



Move People & Goods | Create Jobs | Strengthen Communities

MMTP Phase 2 Mid / Long-term Improvements

Meeting with Broward County

October 4, 2022

Meeting Agenda

- Overall Status of MMTP
- Mid / Long-term Improvements
 - City Goals
 - Selected Roadways
- Needs Assessment for County locations: Cleary Blvd
 - Preliminary Long-term Vision for Cleary Blvd
- Needs Assessment for County locations: University Dr
 - Preliminary Long-term Vision for University Dr
- Next Steps

Meeting Goal:

- ✓ Provide MMTP status to County Staff
- ✓ Discuss County-owned facilities
- ✓ Understand County perspective and concerns

Plan Kick-Off

Aug. 21

Current Status

High-Level Needs Assessment



Short-term Improvements



Technical Memo #1



Needs Assessment

Here!!

Mid- and Long-term Improvements

Technical Memo #2

City of Plantation Multimodal Master Transportation Plan Technical Memo #1

Chapter 1: Introduction



The City of Plantation, like much of Southeast Florida, faces a growing population and opportunities for redevelopment in the coming decades. A strong multimodal transportation plan, which plans for improvements for all roadway users including pedestrians, bicyclists, transit riders, and automobiles, is needed to support growth, while managing access and safety.

The City of Plantation's Multimodal Master Transportation Plan ("MMTP") identifies recommendations to improve overall roadway safety, as well as specific improvements for pedestrians, bicyclists, and transit users. The development of the MMTP was informed by the Plan Themes: Midtown Connectivity, Safety, and Traffic Calming.

Purpose:

The Multimodal Master Transportation Plan will address the City's current and future multimodal transportation needs by developing strategies to comprehensively improve safety, and increase multimodal connectivity. The MMTP is consistent with City of Plantation priorities of reducing congestion, fostering economic vibrancy, while addressing environmental concerns and sustainability. Notably, the MMTP is intended to guide and prioritize effective transportation investments to serve a growing, multimodal city, while maintaining the "hometown" feel of the City of Plantation.

Technical Memorandum #1: Short-term Improvements

This Technical Memorandum presents the results of the high-level multimodal needs assessment and the recommended improvements that can be accomplished in the short-term (up to five years). The Technical Memorandum is organized as follows:

- Chapter 2: Project Approach
- Chapter 3: Methodology
- Chapter 4: Focus Roadways
- Chapter 5: Recommendations
- Chapter 6: Cost Estimates and Funding Opportunities

Multimodal Transportation

The availability of transportation options using different methods within a system or corridor. Examples of these methods include biking, walking, and public transit.



Strategy:

The MMTP planning effort consists of two separate assessments, each with its own technical memo.

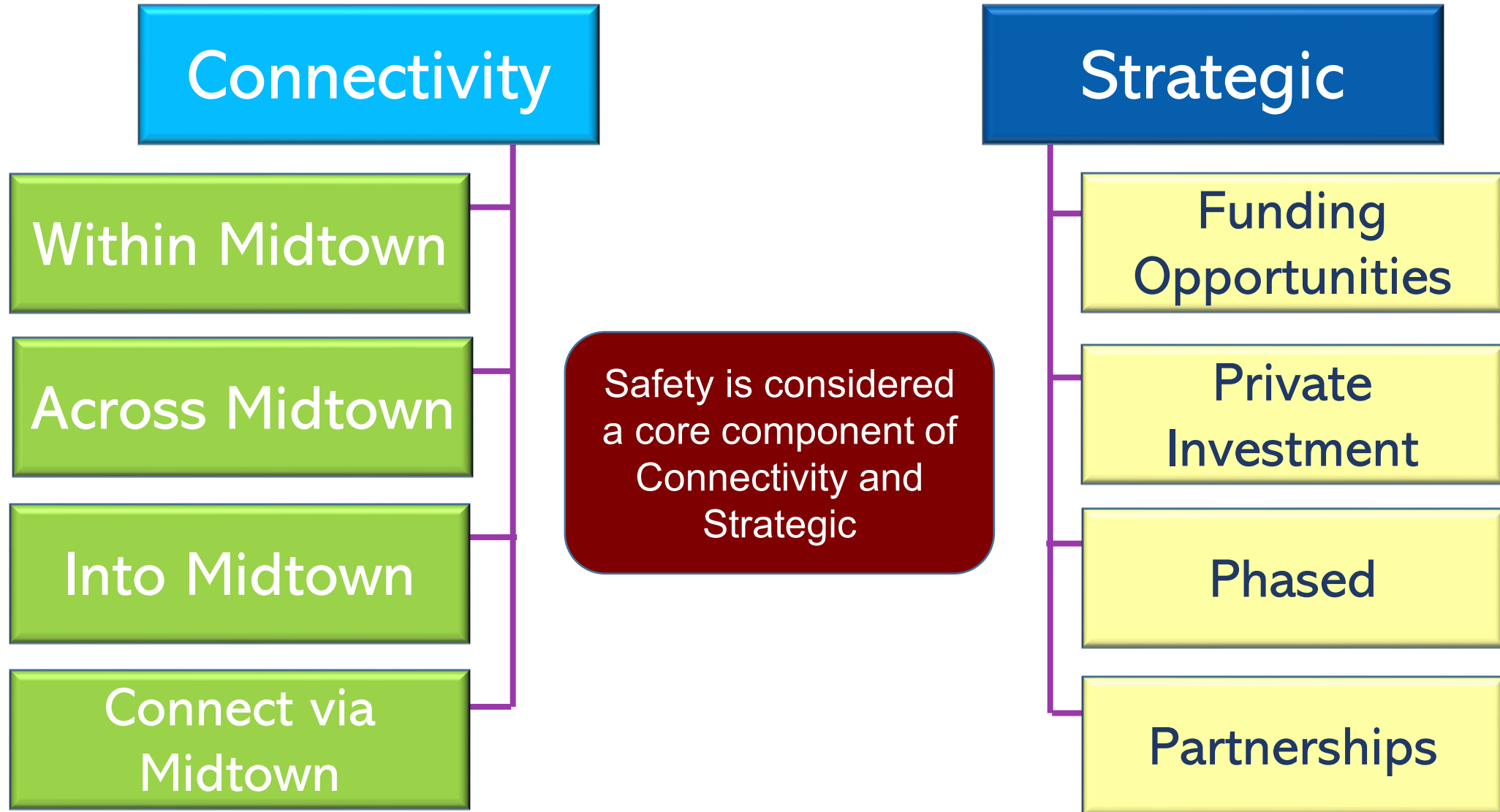
1. High-Level Multimodal Needs Assessment and Identification of Short-term Improvements
2. Needs Assessment & Identification of Mid- and Long-Term Improvements.

High-Level Multimodal Needs Assessment

Analysis of existing plans, city data, crash statistics, and field visits in order to develop a list of current needs for the multimodal transportation system.



Mid / Long-term Improvements: Plan Themes



Mid / Long-term Improvements: Project Locations

Cleary Blvd, from University Dr to Hiatus Rd Greenway

County-Owned = Hiatus Rd & Pine Island Rd

State-Owned = University Dr

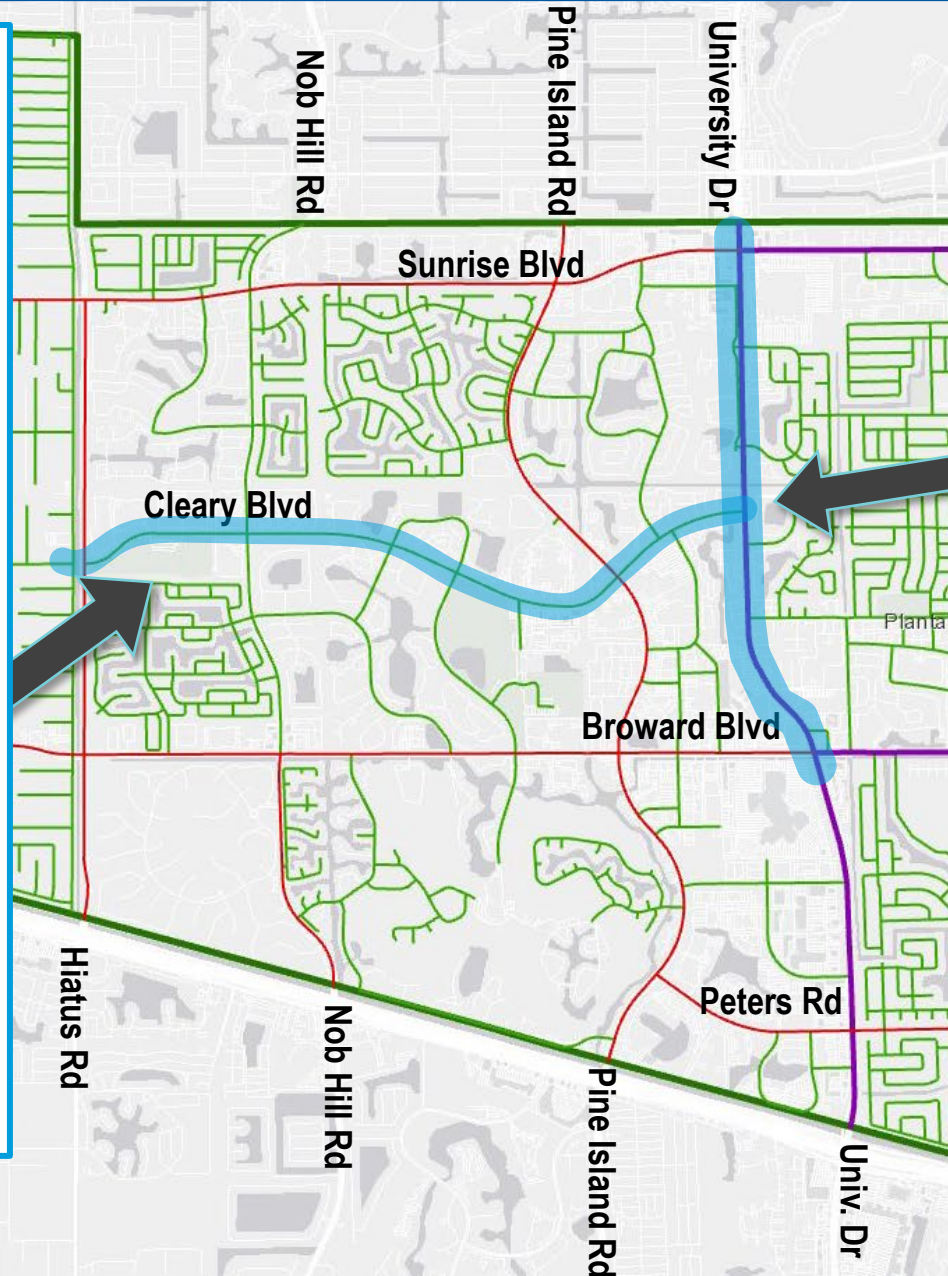
Connectivity

- ✓ Into Midtown
- ✓ Connect via Midtown

Strategic

- ✓ Funding Opportunities
- ✓ Private Investment
- ✓ Partnerships
- Adjacent to several community facilities, senior community, & public school.
- An entire Corridor
- County Surtax projects for Pine Island Rd and Hiatus Rd
- Community Support
- Most of roadway is under full City control
- Great opportunity for east-west connectivity

BC_City_Boundaries



University Dr, from Broward Blvd to Sunrise Blvd State-Owned

Connectivity

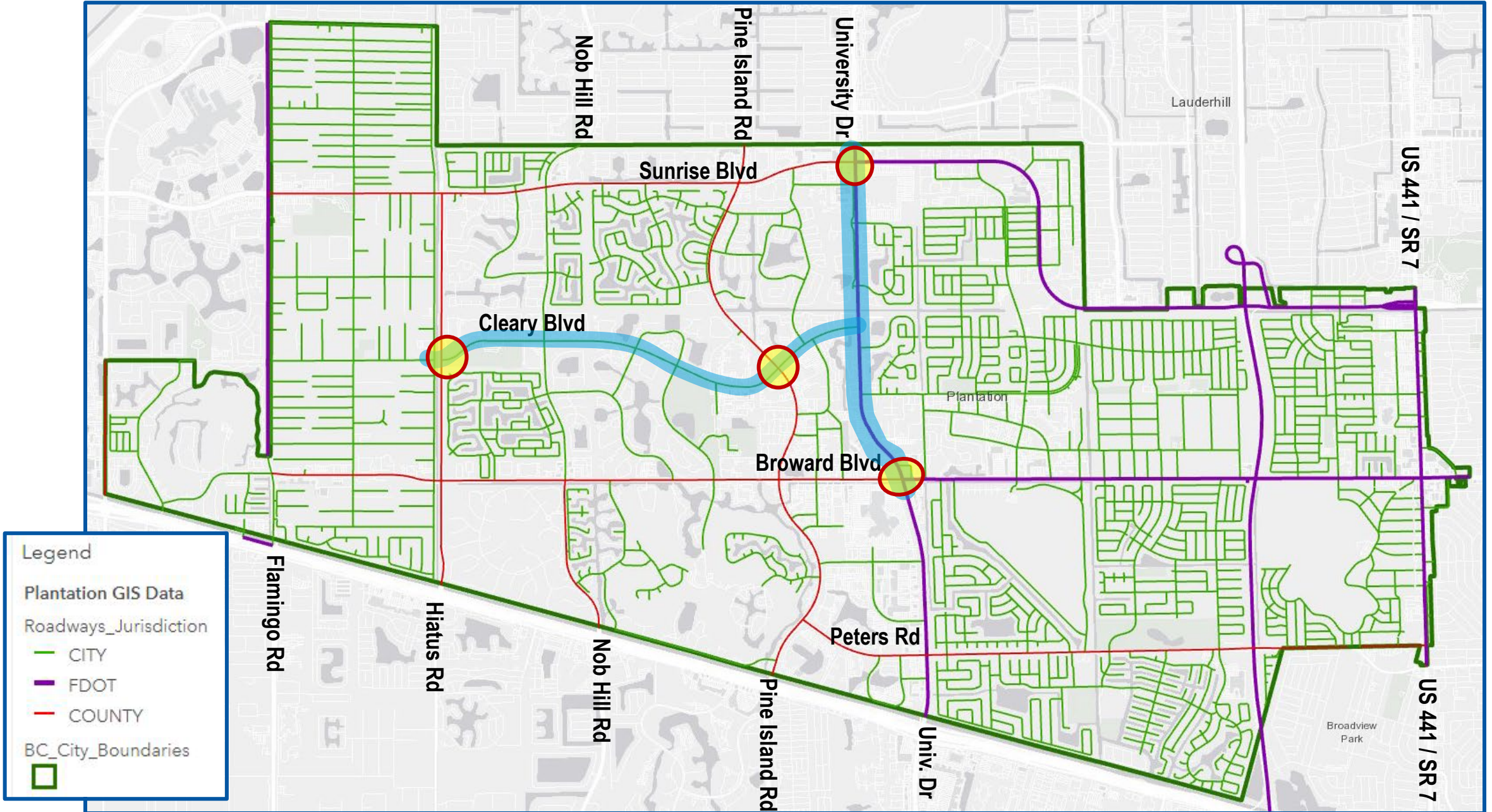
- ✓ Across Midtown
- ✓ Into Midtown
- ✓ Connect via Midtown

