

City of Plantation Multimodal Master Transportation Plan Technical Memo #1

**Draft Date:
August 1, 2022**

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Chapter 1: Introduction



Chapter 1: Introduction

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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 Planation 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.

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.

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



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Chapter 2: Project Approach



Chapter 2: Project Approach

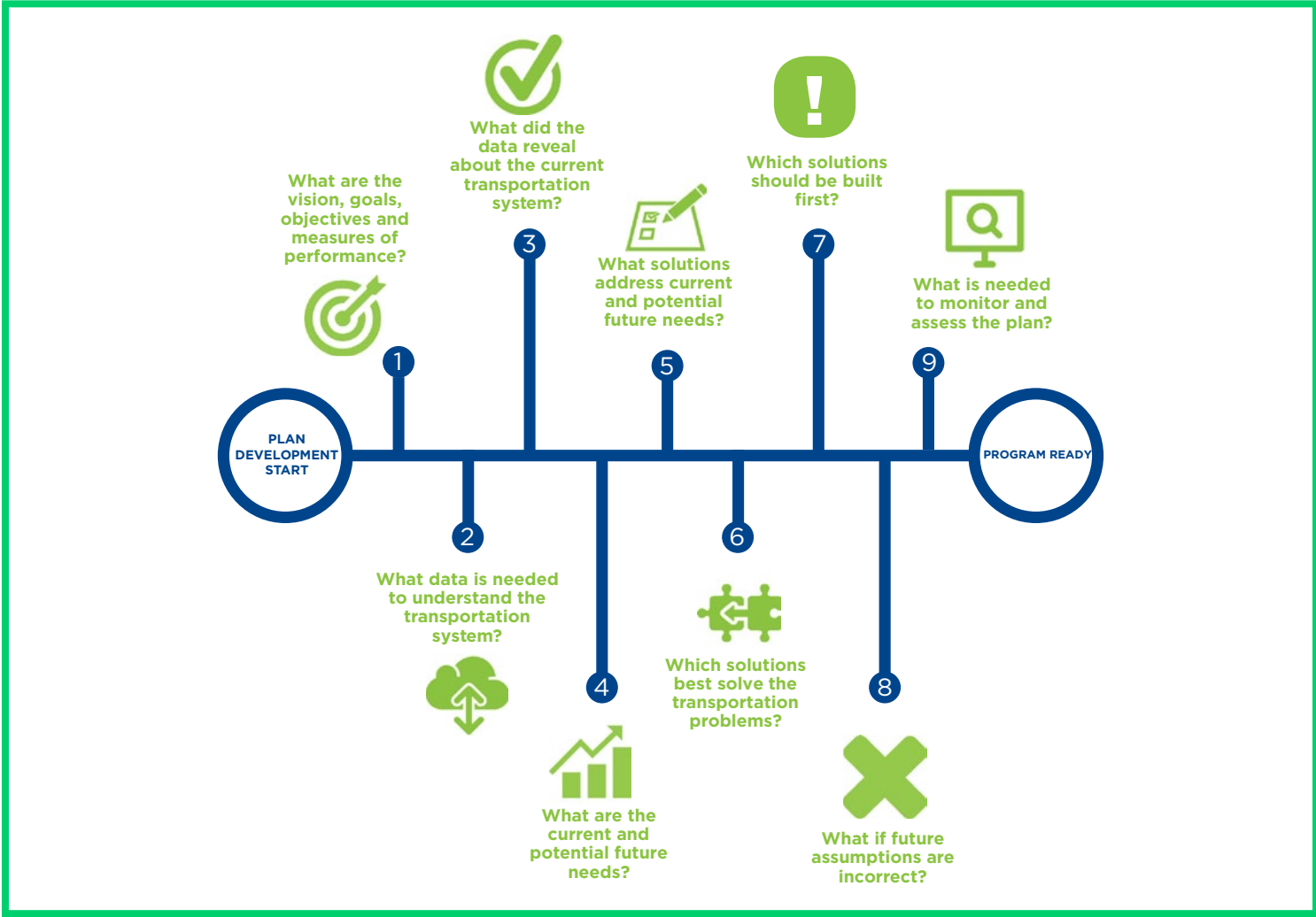
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Introduction

This chapter describes the multifaceted project approach for the development of the high-level multimodal needs assessment, and the recommended short-term improvements. To address the City’s multimodal transportation needs, the MMTP was guided by an integrated technical approach described in this Chapter. Overall, the planning approach was consistent with the “How to Develop a Transportation Plan” process described in the Broward Metropolitan Planning Organization (“Broward MPO”) Transportation Planning Guidebook (January 2018). This step-by-step process was utilized to ensure the recommendations were data-driven and community supported.

Collaboration



Broward MPO

The MMTP is a result of a collaborative, facilitated partnership between the City of Plantation and the Broward MPO. The Broward MPO collaborates with its partner governments in their efforts to plan, prioritize, and fund diverse transportation options. Throughout the development of the MMTP, Broward MPO Staff facilitated meetings, provided project management support, assisted with stakeholder engagement, and prepared planning documents.

City Staff Working Group

A City Staff Working Group was created at the outset of the MMTP. It included representatives from the following City Departments: Engineering, Planning, Zoning, & Economic Development, City Administration, Public Works, and Police Department.

City Staff Working Group meetings were held on the following dates to discuss the listed topics:

- September 14, 2021: Project Kick-Off
- October 12, 2021: Guiding Themes / Selection of Focus Roadways
- November 9, 2021: Existing Conditions Progress
- January 12, 2022: Selection of Focus Locations
- April 7, 2022: Short Term Recommendations Workshop #1
- April 26, 2022: Short Term Recommendations Workshop #2

A copy of the Staff Working Group meeting presentations is included in Appendix, Section A.

“How to Develop a Transportation Plan” process described in the Broward MPO Transportation Planning Guidebook (January 2018)

Chapter 2: Project Approach

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Data Collection and Analysis

The data collection and analysis effort provided a detailed assessment of the existing multimodal environment and helped to identify which short-term improvements were needed, possible, and appropriate.

Existing Plans and Studies

One of the first steps in the development of the MMTP was an analysis of existing planning reports and studies relevant to the city’s existing and planned transportation system. These included studies by the City and from other government agencies. Broward MPO Staff facilitated meetings, provided project management support, assisted with stakeholder engagement and prepared planning documents.

Following is a list of the reviewed plans and studies:

City of Plantation:

Zoning Code • Zoning Map • Comprehensive Plan • Annual CIE FY 2020-21 Update (2020) • Future Land Use Plan Map • Plantation Midtown District Conceptual Master Plan (2016) • Midtown Bridge PD&E Study (ongoing) • Parks & Recreation Master Plan (2020); Development Projects (Summer 2021) • Plantation Gateway CRA Community Redevelopment Plan (2006) • Public Outreach Meeting Presentations for “Proposed Cypress Road Sidewalk Improvement Project” and “Citywide Traffic Calming Project: NW 11th Place & Cypress Road” (2021) • Community Shuttle approved routes • Numerous site plans.



City of Plantation Parks & Recreation Master Plan (2020)

City of Plantation Police Department:

Traffic Citations • Approved School Drop-Off and Pick-Off Routes for Central Park Elementary and Plantation Elementary Schools (2021)

Broward County:

Transit System Map and Route Maps • Transit Development Plan Annual Update 2021 – 2030 • Broward NEXT • Broward County Trafficways Plan (2022)

Broward MPO:

2045 MTP • Complete Streets Master Plan; Sunrise Blvd Study (2003) • Broward Blvd Corridor Transit Study (2012) • Midtown Plantation Livability Study (2012) • University Drive Study (2015) • 441 Multimodal Study (2015) • Bike & Ped Safety Plan (2018) • Plantation Mobility Hub (2020)

Florida Department of Transportation (FDOT):

Arterial Connectivity Study along I-595 Corridor (2020) • Transit Improvements for SR 7 / US 441 • Safety Study SR 838 (Sunrise Boulevard) and NW 43rd Avenue Section No. 86110000, Milepost 3.720 • SR 817/University Dr from SR 84 to NW 1st Street Mobility Improvements Project • SR 842/ Broward Boulevard Resurfacing, Restoration and Rehabilitation (RRR)



FDOT Arterial Connectivity Study along I-595 Corridor (2020)

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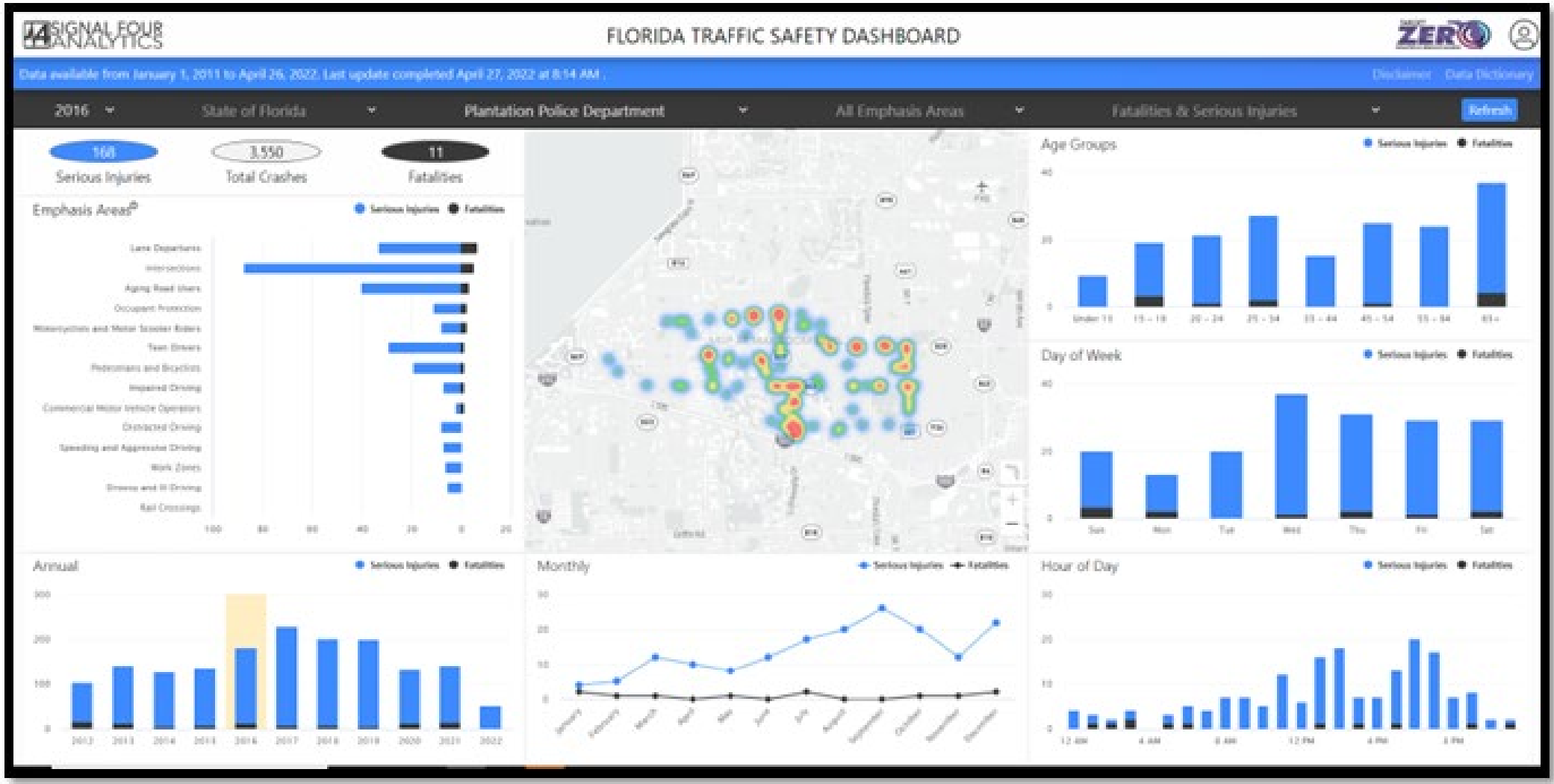


Crash Data

In order to identify crash causes and trends, data from Signal Four Analytics was analyzed. Signal Four Analytics is an interactive, web-based system that enables users to map and analyze crashes based on information from the Florida Department of Highway Safety and Motor Vehicles.

Crashes during the period of January 1, 2015 to December 15, 2021 were reviewed. The crash information analyzed included location of crashes, type / severity of injuries, roadway users, crash type (read end, left turn), time and date, lighting conditions, roadway conditions, and a multitude of additional data. The crash data analysis assisted in the selection of focus roadways, identified high-crash locations on the roadways, and informed the recommended short-term improvements. *Highlights from the crash data analysis are included in Chapter 4 and Chapter 5.*

The complete crash data collected from Signal Four Analytics is included in Appendix Section B.



Signal Four Analytics “Florida Traffic Safety Dashboard” depicting data from City of Planation Police Department for the year 2016.

Chapter 2: Project Approach

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Field Audits

Multiple field audits were performed in order to observe, document, and photograph existing conditions of various roadways and locations. Esri ArcGIS Survey123 was utilized during the field audits. This interactive, web-based tool allows data to be collected via cell phone and in response to custom questionnaires.

Four custom questionnaires were developed for the field audits to document the following:

1. Bicycle facilities: including location and condition of bicycle facilities; signage for facilities; lack of bicycle facilities; and observations of where bicyclists were riding.
2. Intersections: including type of infrastructure and control mechanisms; condition of curbs and crosswalks; location and condition of ADA components; and pedestrian facilities
3. Transit facilities: including location, infrastructure, and condition
4. General observations: including location, condition, and obstructions of sidewalks; location of lighting; levels and locations of pedestrian activity; and observations of common jaywalking locations, speeding, and morning drop-off at elementary schools.

The dates, locations, and specific topics of the field audits are as follows:

- November 3, 2021: Cypress Rd, NW 46th Av, NW 5th St (general observations)
- November 12, 2021: Cleary Bl, 84th Av, SW 6th St, SW 78th Av (general observations)
- November 16, 2021: Nob Hill Rd (general observations)
- December 21, 2021: NW 46th Av, NW 5th St (Crime Prevention Through Environmental Design)
- February 3, 2022: Eight city-owned roadways (Afternoon pedestrian activity)
- March 23, 2022: Eight city-owned roadways (Street lighting)

As described in Chapter 3, the information gathered during the field audits was instrumental in identifying focus locations and the short-term recommendations. Summaries of the field audit observations are included in Chapter 4 and Chapter 5.

A copy of the ArcGIS Survey123 questionnaires and photographs taken during the field audits are included in Appendix Section C.



MPO Staff photographing bicyclist riding on sidewalk



MPO Staff observing existing conditions during field audit of SW 6th St



MPO Staff documenting conditions during field audit of NW 46th Av



Bicyclist is observed riding on sidewalk and then crossing street not at crosswalk



Pedestrian observed jaywalking over Cleary Bl near NW 82nd Av

Chapter 2: Project Approach

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Public Engagement

In order to develop recommendations that reflect the priorities and concerns of people who live, work, and visit Plantation, public engagement was conducted throughout the development of the High-Level Multimodal Needs Assessment and Identification of Short-term Improvements.

Web Survey

The first major public engagement effort was a web survey. The web survey was available from October 2021 to February 2022 on SurveyMonkey.com. A total of 672 surveys were completed. The survey requested general information about the respondent, opinions regarding existing multimodal facilities, overall goals for transportation in the City, and opinions on specific multimodal improvements citywide. While the survey was not roadway specific, it did include several questions about Midtown Planation and the area of the City adjacent to US 441.

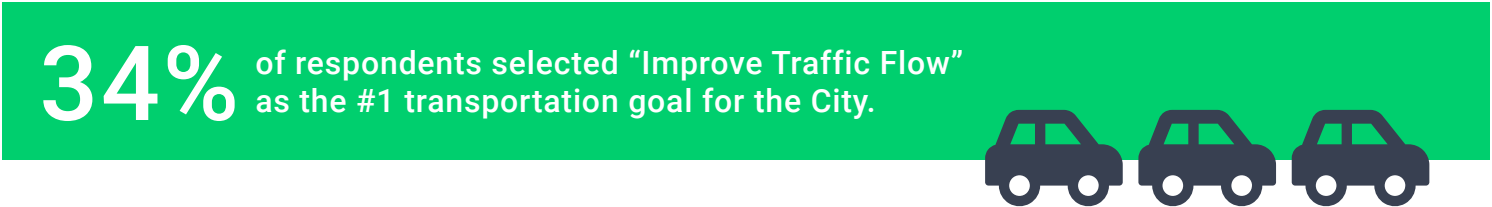
The survey was promoted by the City via social media postings (Facebook, Twitter). Additionally, the Broward MPO staff presented information about the MMTP and survey at two City Advisory Board meetings as follows:

- October 20, 2021: Plantation Gateway Advisory Board
- January 20, 2022: Plantation Midtown Advisory Board

Highlights of the web survey results include:

Question #4 “What should be the primary goals of the Transportation within the City (rank 8 options)”: The top three responses were ranked almost evenly:

1. Improve Traffic Flow
2. Improve Pedestrian Safety and Access
3. Improve Traffic Safety



Question #9 “What are the primary issues and / or concerns for roadways within the City (select all that apply – 13 options)”.

The top two responses were almost evenly selected:

1. Speeding Traffic
2. Too Much Traffic



Social Media promotional graphic for Web Survey



Question #10 “How comfortable do you feel walking in the City of Plantation? (1 star being very uncomfortable to 5 stars being very comfortable)”
The average rating was 3.3 stars



Question #11 “How comfortable do you feel biking in the City of Plantation? (1 star being very uncomfortable to 5 stars being very comfortable)”
The average rating was 2.5 stars

The full results from the Web Survey are included in Appendix Section D.

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Community Open House

A Community Open House was held on March 1, 2022 from 6:00 p.m. to 8:00 p.m. at the Jim Ward Community Center. Stations for the eight focus roadways were set-up where participants could provide feedback about the roadways, discuss their concerns and requested improvements, and meet with Broward MPO and City Staff. Highlights of the comments received from the Community Open House are included in Chapter 4: Focus Roadways.

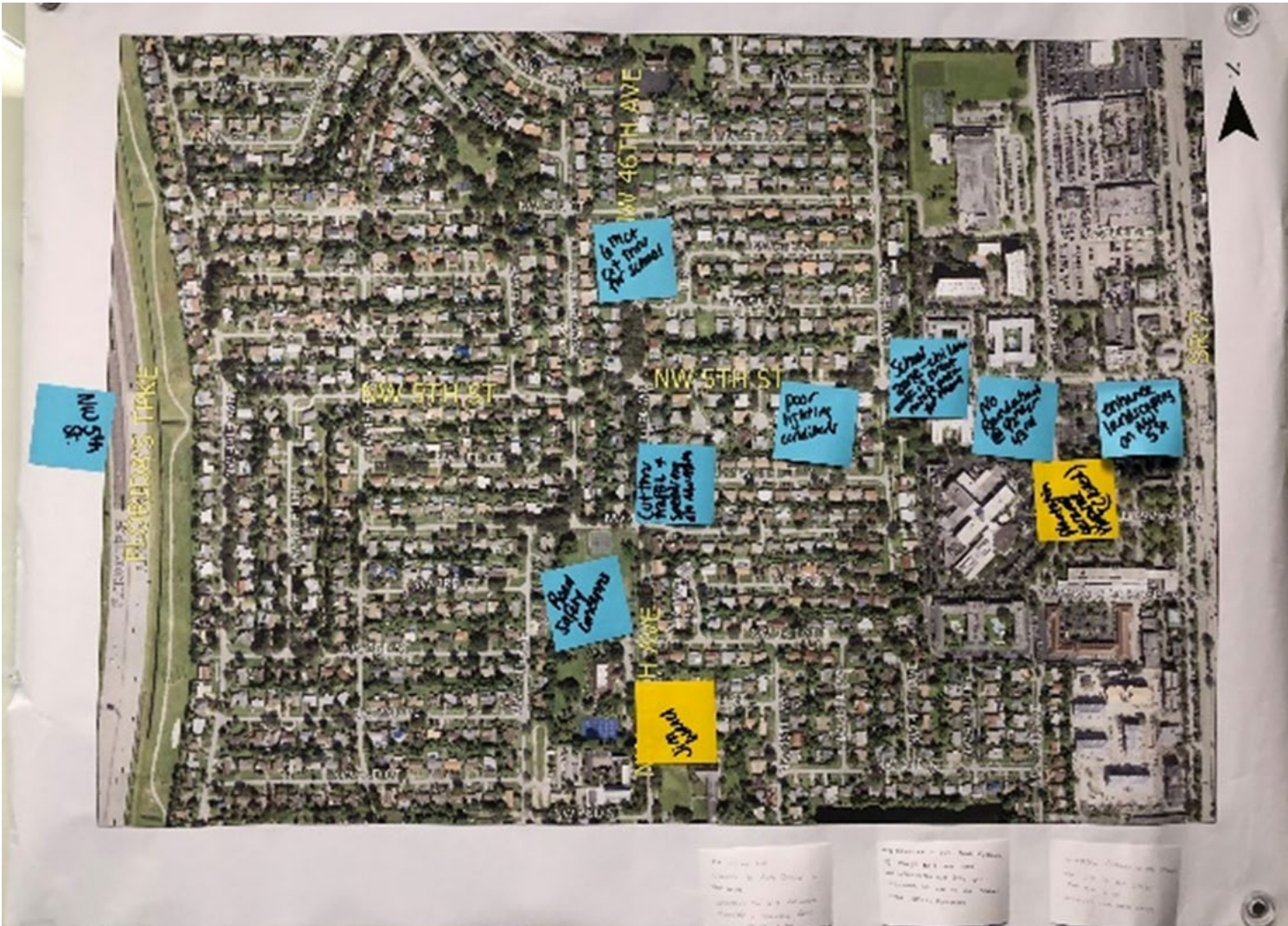
The Community Open House promotional graphics, sign-in sheet, marked-up aerials, and photographs from the event are included in Appendix Section E.



Residents visit different stations at the Community Open House at Jim Ward Community Center

Chapter 2: Project Approach

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Aerial of NW 5th St marked with comments from the Community Open House

Virtual Community Meeting

A virtual Community Meeting was held on March 21, 2022 from 6:00 p.m. to 8:00 p.m. via Zoom. The Community Meeting included a presentation from Broward MPO staff on the eight focus roadways including an overview of crash trends, field observations, and other relevant data and analysis. Question and comment periods were interspersed throughout the presentation. Highlights of the comments received from the Community Open House are included in Chapter 4: Focus Roadways.

The Virtual Community Meeting promotional graphics, attendee list, and presentation are included in Appendix Section F.



Virtual "Welcome" to participants of the Virtual Community Meeting

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Chapter 3: Methodology



Chapter 3: Methodology

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Introduction

This plan focuses on a select group of city-owned roadways that were identified as critical for multi-modal transportation improvements. This chapter describes the process of identifying these “focus” roadways and the recommended short-term improvements.

A multi-phased methodology was utilized to help narrow the focus from citywide to focus roadways, then further narrowed to focus locations, and finally to the development of short-term recommendations. The phases created data-driven, community aligned recommendations centered on the MMTP purpose: guide and prioritize effective transportation investments that could be implemented in the short-term.

The following graphic depicts the methodology:



Central to the multi-phase methodology was the focus on two guiding criteria: Locational Readiness and Plan Themes. These criteria were identified in the beginning of the planning process and, as shown in the methodology graphic, were central to the determination of the focus roadways.

Locational Readiness

Since the intent of the High-Level Multimodal Needs Assessment and Identification of Short-term Improvements was the identification of improvements that could feasibly be implemented in a five-year time period, locational readiness was one of the core criteria considered. Locational Readiness contributes to the likelihood of a project to advance from design to funding to implementation. The location of a project can impact the ability to make a project Program Ready including, but not limited to, project cost, ownership and stakeholder support, and project complexity.



Chapter 3: Methodology

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For the purposes of the High-Level Multimodal Needs Assessment and Identification of Short-term Improvements, the primary indicators of Locational Readiness were:

Location

- This indicator included locational issues that would impact the likelihood of being able to develop projects within the short-term such as roadway ownership, right-of-way ownership, as well as locational impediments such as utilities or adjacent land uses.
- In recognition of the time typically required to coordinate projects with other roadway owners, it was decided that for the purposes of the short-term improvements, only city-owned roadways would be eligible to be focus roadways.

Scope of Work

- This indicator included programming issues resulting from the location of a project such as the complexity of a proposed project, anticipated project costs, necessity to acquire additional right-of-way, and necessary studies needed.

Community Support

- This indicator included demonstrated public interest for the location of a project such as prior planning efforts, reference to the location in existing planning documents, and results of the web survey and other public engagement.
- This indicator was consistent with the importance of demonstrated community support when applying for competitive grant funding.



Location

+



Scope
of Work

+



Community
Support



Chapter 3: Methodology

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Plan Themes

A set of plan themes was laid out by the City Staff Working Group early in the planning process. The three themes established the vision for the plan and guided decision making throughout the plan process.

