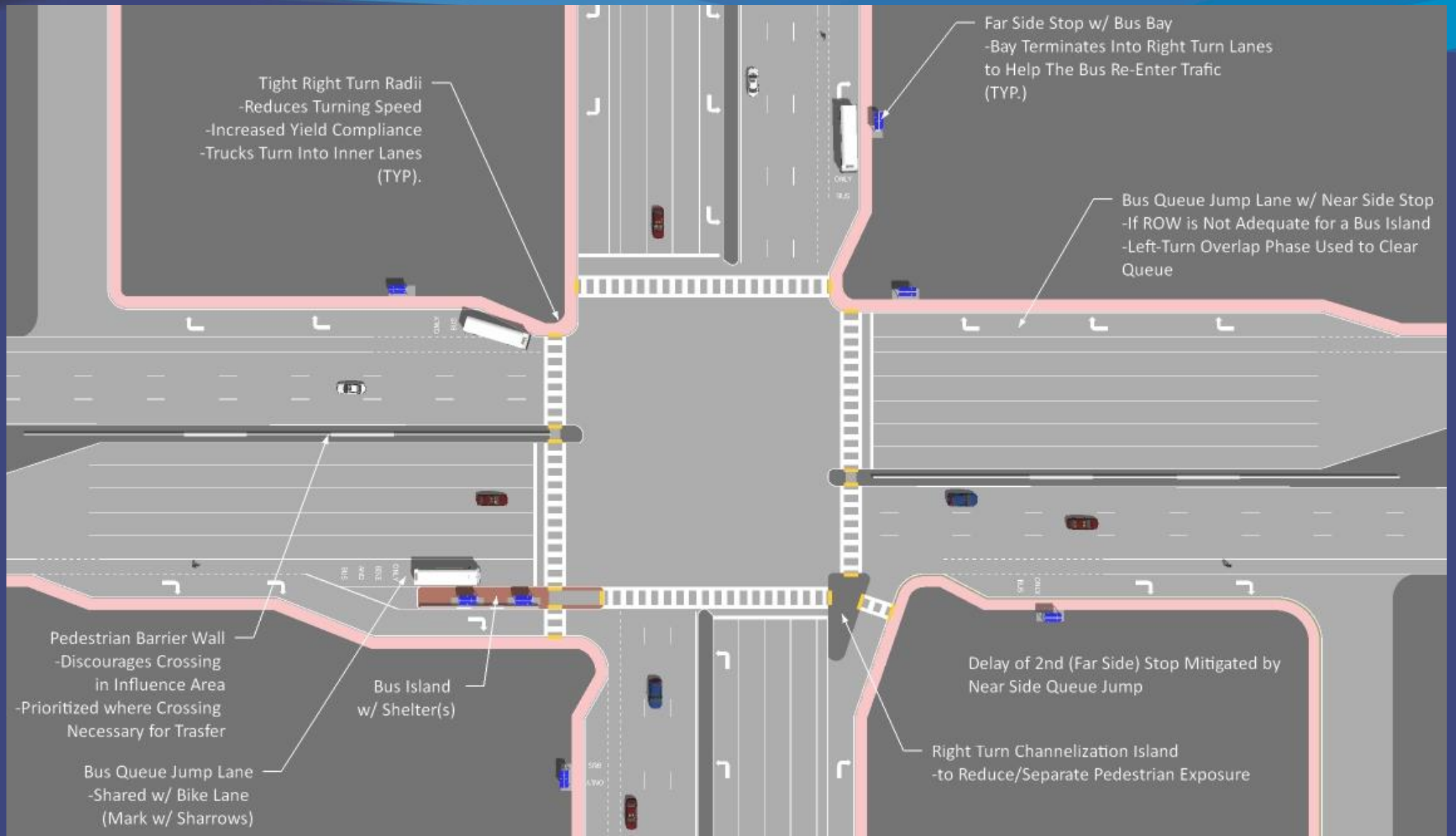
Design Concepts



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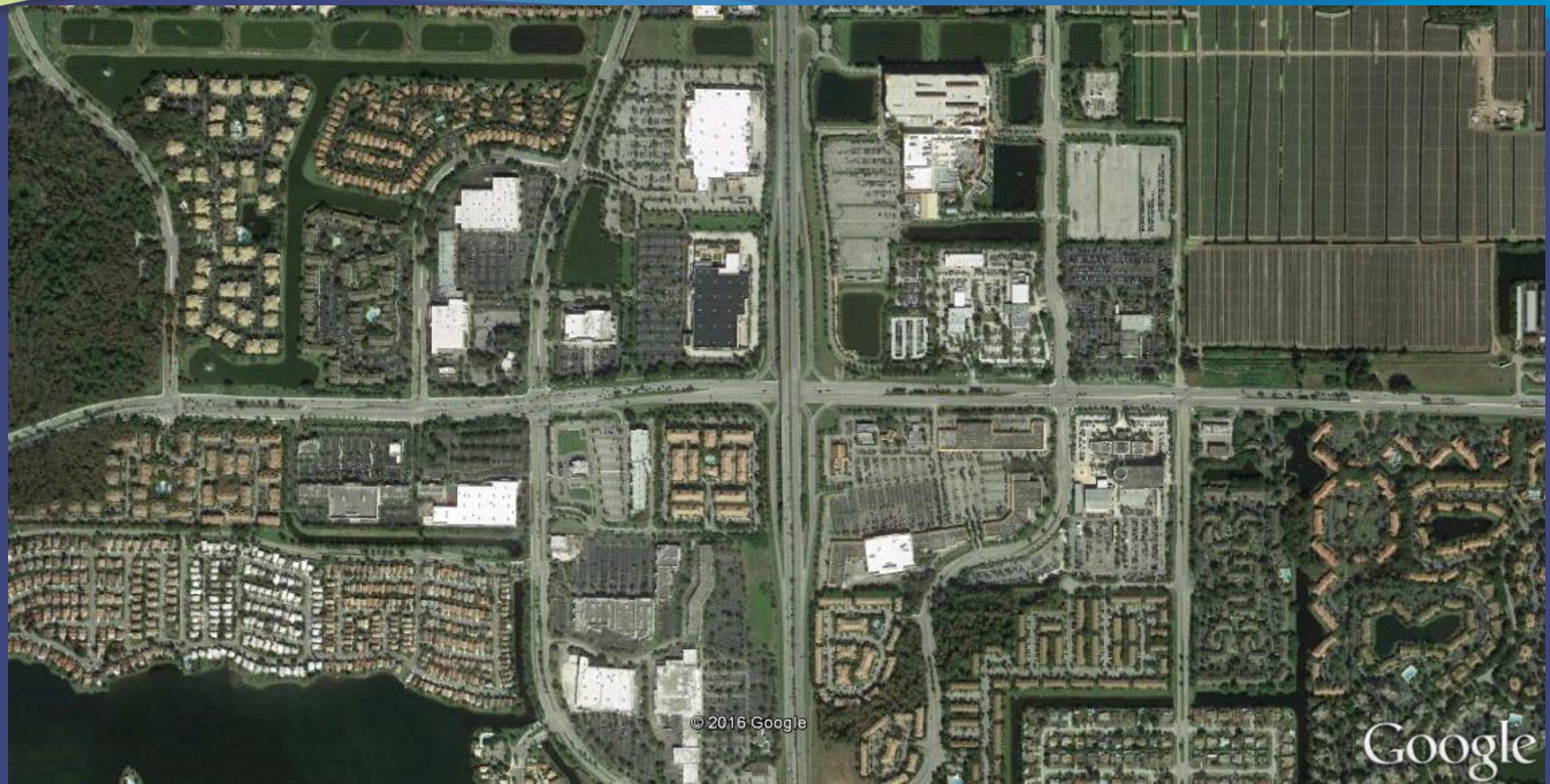