Strategic

- ✓ Funding Opportunities
- ✓ Private Investment
- ✓ Partnerships
- State-owned facility
- Several high-volume, high-crash intersections
- BCT PREMO / Future Premium Transit
- Adjacent to Midtown and other redevelopment areas
- Safety hot spots
- Opportunity for pedestrian bridge at University and Broward
- FDOT has already identified University and Sunrise as needing improvements
- Opportunity to work with City of Sunrise on portion north of city limits

SR 7

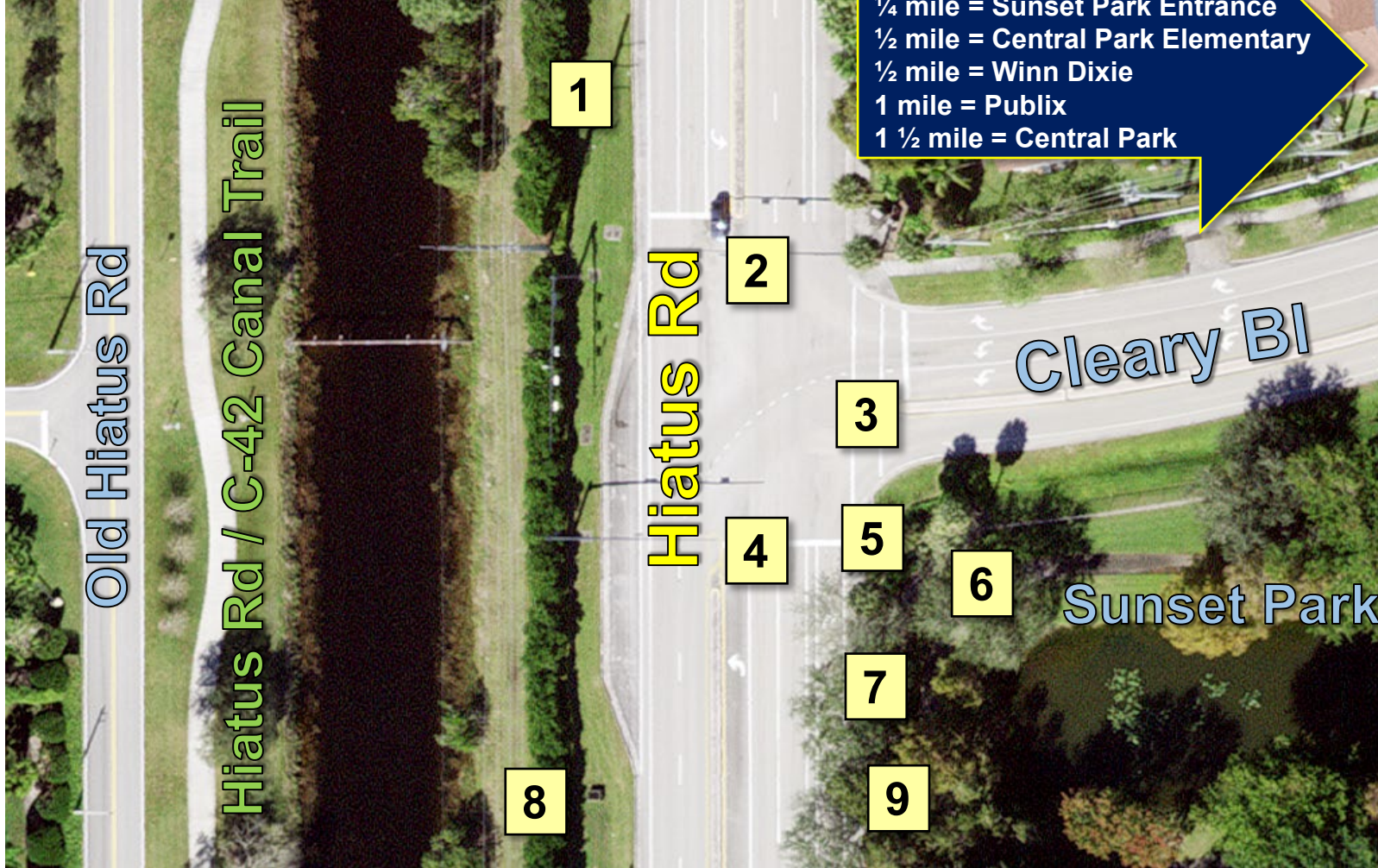
Mid / Long-term Improvements: County Locations



Cleary Blvd

University Drive to Hiatus Rd / C-42 Canal Trail ● 106 ft ROW ● Broward County Trafficways = 106 ft Arterial ● 2.8 miles ● 40 MPH ● BCT Routes 88 (Pine Island Rd), 2 and 81 (University Dr) ● LOS C

Cleary Bl: Hiatus Rd = County Owned

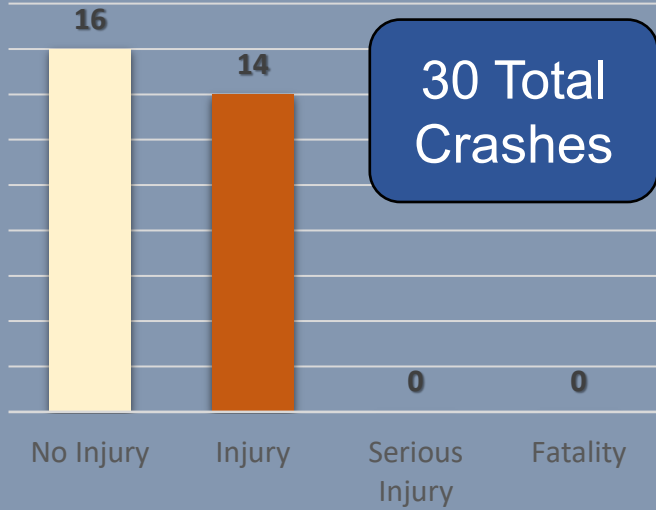


Observations....	
1	No sidewalk on west side of Hiatus Rd
2	No crosswalk on northern leg
3	Conventional crosswalk
4	No sidewalk on southern leg
5	No sidewalk in southern ROW of Cleary Blvd; all pedestrians must use crosswalk to access sidewalk in northern ROW
6	Sidewalk in Sunset Park is located behind park fence (no pedestrian access)
7	3-ft wide bike lane (not separated / not protected)
8	No street / pedestrian lighting
9	5 ft wide sidewalk located at curb
	Speeding!

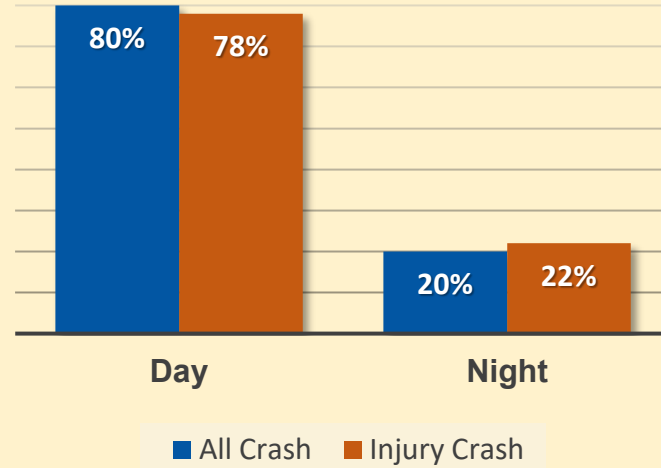
Cleary Blvd & Hiatus Rd - Crash Stats & Trends

Signal 4, 2015 to 2021, 150 ft from Intersection

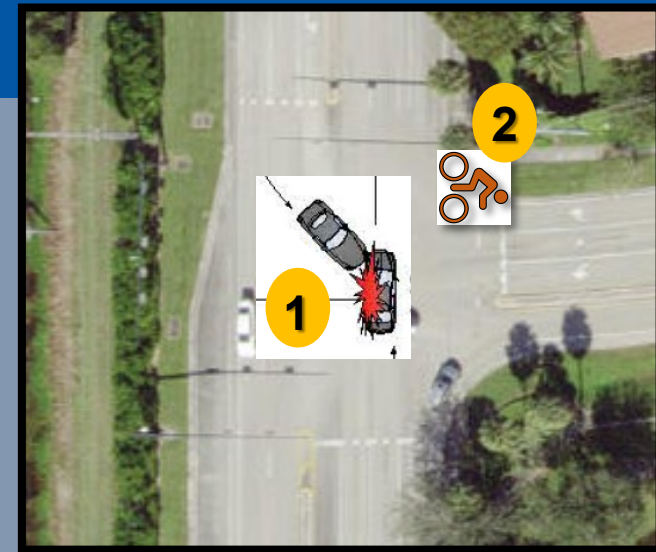
Crash by Injury Type



Day vs Night

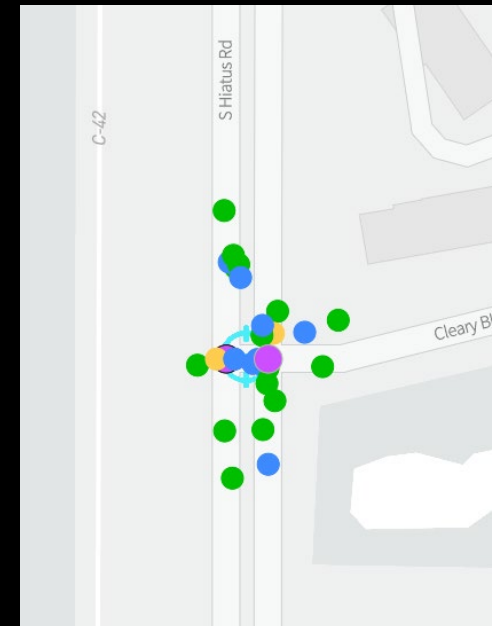
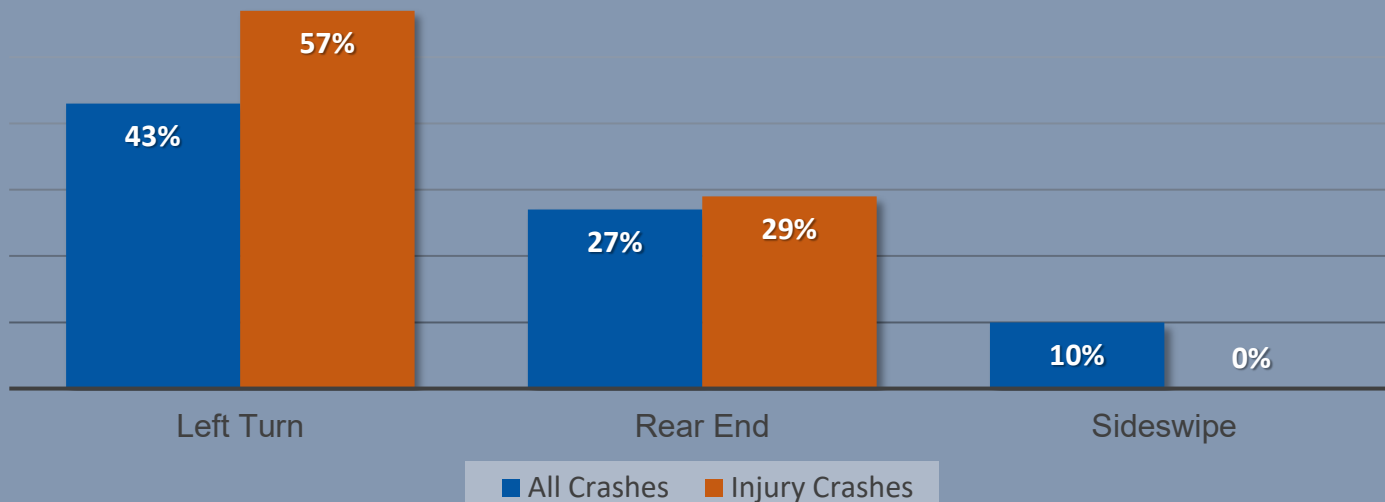