The Plan Themes are:

Safety

- Safety is the US Department of Transportation’s (USDOT) and FDOT’s top priority. Both have committed to a comprehensive approach to make roadways safe for all roadway users by significantly reducing serious injuries and deaths on highway, roads, and streets.
- Safety is a data-driven theme that considers historic crash statistics and trends. It contemplates which roadway (or right-of-way) characteristics are contributing to the crash trends.
- Safety also includes qualitative considerations from public engagement about perceived safety.

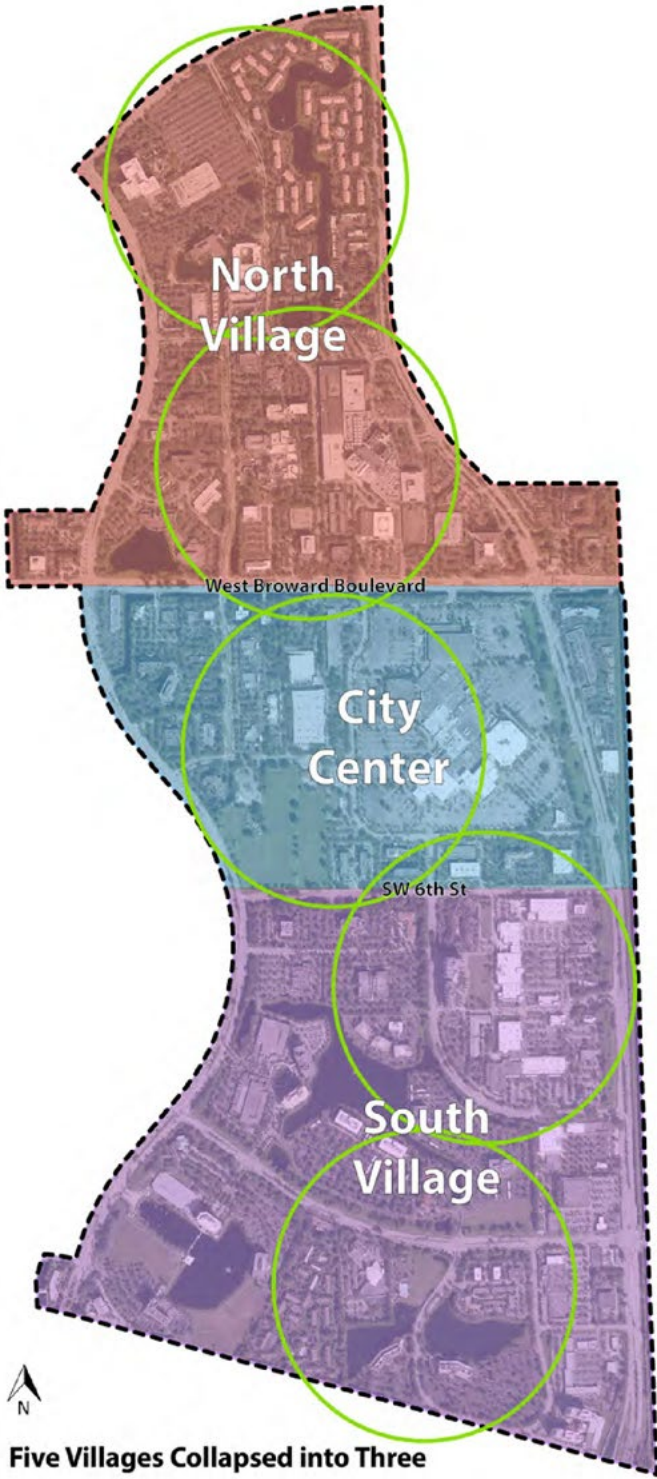
Perceived Safety

Conditions such as speeding or poor lighting which make pedestrians feel unsafe and therefore discourage walking and biking.



Midtown Connectivity

- Midtown Plantation is the City’s central business district and is undergoing redevelopment from a suburban office / retail area to a true town center, encouraging mixed used redevelopment. Envisioned as three interconnected Urban Villages, part of the vision of Midtown Plantation is to be pedestrian friendly, by linking the areas throughout Midtown through walkable pathways, overcoming major vehicular barriers.
- The Midtown Connectivity theme includes multimodal connectivity into and within Midtown Plantation.
- This theme focuses on the facilities needed so that residents / visitors who live outside of Midtown can safely, comfortably, and conveniently walk, bike, or use transit to travel to Midtown.
- The theme also focuses on the facilities needed so that residents, workers, and visitors who are in Midtown Plantation can park once, and then safely, comfortably, and conveniently walk, bike, or use transit to travel to other destinations throughout Midtown.



Five Villages Collapsed into Three

Midtown Plantation Three Villages (Plantation Midtown District 2023, Update of the Conceptual Master Plan)

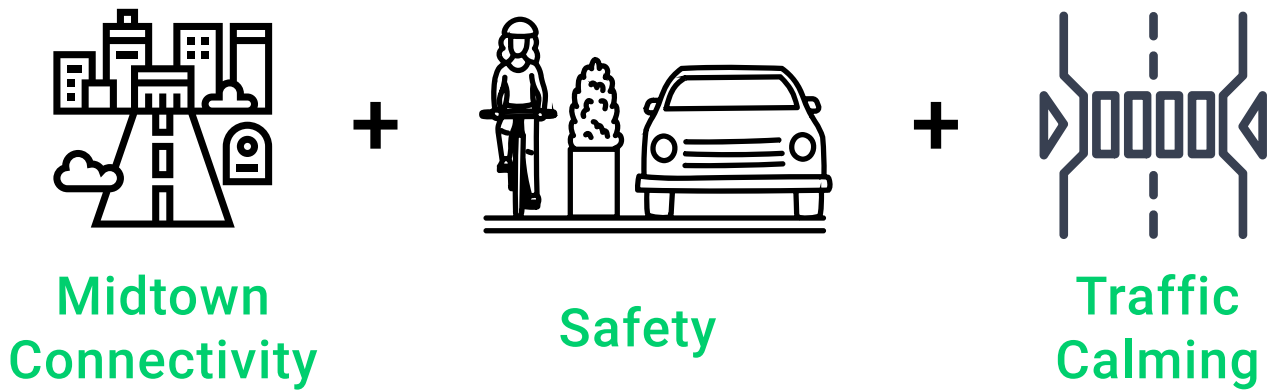
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Traffic Calming

- Throughout the city there are neighborhoods whose local roads are designed in a manner that unintendedly encourages speeding and/or cut through traffic.
- The primary purpose of traffic calming is to support the livability and vitality of neighborhoods by implementing roadway improvements to reduce vehicle speeds and/or volume.
- Traffic calming is also intended to increase the safety and comfort of people walking and bicycling.



Chapter 3: Methodology

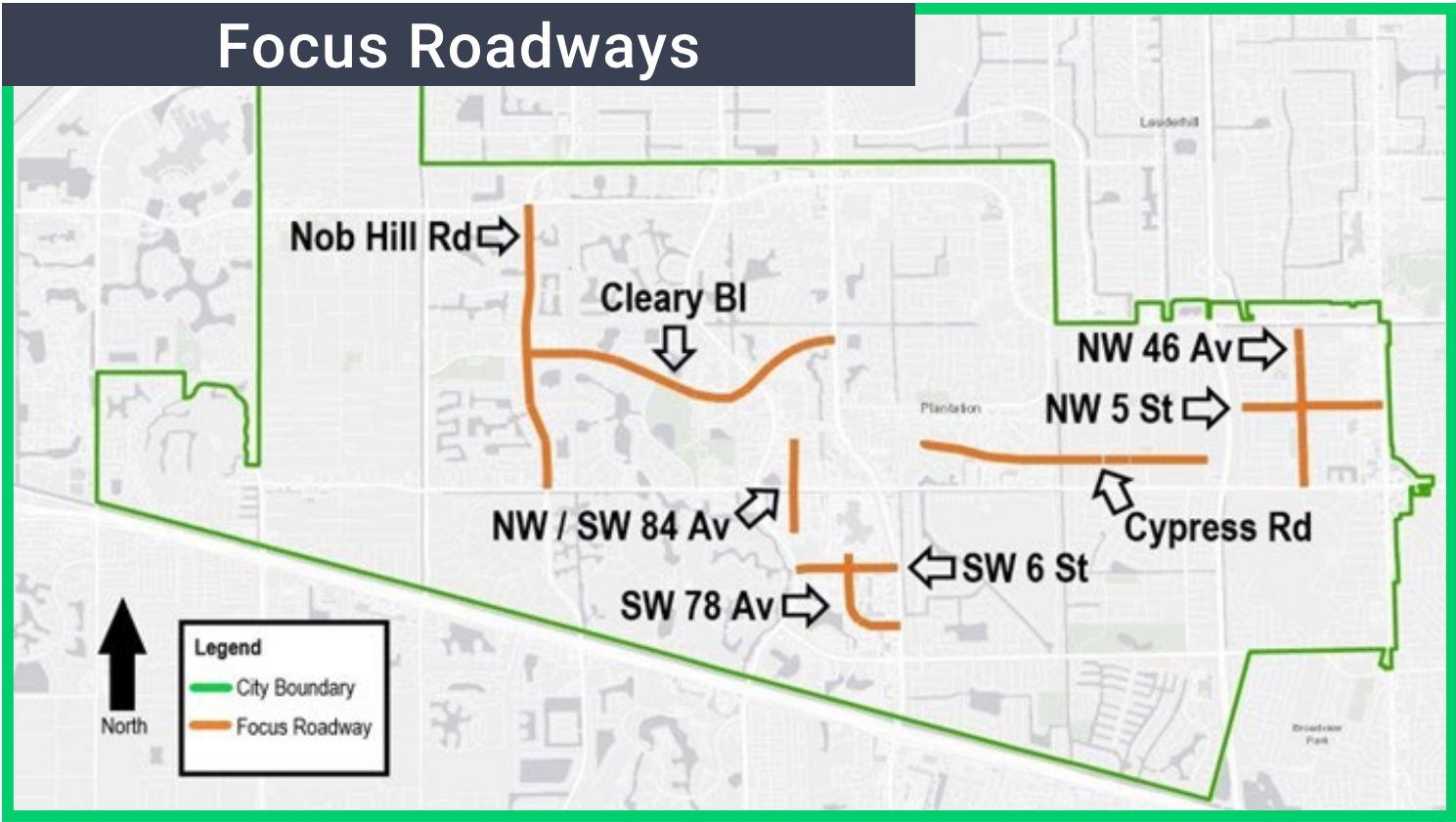
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Methodology #1: Determining Focus Roadways

The first significant decision in the planning process was determining the Focus Roadways. The decision-making criteria was Locational Readiness and the Plan Themes.

All city-owned roadways were reviewed by the City Staff Working Group based on Locational Readiness and the Plan Themes. Eight roadways were selected to be Focus Roadways. The Focus Roadways Selection Criteria table lists the roadways and the applicable plan themes. In numerous ways the Focus Roadways features, characteristics, and challenges are typical for roadways throughout the City. Therefore, it is anticipated that the resulting short-term recommendations could be applied to roadways throughout the City.



Focus Roadways Selection Criteria			
City-Owned Roadway	Plan Theme		
	Safety	Midtown Connectivity	Traffic Calming
Nob Hill Rd • From Broward Blvd to Sunrise Blvd • Excluding intersections at: Broward Blvd and Sunrise Blvd	X		
Cleary Blvd • From Nob Hill Rd to University Dr • Excluding intersections at: Pine Island Rd and University Dr	X	X	
NW / SW 84th Ave • From NW 5th St to SW 3rd St (Midtown Plantation)	X	X	
SW 6th St • From Pine Island Rd to University Dr (Midtown Plantation) • Excluding intersections at: Pine Island Rd and University Dr		X	
SW 78th Av • From Federated Rd to University Dr (Midtown Plantation) • Excluding intersection at: University Dr		X	
Cypress Rd • From western end to E. Acre Rd	X		X
NW 46th Av • From Broward Blvd to NW 9th Ct • Excluding intersection at: Broward Blvd	X		X
NW 5th St • From NW 49th Av to US 441 • Excluding intersection at: US 441	X		X

Chapter 3: Methodology

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Methodology #2: Determining Focus Locations

The second significant decision-making phase in the planning process was the determination of the Focus Locations. The criteria was Injury Crash Trends, Missing Facilities, and Traffic Calming. Observations from field audits, analysis of crash data, review of traffic citation information, and public engagement feedback were essential to the identification of the Focus Locations.

Injury Crash Trends

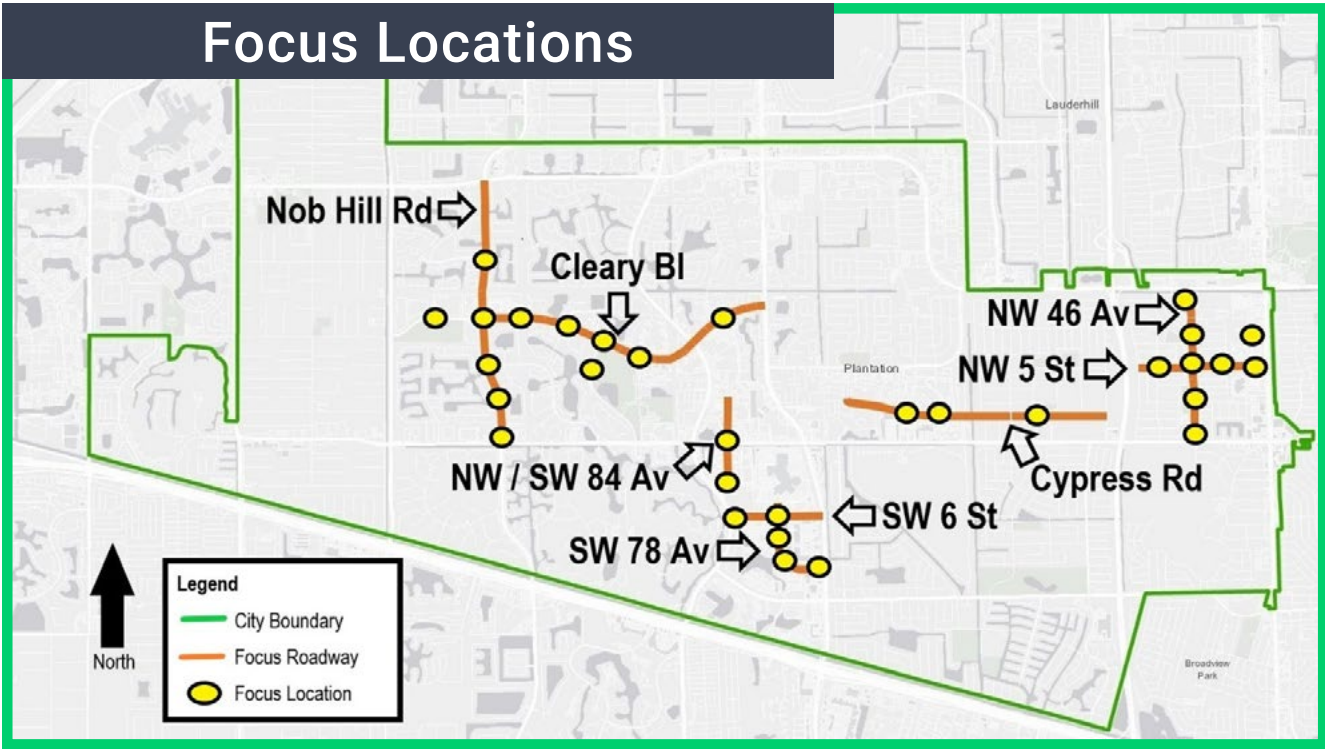
Crashes resulting in injuries during the period of January 1, 2015 to December 15, 2021 were analyzed in order to identify cluster locations and crash trends. Preliminary analysis of the location was undertaken to determine if an engineering solution could mitigate the observed injury crash trends.

Missing Facilities

The amount, comfort, and safety of multimodal activity can be greatly impacted by facilities including: sidewalks, bike paths, crosswalks, pedestrian-scaled lighting, and pavement markings. Missing facilities were noted, as well as those in substandard condition.

Traffic Calming

Roadway or right-of-way features that might contribute to speeding and/or cut through traffic were identified. Notably, this included long, uninterrupted roadway segments.



Focus Locations: Selection Criteria				
Focus Roadway	Focus Location	Injury Crash Trends	Missing Facilities	Traffic Calming
Nob Hill Rd	Entire Roadway / Study Area		Yes	Yes
Nob Hill Rd	Intersection at NW 4th Ct	Yes	Yes	
Nob Hill Rd	Intersection at NW 6th St / Central Park PL	Yes	Yes	
Nob Hill Rd	School Crosswalk at entrance to Sunset Park		Yes	Yes
Nob Hill Rd	Intersection at Cleary Bl	Yes		
Nob Hill Rd	Intersection at NW 12th St	Yes	Yes	
Cleary Bl	Entire Roadway / Study Area		Yes	Yes
Cleary Bl	East entrance to Plantation Promenade Shopping Center	Yes	Yes	Yes
Cleary Bl	Intersection at Central Park Pl	Yes	Yes	
Cleary Bl	Intersection at Central Park Dr	Yes	Yes	
Cleary Bl	Central Park Entrances (Central Park Dr & NW 91st Av)		Yes	
Cleary Bl	Multiblock area from Lauderdale West Dr to American Exp Way / Midtown North	Yes	Yes	Yes
SW 84th Av	Intersection at SW 3rd St		Yes	Yes
NW / SW 84th Av	Intersection at Broward Bl	Yes	Yes	
SW 6th St	Entire Roadway / Study Area		Yes	Yes
SW 6th St	Intersection at SW 78th Av	Yes	Yes	

Table continues on the following page

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Focus Locations: Selection Criteria				
Focus Roadway	Focus Location	Injury Crash Trends	Missing Facilities	Traffic Calming
SW 78th Av	Entire Roadway / Study Area		Yes	
SW 78th Av	Intersection at SW 6th Ct	Yes	Yes	
SW 78th Av	Intersection at Crossroads to 1041 S. University Dr	Yes		
Cypress Rd	Entire Roadway / Study Area		Yes	Yes
Cypress Rd	Intersection at NW 70th Av	Yes		
Cypress Rd	Intersection at NW 69th Av	Yes		
NW 5th St	Intersection at NW 48 Av			Yes
NW 5th St	Intersection at NW 46 Av	Yes		Yes
NW 5th St	Multiblock area from NW 45 Ter to NW 43 Av	Yes		Yes
NW 5th St	NW 42 Av to 441	Yes		
NW 5th St	NW 42nd Av north to Elementary School		Yes	Yes
NW 46th Av	Entire Roadway / Study Area	Yes		Yes
NW 46th Av	Multiblock area From NW 3rd St to NW 4th Ct	Yes		Yes
NW 46th Av	Intersection @ NW 6th Ct	Yes	Yes	Yes
NW 46th Av	Intersection of NW 47th Av, NW 9 Ct, and NW 9 Dr	Yes		Yes



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Methodology #3: Determining Recommendations

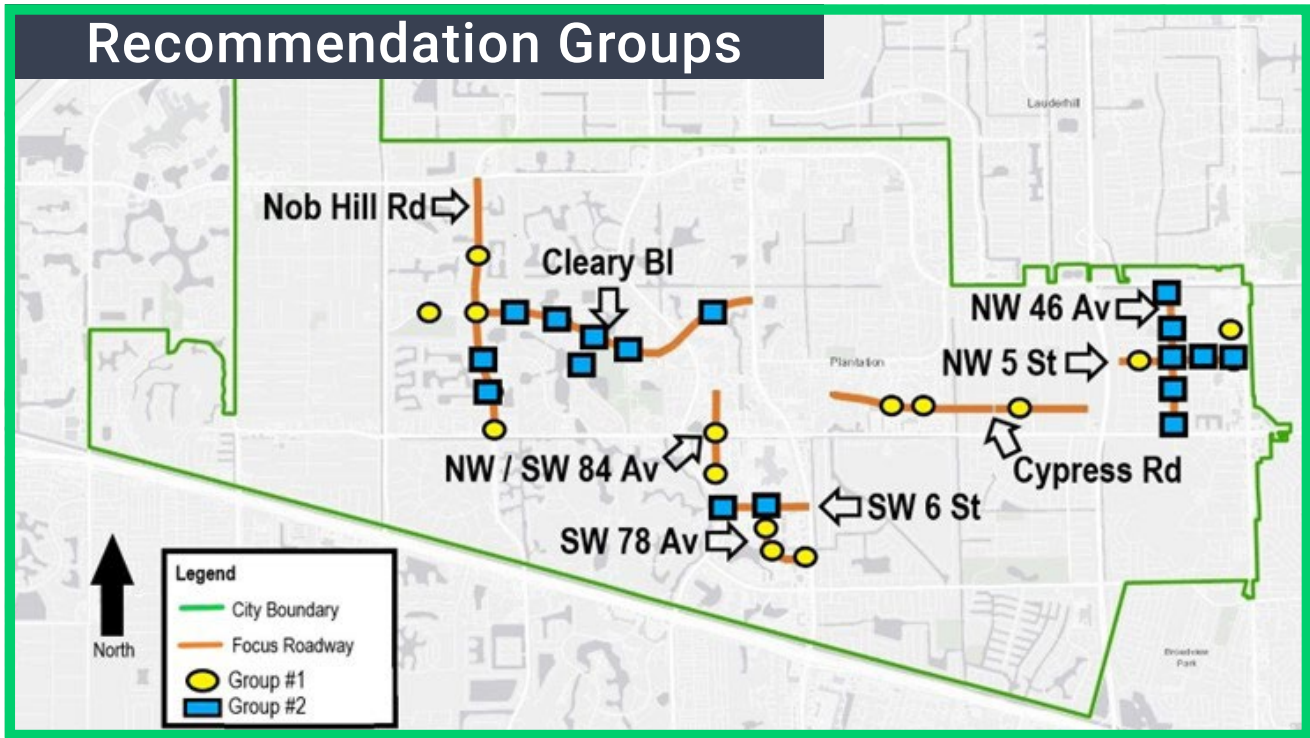
The final significant decision-making phase in the planning process was the determination of the Short-Term Recommendations to mitigate existing safety and mobility issues, and consistent with the Plan Themes.

Recommendations Groups

The Focus Locations were divided into two “Recommendations Groups”. Group #1 were analyzed for a set of safety treatments and mobility improvements. Group #2, however, were analyzed for more intensive recommendations such as intersection control conversions, turn movement restrictions, roadway realignments, raised crosswalks, or similar features.

The assignment of the Focus Locations into the two Recommendations Groups was based on in-depth analysis of roadway and right-of-way conditions, input from the City Staff Working Group, and feedback from the Public Engagement.

As can be seen in the Recommendations Groups map, the Focus Locations were almost evenly divided into Group #1 and Group #2.



Recommendations Identification and Evaluation

As previously noted, a list of low-impact, but proven safety countermeasures and mobility improvements was considered for each Group #1 location. Whereas individual concepts were developed for each of the Focus Locations in Group #2.

After the initial identification of improvements, the recommendations for both groups were then reviewed for consistency with public engagement feedback; those that were inconsistent were eliminated from further consideration.

Next, the recommendations time frame was considered: those that were not feasible and/or preferred in the short-term were reserved for additional study in the next phase of the MMTP.

Further, multiple workshops were held with the City Staff Working Group to discuss the concepts developed for the locations in Group #2. Based on feedback from the workshops, the concepts were further refined and cost estimated were prepared.

Finally, a meeting with representatives from Broward County Traffic Engineering was held to discuss the recommendations for Nob Hill Rd, Cleary Bl, and the intersection of NW/SW 84th Av and Broward Bl. While city-owned, both Nob Hill Rd and Cleary Bl are subject to a Traffic Engineering Agreement between Broward County and City of Plantation which governs the responsibilities and duties for planning, installation, operation and maintenance of traffic control devices for several city-owned roadways. Based on this Agreement and subsequent amendments, Broward County has jurisdiction to approve all improvements on Nob Hill Rd and Cleary Bl. Additionally, the intersection of NW/SW 84th Av and Broward Bl. is owned by Broward County and therefore the County has full jurisdiction over this intersection. Feedback from this meeting informed the final selection of recommendations for all locations along Nob Hill Rd, Cleary Bl, and the intersection of NW/SW 84th Av and Broward Bl.

Chapter 3: Methodology

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Terminology

Throughout the remaining chapters in this technical memo, transportation features and terminology are noted. The following descriptions and images are intended to give a broad overview of certain transportation features and terminology.

Transportation Feature	Image
Accessible Pedestrian Signals Provides auditory, visual and tactile information so that a person with vision and/or hearing loss will know when it's safe to cross at an intersection.	
Chicanes A series of alternating curves that are located in order to reduce the speed at which a motorist is comfortable travelling through the feature.	
Crosswalk Signage: Advanced Advance crosswalk warning signs should be used where pedestrian crossings may not be expected by motorists, especially if there are many motorists who are unfamiliar with the area.	

Transportation Feature	Image
Crosswalk Signage: In-Street Pedestrian crossing signs placed within the roadway, either between travel lanes or in a median.	
Curb Ramps The transition from the curbed sidewalk to a crosswalk or roadway.	
Detectable Warning Surface Tiles or mats with a colorful, raised texture that are adhered to a curb ramp to help delineate the edge of the street for a pedestrian who has vision impairment.	
Directional Median A raised median designed to control or prohibit certain turn movements (such as U-turns or left-turns).	