Focus Areas: Sample Road



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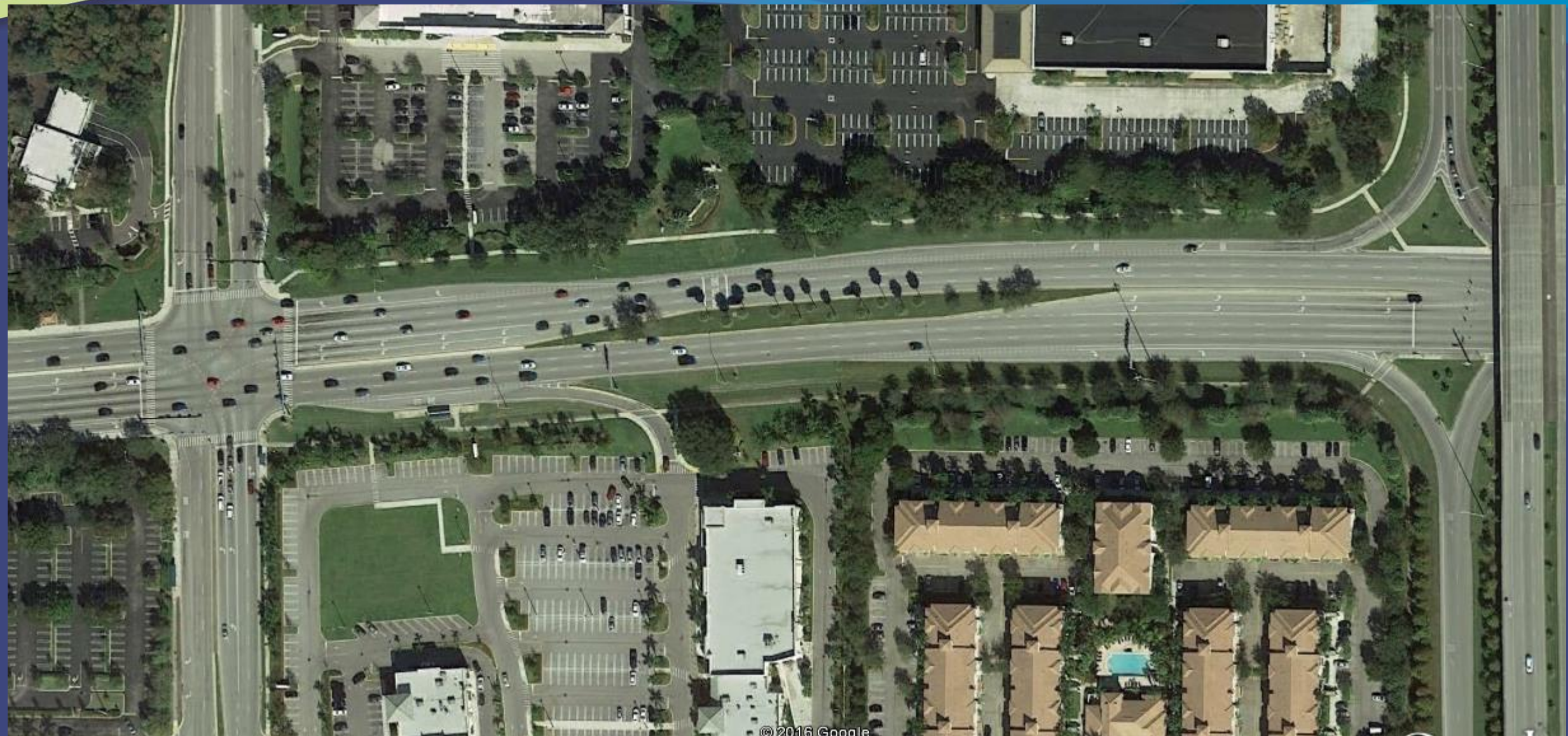
Focus Areas: Sample Road