21% of Injury Crashes occurred on wet roads



- 1 8 Injury crashes occurred from SB to EB LT Crashes
- 2 July 2019 • 7pm • Bicyclist riding in crosswalk struck by NB RT vehicle who failed to yield at red light

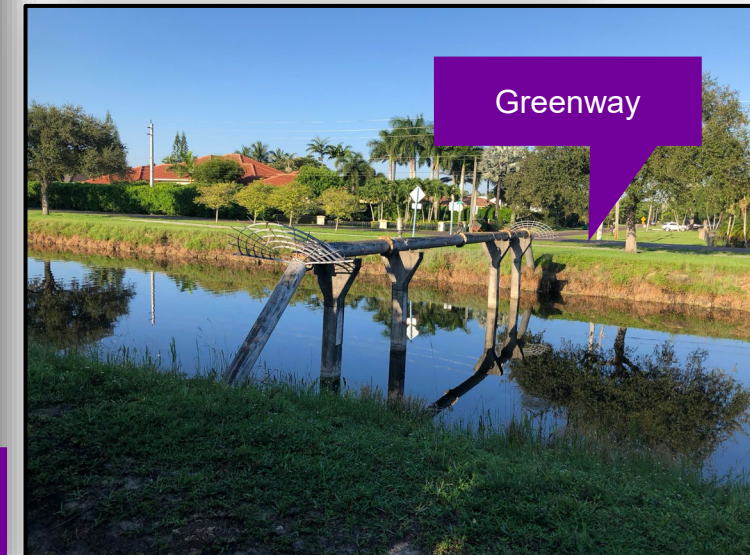
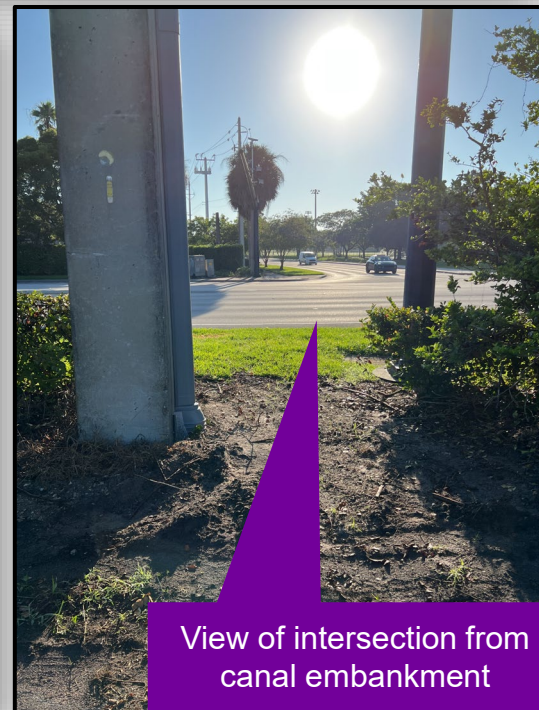
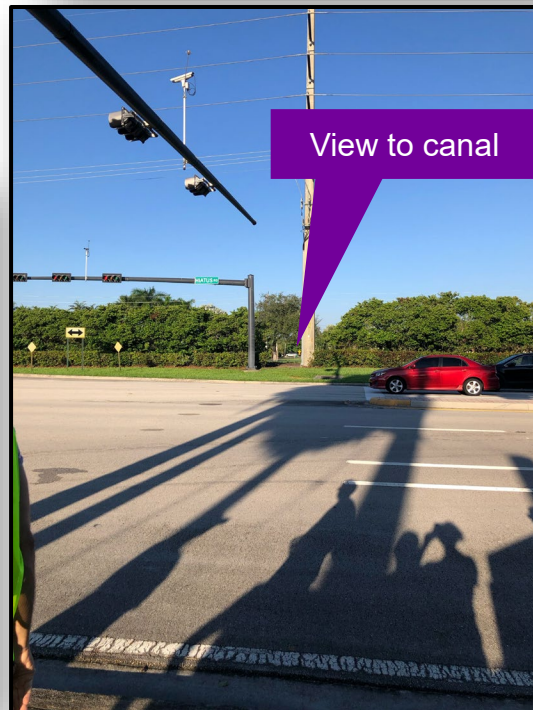
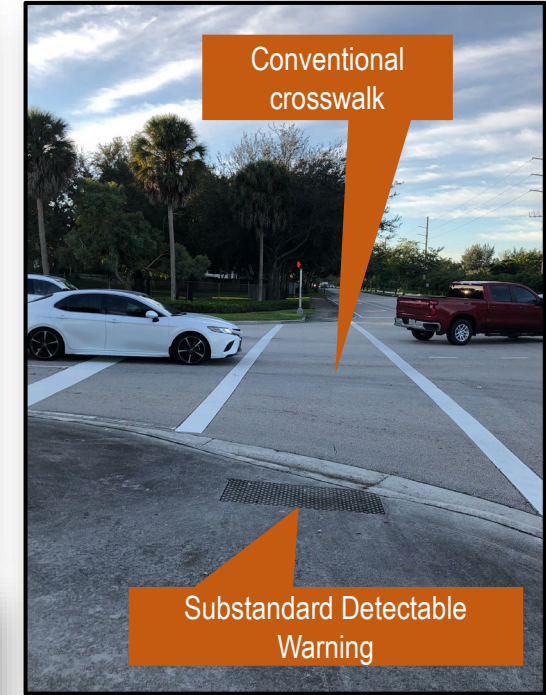
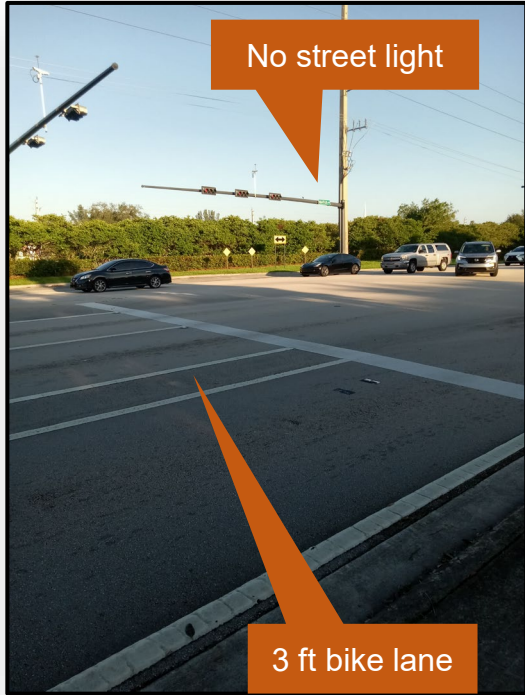
Crash Type & Severity



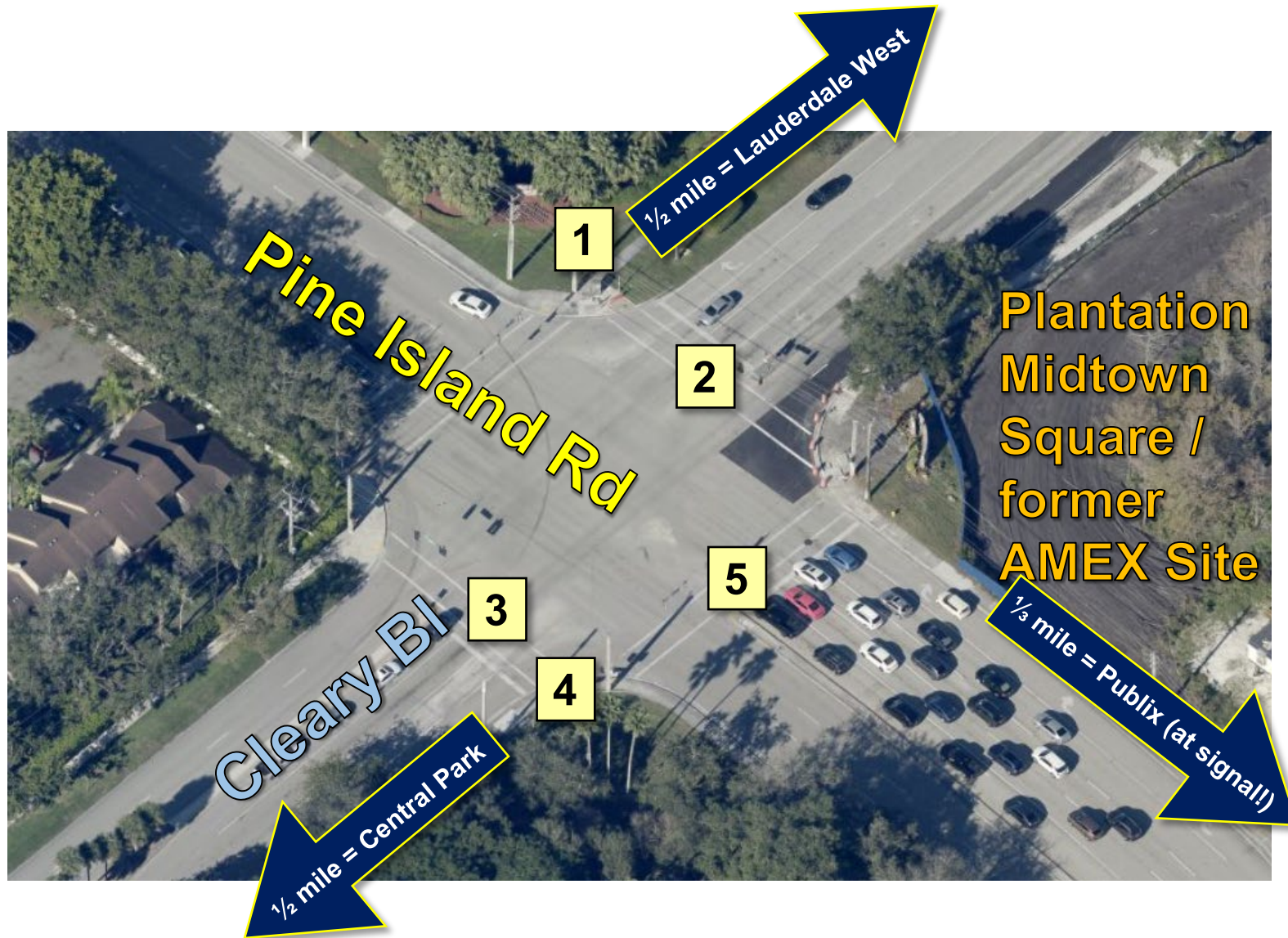
Crash Severity

- Non-Incapacitating Injury
- Possible Injury
- No Injury
- Multipoint

Cleary Bl: Hiatus Rd – 9/23/2022



Cleary Bl: Pine Island Rd = County Owned

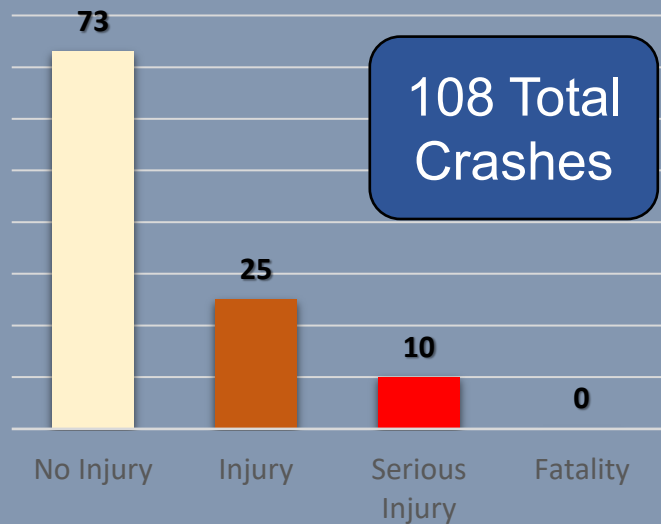


Observations	
1	Two pedestrian signals (mis-marked)
2	All crosswalks have conventional markings
3	Western crosswalk is located outside of SB drivers' visibility
4	Poor visibility of SB traffic from EB to SB right turn lane
5	Insufficient time to cross roadway
Several pedestrians observed during mid-morning visit	
Jaywalking observed south of intersection	
No bike paths on Cleary Blvd	

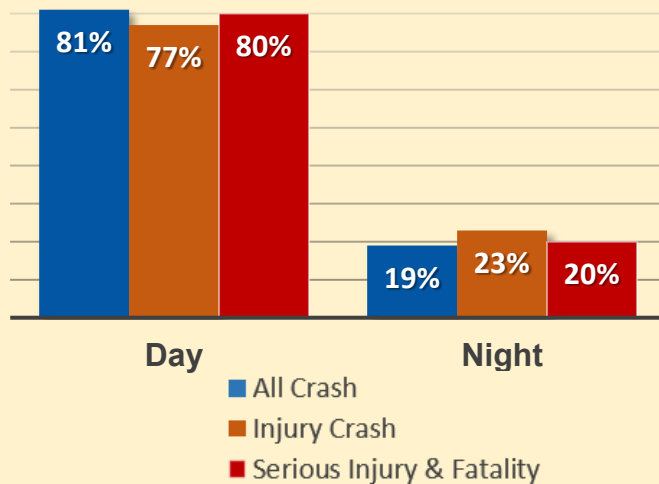
Cleary Blvd & Pine Island Rd - Crash Stats & Trends