Chapter 3: Methodology

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Transportation Feature	Image
High-Visibility Pavement Markings Pavement markings at crosswalks that are more visible than standard parallel pavement markings. They are sometimes referred to as ladder or zebra stripes.	
Leading Pedestrian Interval (LPI) A leading pedestrian interval (LPI) gives pedestrians the opportunity to enter the crosswalk at an intersection 3-7 seconds before vehicles are given a green indication.	
Mast Arm (Conversion) The conversion of span and wire traffic signal infrastructure to mast arm infrastructure.	
Mid-block Crosswalk Crosswalks placed between intersections. They look similar to intersection crosswalks, but often incorporate several design features to increase safety.	

Transportation Feature	Image
Raised Crosswalk Ramped speed tables spanning the entire width of the roadway, often placed at midblock crossing locations. The crosswalk is demarcated with paint and/or special paving materials and allow the pedestrian to cross at grade with the sidewalk. Raised crosswalks can be on multi-lane roadways or on 2-lane roadways.	
Pedestrian-Scale Lighting Outdoor lighting designed to illuminate sidewalks or other pedestrian areas in order to improve pedestrian comfort, security, and safety.	
Pedestrian Refuge A median with a refuge area that is intended to help protect pedestrians who are crossing a road.	
Rectangular Rapid Flashing Beacons (RRFB) RRFBs consist of two, rectangular- shaped yellow indications that flash with an alternating high frequency. They are frequently used at midblock crosswalks or unsignalized intersection crosswalks.	

Chapter 3: Methodology

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Recommendation Feature	Image
Roadway Reconfiguration / Lane Reduction Typically involves converting an existing four-lane undivided roadway to a three-lane roadway consisting of two through lanes and a center two-way left-turn lane. The prior roadway space is redeveloped in order to provide better mobility and access for all road users.	
Roundabout An intersection with a circular configuration that have channelized, curved approaches that reduce vehicle speed, entry yield control that gives right-of-way to circulating traffic, and counterclockwise flow around a central island that minimizes conflict points.	
Mini-Roundabout A type of roundabout characterized by a small diameter and traversable islands (central island and splitter islands). They are typically found in a single-lane configuration.	
Quick Build Mini Roundabout A mini-roundabout constructed of low-cost modular materials, such as plastic bollards, rubber armadillos, or similar items.	

Recommendation Feature	Image
Shared Lane Markings Road markings used to indicate a shared lane environment for bicycles and automobiles	
Speed Cushions / Modular Speed Cushions A raised road surface that include wheel cutouts to allow large vehicles to pass unaffected, while reducing passenger car speeds. Modular speed cushions are made of rubber or similar materials and can be installed on top of the roadway surface.	
Speed Radar Sign Dynamic speed limit signs that use a radar to detect and display the speed of passing vehicles.	

Additional definitions of transportation features and terminology used in this chapter can be found at the following websites.

- USDOT, Federal Highway Administration, Traffic Calming “Toolbox of Individual Traffic Calming Measures”: https://safety.fhwa.dot.gov/speedmgt/ePrimer_modules/module3.cfm#mod31
- USDOT, Federal Highway Administration “Proven Safety Countermeasures”: <https://safety.fhwa.dot.gov/provencountermeasures/>

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Chapter 4: Focus Roadways





Introduction

This chapter provides the results of the high-level needs assessment and recommendations for the eight Focus Roadways. The eight Focus Roadways are as follows:

1. Nob Hill Road

2. Cleary Boulevard

3. NW / SW 84th Avenue

4. SW 6th Street
5. SW 78th Avenue

6. Cypress Road

7. NW 46th Avenue

8. NW 5th Street

How to Use the Focus Roadways Profile Pages

Analysis information and recommendations for each Focus Roadway is presented in a series of three profile pages, except for SW 6th St and SW 78th Av which are presented together.

Profile Page 1 – General Roadway Information

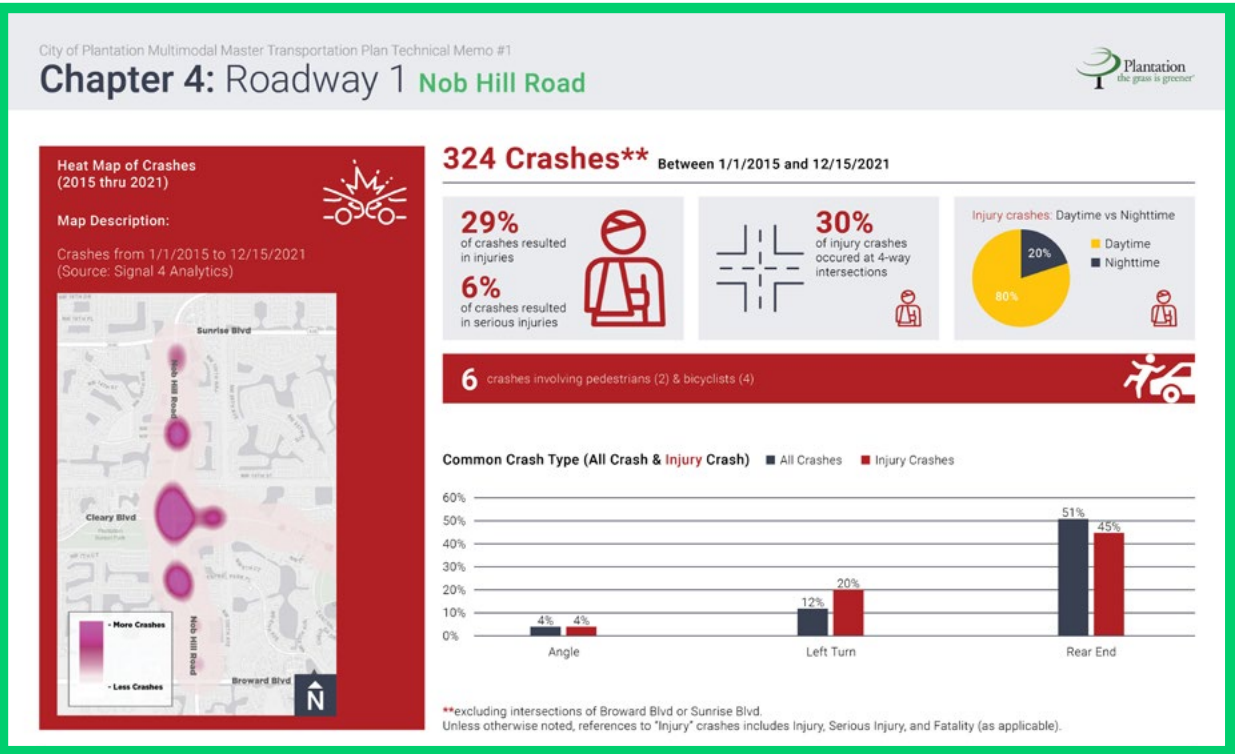
The first profile page (example shown below) includes general information about the Focus Roadway. Also included is a list and map of key activity centers and destinations, prior planning (or transportation) studies, and transit access.



Profile Page 2 – Crash Data and Trends

The second profile page (example shown below) presents crash information for the Focus Roadway during the time period of January 1, 2015 to December 15, 2021. Significant crash trends are highlighted, as well as injury crash trends. Also included is a map showing the concentration of crashes (aka crash clusters).

The complete crash data is included in Appendix Section B.



Chapter 4: Focus Roadways

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Profile Page 3 – Observations and Community Comments

The third profile page (example shown below) includes a list of observations from the numerous field audits and photographs taken during the field audits. Also included is the feedback from the public engagement.


Additional photographs taken during the field audits are included in Appendix Section C.

City of Plantation Multimodal Master Transportation Plan Technical Memo #1

Chapter 4: Roadway 1

N. Nob Hill Road (Broward Blvd to Sunrise Blvd)






Cleary Bl intersection (SE view). Morning drop-off for Central Park Elementary School. Heavy pedestrian activity in crosswalks.



5-ft wide sidewalk obstructed by hedges.



NW 12th St intersection (NW view). Typical infrastructure and no left turn signal on cross-streets.



Many bicyclists riding on sidewalks

Field Audit Observations:

- No sidewalk within western right-of-way, south of Central Park Elementary School
- No left turn signals at intersections (except Cleary Bl)
- No bike facilities; Bicyclists riding primarily on sidewalks
- No pedestrian access (crosswalks) from NW 4th Ct to eastern sidewalk
- No pedestrian-scaled lighting
- Missing detectable warning surfaces at intersections and crosswalks
- Low visibility crosswalks
- Observed speeding
- Overgrown hedges / landscaping obstructing sidewalks
- Vehicular traffic pattern and limited turn movements at intersection of Cleary Blvd and west to Sunset Park associated with Central Park Elementary School's morning drop-off and afternoon pick-up
- Heavy pedestrian activity within crosswalks at intersection of Cleary Blvd associated with Central Park Elementary School's morning drop-off

Summary of comments from Community Meetings:

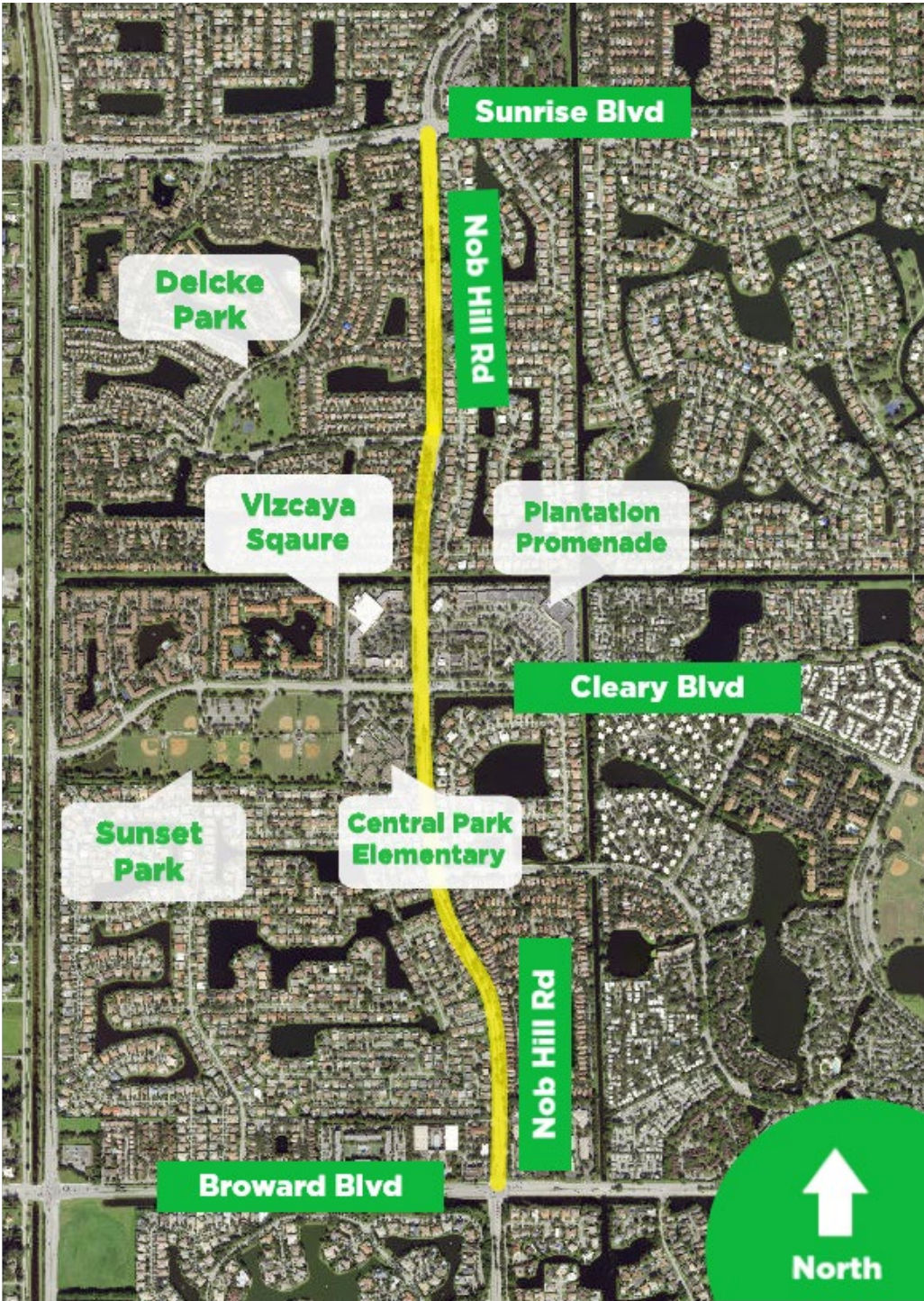
- Maintain sidewalks better on Nob Hill Rd
- Add a multi-purpose path / widen sidewalks in the entire area / sidewalks are too narrow
- No sidewalks near school on west side
- Visibility issues at pullout onto Nob Hill from NW 4th Court
- A guard rail be installed to prevent cars from getting into backyard (NW corner of Nob Hill & NW 6th St)
- A lot of crashes at Broward / Double green light at Broward / Signals are confusing, move signals to align with the lanes
- The bike lanes needs to be wider and have better protection / Could a road diet to reduce from 4 to 2 lanes occur on Nob Hill to add protected bike lanes
- Heavy peak hour traffic
- Sprinklers are spraying water into the road
- Flooding in Nob Hill Estates / Nob Hill Rd floods
- BCT stop 4237 has no shade sidewalk or shelter
- Lot of pedestrian traffic at the intersection of Cleary and Nob Hill
- BRT lanes on Sunrise, Cleary, and Broward
- A lot of pedestrian traffic to synagogue in Publix shopping center

Chapter 4: Roadway 1 Nob Hill Road

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Focus Roadway with Key Activity Centers and Destinations



Length: 1.75 miles

Speed Limit:

- 40 MPH
- School Zone (15MPH) from 250 ft north of Cleary Blvd to 1,000 ft south of Cleary Blvd

No. of Lanes: 4

Traffic Maint & Eng: Broward County

Broward County Trafficways Designation:

Arterial (106")

Land Uses:

- Residentail (Low & Low Medium)
- Commercial
- Office Park
- Community Facilities

Annual Average Daily Traffic (AADT):

- North of Cleary BI = 21,000 (2020) / 29,000 (2019)
- South of Cleary BI = 23,500 (2020) / 31,500 (2019)

Functional Federal Classification (2010):

- Minor Arterial

Key Activity Centers and Destinations:

- Plantation Sunset Park
- Plantation Diecke Park
- Central Park Elementary School
- Plantation Promenade Shopping Center
- Vizcaya Square Shopping Center

Transit Access:

- No Transit on Nob Hill Rd
- BCT Route 22 (Broward Blvd) • BCT Route 36 (Sunrise Blvd)

Prior Planning / Transportation Studies:

- FDOT / Broward MPO Arterial Connectivity Study Along I-595 Roadway (2021)
- City of Plantation Parks & Recreation Master Plan (2020)

Chapter 4: Roadway 1 Nob Hill Road

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Heat Map of Crashes (2015 thru 2021)

Map Description:

Crashes from 1/1/2015 to 12/15/2021
(Source: Signal 4 Analytics)



324 Crashes** Between 1/1/2015 and 12/15/2021

29%
of crashes resulted in injuries

6%
of crashes resulted in serious injuries

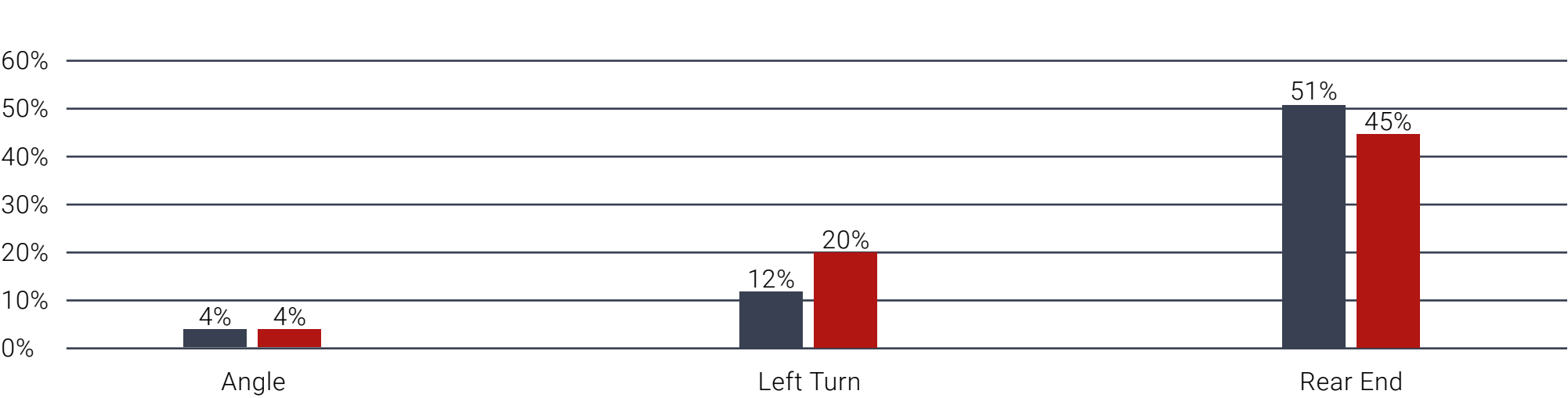
30%
of injury crashes occurred at 4-way intersections

Injury crashes: Daytime vs Nighttime

80% Daytime
20% Nighttime

6 crashes involving pedestrians (2) & bicyclists (4)

Common Crash Type (All Crash & Injury Crash)



**excluding intersections of Broward Blvd or Sunrise Blvd.
Unless otherwise noted, references to "Injury" crashes includes Injury, Serious Injury, and Fatality (as applicable).

Chapter 4: Roadway 1 Nob Hill Road

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Cleary Bl intersection (SE view): Morning drop-off for Central Park Elementary School. Heavy pedestrian activity in crosswalks.



5-ft wide sidewalk obstructed by hedges.



NW 12th St intersection (NW view); Typical infrastructure and no left turn signal on cross-streets.



Many bicyclists riding on sidewalks

Field Audit Observations:

- No sidewalk within western right-of-way, south of Central Park Elementary School
- No left turn signals at intersections (except Cleary Bl)
- No bike facilities; Bicyclists riding primarily on sidewalks
- No pedestrian access (crosswalks) from NW 4th Ct to sidewalk in eastern right-of-way
- No pedestrian-scaled lighting
- Missing detectable warning surfaces at intersections and crosswalks
- Low visibility crosswalks
- Observed speeding
- Overgrown hedges / landscaping obstructing sidewalks
- Vehicular traffic pattern and limited turn movements at intersection of Cleary Blvd and west to Sunset Park associated with Central Park Elementary School’s morning drop-off and afternoon pick-up
- Heavy pedestrian activity within crosswalks at intersection of Cleary Blvd associated with Central Park Elementary School

Summary of comments from Community Meetings:

- Maintain sidewalks better on Nob Hill Rd
- Add a multi-purpose path / widen sidewalks in the entire area / sidewalks are too narrow
- No sidewalks near school on west side
- Visibility issues at pullout onto Nob Hill from NW 4th Court
- A guard rail be installed to prevent cars from getting into backyard (NW corner of Nob Hill & NW 6th St)
- A lot of crashes at Broward / Double green light at Broward / Signals are confusing, move signals to align with the lanes
- The bike lanes needs to be wider and have better protection / Could a road diet to reduce from 4 to 2 lanes occur on Nob Hill to add protected bike lanes
- Heavy peak hour traffic
- Sprinklers are spraying water into the road
- Flooding in Nob Hill Estates / Nob Hill Rd floods
- BCT stop 4237 has no shade sidewalk or shelter
- Lot of pedestrian traffic at the intersection of Cleary and Nob Hill
- Bus Rapid Transit lanes on Sunrise, Cleary, and Broward
- A lot of pedestrian traffic to synagogue in Publix shopping center

Chapter 4: Roadway 2 **Cleary Boulevard**

**Draft for City of
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Focus Roadway with Key Activity Centers and Destinations



Length: 2 miles

Speed Limit:

- 40 MPH
- School Zone (15MPH) from 500 ft east of Nob Hill Rd

No. of Lanes: 4

Traffic Maint & Eng: Broward County

Broward County Trafficways Designation:

Arterial (106")

Land Uses:

- Residentail (Low, Low Medium, Medium)
- Commercial
- Park
- Utilities

Annual Average Daily Traffic (AADT):

- 9,400 (2020); 14,200 to 14,00 (2019)

Functional Federal Classification (2010):

- Major Collector

Key Activity Centers and Destinations:

- Plantation Sunset Park
- Plantation Central Park
- Central Park Elementary School
- Plantation Promenade Shopping Center
- Vizcaya Square Shopping Center
- City of Plantation Public Works
- Midtown Plantation

Transit Access:

- BCT Route 56 (between Laud West Dr and Pine Island Rd)
- BCT Route 88 (Pine Island rd)
- BCT Route 2 (University Dr)
- No transit west of Pine Isalnd Rd
- Future Community Shuttle stops planned for area between NW 82nd Ave and Laud West Dr (Midtown Route)

Prior Planning / Transportation Studies:

- Midtown Master Plan Update (2016)
- City of Plantation Parks & Recreation Master Plan (2020)

Chapter 4: Roadway 2 **Cleary Boulevard**

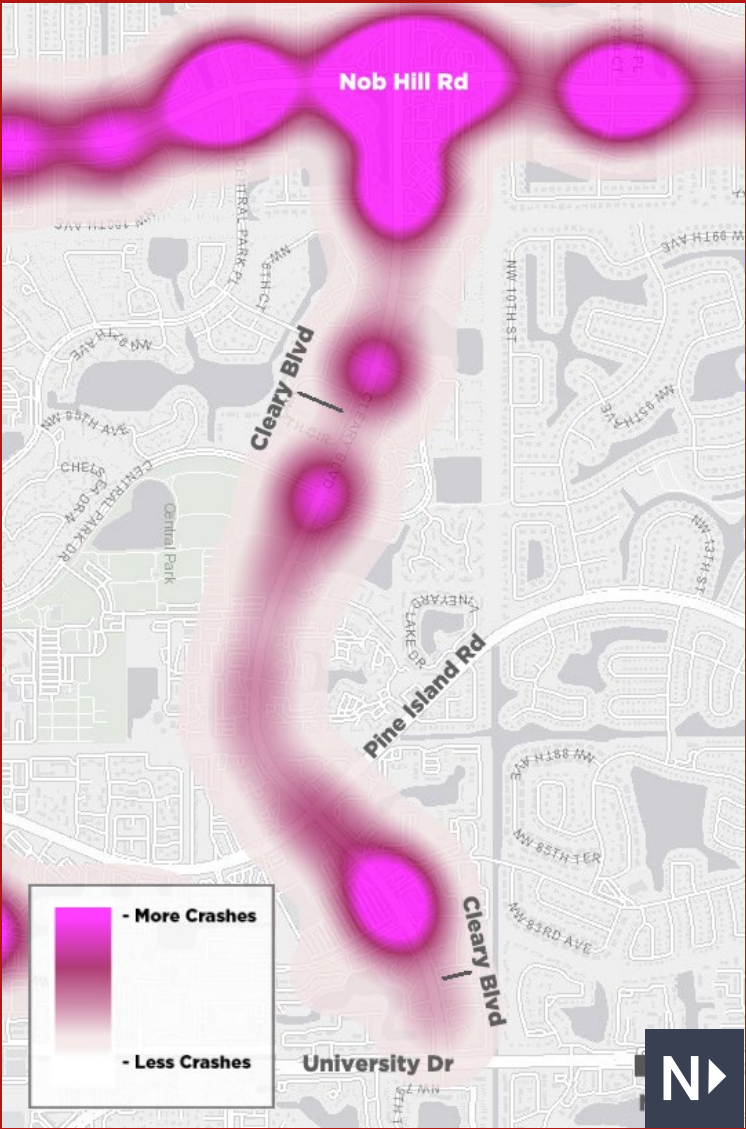
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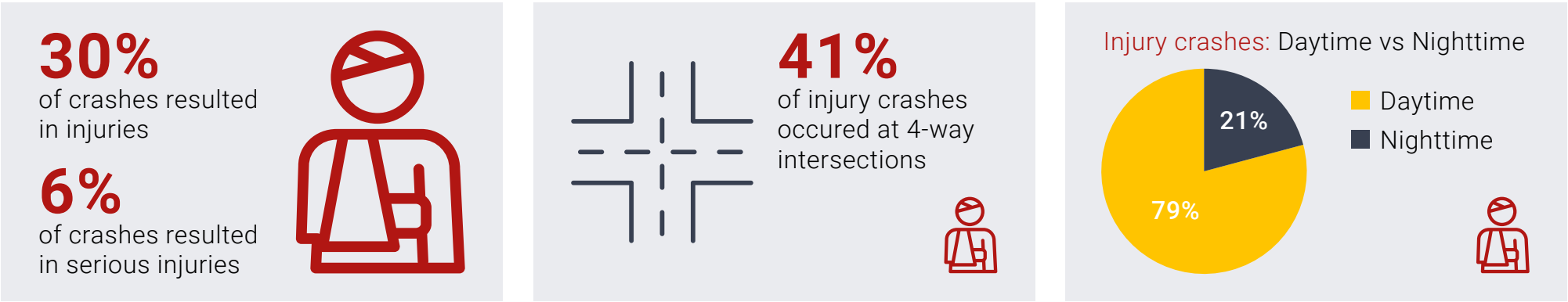
Heat Map of Crashes (2015 thru 2021)

Map Description:

Crashes from 1/1/2015 to 12/15/2021
(Source: Signal 4 Analytics)

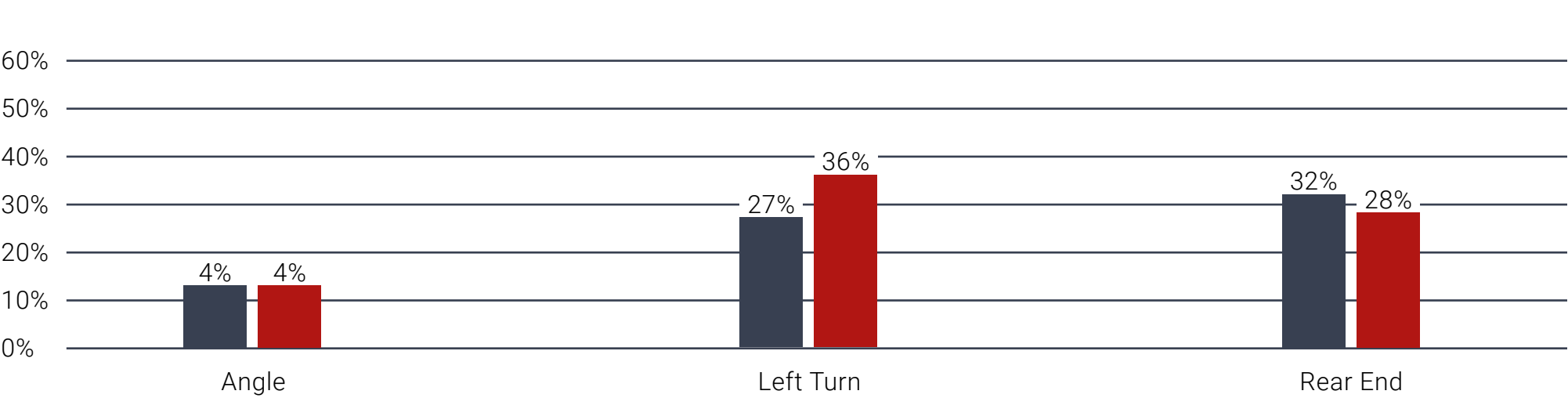


294 Crashes** Between 1/1/2015 and 12/15/2021



7 crashes involving pedestrians (4) & bicyclists (3)

Common Crash Type (All Crash & Injury Crash)



**excluding intersections of Pine Island Rd. and University Dr.
Unless otherwise noted, references to "Injury" crashes includes Injury, Serious Injury, and Fatality (as applicable).