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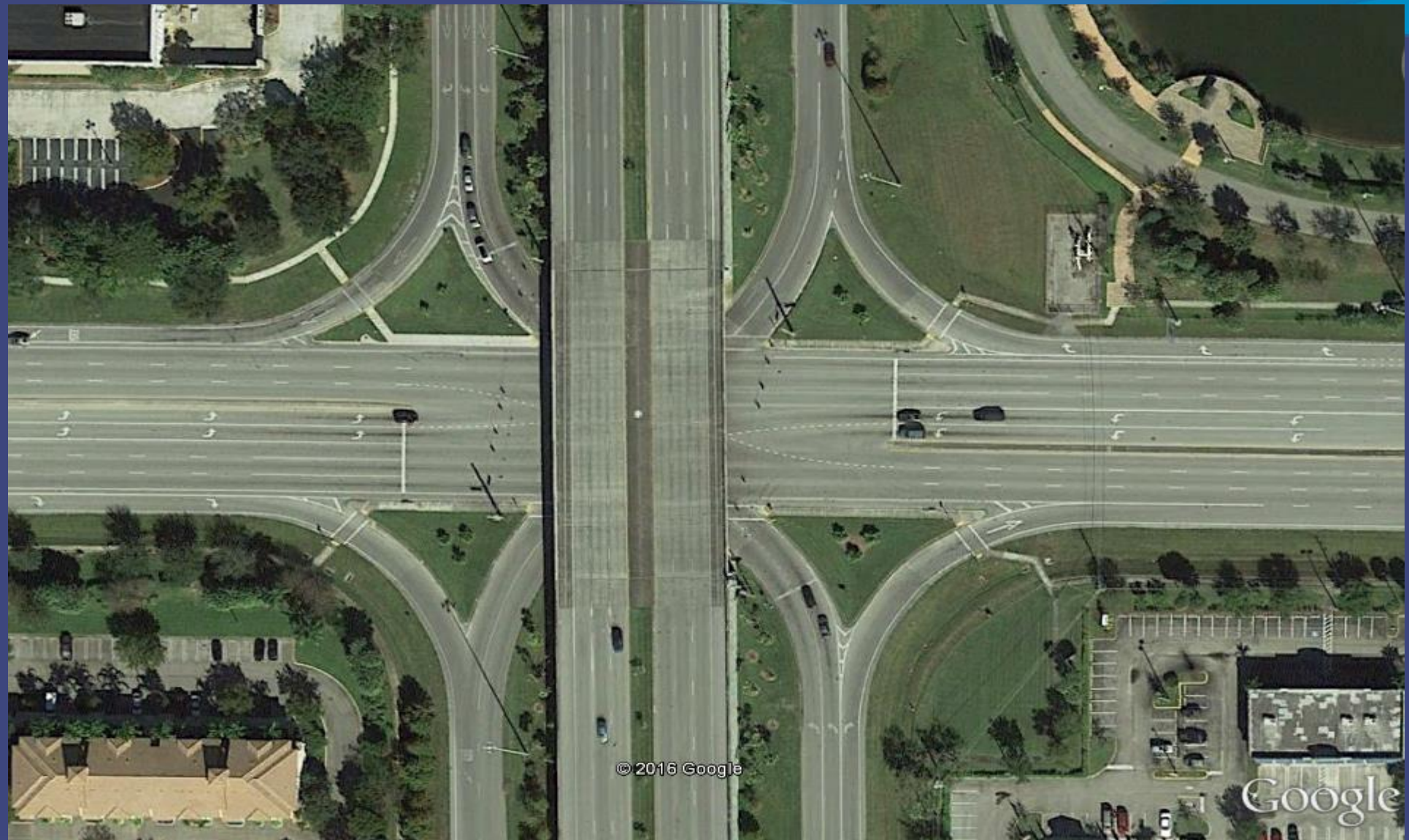
Sample Road Interchange