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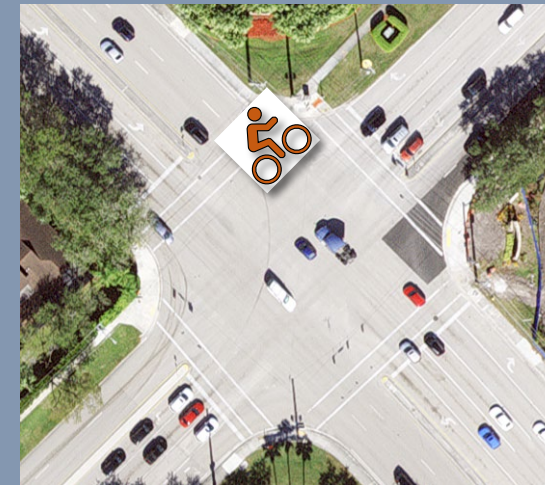
Crash by Injury Type



Day vs Night

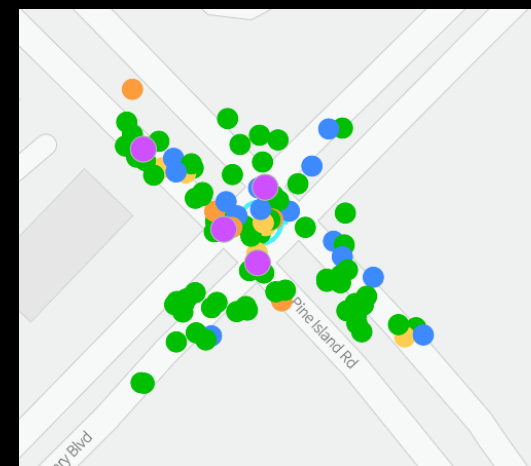
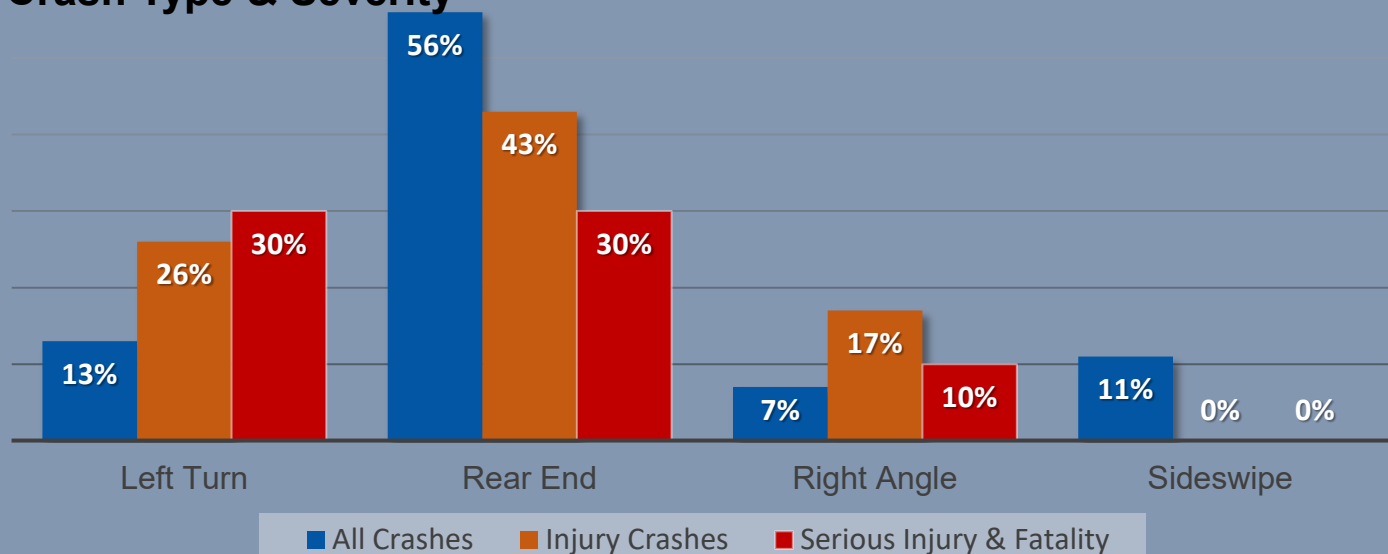


20% of Injury Crashes occurred on wet roads



Nov 2018 • 4 pm • Driver failed to yield to bicyclist • After crash the CSA inspected crosswalk signs and the signs were stuck on red hand for the east / west crossing on northern crosswalk

Crash Type & Severity



Crash Severity

- Non-Incapacitating Injury
- Possible Injury
- No Injury
- Multipoint

Cleary Bl: Pine Island Rd – 9/23/2022

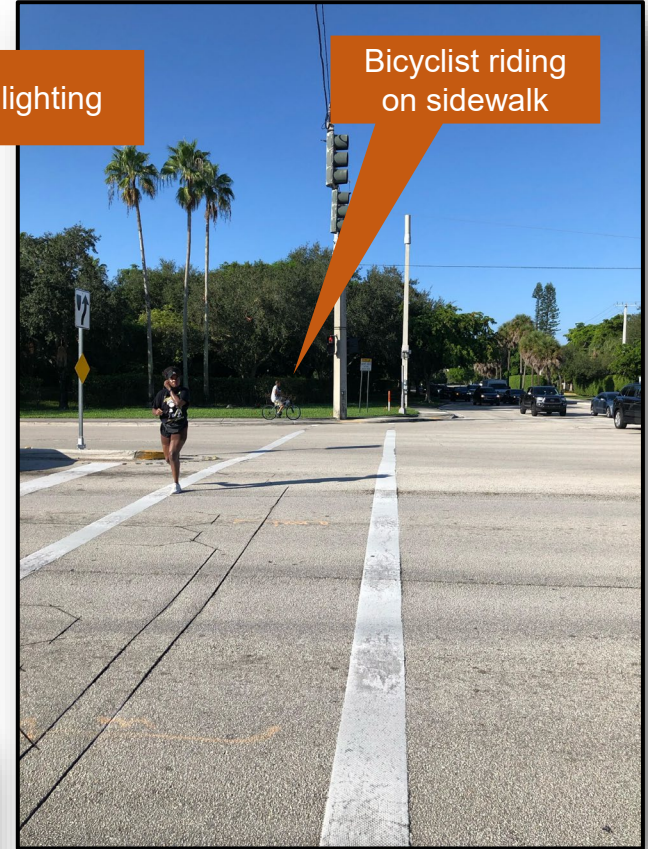


Eastern crosswalk / Conventional markings

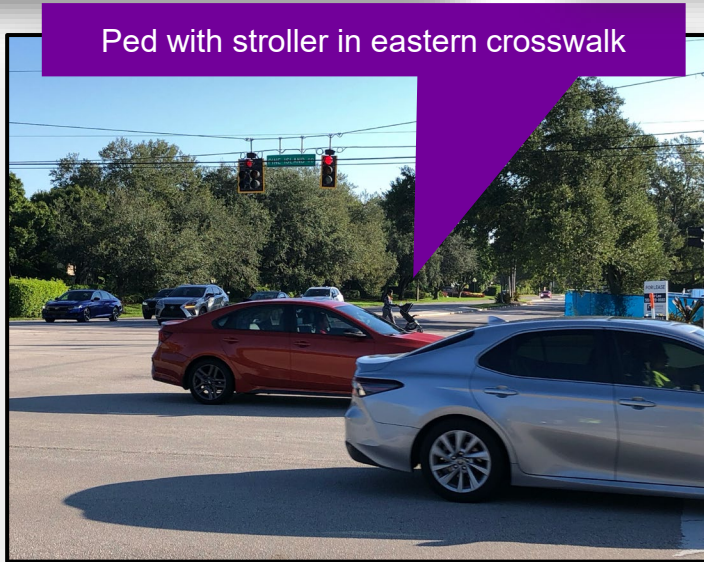


Western crosswalk is not visible to SB traffic

No Ped-scale lighting



Bicyclist riding on sidewalk

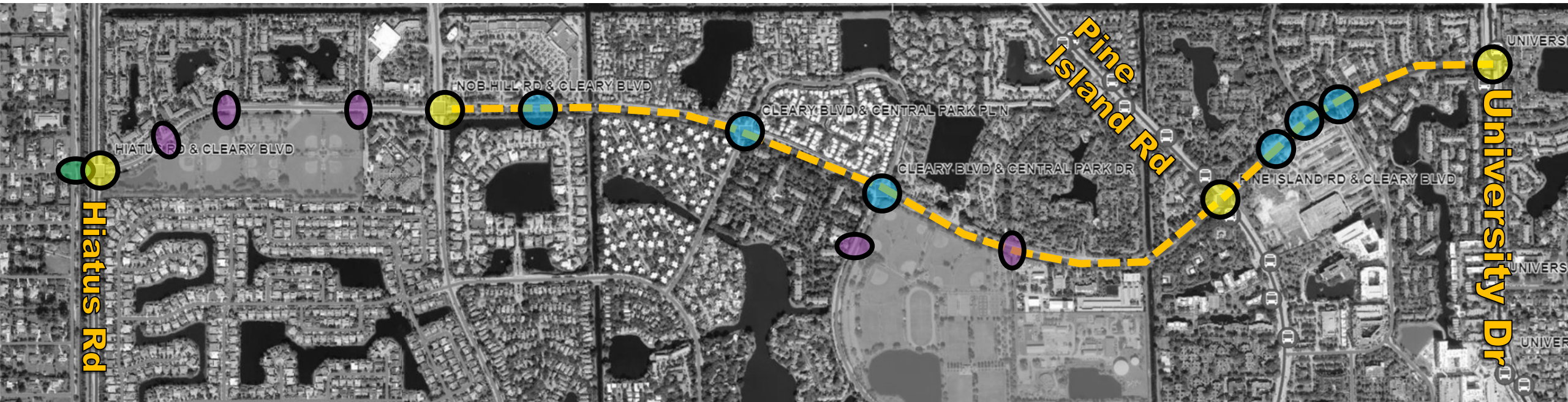







Ped with stroller in eastern crosswalk



Bicyclist jaywalking south of intersection

Cleary Bl: Preliminary Long-term Vision

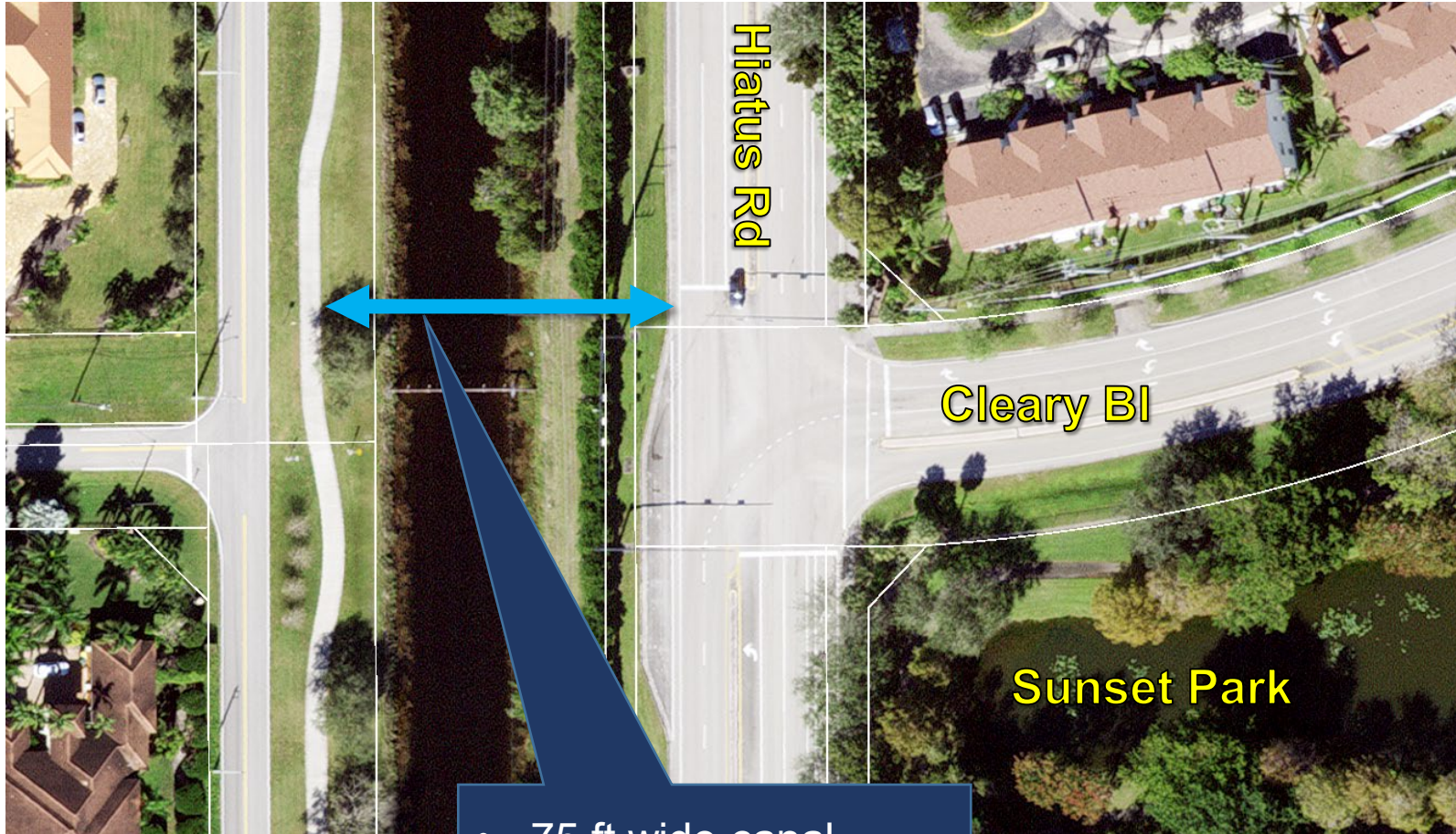


-  Pedestrian Bridge over canal
-  Intersection Improvements to improve safety for all roadway users
-  Mid-block crosswalk (access to City Parks)
-  Roundabout: Including crosswalk, Ped Scale Lighting
-  Lane Repurposing: Road Diet, lower speed limit, widen sidewalk, separated & protected bike facility