Chapter 4: Roadway 2 **Cleary Boulevard**

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Central Park Dr intersection (East view). Low visibility crosswalks and no left-turn signals.



Most sidewalks are setback and shaded but portions are obstructed by hedges.



NW 82nd Av intersection (SW view). Northern entrance to Midtown Plantation but has no crosswalks or wayfinding signage.



Central Park PI intersection (NW view). Minimal streetlights and no pedestrian-scale lights.

Field Audit Observations:

- No bike facilities; Bicyclists riding primarily on sidewalks
- No pedestrian access (crosswalks) across Cleary Bl at: Midtown (NW 82 Av); Shoppes at Cleary Park; Central Park’s eastern entrance (NW 91 Av); and eastern entrance to Publix /Promenade Shopping Center
- Observed jaywalking in area adjacent to NW 82 Av (entrance to Midtown) and at entrances to Central Park
- No wayfinding / signage at NW 82 Av (entrance to Midtown)
- No pedestrian entrance to Central Park on Cleary Bl
- No pedestrian-scaled lighting
- Limited streetlights at intersections
- Missing detectable warning surfaces
- Low visibility crosswalks
- Observed speeding
- Typical intersection infrastructure: span and wire traffic signals, low visibility crosswalks, no detectable warning mats, and no left turn signals (except Nob Hill Rd)
- Mix of Industrial vehicles and pedestrians at Central Park’s eastern entrance (NW 91st Av)
- Traffic pattern associated with Central Park Elementary School’s morning drop-off and afternoon pick-up
- Overgrown hedges / landscaping obstructing sidewalks

Summary of comments from Community Meetings:

- Area of NW 82nd Avenue - make Cleary two lanes, more walkable with lighting
- Concern for elderly residents on NW 10th Street trying to make a left turn onto Cleary from NW 85th Avenue
- Concerns about worsening traffic flow in the area of NW 87th Avenue due to new development
- Maybe place a signal at Cleary & NW 91st Avenue / Recommend signalized crossing at Cleary & NW 85th Avenue, Cleary & NW 91st Avenue, and the corner of Pine Island & NW 87th Avenue
- Lighting/security concerns • Central Park area; needs lighting on NW 92nd Avenue / Southside of Cleary not well-lit; needs pedestrian lighting / Lighting issues on Cleary – always has issues with low visibility in the area at night; Lots of people stay at Central Park at nighttime and need lighting
- Speeding / too high-speed limit
- Biking access; resident fears biking around the area due to lighting; would like to see a bike path w/ physical separation
- Traffic at Nob Hill & Cleary
- Residents like the roundabout ideas
- Only walks on the southside of Cleary due to the northside not having any trees
- At Pine Island, upgrade to mast arms, additional roadway lighting
- Roundabouts on Cleary by Central Park and at Publix driveway
- Need protected bike lanes

Chapter 4: Roadway 3 NW / SW 84th Avenue

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Focus Roadway with Key Activity Centers and Destinations



Length: 3,600 feet

Speed Limit:

- 30 MPH

No. of Lanes: 2

Traffic Maint & Eng: City of Plantation

Broward County Trafficways Designation:

None

Land Uses:

- Commercial
- Park
- Community Facilities

Annual Average Daily Traffic (AADT):

- Unknown

Functional Federal Classification (2010):

- Local Road

Key Activity Centers and Destinations:

- Plantation Pine Island Park
- Westside Regional Medical Center
- West Regional Courthouse
- West Regional Library
- BCT West Terminal
- Midtown Plantation

Transit Access:

- BCT Routes 22 and 88 (SW 84th Ave)
- BCT Routes 2, 22, and 81 (Broward Blvd)
- BCT Routes 2, 22, 31, 81 and 88 (NW 84th Ave)
- Future Community Shuttle stops planned along roadway (Midtown Route)

Prior Planning / Transportation Studies:

- Midtown Master Plan Update (2016)
- Broward MPO - Plantation Mobility Hub Master Plan
- Broward MPO Midtown Plantation and SW Sunrise Livability Study (2012)
- City of Plantation Parks & Recreation Master Plan (2020)

Chapter 4: Roadway 3 NW / SW 84th Avenue

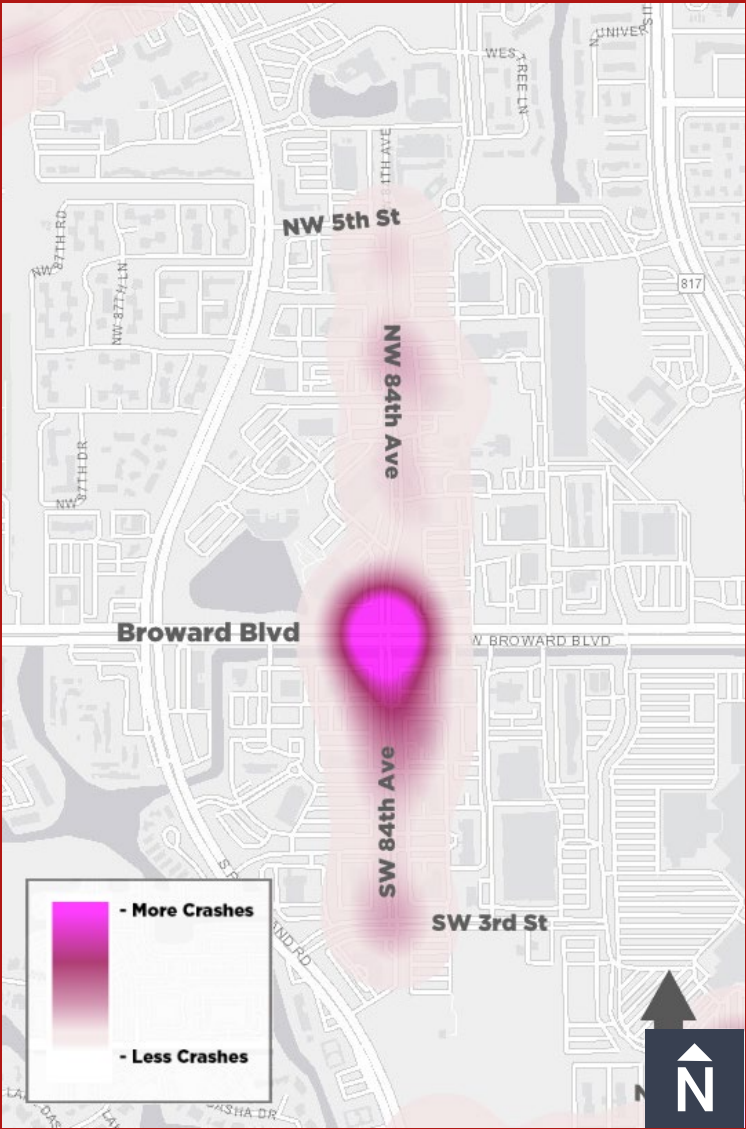
**Draft for City of
Plantation Review Only**



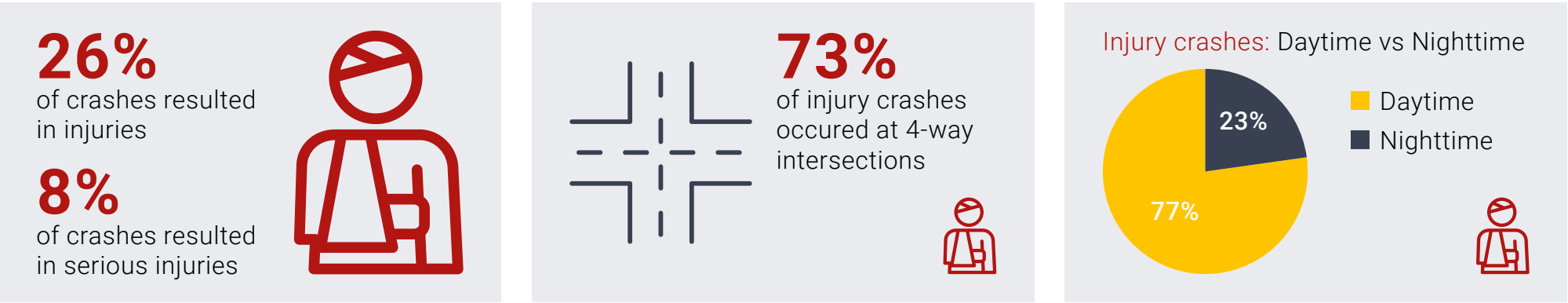
Heat Map of Crashes (2015 thru 2021)

Map Description:

Crashes from 1/1/2015 to 12/15/2021
(Source: Signal 4 Analytics)

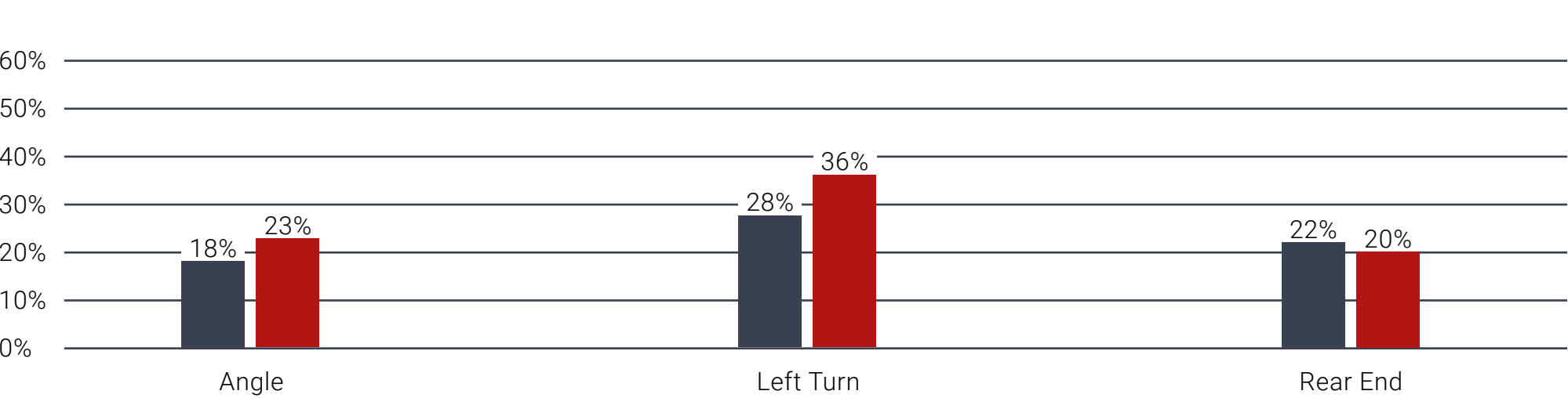


125 Crashes Between 1/1/2015 and 12/15/2021



5 crashes involving pedestrians (4) & bicyclists (1)

Common Crash Type (All Crash & Injury Crash)



Unless otherwise noted, references to "Injury" crashes includes Injury, Serious Injury, and Fatality (as applicable).

Chapter 4: Roadway 3 NW / SW 84th Avenue

**Draft for City of
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Broward Bl intersection (SE view); Inadequate pedestrian facilities and no left turn signals (on cross street).



BCT Bus Stop on SW 84th Av. The bus bench faces away from roadway and ADA-compliant concrete pad is missing.



SW 3rd St intersection (SE view). Raised intersection with stop sign only on SW 84th Av. Pine Island Park abuts intersection.



Greenway south of Broward Bl (western terminus at SW 84th Av). Connection over roadway is missing.



Broward Bl intersection. SW corner curb is very narrow due to canal.

Field Audit Observations:

- Bus stops that are not accessible (missing wheelchair landing pad) and with benches facing away from roadway
- Bus stops without shelters, benches, and other transit-friendly features
- No bike facilities
- At Broward Bl intersection, infrastructure: span and wire traffic signals, low visibility crosswalks, no leading pedestrian intervals, low visibility crosswalks, and no left turn signal for 84th Av
- At Broward Bl intersection, numerous utility poles / boxes
- At Broward Bl intersection, a lot of BCT vehicles using intersection, including turning buses
- At Broward Bl intersection, extremely narrow curbs on south side of Broward Bl intersection, due to canal
- No connectivity over SW 84th Ave for Greenway south of canal
- Pedestrians observed jaywalking through landscaped median in area adjacent to Greenway
- Greenway has no lighting
- No pedestrian connectivity to Pine Island Park
- No signage indicating bikes can use shared use paths
- Speeding vehicles at intersection at intersection of SW 3rd St (and along SW 3rd St)
- No traffic control on SW 3rd St (stop signs only on SW 84th Av)
- No street lights at intersection of SW 3rd St (and along SW 3rd St)

Summary of comments from Community Meetings:

- Resident was in a traffic accident in the mall area (Midtown)
- Monorail for work commute
- No walkability in the area of Broward Blvd.
- Resident suggested pedestrian intersection
- Too much traffic on 84th and Broward to bike
- Make proposed WAWA area (Broward and Pine Island) more pedestrian friendly by having a crosswalk
- Broward and 84th – resident suggested a pedestrian circle
- Add another roundabout on 84th
- Resident uses SW 84th to cut thru to go to bagel place but commented use of road is complicated and has to make U-turns, there are no direct turn into library
- Land pattern (a lot of parking lots abutting roadway) is making area less walkable
- Resident suggested a Bus lane on Broward all the way to Las Olas
- Shuttle connecting midtown to Central Park or safe bike lanes



Chapter 4: Roadways 4 & 5 SW 6th Street & SW 78th Avenue

Focus Roadways with Key Activity Centers and Destinations



Length: • SW 6th St = 3,175 ft • SW 78th Av = 3,600 ft

Speed Limit:

- 30 MPH

No. of Lanes: • SW 6th St = 4 • SW 78th Av = 4

Traffic Maint & Eng: City of Plantation

Broward County Trafficways Designation:

None

Land Uses:

- Commercial
- Park
- Office Park

Annual Average Daily Traffic (AADT):

- SW 6th St = 2,150 (2020) / 3,140 (2019)
- SW 78th Av = 8,900 (2020) / 9,400 (2019)

Functional Federal Classification (2010):

- Local Roads

Key Activity Centers and Destinations:

- Pine Island Park; Broward Mall
- Fountains Shopping Center
- Cornerstone Office Park
- LA Fitness (at Market on University)

Transit Access:

- BCT Route 22 and 88 (Federated Rd)
- BCT Route 12 (University Dr)
- BCT Route 30 (Pine Island Rd)
- Future Community Shuttle stops (Midtown Route)

Prior Planning / Transportation Studies:

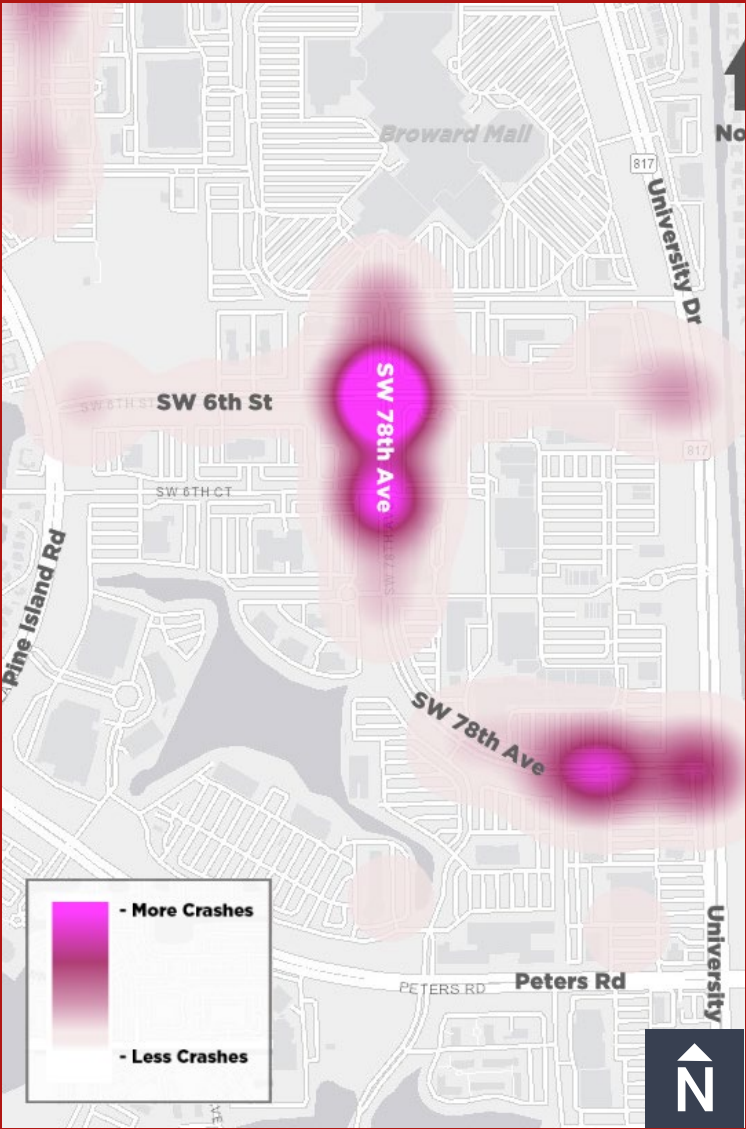
- FDOT SR 817 (University Dr) Roadway Improvement Project
- FDOT / Broward MPO Arterial Connectivity Study Along I-595 Roadway (2021)
- Broward MPO Midtown Plantation and SW Sunrise Livability Study (2012)
- Midtown Master Plan Update (2016)
- City of Plantation Parks & Recreation Master Plan (2020)

Chapter 4: Roadways 4 & 5 SW 6th Street & SW 78th Avenue

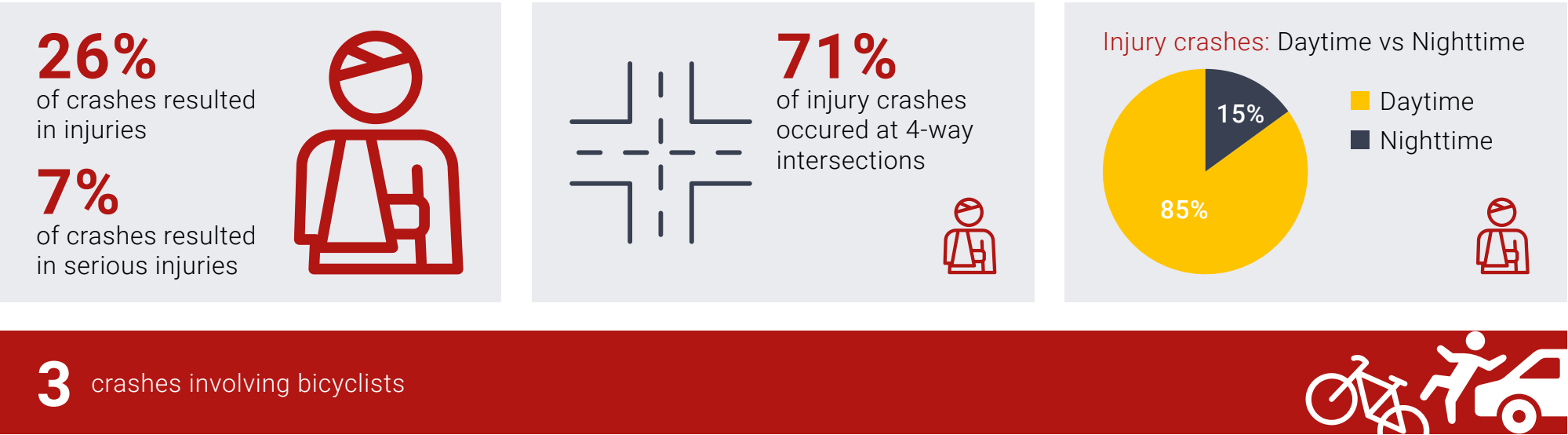
Heat Map of Crashes (2015 thru 2021)

Map Description:

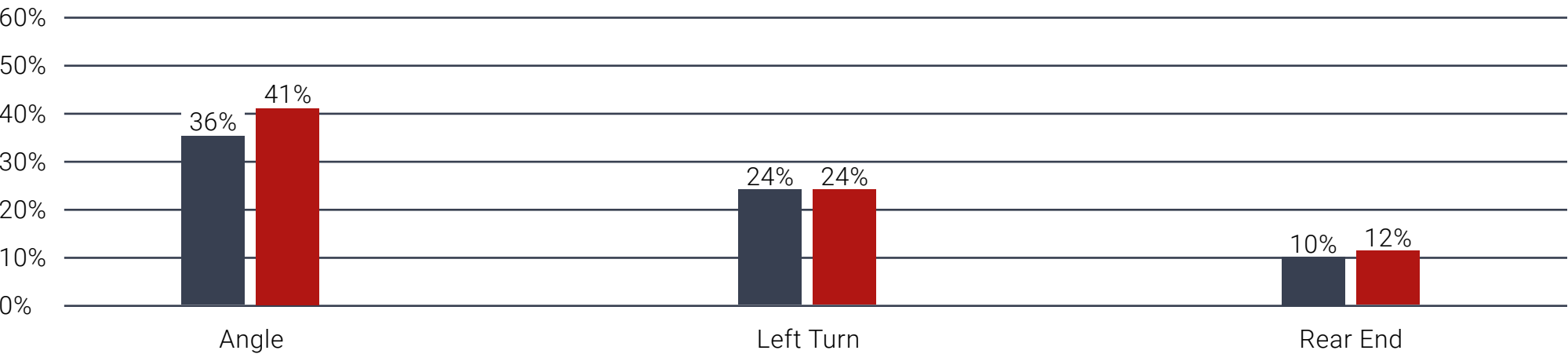
Crashes from 1/1/2015 to 12/15/2021
(Source: Signal 4 Analytics)



103** Crashes Between 1/1/2015 and 12/15/2021



Common Crash Type (All Crash & Injury Crash)



**excluding intersections of Pine Island Rd and University Dr.
Unless otherwise noted, references to "Injury" crashes includes Injury, Serious Injury, and Fatality (as applicable).

Chapter 4: Roadways 4 & 5 SW 6th Street & SW 78th Avenue



SW 6th St and SW 78th Av intersection (SE view). 4-way stop intersection missing most pedestrian features and minimal street lighting.



SW 78th Av and SW 6th Ct intersection (SE view). Minimal pedestrian features, including no crosswalk over northern leg.