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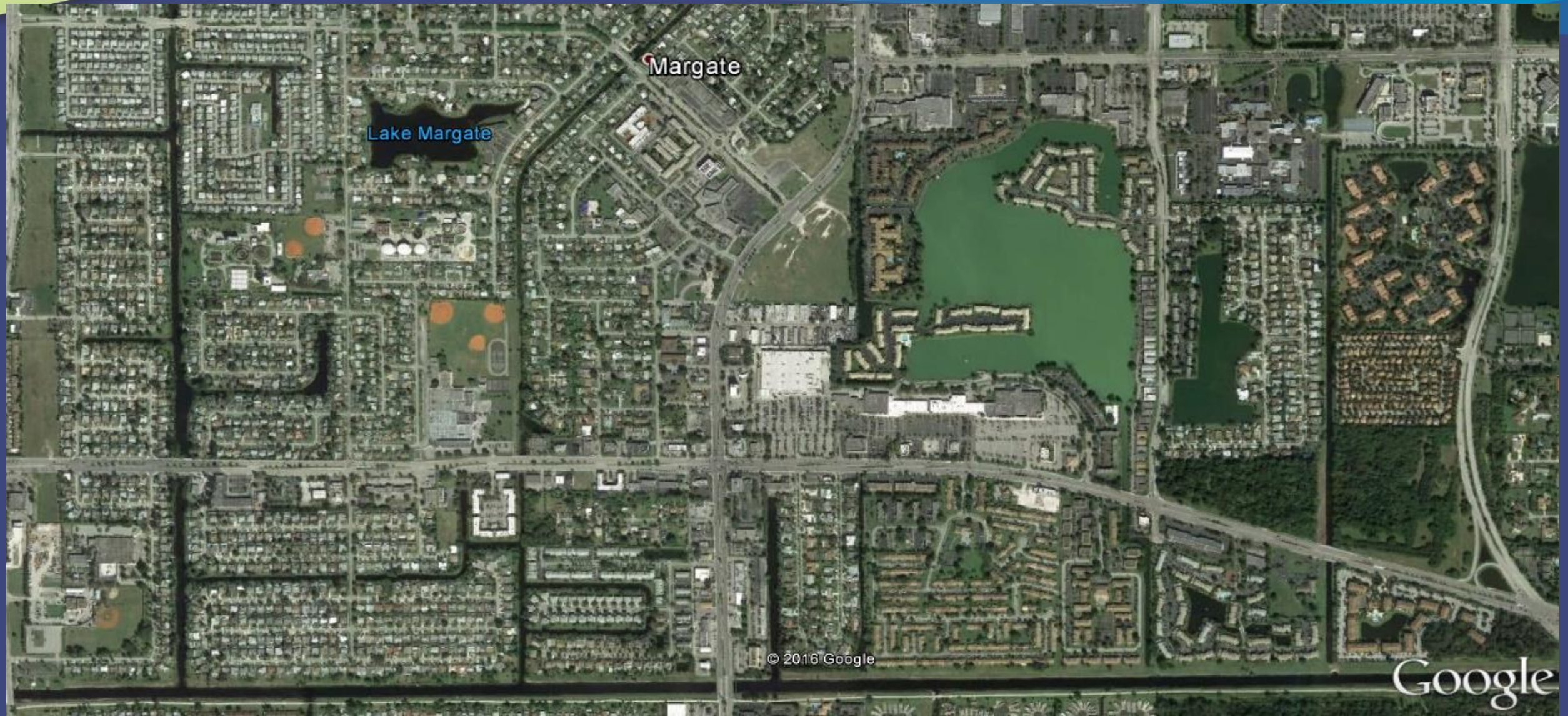
Focus Areas: Atlantic Boulevard