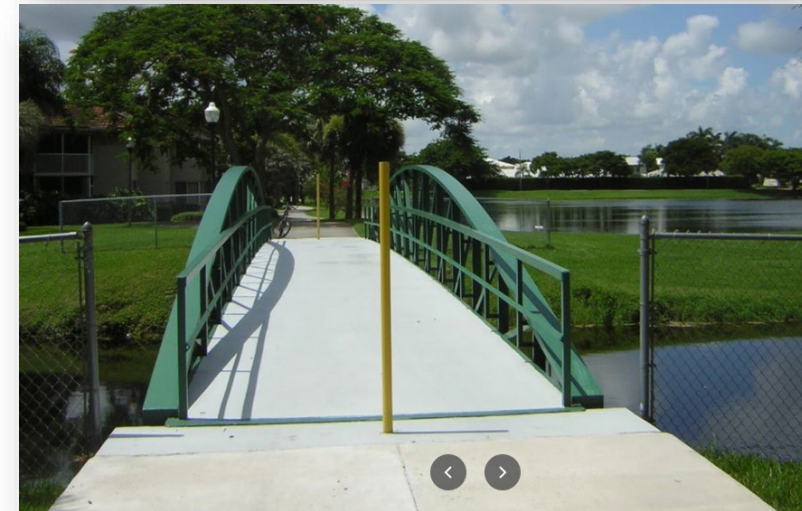
County Projects:

- Canal Greenway: Controlled Crossing at Sunrise Blvd (2028)
- Hiatus Rd Lighting Surtax project (L17): from Broward Blvd to Sunrise Blvd - Design to begin soon
- Pine Island Rd Improvements: Mast Arm Conversion (year 2045), Adaptive Traffic Signal Technology – Design to begin soon

Cleary Bl @ Hiatus Rd Canal: Pedestrian Bridge Examples



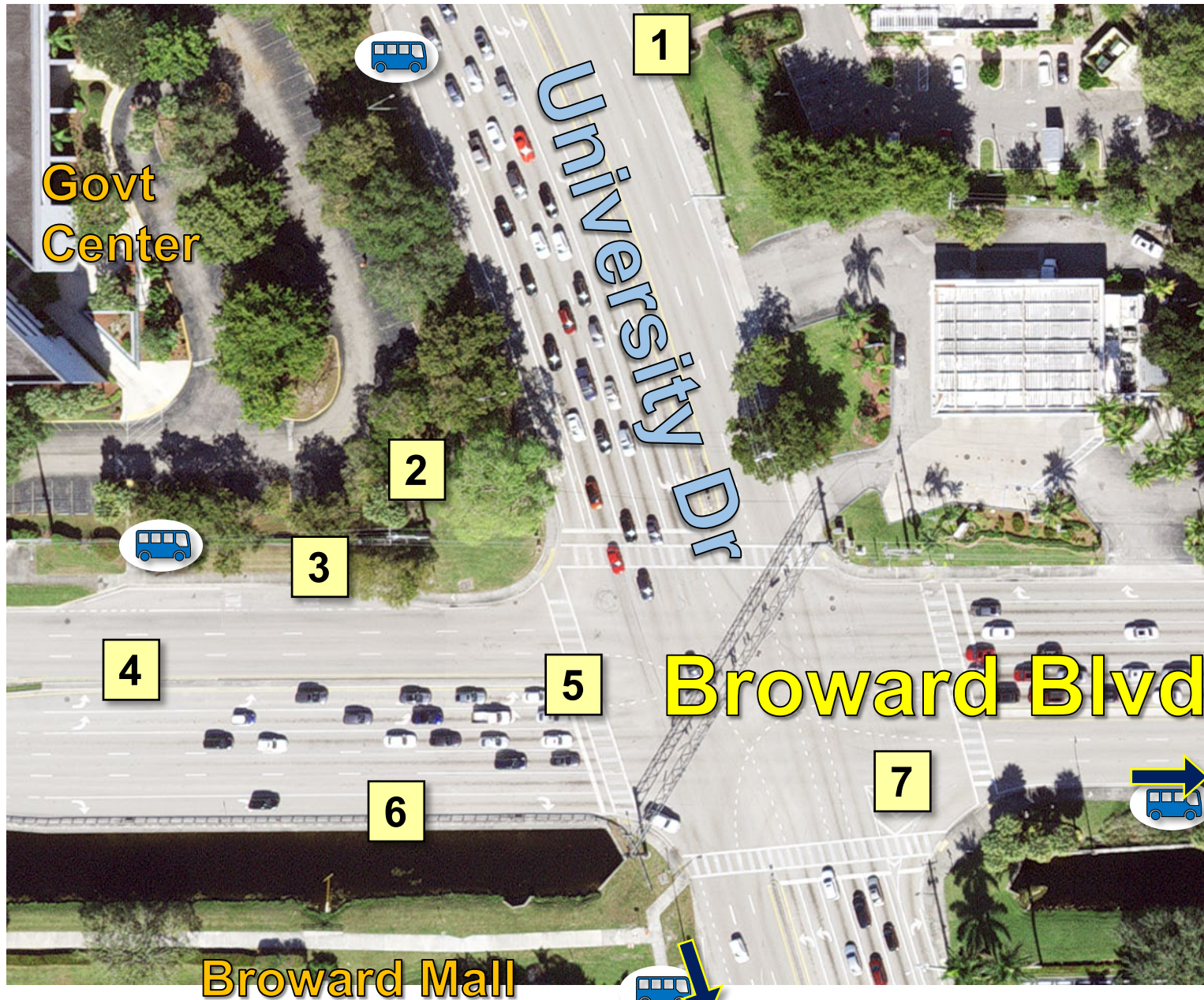
- 75 ft wide canal
- 165 ft from curb to sidewalk



N. University Dr

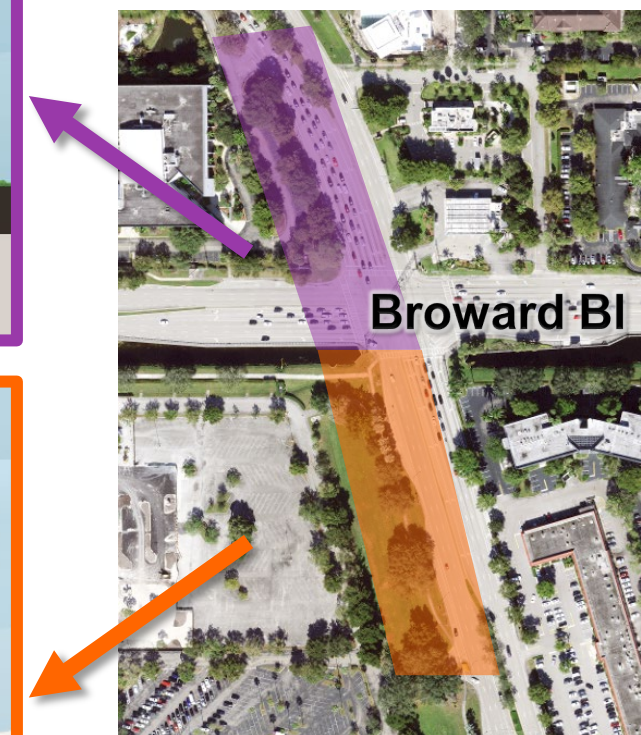
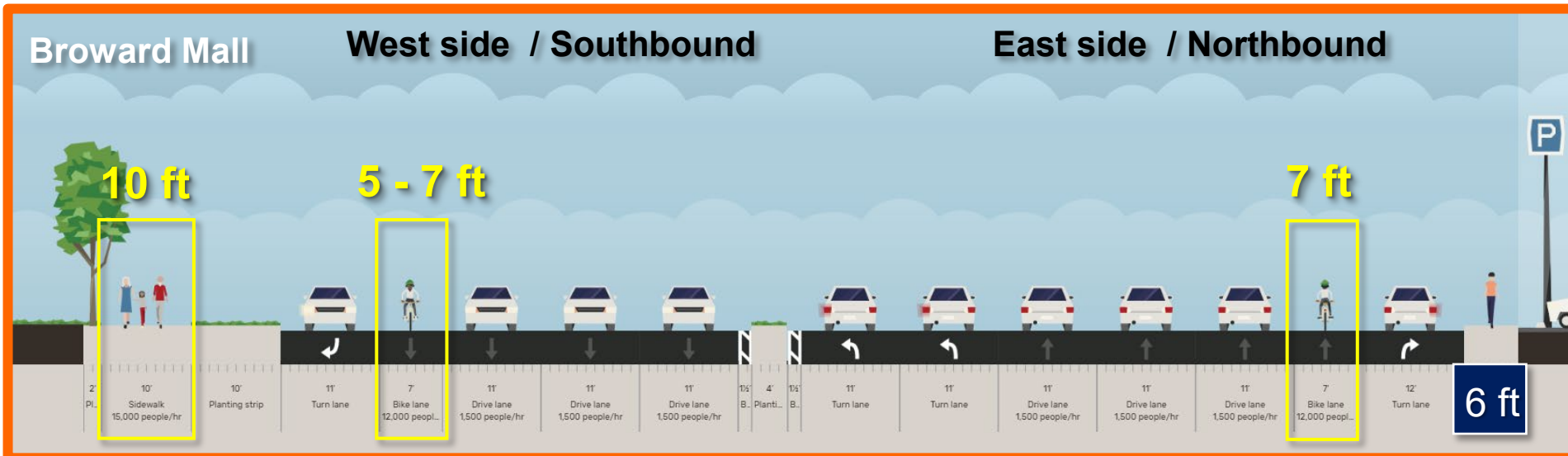
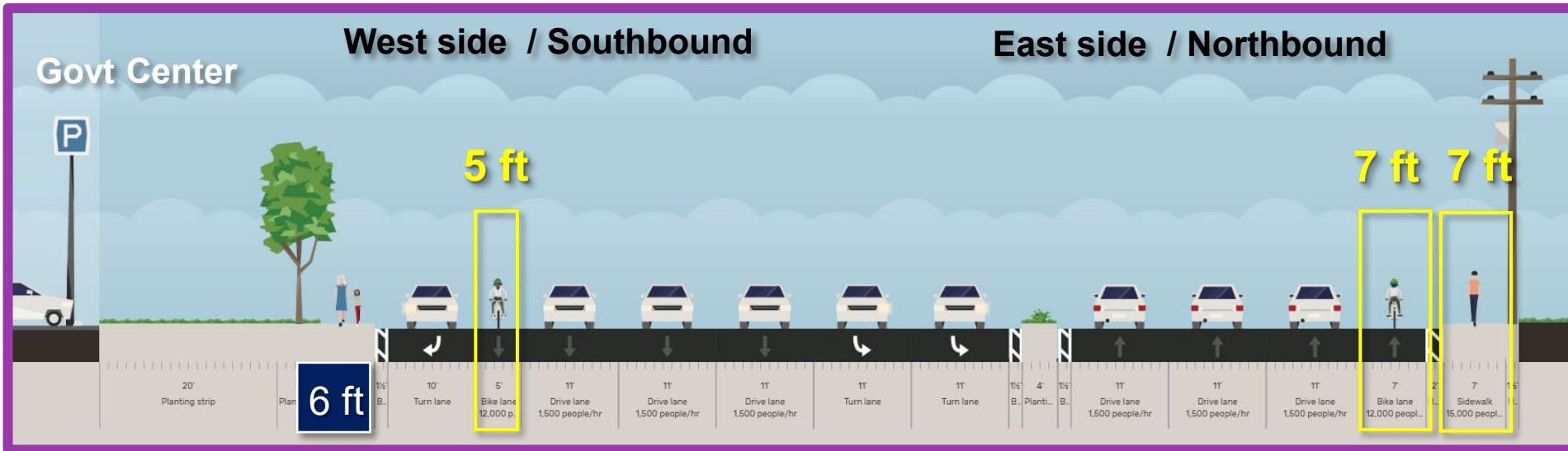
Broward Blvd to Northern City Limits ● 120 ft ROW ● Broward County
Trafficways = 200 ft Arterial ● 2.1 miles ● 6 travel lanes ● 45 MPH ● BCT
Routes 2 and 81 (22 and 36) ● LOS C