Low visibility crosswalk over SW 78th Av



Western end of SW 6th St (east view). Sidewalks located at the curb. No pedestrian entrance to abutting Pine Island Park.

Field Audit Observations:

- On SW 6th St, majority of sidewalks abut roadway curb or are setback only 2 to 3 feet
- On SW 78th AV, majority of sidewalks are setback only 2 to 3 feet
- On SW 78th AV, utility poles / boxes or landscaping may limit widening of sidewalks
- Within northern ROW for SW 6th St, FPL poles abutting northern edge of sidewalk
- No bike facilities
- No pedestrian-scale lighting along sidewalks or at intersections (except in front of new development)
- No signalized intersections
- Substandard curbs and crosswalks at intersection of SW 6th St and SW 78th Av
- Missing detectable warning mats along sidewalks and at intersections
- Low visibility crosswalks
- No pedestrian access to Pine Island Park
- Two-way stop intersection at Crossroads Office Park / Fountains has no pedestrian-scaled lighting and roadway curvature may impact sight distance

Summary of comments from Community Meetings:

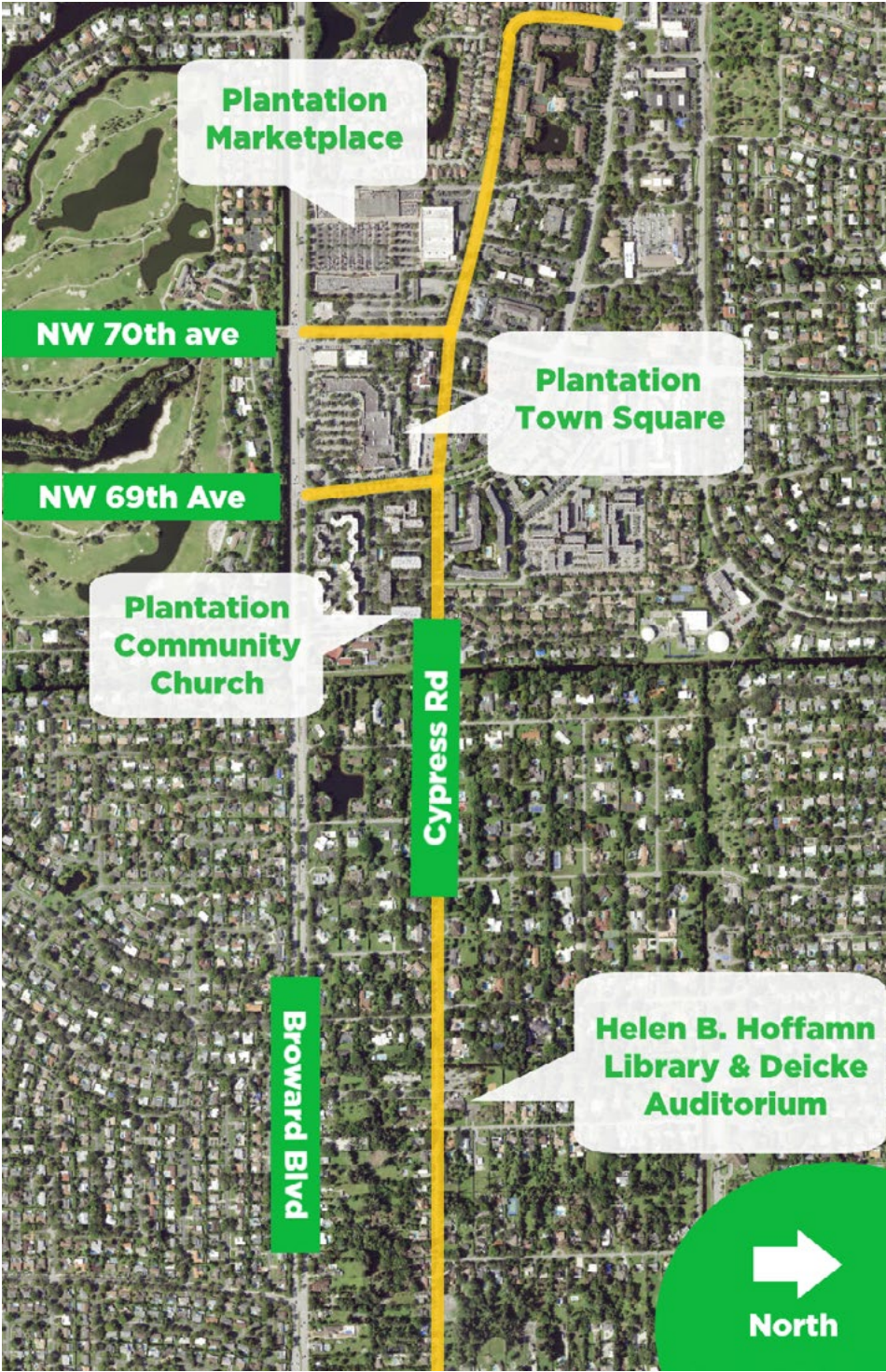
- Resident uses SW 78th to cut thru
- More connectivity between plazas would make it easier to walk
- Residents have seen many accidents on SW 78th Ave as 4-way stops are not used correctly
- Use roundabout instead of 4-way stop
- Resident would like to park once and walk in Midtown
- Tree canopy is heavy in some areas affecting lighting
- Perimeter Rd. has no sidewalks
- There is no safe walk from the Fountains to Target
- Resident suggests a bike lane on 78th instead of shuttle
- Resident suggested electric bikes and scooters
- Resident suggested a Bus lane or rapid traffic on University Dr.
- Resident says they do biking on sidewalk because of safety concerns
- Resident would like safer biking in the area
- Resident suggested a biking grid system in small section around residential and commercial areas of Midtown
- Land pattern (a lot of parking lots abutting roadway) is making area less walkable
- Shuttle connecting midtown to Central Park or safe bike lanes
- City should acquire private roadways in order to obtain grant funds to improve roads

Chapter 4: Roadway 6 Cypress Road

**Draft for City of
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Focus Locations for Recommendations



Length: • 1.75 miles

Speed Limit:

- West of Canal: 30 MPH
- East of Canal: 25 MPH

No. of Lanes: • 2 lanes • NW 70th Av is 4 lanes

Traffic Maint & Eng: City of Plantation

Broward County Trafficways Desgination:

- Cypress Rd & NW 69th Ave = None
- NW 70th Ave = Arterial (100')

Land Uses:

- West of Canal:
- Residential (Medium High ; Medium and Low-Medium)
 - Commercial
 - Community Facilities
- East of Canal:
- Estate
 - Park

Annual Average Daily Traffic (AADT):

- Cypress Rd & NW 69th Ave = Unknown
- NW 70th Ave = 4,400 (2020) / 17,300 (2019)

Functional Federal Classification (2010):

- Local Roads

Key Activity Centers and Destinations:

- Plantation Marketplace
- Plantation Towne Square
- Helen B Hoffman Library (temporary location)
- Deicke Auditorium
- Plantation Community Church

Transit Access:

- BCT Route 56
(on Cypress Rd between NW 69th Av and NW 70th Av)
- BCT Route 22 on Broward Blvd
- Future Community Shuttle stops (East Route)

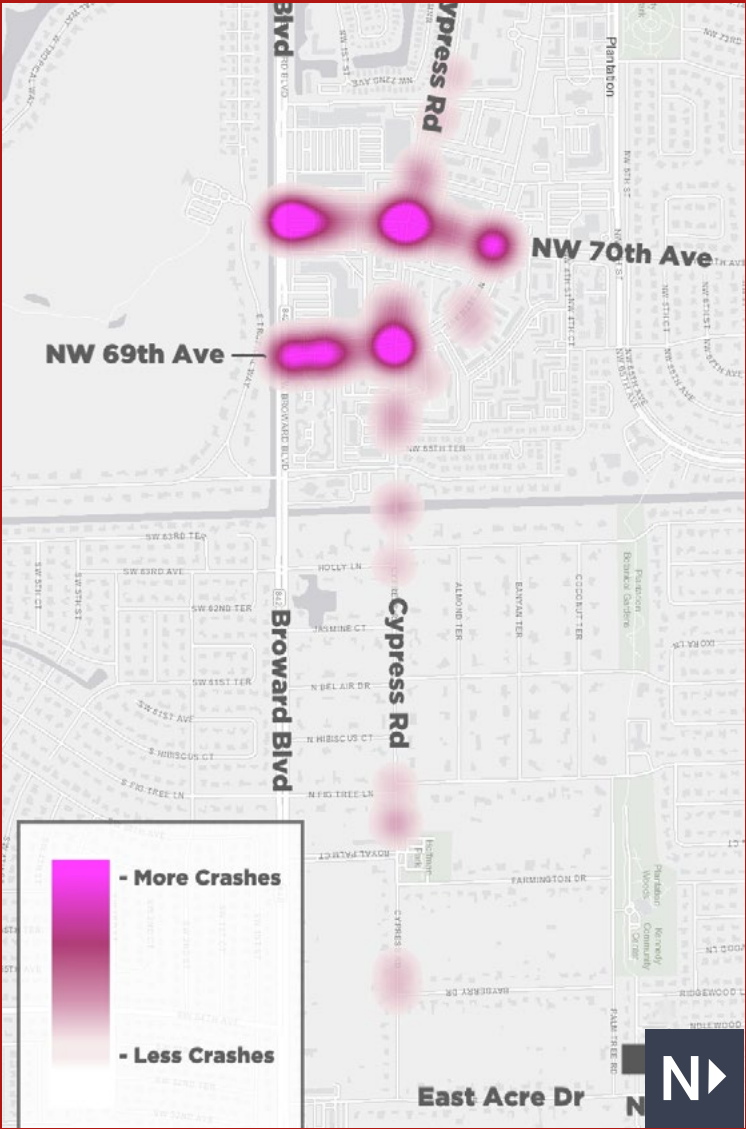
Prior Planning / Transportation Studies:

- Plantation Gardens Historic District Neighborhood Plan Report (2003)
- FDOT SR 842/Broward Boulevard Resurfacing, Restoration and Rehabilitation (RRR)
- City of Plantation Parks & Recreation Master Plan (2020)

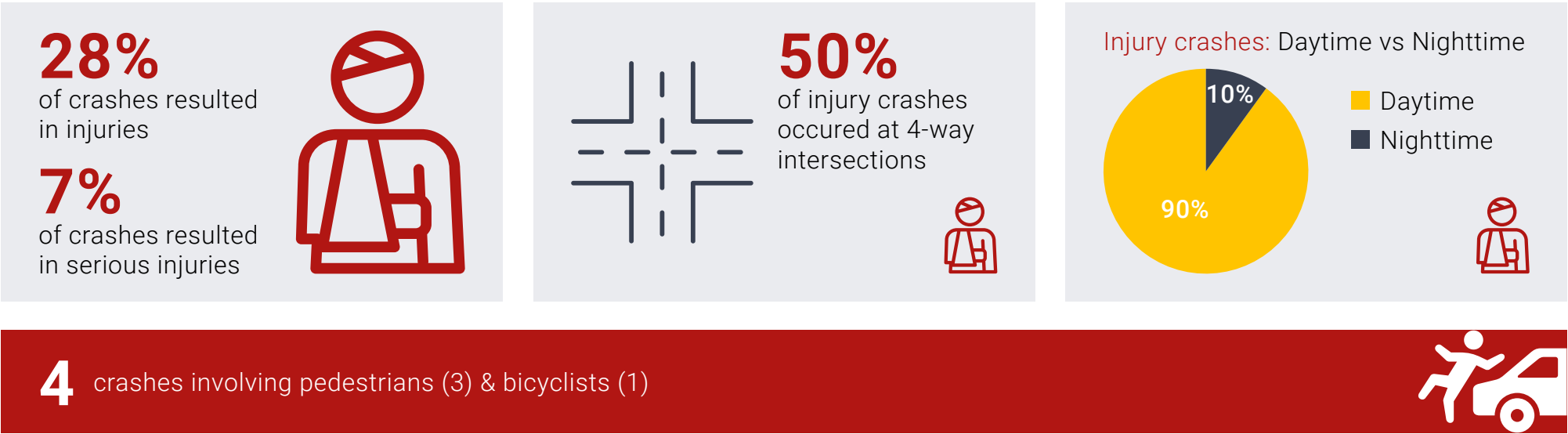
Heat Map of Crashes
(2015 thru 2021)

Map Description:

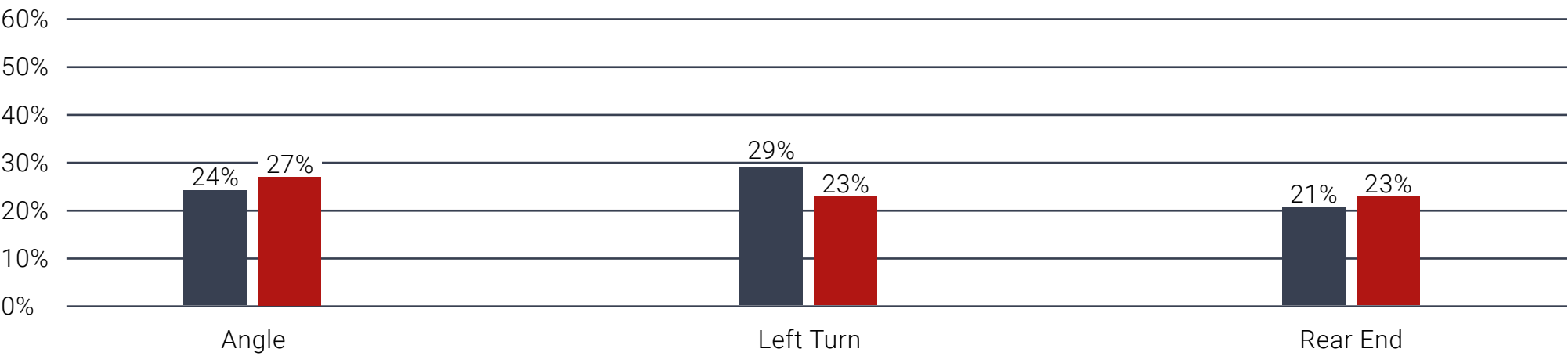
Crashes from 1/1/2015 to 12/15/2021
(Source: Signal 4 Analytics)



86** Crashes Between 1/1/2015 and 12/15/2021



Common Crash Type (All Crash & Injury Crash) ■ All Crashes ■ Injury Crashes



**excluding intersections of Broward Bl
Unless otherwise noted, references to "Injury" crashes includes Injury, Serious Injury, and Fatality (as applicable).

Chapter 4: Roadway 6 Cypress Road

**Draft for City of
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Cypress Rd, just east of Holloway Canal (east view). Pedestrians, bicyclists, and cars share the road.



Western ROW of NW 69th Av (south view). Frequent jaywalking observed.



Cypress Rd and NW 70th Av intersection (west view); Cypress Rd widens to include striped median. Curbs and crosswalks are in poor condition.



SE corner of Cypress Rd and NW 69th Av (west view); Faded crosswalks and adjacent sidewalk veers into parking lot.

Field Audit Observations:

- East of canal, missing sidewalk on north side of Cypress Rd from NW 65 Av to Fig Tree Ln and on south side of Cypress Rd from NW 65 Av to E Acre Dr
- Cut through traffic
- No bike facilities; Bicyclists riding in roadway
- 4-way stop at NW 69th Av with low visibility crosswalks, missing detectable warning surfaces, no pedestrian scaled lighting, and minimum street lights.
- Adjacent to SW corner of NW 69th Av, sidewalk veers into Cypress Square Shopping Center’s parking lot and is not separate from drive aisle
- A lot of pedestrian activity in area adjacent to NW 69th Av.
- No crosswalks from condominiums on east side of NW 69th Ave to Plantation Towne Square (jaywalking observed)
- Intersection infrastructure at NW 70th Av: span and wire traffic signals, substandard curbs, low visibility crosswalks, no detectable warning mats, no left turn signal.
- No pedestrian scale lighting (particularly needed in area west of canal)
- Insufficient streetlights at intersections

Summary of comments from Community Meetings:

- Concerns about speed bumps and that they are an inconvenience for residents
- Residents like to ride bikes in this area
- Cypress Rd would be better for a protected bike lane, biking is too dangerous on Broward Blvd
- Plan for shared use path on Cypress Rd to connect to NW 74th Terr, to NW 74th Ave to NW 5th St, to Park
- Lots of parking lots
- Need sidewalks on Cypress Rd
- Need pedestrian crossing to get to park on NW 5th Street
- NW 70th Av: Need pedestrian signals
- NW 69th Av: drivers speed going south in order to make the light at Broward Bl
- NW 69th Av: Older community that walk across road to Publix; Need a crosswalk to Publix
- Put ornamental trees in roundabouts; make sure to accentuate roundabout
- NW 69th Ave and NW 70th Ave: A lot of accidents
- 4-way stops are frustrating; prefer roundabouts.
- Roundabouts keep cars moving and decrease pollution
- Would like Transit Oriented Development

Chapter 4: Roadway 7 NW 5th Street

**Draft for City of
Plantation Review Only**



Focus Roadway with Key Activity Centers and Destinations



Length:	• 4,550 FT
Speed Limit:	25 MPH
No. of Lanes:	2 lanes
Traffic Maint & Eng:	City of Plantation
Broward County Trafficways Desgination:	None

Land Uses:	• Residential (Low) • Local Activity Center
Annual Average Daily Traffic (AADT):	Not Available
Functional Federal Classification (2010):	Local Road

Key Activity Centers and Destinations:	Prior Planning / Transportation Studies:
• Plantation General Hospital (recently closed) • Plantation Elementary School • Medical Offices • US 441 Commercial Area	• FDOT SR 7 (US 441) Transit Roadway Improvements • Plantation Park East Neighborhood Plan Report (2000) • Plantation Gateway Community Redevelopment Agency, Community Redevelopment Plan (2006) • City of Plantation Parks & Recreation Master Plan (2020)
Transit Access:	
• No transit on NW 5th Street • BCT Routes 18 and 441 Breeze on US 441 • Future Community Shuttle stops (East Route)	

Chapter 4: Roadway 7 NW 5th Street

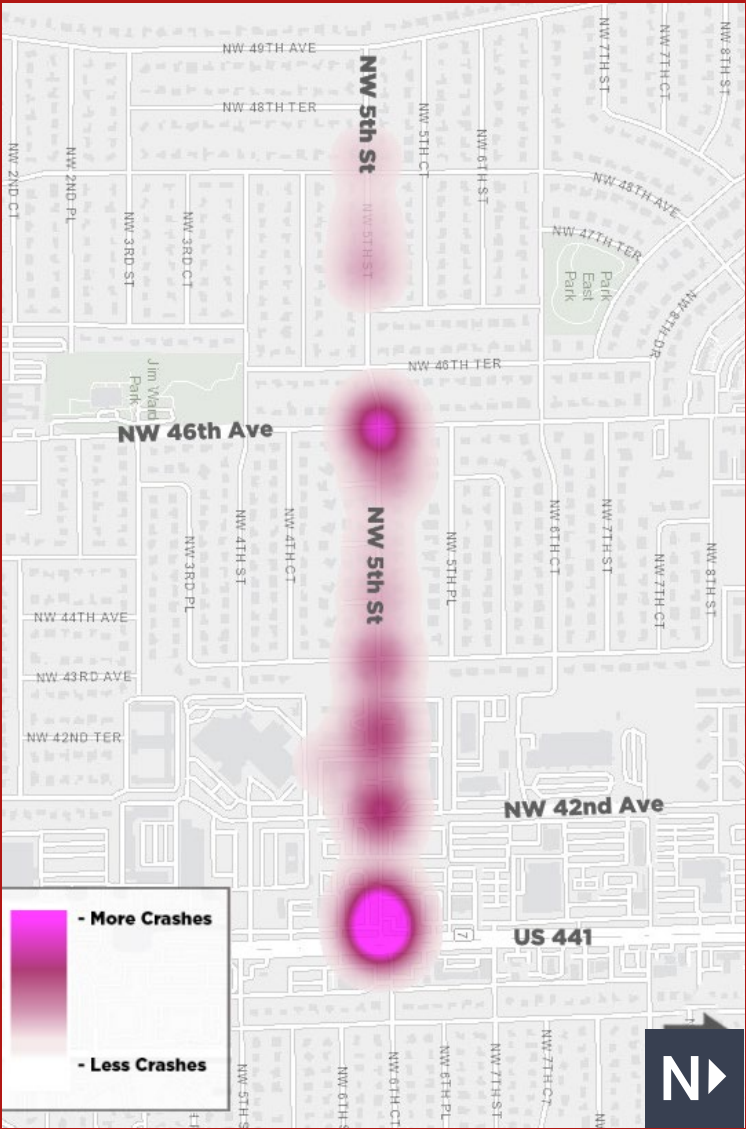
**Draft for City of
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Heat Map of Crashes (2015 thru 2021)

Map Description:

Crashes from 1/1/2015 to 12/15/2021
(Source: Signal 4 Analytics)



114** Crashes Between 1/1/2015 and 12/15/2021

25%
of crashes resulted
in injuries

6%
of crashes resulted
in serious injuries

68%
of injury crashes
occured at 4-way
intersections

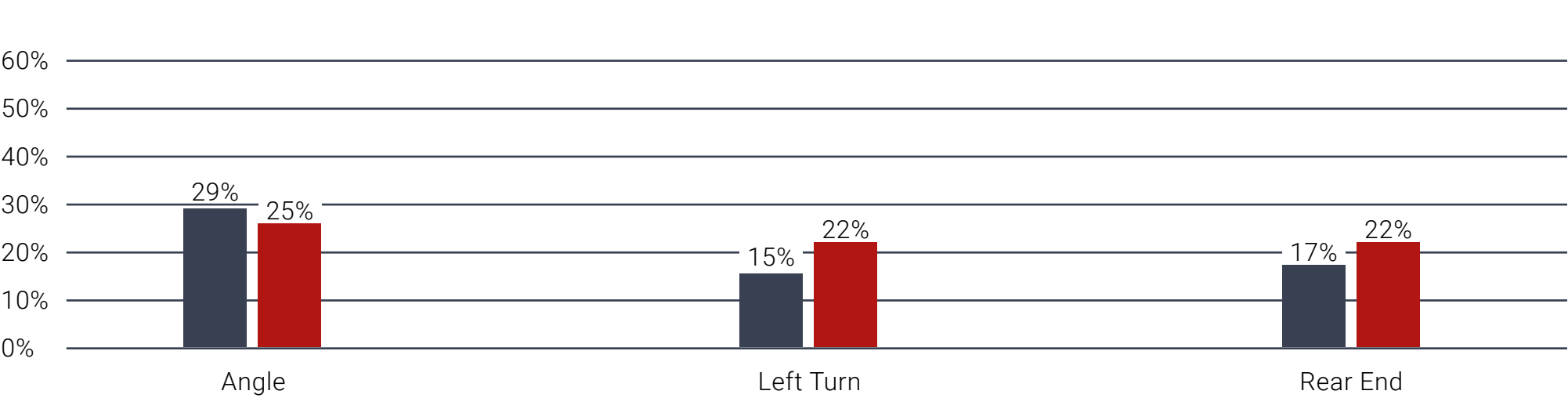
Injury crashes: Daytime vs Nighttime

81%
19%

Daytime
Nighttime

3 crashes involving pedestrians (2) & bicyclists (1)

Common Crash Type (All Crash & Injury Crash)



**excluding intersection of US 441
Unless otherwise noted, references to "Injury" crashes includes Injury, Serious Injury, and Fatality (as applicable).

Chapter 4: Roadway 7 NW 5th Street

**Draft for City of
Plantation Review Only**



Neighborhood gateway columns east of NW 43rd Av (east view). Location is the transition to the single-family neighborhood



Bicyclists frequently observed riding on sidewalks



NW 42nd Av intersection (SW view); Low visibility crosswalks are worn out, detectable warning surfaces are missing, and there is no left turn signal.