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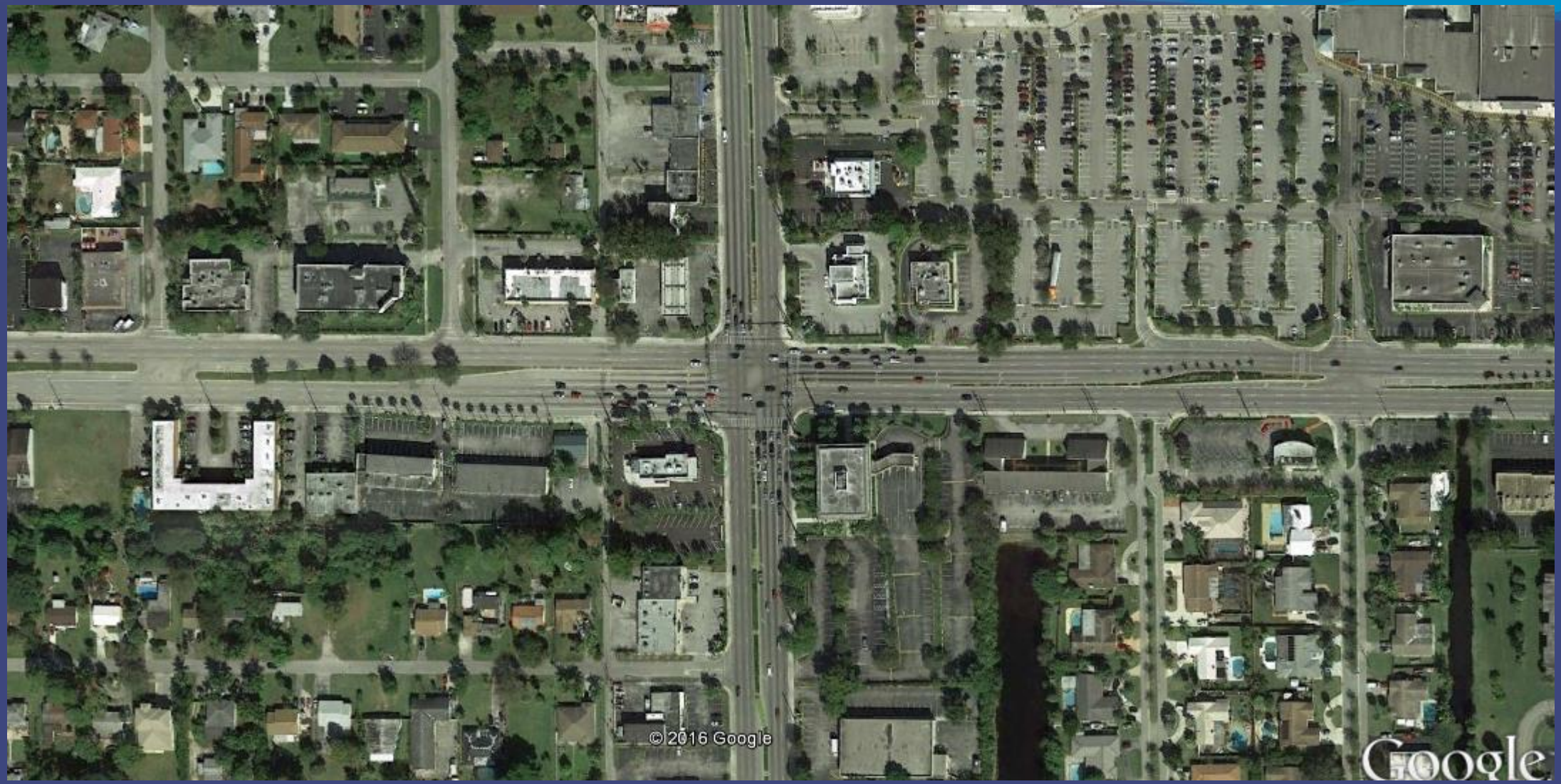
Focus Areas: Atlantic Boulevard



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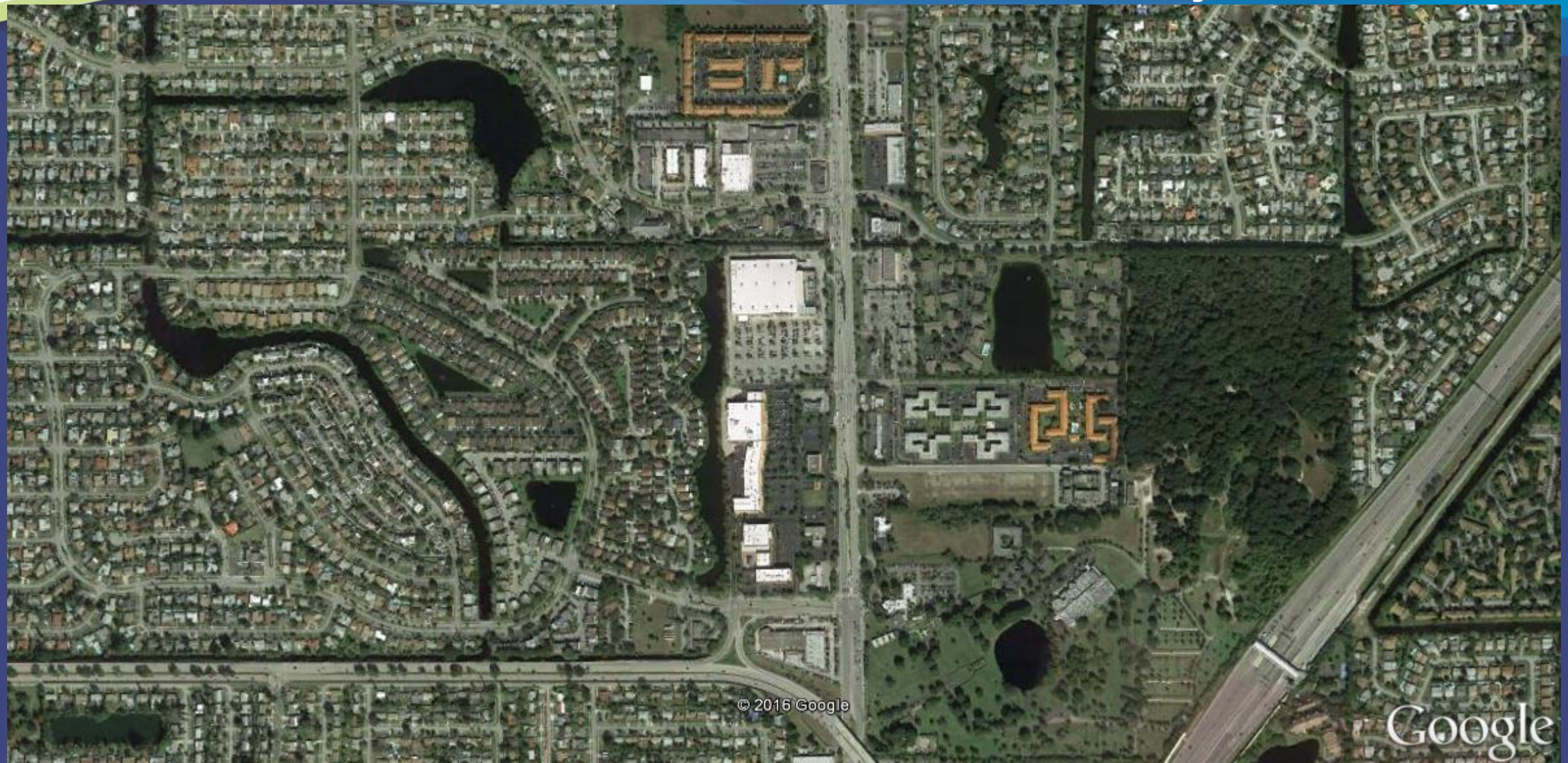
Focus Areas: Kimberly Boulevard