University Dr: Broward Bl = County owns roadway west of intersection

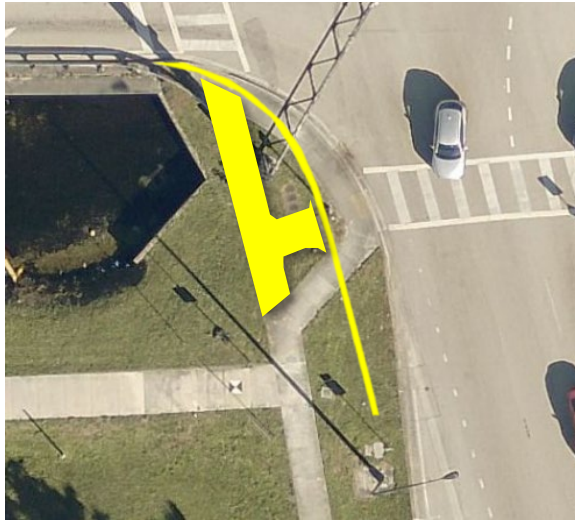


Observations	
1	Jaywalking adjacent to BCT Bus Stop and to Pollo Tropical
2	Well-worn path in areas adjacent to hedges
3	Bicyclists seen primarily riding on sidewalks (no bike path on Broward Blvd)
4	Jaywalking west of intersection from BCT stop on Broward Blvd to BCT stop on S. University Dr
5	All pedestrians crossing north / south observed in western crosswalk
6	No sidewalk on southside of Broward Blvd (only on Greenway)
7	NB / EB right turn continuous flow
BCT Bus Stop locations are set back from intersection and appear to be the destination for many jay walkers	

FDOT Improvements to University Drive

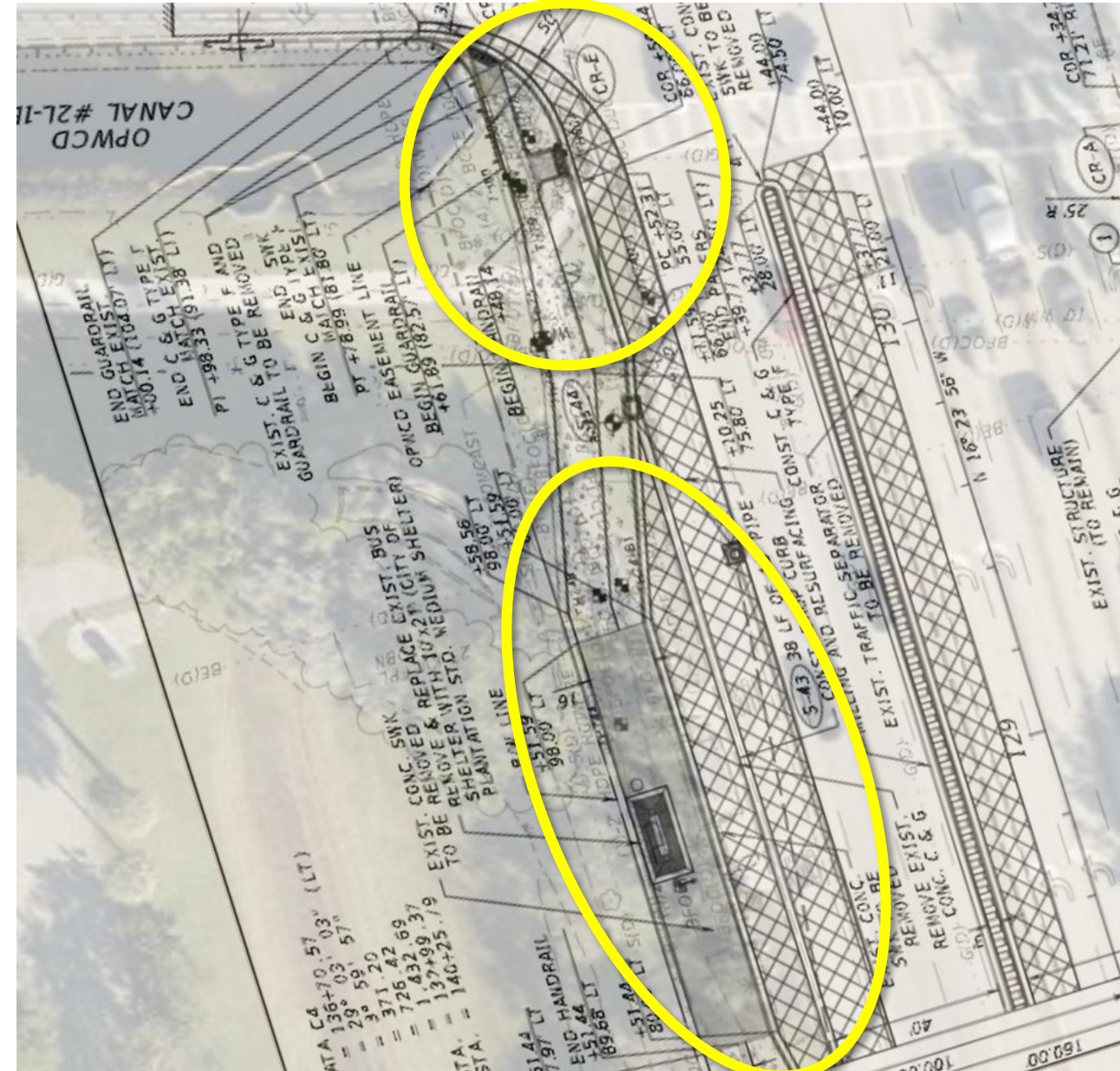


FDOT Improvements to University Drive



Most significant changes:

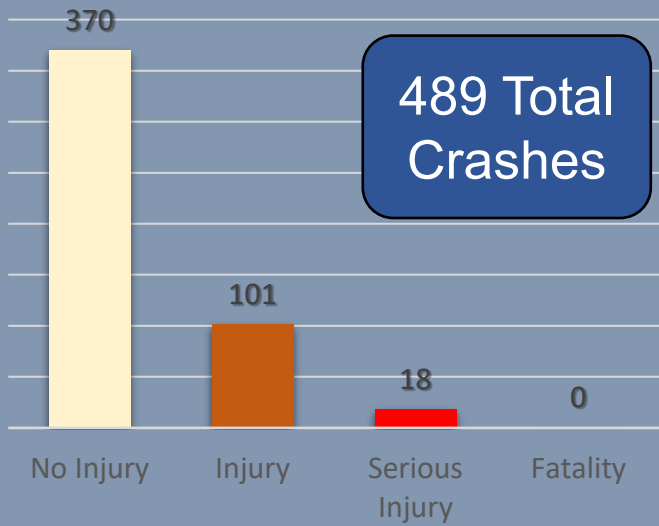
- Southwestern corner – roadway widened
- Raised median is shifting approx. 3 feet west
- New / realigned sidewalk leading to corner curb
- Bus bay shifts approx. 10 feet west
- Sidewalk expands to 10 ft wide



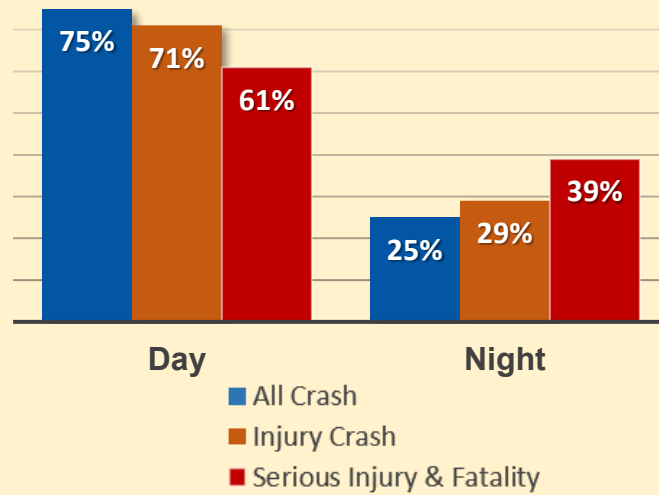
University Dr & Broward BL - Crash Stats & Trends

Signal 4, 2015 to 2021, 150 ft from Intersection

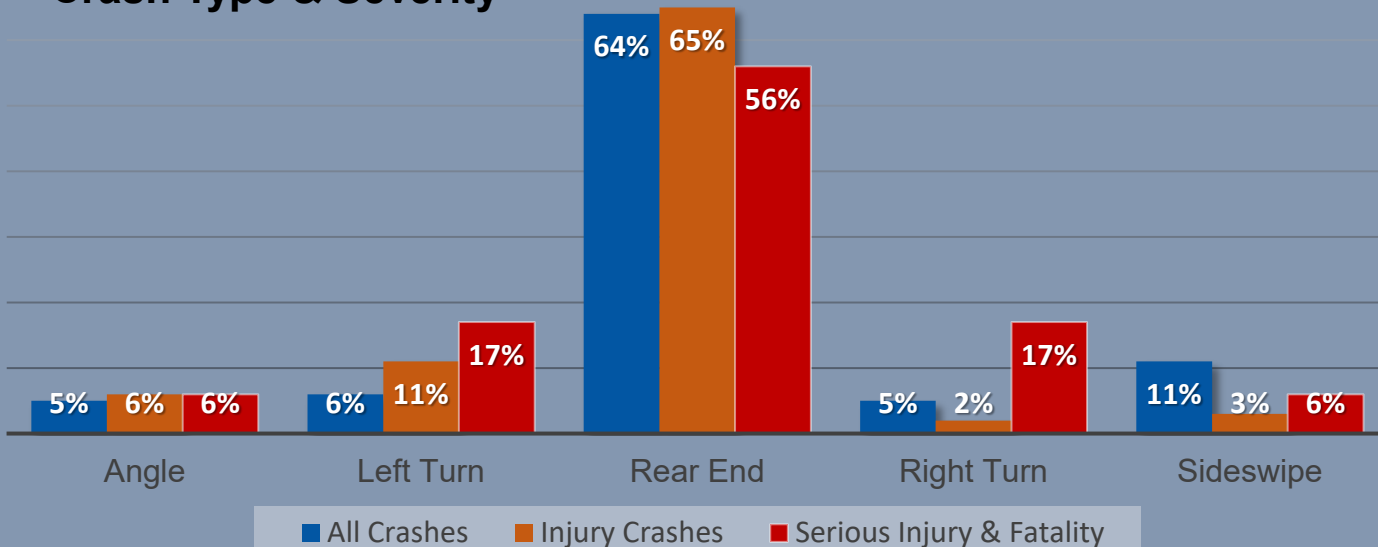
Crashes by Injury Type



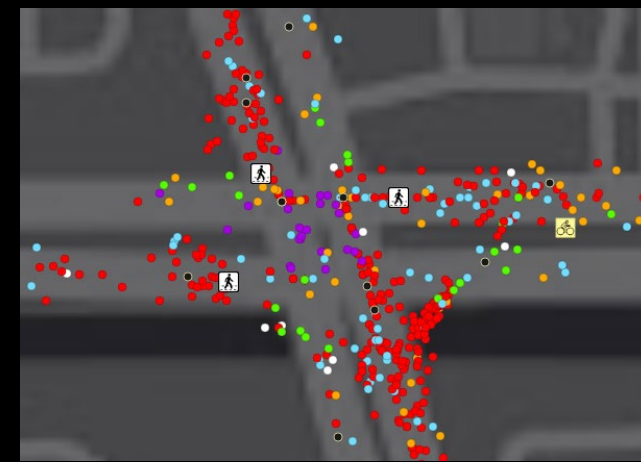
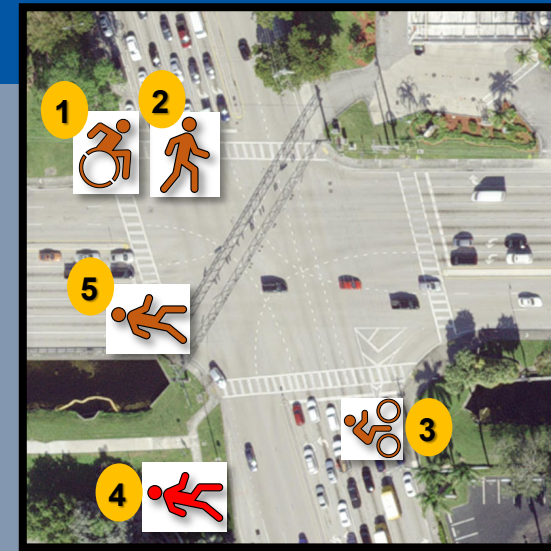
Day vs Night



Crash Type & Severity



1	Injury • Motorized Wheelchair • Dec 2016 • 1 pm • Driver fault • WB RT driver failed to yield at red light and struck wheelchair in crosswalk
2	Injury • June 2019 • 6 pm • In crosswalk • Unknown fault • WB RT driver struck pedestrian
3	No Injury • Jan 2016 • 11 pm • Bicyclist fault • Rode in bike lane through red light
4	Serious Injury • Ped @ BCT Stop • Aug 2020 • 1 pm • SB RT driver ran off road and struck BCT Shelter
5	Injury • Dec 2018 • 7:30 am • Driver fault • SB RT driver struck pedestrians in crosswalk



- Rear End
- Sideswipe
- Angle
- Left Turn
- Right Turn
- Off Road
- Bicycle
- Pedestrian
- Other

University Dr: Broward Blvd – 9/20 & 30/2022



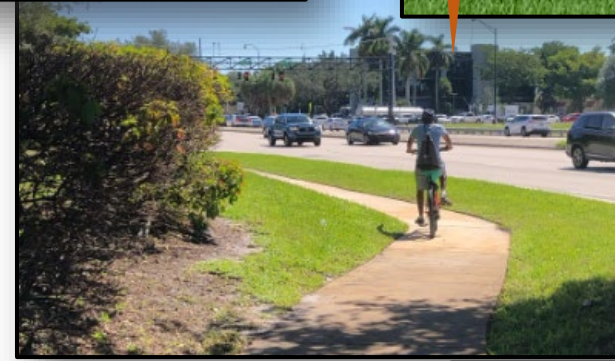
Bicyclists riding on north sidewalk on Broward Blvd