Morning traffic heading west to intersection at NW 46th Av

Field Audit Observations:

- Speeding Observed
- Cut through traffic
- Long straight roadway
- Limited crosswalks and those that are there are low visibility
- Neighborhood entry columns (between NW 43rd Av and NW 42nd Av) are not calming traffic
- Traffic pattern associated with Plantation Elementary School's morning drop-off and afternoon pick-up (intersections at NW 42nd Av and NW 46th Av)
- No bike facilities; Bicyclists riding on sidewalks
- NW 42nd Av intersection infrastructure: low visibility crosswalks, no detectable warning mats, no left turn signal, no pedestrian-scaled lighting.
- No wayfinding to adjacent parks
- No wayfinding for walking to Plantation Elementary School
- No pedestrian scaled lighting (particularly needed in area of NW 42nd Av to US 441)
- Limited streetlights, that are obstructed by trees

Summary of comments from Community Meetings:

- Overall poor lighting conditions in the neighborhood
- Road safety concerns
- Concerned about speeding
- Students from Plantation Elementary walking in the street
- Landscaping needs to be enhanced along NW 5th St, especially east of NW 42nd Av
- NW 43rd Ave: the sidewalk is shared between peds and bicycles
- NW 43rd Ave: There should be a crosswalk at the intersection of NW 5th St
- School buses run the stop signs
- Positive reaction from residents regarding roundabouts, tabletop speed bumps and pedestrian lighting
- One resident stated they do not want roundabouts on NW 5th Street at NW 42 Ave or NW 43 Ave
- Car dealerships are using NW 42nd Ave for road testing
- NW 6th Court is being used as a cut through for school traffic (students are driven to pedestrian only entrance)
- Partying / after hours gatherings at Multicultural park on NW 43rd Av

Chapter 4: Roadway 8 NW 46th Avenue

**Draft for City of
Plantation Review Only**



Focus Locations for Recommendations



Length: • 5,100 FT

Speed Limit:

- 25 MPH

No. of Lanes: • 2 lanes

Traffic Maint & Eng: City of Plantation

Broward County Trafficways Desgination:

None

Land Uses:

- Residential (Low; Low-Medium, & Medium-High)
- Local Activity Center
- Community Facilities
- Park

AADT:

Not Available

Functional Federal Classification (2010):

- Local Road

Key Activity Centers and Destinations:

- Jim Ward Community Center
- Park East Park
- Broward Junior Academy/Seventh Day Adventist Church
- First Baptist Church
- Apostolic Christian Church
- Retail / Office on NW 9th Court

Transit Access:

- No transit on NW 46th Ave
- BCT Route 22 (Broward Blvd)
- Future Community Shuttle stops (East Route)

Prior Planning / Transportation Studies:

- Plantation Park East Neighborhood Plan Report (2000)
- City of Plantation Parks & Recreation Master Plan (2020)

Chapter 4: Roadway 8 NW 46th Avenue

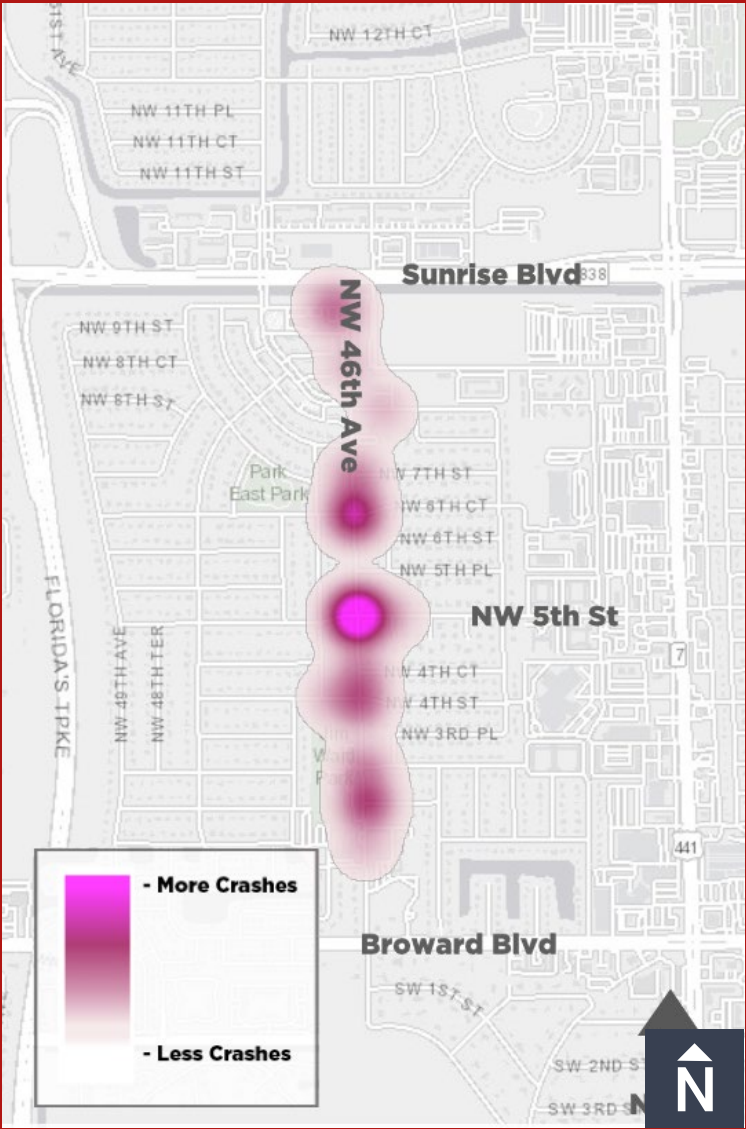
**Draft for City of
Plantation Review Only**



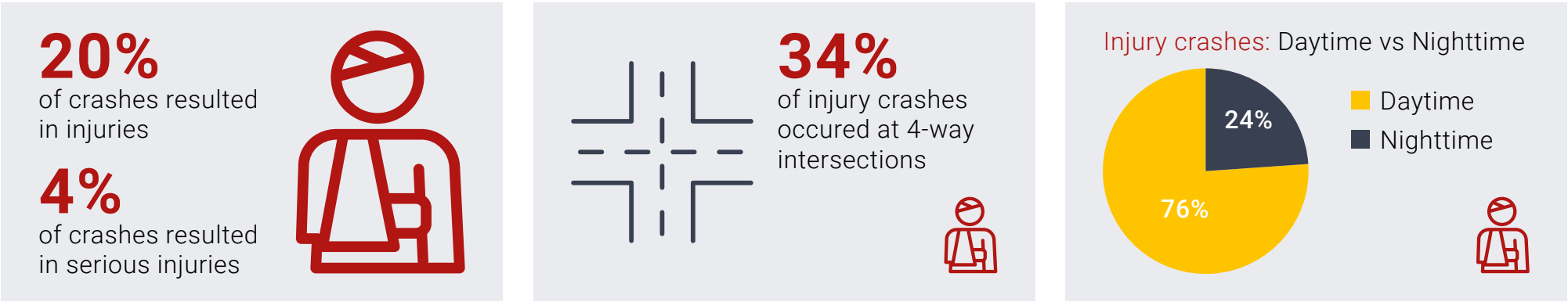
Heat Map of Crashes (2015 thru 2021)

Map Description:

Crashes from 1/1/2015 to 12/15/2021
(Source: Signal 4 Analytics)

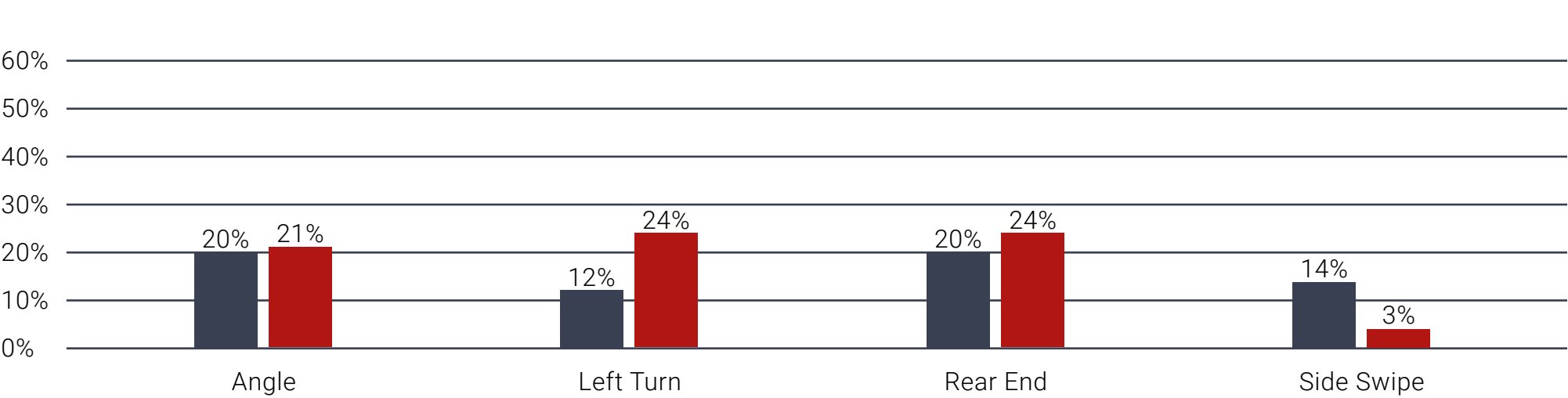


160** Crashes Between 1/1/2015 and 12/15/2021



2 crashes involving pedestrians

Common Crash Type (All Crash & Injury Crash)



**excluding intersection of Broward Bl and Sunrise Bl
Unless otherwise noted, references to "Injury" crashes includes Injury, Serious Injury, and Fatality (as applicable).

Chapter 4: Roadway 8 NW 46th Avenue

**Draft for City of
Plantation Review Only**



NW 46th Av (south view). The road’s layout and location has resulted in a popular cut-through street with speeding cars.



Bicyclists riding on the sidewalks, likely due to speeding vehicles.



View of school bus stop in front of the Jim Ward Community Center.



NW 5th St intersection (NW view). Mature shade trees often obstruct the one streetlight.



Northern end of NW 46th Ave, roadway becomes one-way only.



NW 6th Ct intersection (north view). Leads to Plantation Elementary School's pedestrian entrance but is missing high-visibility pedestrian features.

Field Audit Observations:

- Observed Speeding
- Cut through traffic
- Multiple signs at northern and southern ends of roadway asking drivers to slow down
- No signalized intersections
- No bike facilities; Bicyclists observed riding on sidewalks
- Long straight roadway
- No wayfinding to adjacent parks and greenway
- Unusual / one-way traffic pattern at northern section of roadway
- Low visibility cross walks
- Crosswalks missing at most intersections
- No wayfinding to pedestrian entrance to Plantation Elementary School at NW 6th Ct
- No pedestrian scaled lighting
- Limited streetlights, that are obstructed by trees
- “Donut” tire marks in various intersections

Summary of comments from Community Meetings:

- Overall poor lighting conditions in the neighborhood
- Road safety concerns
- Concerned about speeding and cut through traffic
- Students from Plantation Elementary walking in the street
- Children are playing in the street on NW 5th Ct, NW 6th Ct, NW 6th St, and in front of Jim Ward
- Landscaping needs to be enhanced along NW 5th St, especially east of NW 42nd Av
- NW 43rd Ave: the sidewalk is shared between pedestrians and bicycles
- NW 43rd Ave: There should be a crosswalk at the intersection of NW 5th St
- School buses run the stop signs
- Positive reaction from residents regarding roundabouts, tabletop speed bumps and pedestrian lighting
- The greenway south of Sunrise Blvd Canal does not feel safe, even during the day; Greenway needs lighting
- Uncomfortable walking even during daytime, but especially at nighttime
- Crosswalk needed at the intersection of NW 9th Dr and NW 46th Ave
- NW 6th Court is being used as a cut through for school traffic (students are driven to pedestrian only entrance)

Draft for City of Plantation Review Only

Chapter 5: Recommendations



Introduction

This chapter presents the short-term recommendations developed with the methodology described in Chapter 3.

Timeframes

Projects included in this plan are intended to address the current needs of the Focus Roadways. Near-term improvements typically consist of smaller and/or more critical projects, where as short-term projects may be phased in over a longer time frame. Near-term projects are intended to be implemented before or concurrent with the short-term projects. Nevertheless, implementation of the projects in either the near-term or short-term time frames will be subject to funding availability.

The feasibility of the timeframes is based on planning level analysis of existing conditions, including roadway ownership, right-of-way ownership, right-of-way width, property appraiser information, visible utilities, project costs and roadway jurisdiction.

The timeframes do not, however, include coordination with utilities, potential acquisition of right-of-way, stakeholder support for a preferred local alternative, environmental assessments, and partner-agency coordination. As previously noted, additional approvals may be required from Broward County for Nob Hill Rd and Cleary Bl, as well as the County-owned intersection of NW /SW 84th Av and Broward Blvd.

Warrant Studies

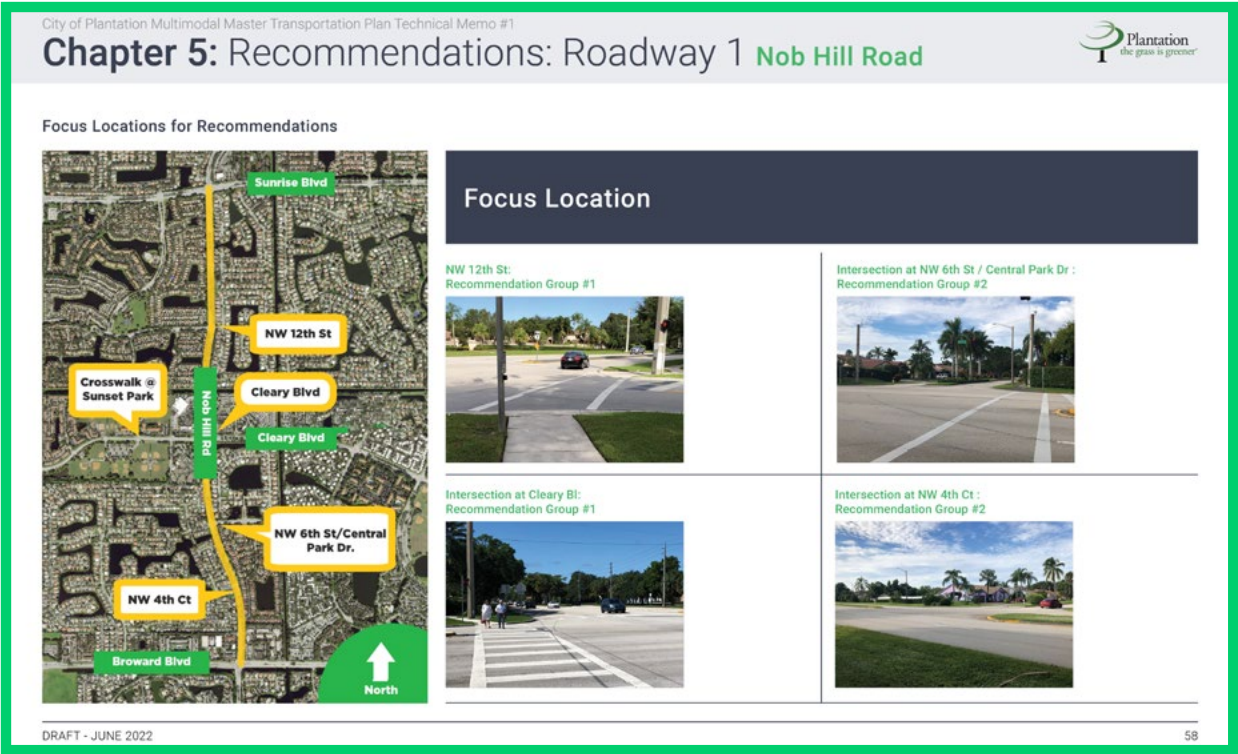
Additional studies may be required to demonstrate a specific improvement is warranted. This is particularly true if the City is seeking funding assistance from a partner agency, such as Broward County, FDOT, or the Broward MPO. The studies might include signal warrant analysis, traffic counts, and pedestrian counts. During the development of the High-Level Multimodal Needs Assessment pedestrian traffic counts were obtained for four Focus Roadways: SW 6th St, Cypress Rd, NW 5th St, and NW 46th Av. The traffic counts are included in Appendix Section G.

How to Use the Recommendations Pages

Similar to Chapter 4, the recommendations are presented in a series of pages for each Focus Roadway. Unlike Chapter 4, however, the series of pages may vary. A description of the pages is as follows.

Overview Page: Focus Locations

The first page (example shown below) includes a map of the Focus Roadway showing the Focus Locations. Also included are photographs of each Focus Location, as well as the designation as either Recommendation Group #1 or Group #2.



For those Focus Roadways with locations designated as Recommendations Group #1, the next page is a table listing the recommended safety treatments and mobility improvements for the various locations (example of this page is shown below).


City of Plantation Multimodal Master Transportation Plan Technical Memo #1				
<h1>Chapter 5: Recommendations: Roadway 1 Nob Hill Road</h1>				
Recommendations Group #1: Safety Treatments and Mobility Improvements				
Location	School Crosswalk at Entrance to Sunset Park	Intersection at Cleary Blvd	Intersection at NW 12th St	Entire Roadway
Hight Visibility Pavement Markings			Yes, over Nob Hill Rd	
Ped-Scale Lighting	Yes, southside only	Yes	Yes	
Crosswalk Signage: Advanced	Yes		Yes	
Crosswalk Signage: In-Street	Yes			
Detectable Warning Surface		Yes	Yes	Yes
RRFB	Yes			
Mast Arm Conversation		Yes	Yes	
LPI		Yes	Yes, over Nob Hill Rd	
Left Turn Signal			Yes, request warrant study	
Other	• Radar Speed Limit Signs	• Accesible Pedestrian Signals	• Accesible Pedestrian Signals	• Remove sidewalk obstructions/overgrown landscaping. • Radar speed limit signs
DRAFT - JUNE 2022				
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For those Focus Roadways with locations designated as Recommendations Group #2, subsequent pages (example shown below) present an overview of each Focus Location and the recommendation concept. The information provided includes an aerial of the Focus Location, list of observations, injury crash trends, the objectives of the recommendations, list of near-term and short-term improvements, and a planning rendering of the concept. The planning renderings depict the recommended concept but if a short-term improvement replaces a near-term improvement, only the short-term improvement is depicted. The planning renderings are intended to inform residents and stakeholders about the concept including general location and impact of the proposed improvements.

City of Plantation Multimodal Master Transportation Plan Technical Memo #1

Chapter 5: Recommendations





Location: Intersection at NW 4th Court

Observations / Missing Facilities:

- Unsignalized T-Intersection
- All turn movements allowed
- No southbound U-turn storage area
- No pedestrian facilities or lighting
- No sidewalk in western ROW
- No crosswalk from western neighborhood over Nob Hill Rd to sidewalk in eastern ROW
- Observed Speeding

Focus Roadway 1: Nob Hill Road

Objectives:

- ✓ Improve intersection safety
- ✓ Reduce left turn collisions to / from NW 4th Court
- ✓ Create pedestrian access to sidewalk on Nob Hill Rd

24

Crashes from Jan 2015 to Dec 2021

Injury Crash Data / Trends


40%

of injury crashes were caused by rear end collisions




42%

of crashes resulted in injuries



50%

of injury crashes occurred on wet roads



Improvements


Near Term (0 – 2 years):

- Extend sidewalks on NW 4th Court to Nob Hill Road's right-of-way
- Create a crosswalk over NW 4th Court including:
- Detectable warning surfaces
- High-visibility pavement markings

Short Term (2 – 5 years):

1. Install directional median on Nob Hill Rd prohibiting left turns from NW 4th Ct
 - NW 4th Court to allow right-turns out only
2. Create crosswalk over Nob Hill Road including:
 - Detectable warning surfaces
 - High-visibility pavement markings
 - Pedestrian Refuge Island • Lighting • Signage
 - HAWK Signal

Improvements

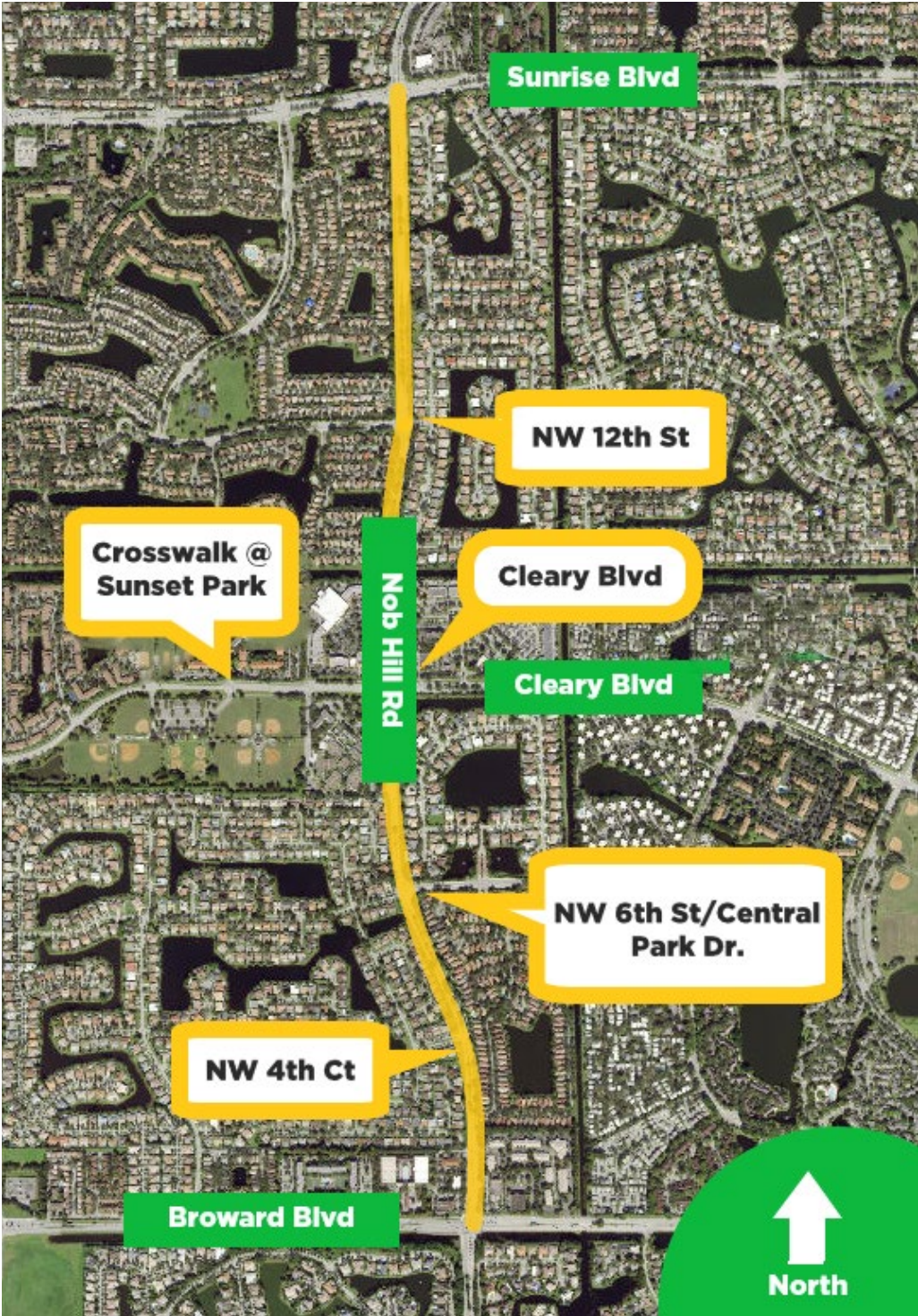


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Chapter 5: Recommendations: Roadway 1 Nob Hill Road

Focus Locations for Recommendations



Focus Location

Intersection at NW 12th St:
Recommendation Group #1



Intersection at NW 6th St / Central Park Dr:
Recommendation Group #2



Crosswalk at Sunset Park :
Recommendation Group #1



Intersection at Cleary Bl:
Recommendation Group #1



Intersection at NW 4th Ct :
Recommendation Group #2



Entire Roadway :
Recommendation Group #1





Chapter 5: Recommendations: Roadway 1 Nob Hill Road

Recommendations Group #1: Safety Treatments and Mobility Improvements

Location	School Crosswalk at Entrance to Sunset Park	Intersection at Cleary Blvd	Intersection at NW 12th St	Entire Roadway
High Visibility Pavement Markings			Yes, over Nob Hill Rd	
Ped-Scale Lighting	Yes, southside only	Yes	Yes	
Crosswalk Signage: Advanced	Yes		Yes	
Crosswalk Signage: In-Street	Yes			
Detectable Warning Surface		Yes	Yes	Yes
Rectangular Rapid Flashing Beacons (RRFB)	Yes			
Mast Arm Conversion		Yes	Yes	
Leading Pedestrian Interval (LPI)		Yes	Yes, over Nob Hill Rd	
Left Turn Signal			Yes, request warrant study	
Other	• Radar Speed Limit Signs	• Accessible Pedestrian Signals	• Accessible Pedestrian Signals	• Remove sidewalk obstructions/ overgrown landscaping. • Radar speed limit signs

Chapter 5: Recommendations: Roadway 1 Nob Hill Road



Location: Intersection at NW 4th Court

Observations / Missing Facilities:

- Unsignalized T-Intersection
- All turn movements allowed
- No southbound U-turn storage area
- No pedestrian facilities or lighting
- No sidewalk in western ROW
- No crosswalk from western neighborhood over Nob Hill Rd to sidewalk in eastern ROW
- Observed Speeding

Objectives

- ✓ Improve intersection safety
- ✓ Reduce collisions to / from NW 4th Court
- ✓ Create pedestrian access to sidewalk on east side of Nob Hill Rd

24

Crashes from Jan 2015 to Dec 2021

Injury Crash Data / Trends

40%

of injury crashes were caused by rear end collisions



42%

of crashes resulted in injuries



50%

of injury crashes occurred on wet roads



Improvements

Near Term (0 – 2 years):

- Extend sidewalks on NW 4th Court to Nob Hill Road's right-of-way
- Create a crosswalk over NW 4th Court including:
 - Detectable warning surfaces
 - High-visibility pavement markings

Short Term (2 – 5 years):

1. Install directional median on Nob Hill Rd prohibiting left turns from NW 4th Ct
 - NW 4th Court to allow right-turns out only
2. Create crosswalk over Nob Hill Road including:
 - Detectable warning surfaces
 - High-visibility pavement markings
 - Pedestrian Refuge Island
 - Lighting
 - Signage
 - Pedestrian Crosswalk Signal / Beacon