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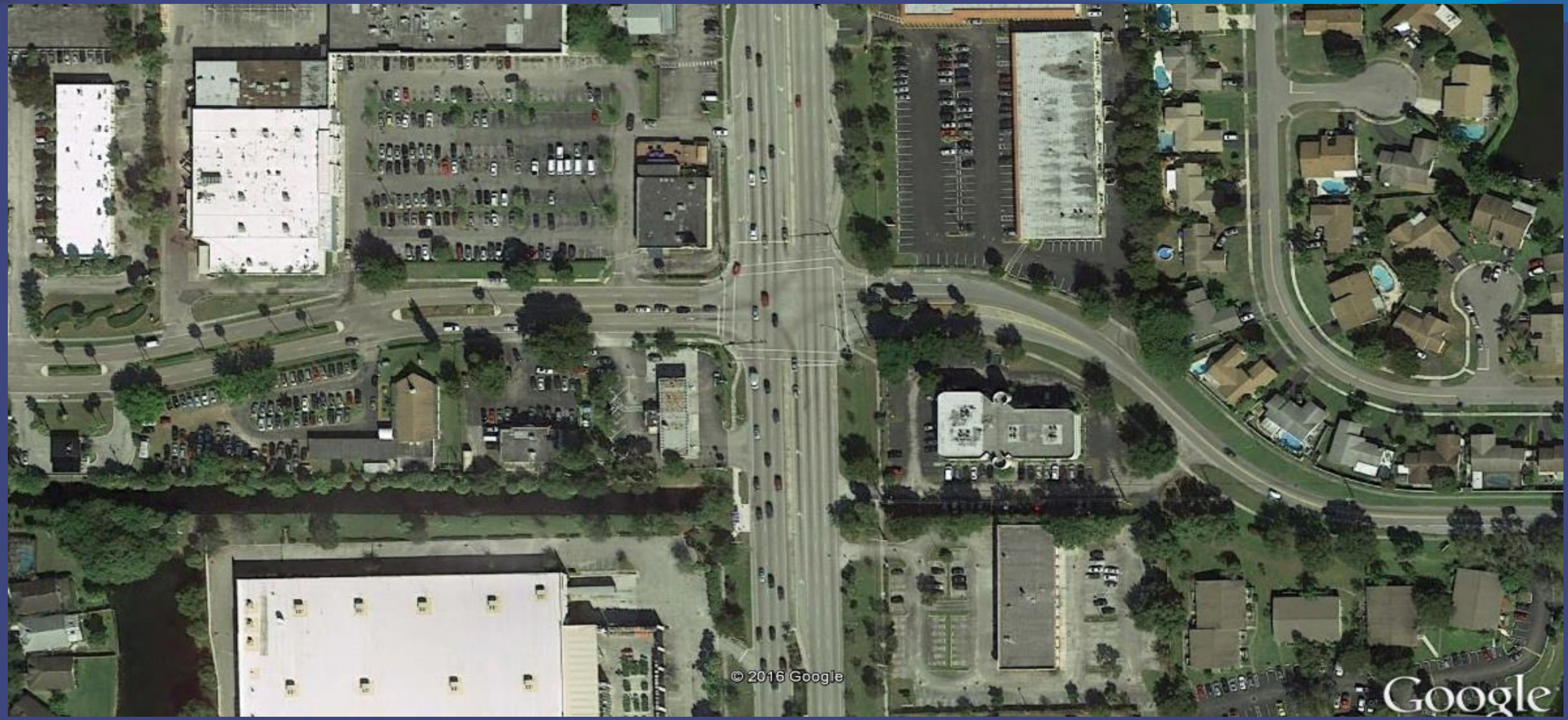
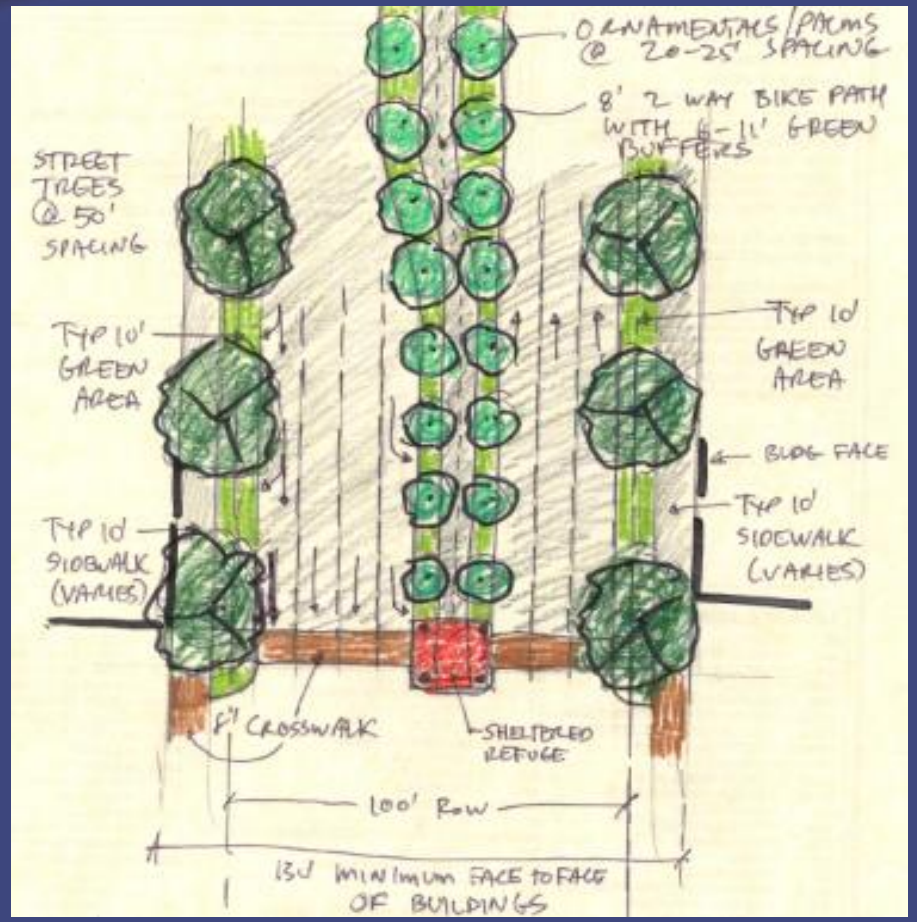
Focus Areas: Kimberly Boulevard