SW Corner



Ped's crossing in western crosswalk



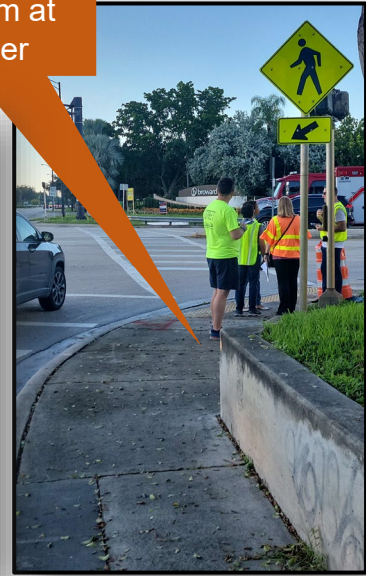
Walled berm at NW Corner



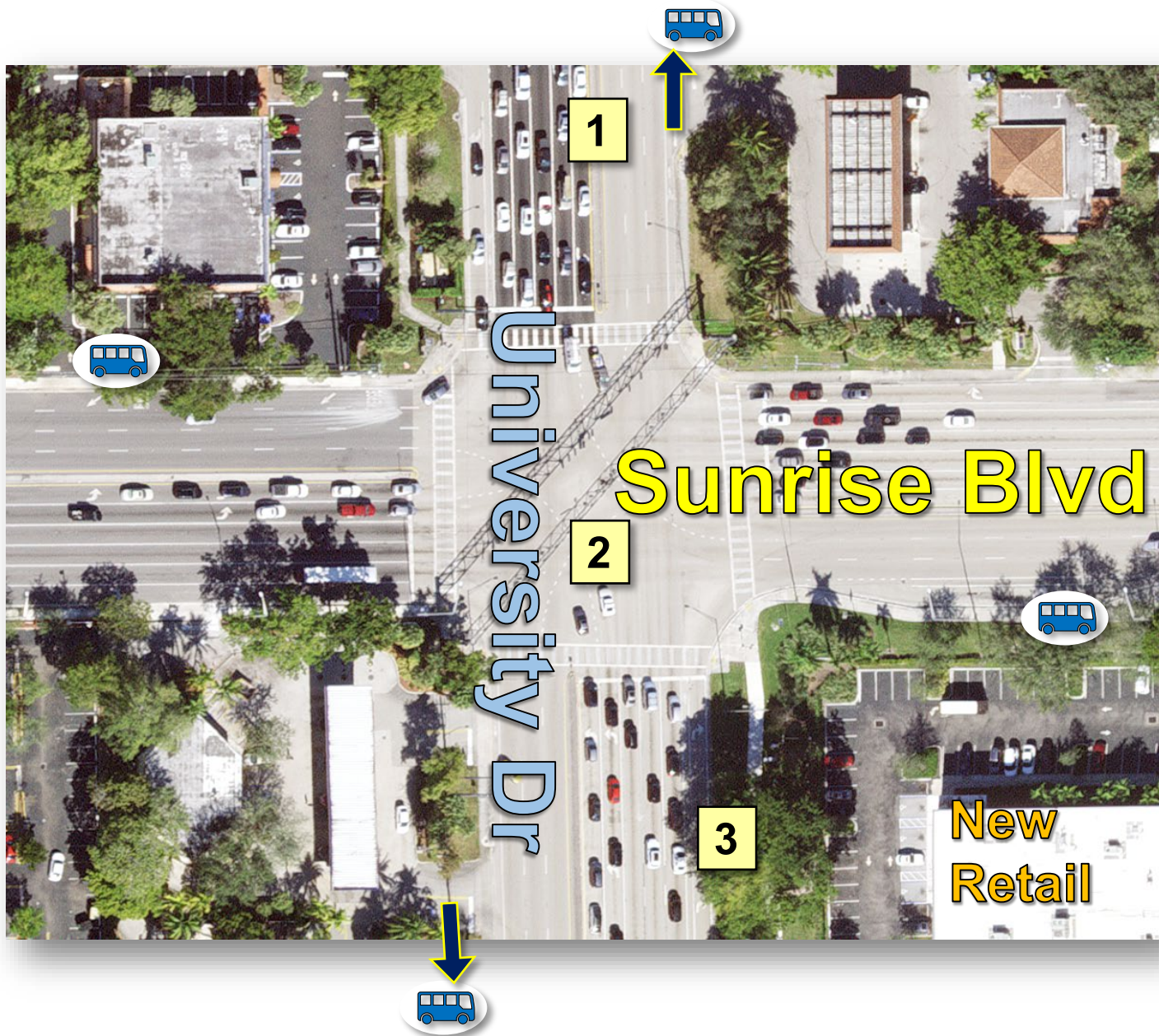
Jaywalking to / from BCT Bus Stops



Well-worn path within NW ROW



University Dr: Sunrise Bl = County Owns roadway west of intersection

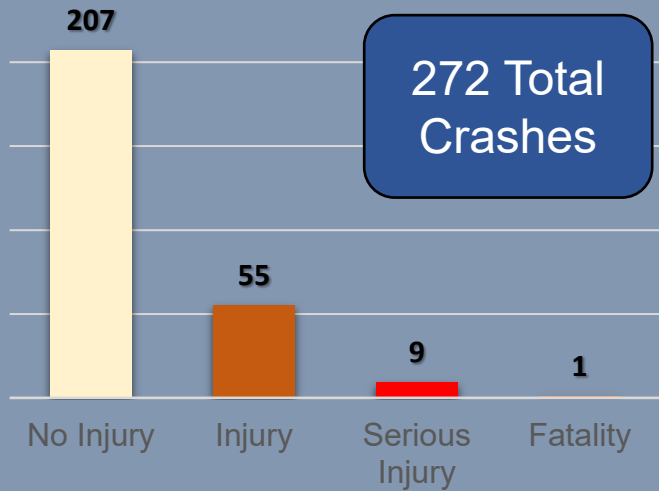


Observations	
1	Traffic congestion heading north
2	No U-turns permitted
3	No pedestrian access into retail area / pedestrians walk through landscaping
MANY pedestrians and transit riders observed during morning visit (in western crosswalk)	
Bicyclists observed riding in bike lane and on sidewalks	
Jaywalking observed both north and south of intersection during morning visit (often in adjacency to BCT Bus Stops)	

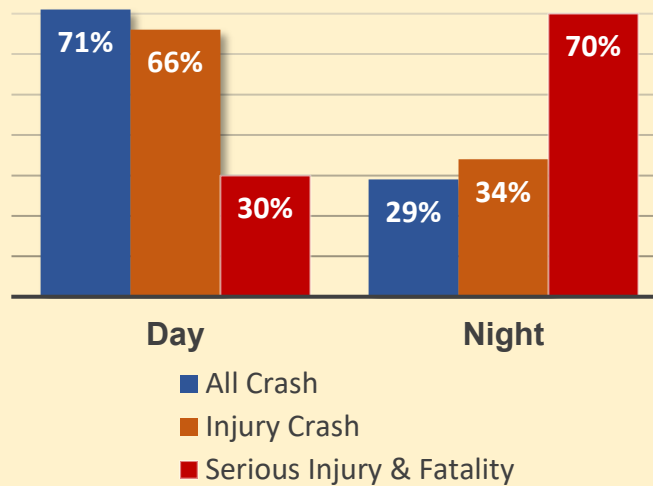
University Dr & Sunrise Bl - Crash Stats & Trends

Signal 4, 2015 to 2021, 150 ft from Intersection

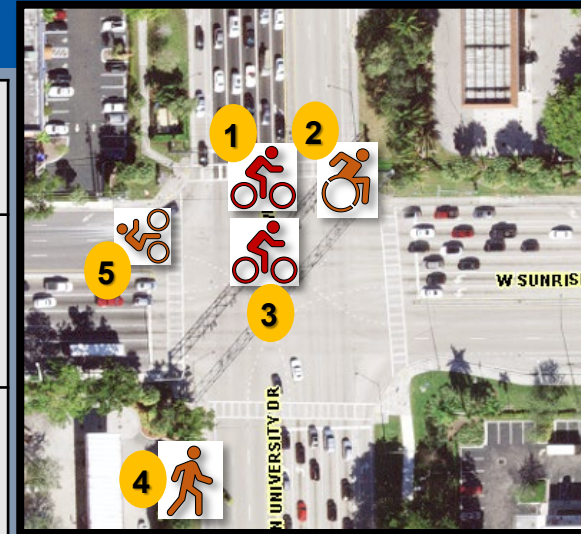
Crashes by Injury Type



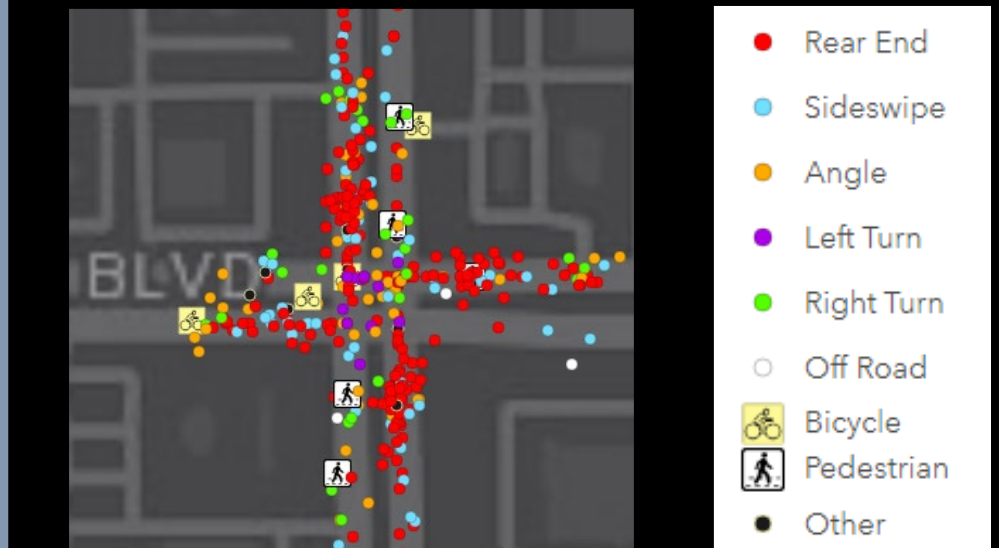
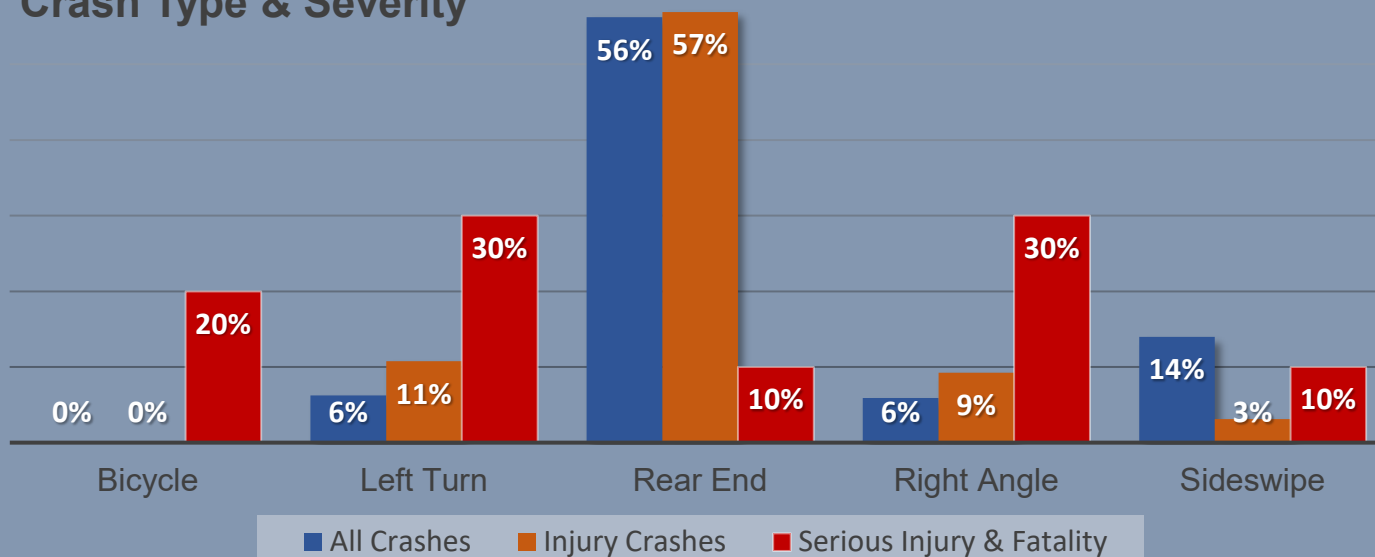
Day vs Night



1	Serious Injury • Jan 2016 • 11 am • Bike Fault: In crosswalk, rode on green
2	Injury • Motorized Wheelchair • July 2018 • 3pm • Unknown Fault • In crosswalk • Struck by NB / RT vehicle
3	Fatality • May 2016 • 5 am • Unknown Fault: Bike riding in crosswalk was struck by SB vehicle
4	Injury • Jun 2019 • 9 pm • Ped fault: Jaywalking and struck by SB vehicle
5	Injury • Apr. 2021 • 3pm • Driver Fault: Bike riding in crosswalk was struck by LT Vehicle



Crash Type & Severity



University Dr: Sunrise Blvd – 9/21 & 22/2022

In bike lane, in the rain!



HS Students

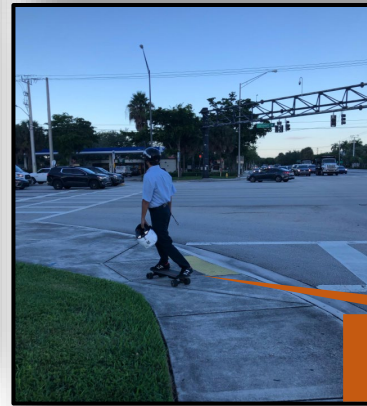
Jaywalking to / from BCT Stops



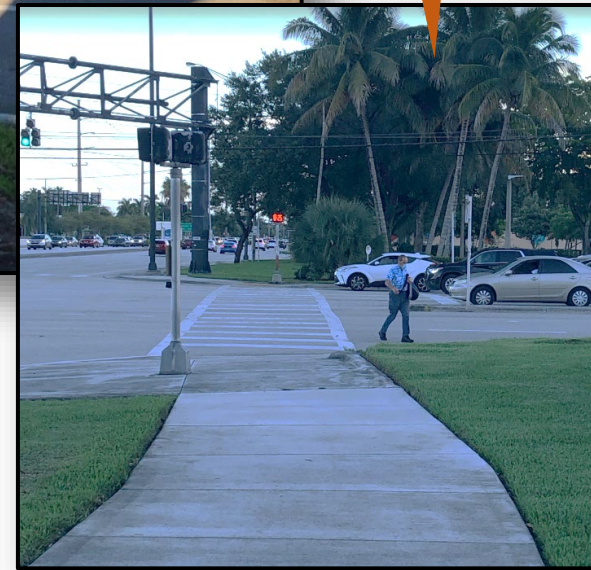
Riding on sidewalk



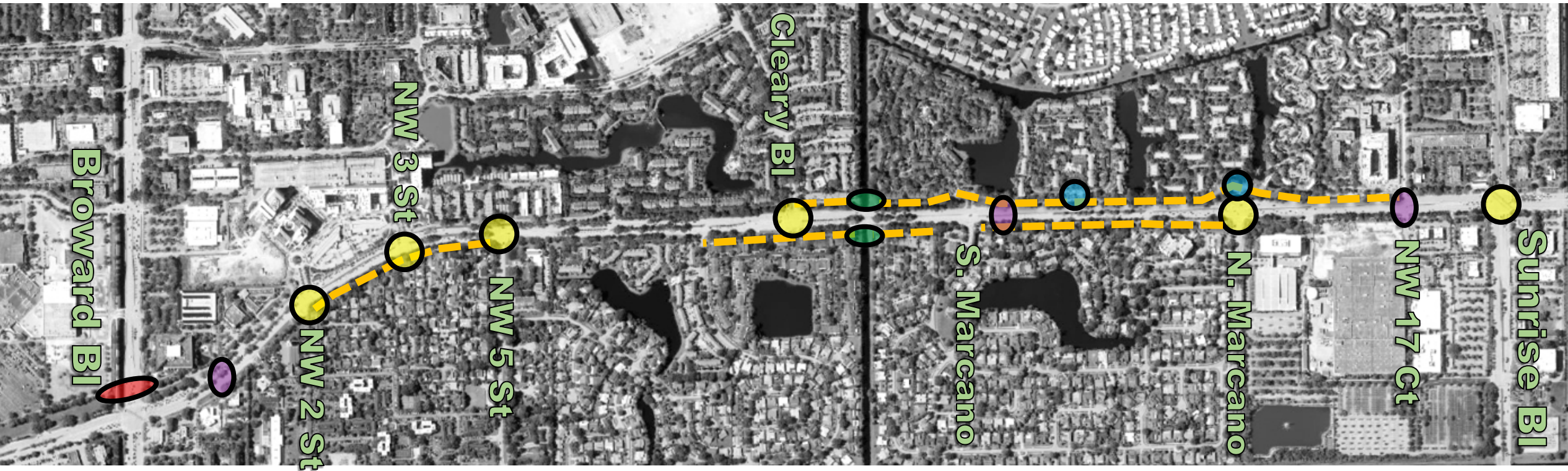
Crossing on Red



Skateboard



University Dr: Very Preliminary Long-term Vision



● Pedestrian Bridge

● Pedestrian Bridge over canal

● Intersection Improvements to improve safety for all roadway users

● Signalized Mid-block crosswalk

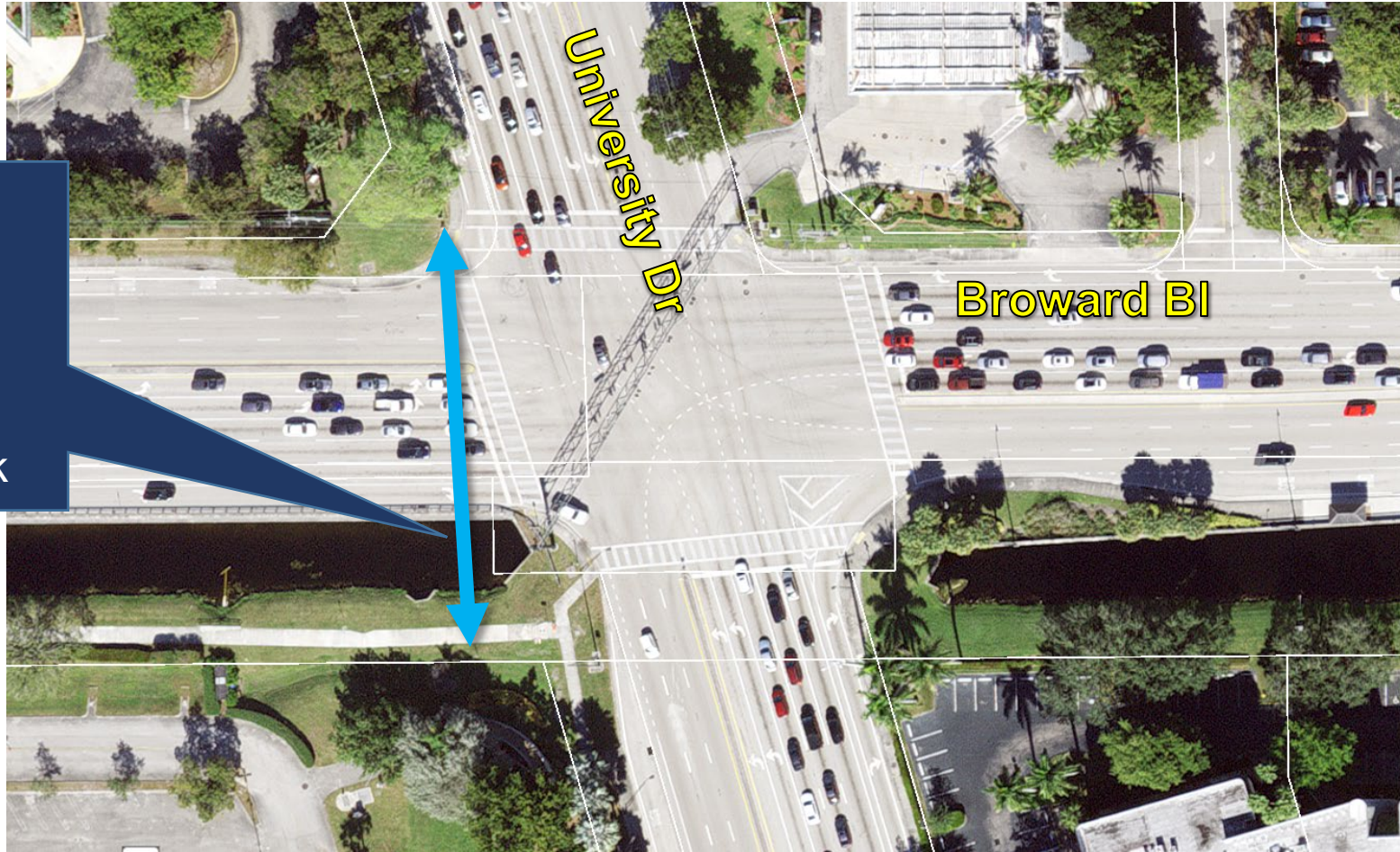
● Mini-Roundabout within City ROW

--- City ROW Repurposing: widen sidewalk, traffic calming, separated & protected bike facility, Ped-scale lights

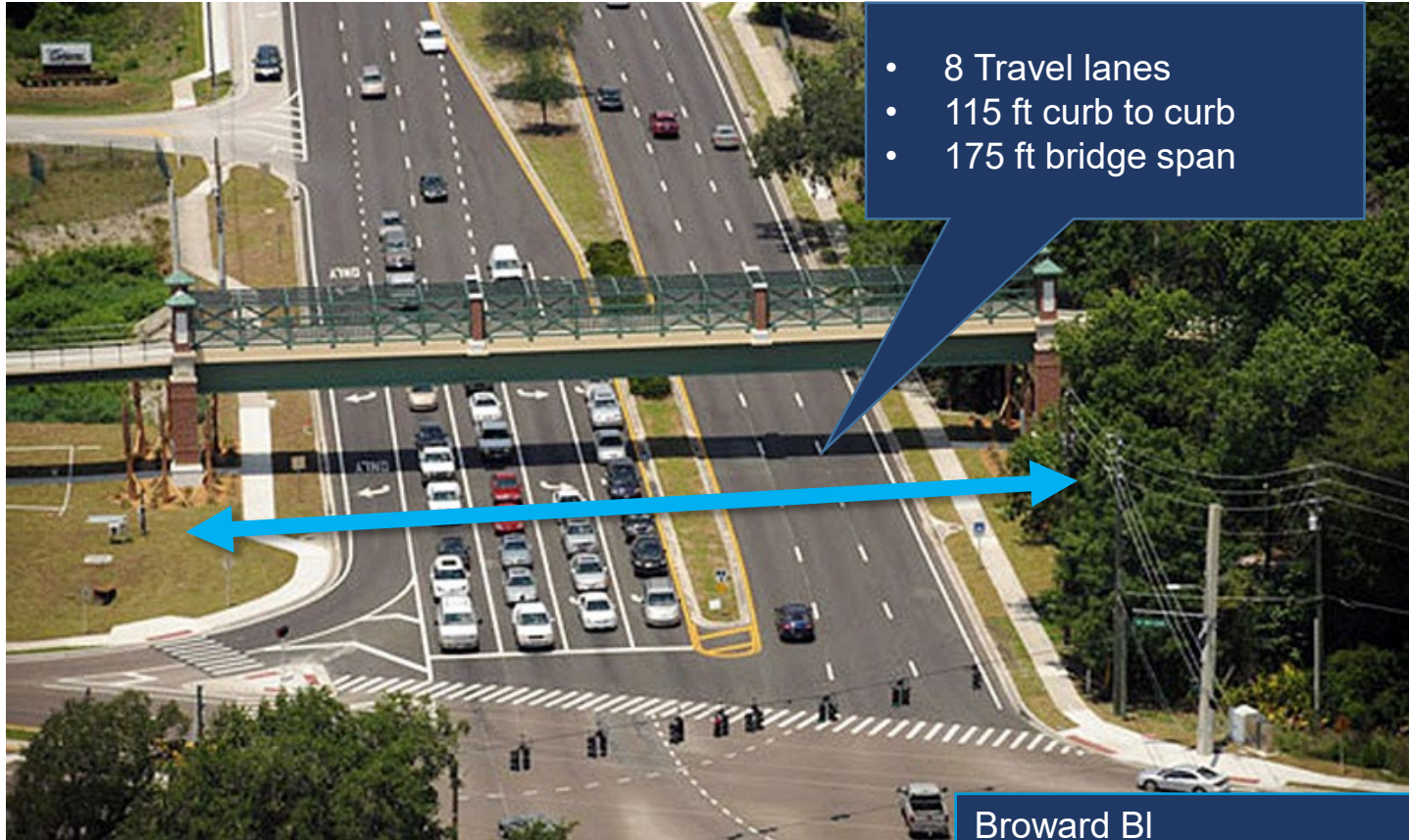
Broward BI & University Dr: Pedestrian Bridge Examples

Broward BI

- 9 Travel lanes
- 110 ft curb to curb
- ~210 ft from crosswalk to greenway sidewalk



Pedestrian Bridge: Red Bug Lake Road Cross Seminole Trail Overpass, Casselberry, FL



- 8 Travel lanes
- 115 ft curb to curb
- 175 ft bridge span

<https://www.google.com/maps/@28.6556512,-81.226873,3a,75y,160.97h,97.64t/data=!3m6!1e1!3m4!1s7WeEL7LnNSX9YobN48INXw!2e0!7i16384!8i8192?hl=en>

Broward Bl

- 9 Travel lanes
- 110 ft curb to curb
- ~210 ft from crosswalk to greenway sidewalk



Pedestrian Bridge: Colonial Drive Pedestrian Overpass, Orlando, FL



- 8 Travel lanes
- 115 ft curb to curb
- \$9.2 Million

<https://www.google.com/maps/@28.5532763,-81.3804052,3a,75y,261.33h,85.28t/data=!3m6!1e1!3m4!1sSviZ34J7w8RIZiUczn5u0A!2e0!7i16384!8i8192>

Broward Bl

- 9 Travel lanes
- 110 ft curb to curb
- ~210 ft from crosswalk to greenway sidewalk



- Stairs to/from SR-50
 - Providing direct access to SR-50 from the bridge
 - Increasing connectivity with SR-50 sidewalks
 - Discouraging pedestrian crossing at grade
- Railings:
 - Single handrail at each side of bridge span



Project Schedule: City Working Group Meetings



Discussion



Move People & Goods | Create Jobs | Strengthen Communities

MMTP Phase 2 Mid / Long-term Improvements

Meeting with Broward County

October 4, 2022