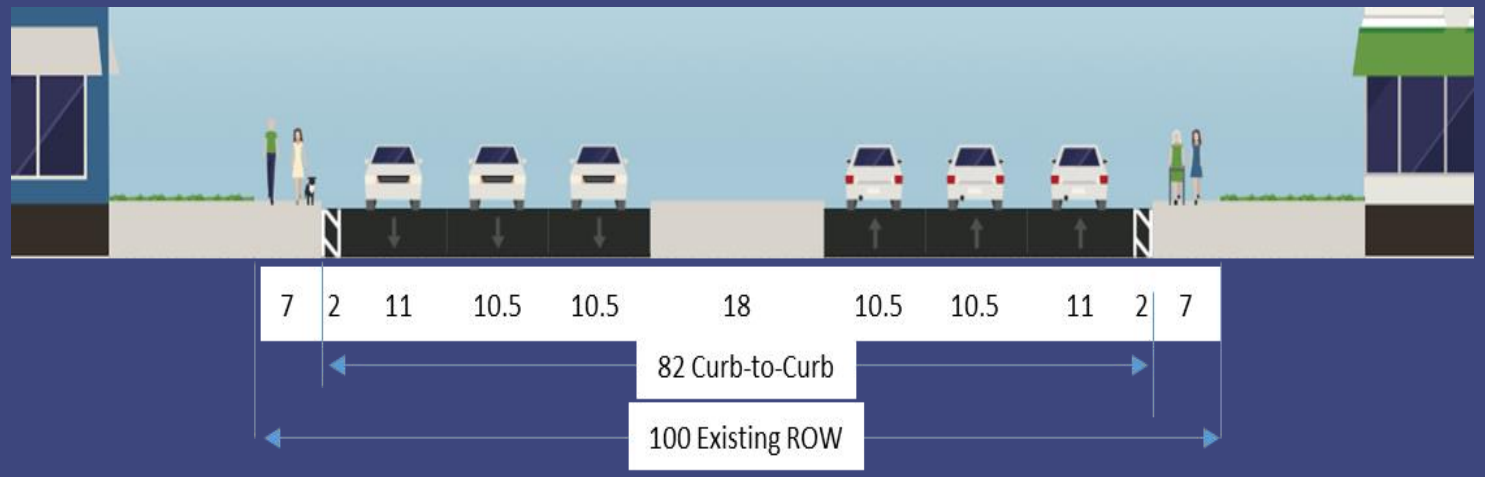
City Center Discussion

- Proposed Section
  - Center Bike Lane
  - Reconstruction of Roadway Cross Section



Proposed Typical Section ~96ft curb-to-curb

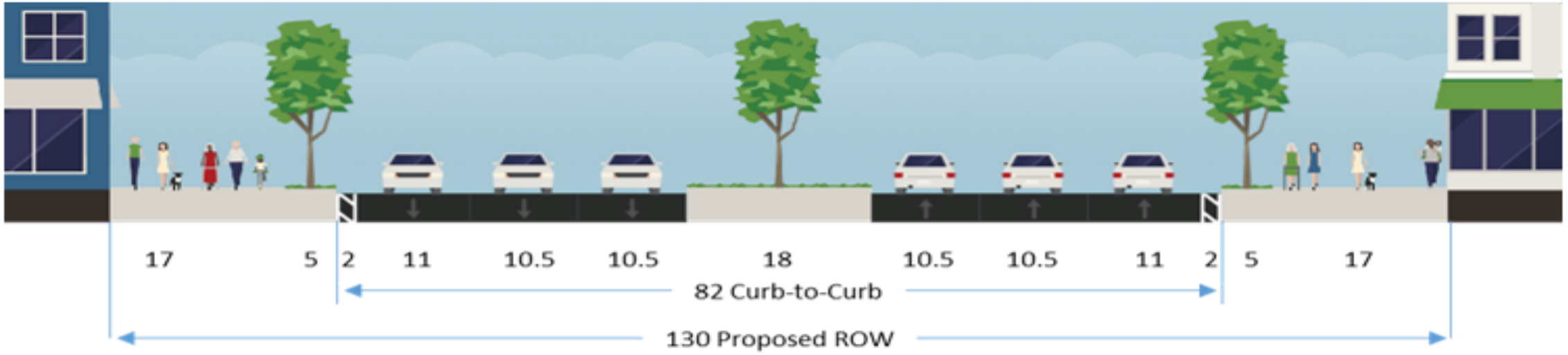
11-11-11-30-11-11-11



Existing Typical Section ~82ft curb-to-curb

City Center Discussion

Alternative 1: Shared Bicycle/Pedestrian Facility: This alternative utilizes the right-of-way available through the redevelopment of the City Center site(s) to provide for a landscaped "furniture zone" and wide sidewalk area to be used by cyclists and pedestrians.



Advantages	Disadvantages
• Does not require reconstruction of SR-7 outside curb and drainage structures • Maintains shortest crossing distances • Allows for roadside landscape hardscape features to provide shade and channelize pedestrians to signalized intersections	• Cyclists and pedestrians share space • Cyclists traveling against traffic are more vulnerable to turning traffic • Possible sub-surface and overhead utility conflicts.

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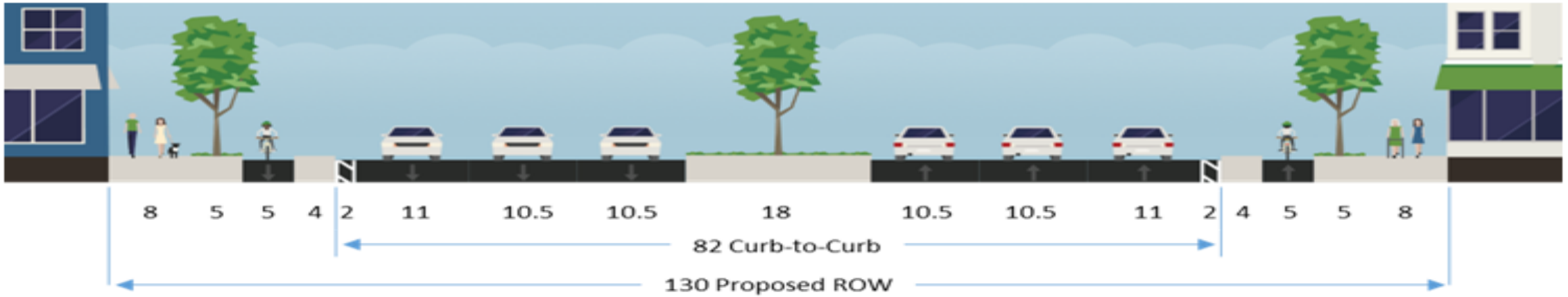
City Center Discussion

Alternative 2: Protected Bike Lane: This alternative considers the re-using the existing outside curb (and drainage structures) as the basis for a protected bike lane.



Advantages	Disadvantages
• Does not require reconstruction of SR-7 outside curb and drainage structures • Extends crossing distance/time but not pedestrian exposure • Allows for roadside landscape hardscape features to provide shade and channelize pedestrians to signalized intersections	• Cyclists and pedestrians occupy separate space • Possible sub-surface and overhead utility conflicts. • Higher cost than alternative 1 • May require a wider curb structure than shown to accommodate drainage • Narrower sidewalk area than alternative 1 (but could be supplemented by development frontage zone)