Rendering



Chapter 5: Recommendations: Roadway 1 Nob Hill Road



Location: Intersection at NW 6th Street

Observations / Missing Facilities:

- Observed Speeding
- Span and Wire Traffic Signals
- No left turn signals on NW 6th St / Central Park Pl
- No sidewalk on western side of Nob Hill Rd
- No sidewalk on southern side of Central Park Pl
- Low visibility crosswalks
- Curb ramps missing detectable warning surfaces

Objectives

- ✓ Improve safety of intersection
- ✓ Reduce rear-end collisions on Nob Hill Road
- ✓ Increase intersection visibility
- ✓ Crosswalk visibility enhancements

79

Crashes from Jan 2015 to Dec 2021

Injury Crash Data / Trends

52%

of injury crashes were caused by rear end collisions



37%

of crashes resulted in injuries (vs Nob Hill Rd = 29%)



21%

of injury crashes occurred during nighttime



Improvements

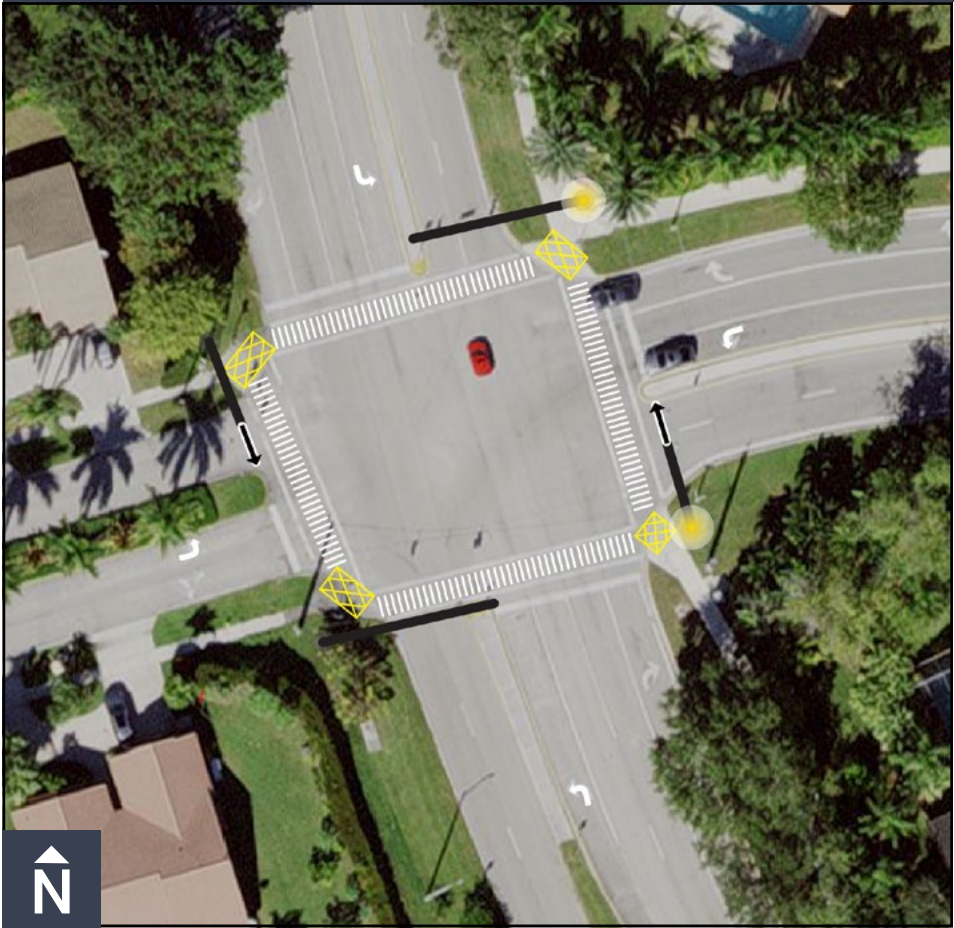
Near Term (0 – 2 years):

- Install pedestrian-scale lighting at eastern corners of intersection
- Install signage: pedestrian crossing
- Refurbish crosswalk pavement markings to high-visibility pattern
- Install detectable warning surfaces at curb ramps

Short Term (2 – 5 years):

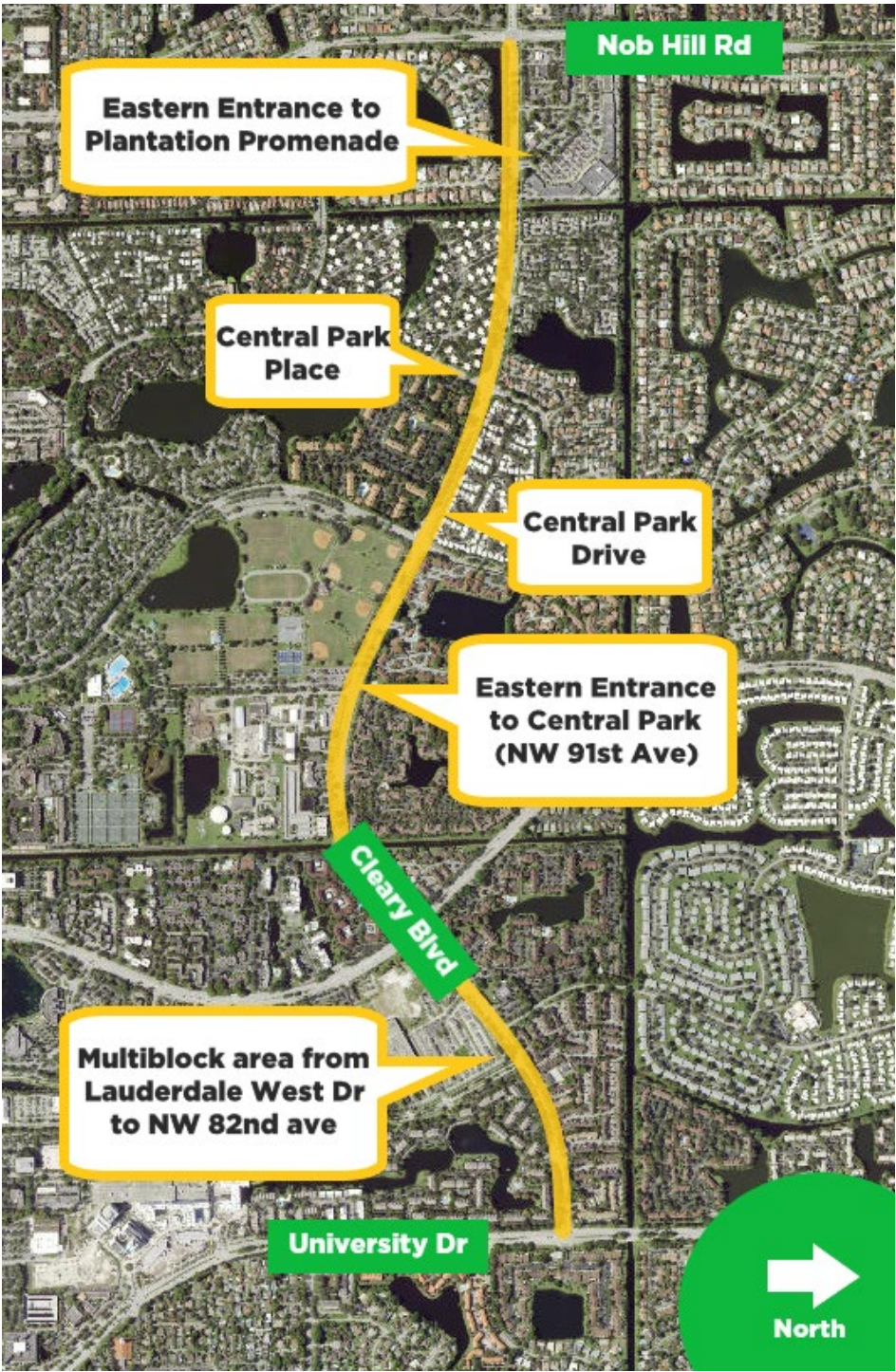
1. Replace traffic signal infrastructure with mast arms
2. Add left turn signals for NW 6th Street and Central Park Place

Rendering



Chapter 5: Recommendations: Roadway 2 Cleary Boulevard

Focus Locations for Recommendations



Focus Location

Eastern Entrance to Plantation Promenade:
Recommendation Group #2

Intersection at Central Park Pl:
Recommendation Group #2

Intersection at Central Park Dr:
Recommendation Group #2

Eastern Entrance to Central Park:
Recommendation Group #2

Multiblock area from Lauderdale West Dr to
NW 82nd Av: Recommendation Group #2

Chapter 5: Recommendations: Roadway 2 **Cleary Boulevard**



Location: East entrance to Plantation Promenade Shopping Center 1

Observations / Missing Facilities:

- Speeding
- Unsignalized T-Intersection / driveway
- U-turns prohibited
- Sidewalks missing detectable warning pads
- No crosswalks from southern ROW sidewalk
- No pedestrian-scaled lighting
- Parents park in shopping center for morning drop-off to Central Park Elementary School

Objectives

- ✓ Improve safety of intersection
- ✓ Reduce left-turn collisions to / from shopping center
- ✓ Reduce vehicle speeds / traffic calming on Cleary Blvd
- ✓ Improve pedestrian facilities
- ✓ Create pedestrian access from Cleary Blvd southern sidewalk


34
Crashes from Jan 2015 to Dec 2021

Injury Crash Data / Trends

56%
of injury crashes were caused by left turn collisions



47%
of crashes resulted in injuries



19%
of injury crashes occurred during nighttime



Improvements

Near Term (0 – 2 years):

- Install Speed Radar Feedback Signs east / west of intersection
- Create advanced stop bar for southbound vehicles
- Install detectable warning surfaces at sidewalk connections to shopping center's driveway

Option #1 Short Term (2 – 5 years):

1. Install directional median on Nob Hill Rd prohibiting left turns from shopping center
 - Shopping center driveway to allow right-turns out only
2. Create crosswalk over Cleary Blvd including:
 - Detectable warning surfaces
 - High-visibility pavement markings
 - Pedestrian Refuge Island
 - Lighting
 - RRFBs
 - Signage

Option #1 Rendering



Chapter 5: Recommendations: Roadway 2 **Cleary Boulevard**



Location: East entrance to Plantation Promenade Shopping Center 2

Observations / Missing Facilities:

- Speeding
- Unsignalized T-Intersection / driveway
- U-turns prohibited
- Sidewalks missing detectable warning pads
- No crosswalks from southern ROW sidewalk
- No pedestrian-scaled lighting
- Parents park in shopping center for morning drop-off to Central Park Elementary School

Objectives

- ✓ Improve safety of intersection
- ✓ Reduce left-turn collisions to / from shopping center
- ✓ Reduce vehicle speeds / traffic calming on Cleary Blvd
- ✓ Improve pedestrian facilities
- ✓ Create pedestrian access from Cleary Blvd southern sidewalk

34

Crashes from Jan 2015 to Dec 2021

Injury Crash Data / Trends

56%

of injury crashes were caused by left turn collisions

47%

of crashes resulted in injuries

19%

of injury crashes occurred during nighttime

Improvements

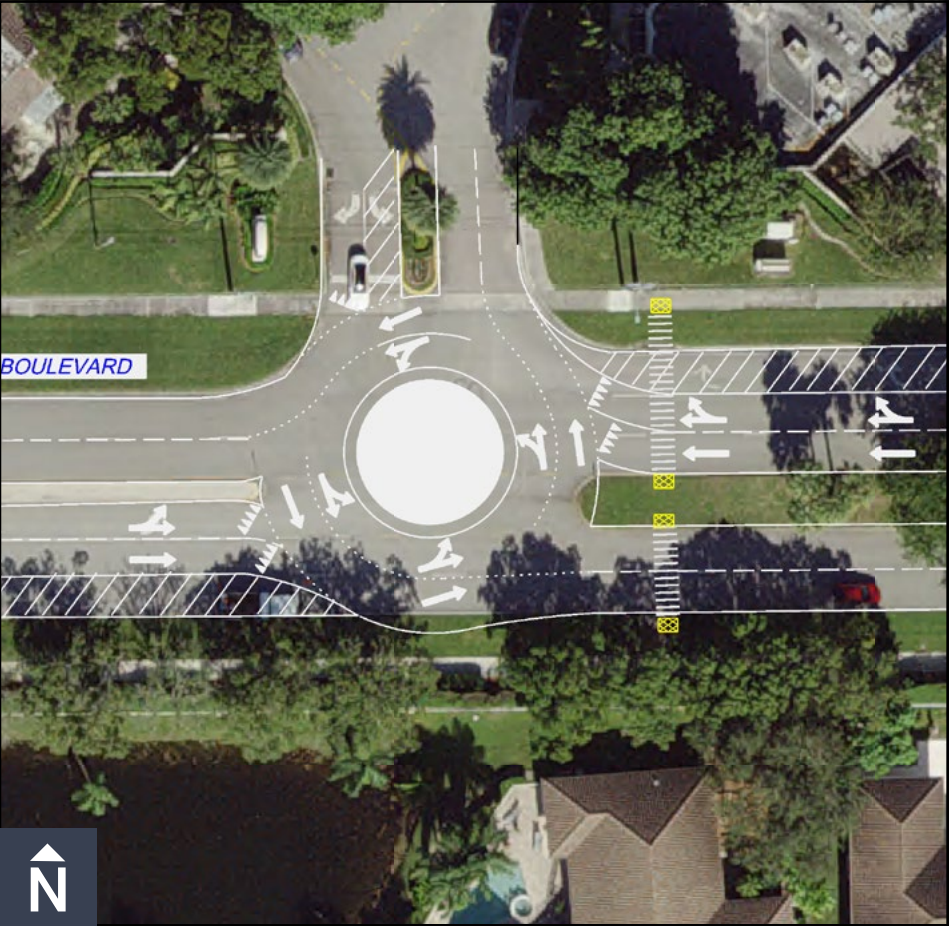
Near Term (0 – 2 years):

- Install Speed Radar Feedback Signs east / west of intersection
- Create advanced stop bar for southbound vehicles
- Install detectable warning surfaces at sidewalk connections to shopping center's driveway

Option #2 Short Term (2 – 5 years):

1. Reduce Cleary Blvd Speed limit to 30 MPH
2. Convert intersection to Mini-Roundabout
3. Create crosswalk over Cleary Blvd including:
 - Detectable warning surfaces
 - High-visibility pavement markings
 - Pedestrian Refuge Island
 - Lighting
 - Signage

Option #2 Rendering



Chapter 5: Recommendations: Roadway 2 **Cleary Boulevard**



Location: Intersection at Central Park Place North

Observations / Missing Facilities:

- Span and wire traffic signals
- Low visibility crosswalks
- No detectable warning surfaces
- No left turn signals
- Traffic calming (textured pavement) on Central Park Pl, just south of the intersection

Objectives

- ✓ Improve intersection safety
- ✓ Reduce left turn collisions
- ✓ Reduce vehicle speeds / traffic calming on Cleary Blvd
- ✓ Increase intersection visibility
- ✓ Crosswalk visibility enhancements

22

Crashes from Jan 2015 to Dec 2021

Injury Crash Data / Trends

50%

of injury crashes were caused by left turn collisions



54%

of crashes resulted in injuries



33%

of injury crashes occurred during nighttime



Improvements

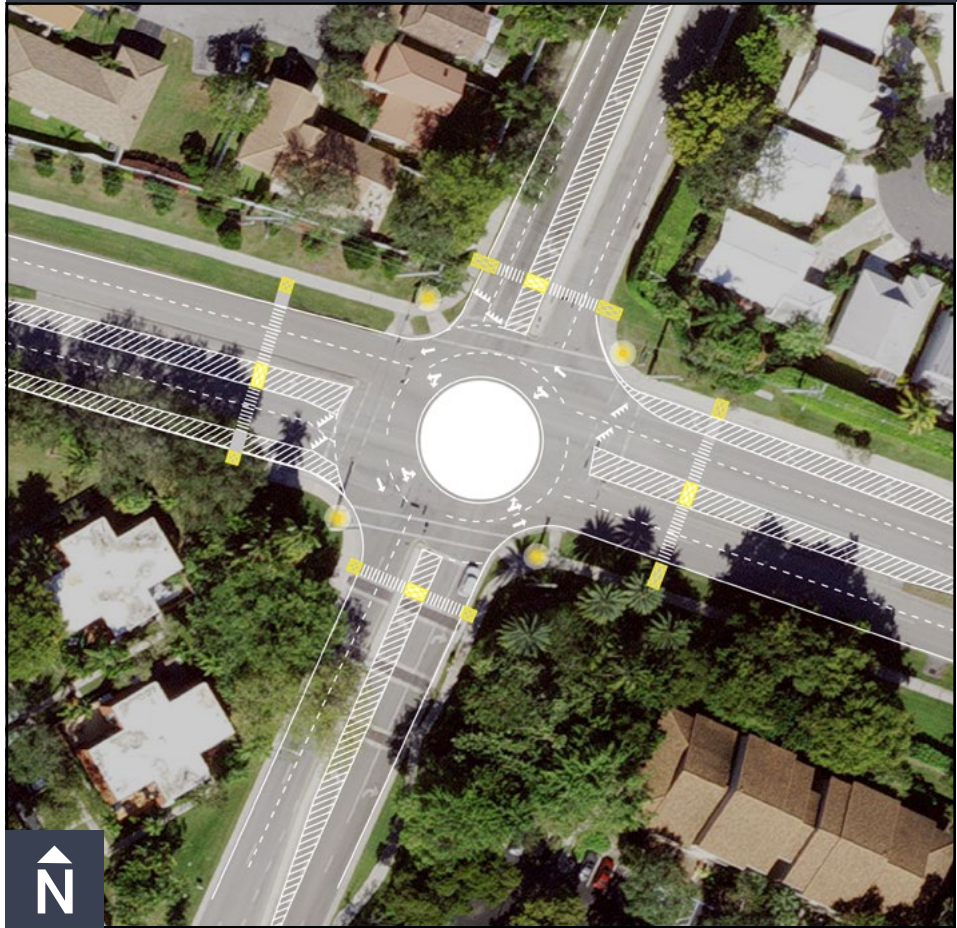
Near Term (0 – 2 years):

- Install pedestrian-scale lighting (all corners)
- Install signage: pedestrian crossing
- Refurbish crosswalk pavement markings to high-visibility pattern
- Install detectable warning surfaces at curb ramps

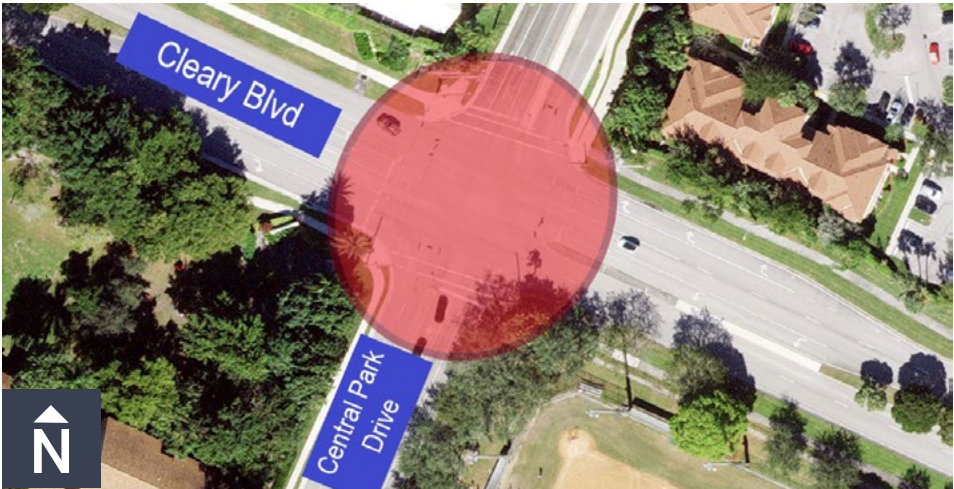
Short Term (2 – 5 years):

1. Reduce Cleary Blvd Speed limit to 30 MPH
2. Convert intersection to Mini-Roundabout
3. Create new crosswalks including:
 - Detectable warning surfaces
 - High-visibility pavement markings
 - Pedestrian Refuge Island
 - Signage

Rendering



Chapter 5: Recommendations: Roadway 2 **Cleary Boulevard**



Location: Intersection at Central Park Drive

Observations / Missing Facilities:

- Span and wire traffic signals
- Low visibility crosswalks
- No detectable warning surfaces
- No left turn signals
- No pedestrian-scaled lighting
- Directly abuts Central Park
- Double sidewalk on Central Park Dr, north of intersection
- A lot of pedestrian activity in intersection for accessing Central Park

Objectives

- ✓ Improve intersection safety
- ✓ Reduce left turn collisions
- ✓ Reduce vehicle speeds / traffic calming on Cleary Blvd
- ✓ Increase intersection visibility
- ✓ Crosswalk visibility enhancements
- ✓ Improve multimodal access to Central Park

31

Crashes from Jan 2015 to Dec 2021

Injury Crash Data / Trends

69%

of injury crashes were caused by left turn & angle collisions



48%

of crashes resulted in injuries



19%

of injury crashes occurred during nighttime



Improvements

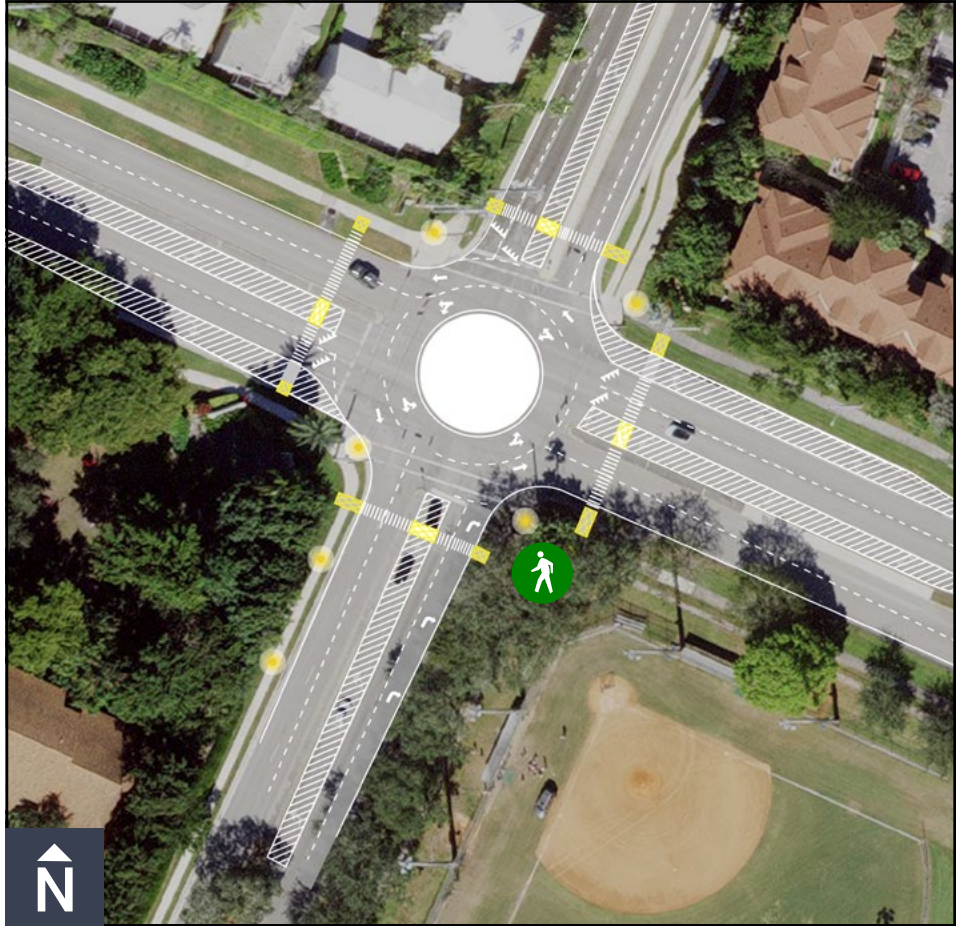
Near Term (0 – 2 years):

- Install pedestrian-scale lighting (all corners)
- Install pedestrian-scale lighting along western Central Park Dr sidewalk
- Install signage: pedestrian crossing
- Refurbish crosswalk pavement markings to high-visibility pattern
- Install detectable warning surfaces at curb ramps
- Create pedestrian-only entrance to Central Park close to intersection

Short Term (2 – 5 years):

1. Reduce Cleary Blvd Speed limit to 30 MPH
2. Convert intersection to Mini-Roundabout
3. Create new crosswalks including:
 - Detectable warning surfaces
 - High-visibility pavement markings
 - Pedestrian Refuge Island
 - Signage

Rendering



Chapter 5: Recommendations: Roadway 2 Cleary Boulevard



Location: Entrances to Central Park

Observations / Missing Facilities:

- No pedestrian access to Central Park from Cleary Bl (pedestrian access is via parking lots)
- Jaywalking at both park entrances
- On Central Park Dr, bicyclists riding facing traffic in turn lane
- No crosswalk across Cleary Bl to park entrance at NW 91st Av
- Mix of pedestrians & industrial vehicles at intersection of NW 91st Av
- Bicyclists riding on sidewalks
- City employees use northern parking lot at NW 91st Av

Objectives

- ✓ Improve pedestrian access to Central Park (reduce jaywalking)
- ✓ Encourage more multimodal transportation to / from Central Park
- ✓ Minimize potential multimodal conflicts at NW 91st Ave
- ✓ Reduce vehicle speeds / traffic calming on Cleary Blvd

Improvements

Near Term (0 – 2 years):

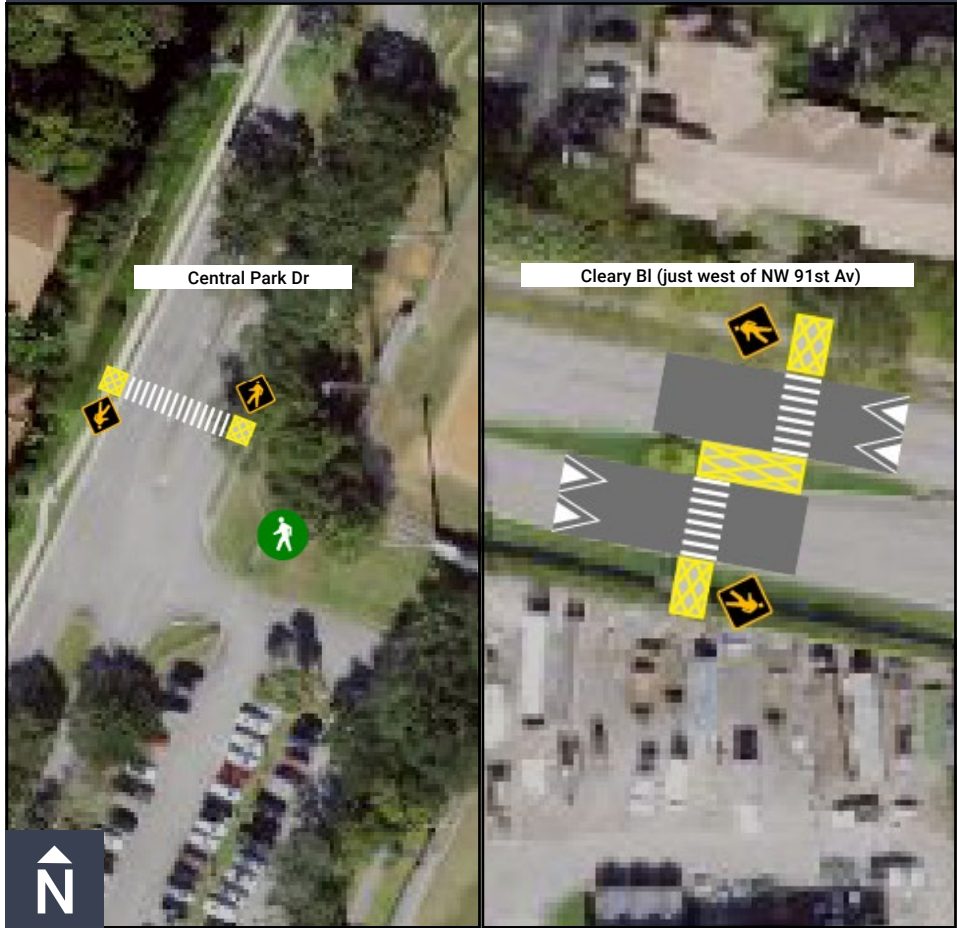
- At NW 91st Avenue:
- Mark crosswalk over NW 91st Avenue with high-visibility pattern
 - Install detectable warning surfaces at curb ramps
 - Install signage: pedestrian crossing
 - Install crosswalk lighting
- At Central Park Dr:
- Create a crosswalk over Central Park Dr including:
 - Detectable warning surfaces
 - High-visibility pavement markings
 - Lighting
 - Signage
 - RRFBs

Create pedestrian-only park entrances in adjacency to NW 91st Ave and Central Park Dr

Short Term (2 – 5 years):

1. Reduce Cleary Blvd Speed limit to 30 MPH
2. Adjacent to NW 91st Avenue, Install raised crosswalk over Cleary Blvd including:
 - Detectable warning surfaces
 - High-visibility pavement markings
 - Pedestrian Refuge Island
 - Lighting
 - Signage

Rendering





Chapter 5: Recommendations: Roadway 2 **Cleary Boulevard**



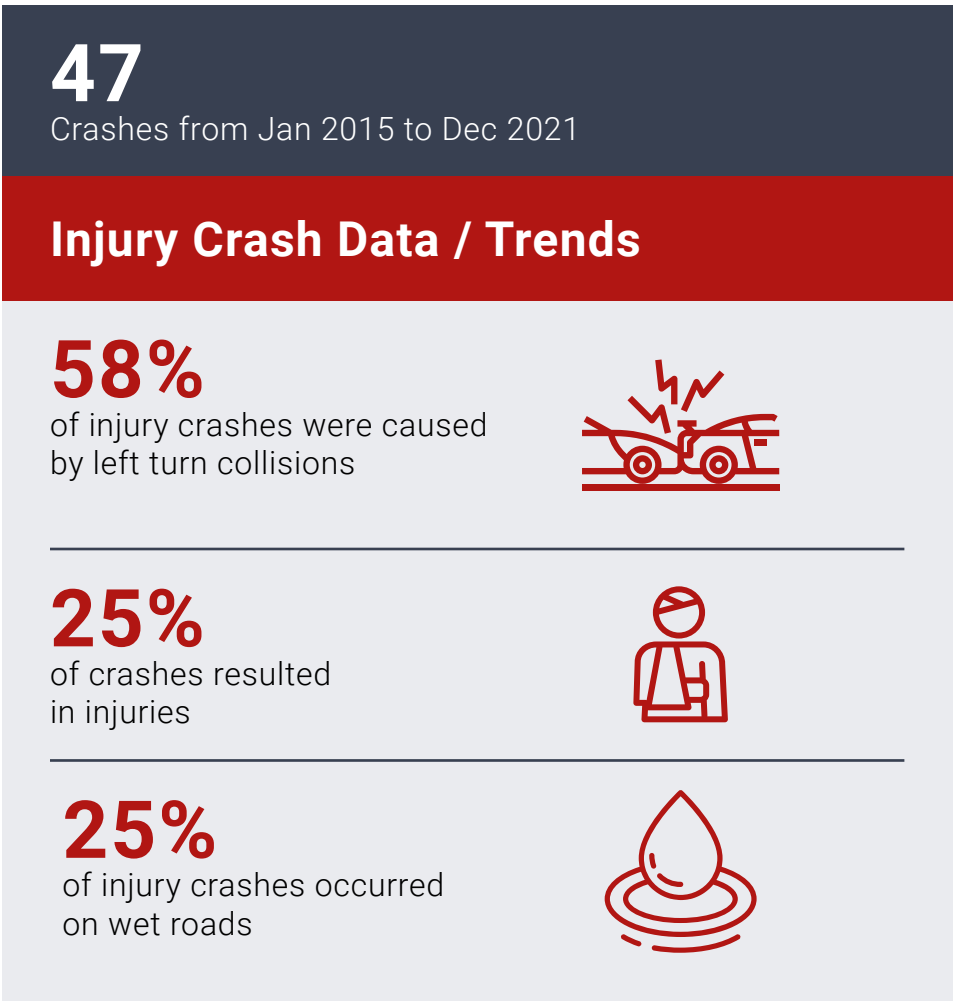
Location: Multiblock area from Lauderdale West Dr to NW 82nd Av

Observations / Missing Facilities:

- Speeding
- No signalization between University Dr and Pine Island Rd
- No crosswalks / pedestrian access from north side of Cleary Bl to Midtown
- Jaywalking over Cleary Bl at NW 82nd Av
- No wayfinding at NW 82nd Av (for Midtown Plantation)
- School Bus stops on Cleary Bl, adjacent to Lauderdale West Dr

Objectives

- ✓ Improve safety of Lauderdale West Dr intersection
- ✓ Reduce left-turn collisions to / from Lauderdale West Dr
- ✓ Reduce vehicle speeds / traffic calming on Cleary Blvd
- ✓ Minimize potential impacts from additional traffic from Midtown Plantation developments
- ✓ Create pedestrian access from Cleary Blvd northern sidewalk (reduce jaywalking)



Improvements

Near Term (0 – 2 years):

- Install detectable warning surfaces at curb ramps and sidewalk / driveway connections
- Create midblock crosswalks over Cleary Blvd at east of Lauderdale West Dr and west of NW 85th Te including:
 - Detectable warning surfaces
 - High-visibility pavement markings
 - Lighting • Signage • RRFBs

At Lauderdale West Dr:

- Refurbish crosswalk pavement markings to high-visibility pattern
- Curb extensions to both corners
- Install pedestrian-scale lighting both corners
- Crosswalk Signage

At NW 82nd Ave:

- Refurbish crosswalk pavement markings to high-visibility pattern
- Curb extensions to both corners
- Install pedestrian-scale lighting both corners

- Install signage:
- Wayfinding for Midtown Plantation
 - Shared Use Path signage
 - Crosswalk

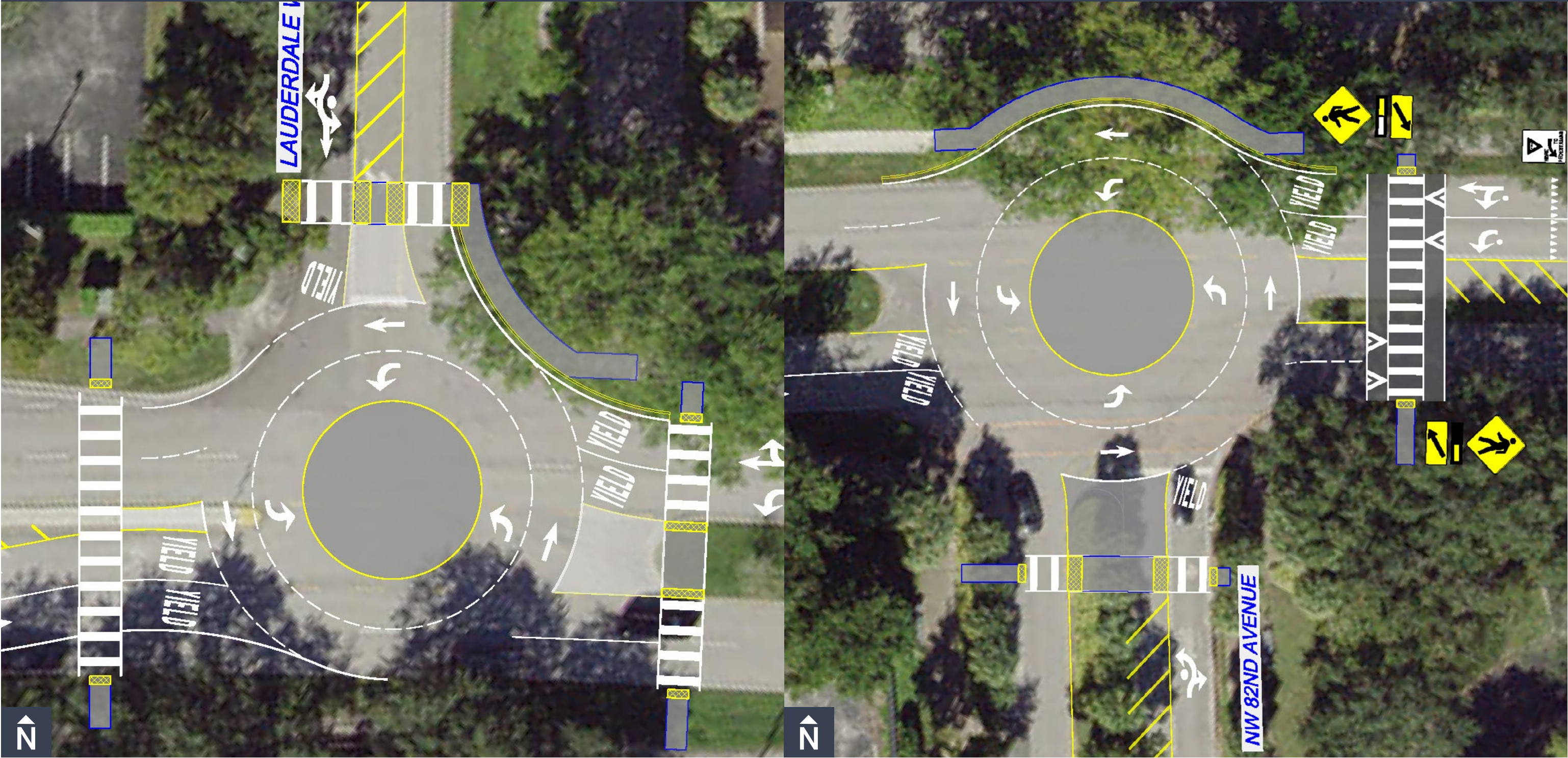
Short Term (2 – 5 years):

- Reduce Cleary Blvd speed limit to 30 MPH
- Install raised crosswalk over Cleary Blvd east of NW 82nd Av including:
 - Detectable warning surfaces
 - High-visibility pavement markings
 - Pedestrian Refuge Island
 - Lighting • Signage • RRFBs
- Convert intersections to Roundabouts at Lauderdale West Dr and at NW 82nd Ave
- Create new crosswalks at Roundabouts including:
 - Detectable warning surfaces
 - High-visibility pavement markings
 - Pedestrian Refuge Island
 - Signage

(Rendering is on the next page)

Chapter 5: Recommendations: Roadway 2 **Cleary Boulevard**

Rendering



Chapter 5: Recommendations: Roadway 3 NW / SW 84th Avenue

Focus Locations for Recommendations



Focus Location

Intersection at Broward Bl:
Recommendation Group #1



Intersection at SW 3rd St:
Recommendation Group #1



Multiblock area from Greenway to SW 3rd St:
Recommendation Group #1





Chapter 5: Recommendations: Roadway 3 NW / SW 84th Avenue

Recommendations Group #1: Safety Treatments and Mobility Improvements

Location	Intersection at Broward Blvd	SW 84th Av (from Greenway to SW 3rd St)	Intersection at SW 3rd St
High Visibility Pavement Markings	Yes	Yes, at new/designated Greenway Crossing	Yes, over SW 3rd St
Ped-Scale Lighting	Yes	Yes, at/along Greenway	Yes, over SW 3rd St
Crosswalk Signage: Advanced	Yes	Yes, at new/designated Greenway Crossing	Yes
Crosswalk Signage: In-Street			Yes
Detectable Warning Surface		Yes, at new/designated Greenway Crossing	Yes
Rectangular Rapid Flashing Beacons (RRFB)		Yes, at new/designated Greenway Crossing	Yes, over SW 3rd St
Mast Arm Conversion	Yes		
Leading Pedestrian Interval (LPI)	Yes		
Left Turn Signal	Yes (84th Av)		
Other	<ul style="list-style-type: none">• Accessible Pedestrian Signals• Realign eastern crosswalk / pavement markingsto allow for pedestrian refuge in the median	<ul style="list-style-type: none">• Create Greenway crosswalk over SW 84th Av through the landscaped median (similar to SW 82nd Av)• Signage for designated Greenway path over SW 84th Av• Add Shared Use Path signage for sidewalks• Install ADA required landing pad at bus stops• Orient bus benches to face roadway	<p>Create pedestrian-only entrance to Pine Island Park in close proximity to SW 84th Av</p> <ul style="list-style-type: none">• Quick Build Mini-Roundabout

Chapter 5: Recommendations: Roadways 4 & 5 SW 6th Street & SW 78th Avenue

Focus Locations for Recommendations



Focus Location

SW 6th St / Entire Roadway:
Recommendation Group #2



Intersection at SW 6th St & SW 78th Av:
Recommendation Group #2



Intersection at SW 6th Ct & SW 78th Av:
Recommendation Group #1



SW 78th Av/ Entire Roadway:
Recommendation Group #1



SW 78th Av – Entrance at Crossroads
Office Park: Recommendation Group #1



Chapter 5: Recommendations: Roadways 4 & 5 SW 6th Street & SW 78th Avenue



Recommendations Group #1: Safety Treatments and Mobility Improvements

Location	Intersection at SW 6th Ct	Entrance at Crossroads Office Park	SW 78th Av (Entire Roadway)
High Visibility Pavement Markings	Yes, at new crosswalk over SW 78th Av		Yes, at all crosswalks over SW 78th Av
Ped-Scale Lighting	Yes	Yes	Yes, at regular intervals
Crosswalk Signage: Advanced	Yes		Yes, at all crosswalks
Crosswalk Signage: In-Street	Yes	Yes	Yes, at mid-block crosswalks
Detectable Warning Surface	Yes		Yes
Rectangular Rapid Flashing Beacons (RRFB)	Yes, over SW 78th Av	Yes, over SW 78th Av	Yes, at mid-block crosswalks
Mast Arm Conversion			
Leading Pedestrian Interval (LPI)			
Left Turn Signal			
Other	• Add crosswalk over SW 78th Ave at northern end of intersection, with high-visibility pavement markings	• Quick-Build Mini Roundabout	• Radar Speed Limit Signs

Chapter 5: Recommendations: Roadways 4 & 5 SW 6th Street & SW 78th Avenue



Location: SW 6th Street, from Pine Island Rd to University Dr

Observations / Missing Facilities:

- Sidewalks located directly at curb line or minimally set back
- No pedestrian-scale lighting, crosswalks, detectable warning pads
- No pedestrian entry to Pine Island Park (all entrances are via parking lots)
- Cut through traffic
- Excess capacity
- New residential development under construction

Objectives

- ✓ Improve pedestrian facilities
- ✓ Encourage multimodal transportation
- ✓ Traffic calming
- ✓ Minimize potential impacts from additional traffic from Midtown Plantation development

45

Crashes from Jan 2015 to Dec 2021

Injury Crash Data / Trends

78%

of injury crashes were caused by left turn collisions



31%

of crashes resulted in injuries



1

Injury Crash involved a bicyclist



Improvements

Near Term (0 – 2 years):

- Install detectable warning surfaces at all sidewalk / driveway connections
- Improve existing mid-block crosswalk over SW 6th St including:
 - Lighting
 - Signage
- New mid-block crosswalk over SW 6th St adjacent to Pine Island Park:
 - Curb Ramps
 - Detectable warning surfaces
 - High-visibility pavement markings
 - Pedestrian Refuge Island
 - Lighting
 - Signage
- Create pedestrian-only entrance to Pine Island Park

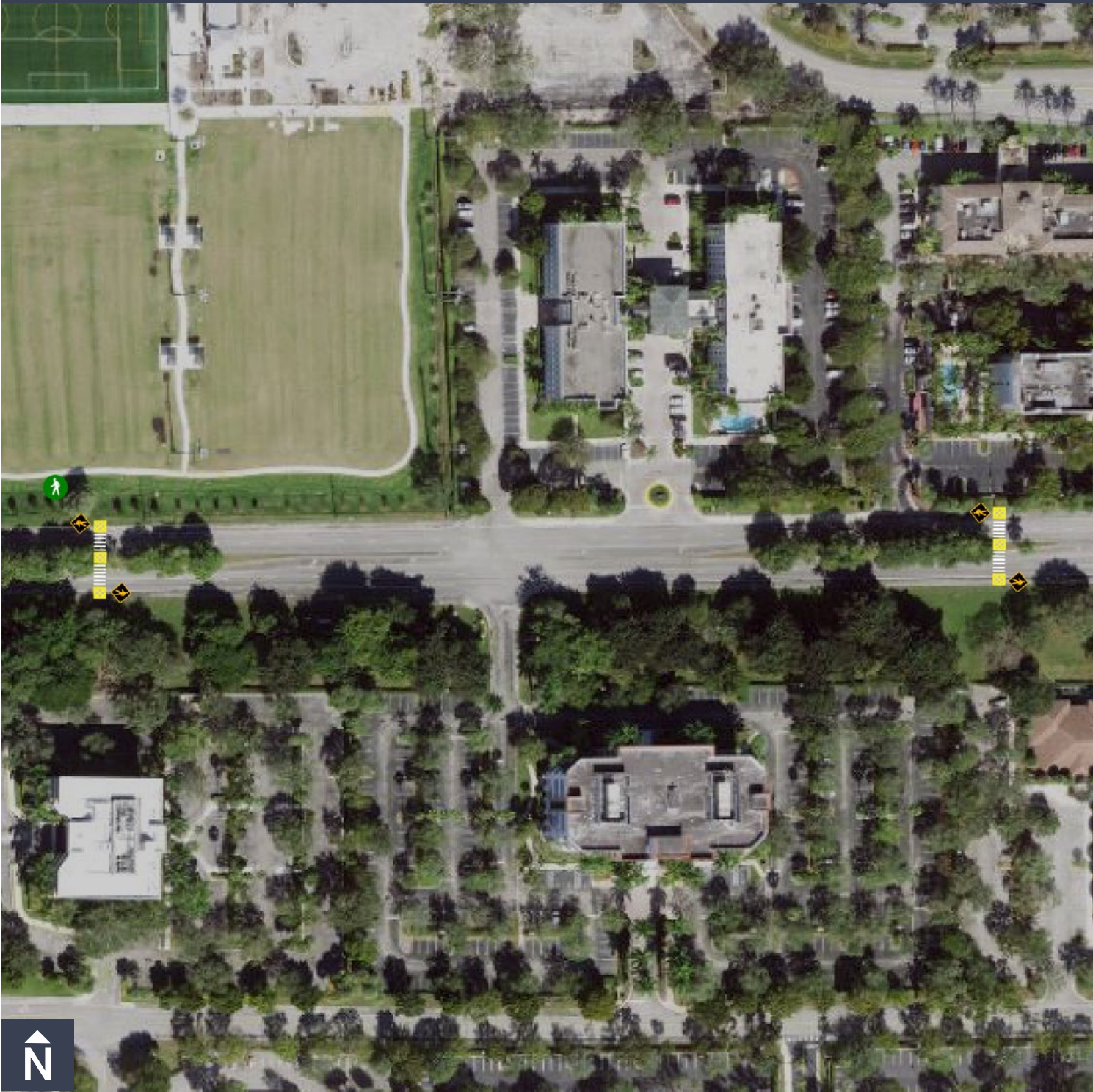
Short Term (2 – 5 years):

- Roadway reconfiguration from 4-lane to 2-lanes:
 - 10 ft wide sidewalks
 - 4 ft wide furnishing / pedestrian lighting zones
 - 5 ft wide bicycle paths separated from roadway by 4 ft wide barrier / raised curb
 - Two 11 ft wide travel lanes
 - 12 ft wide center turn lane
- Install RRFBs at midblock crosswalks

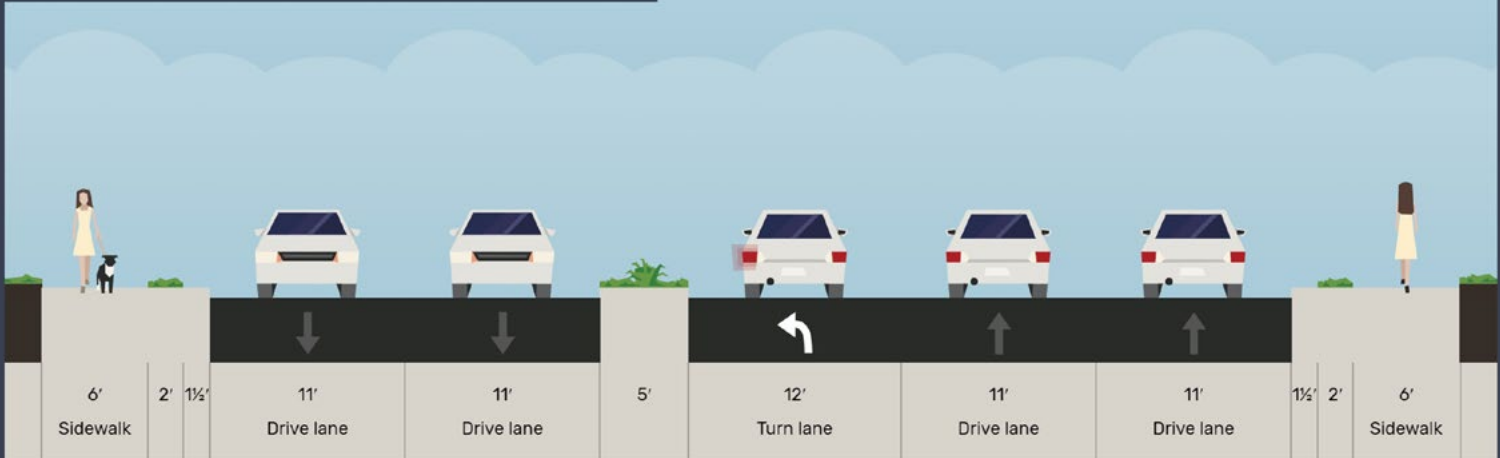
(Rendering is on the next page)

Chapter 5: Recommendations: Roadways 4 & 5 SW 6th Street & SW 78th Avenue

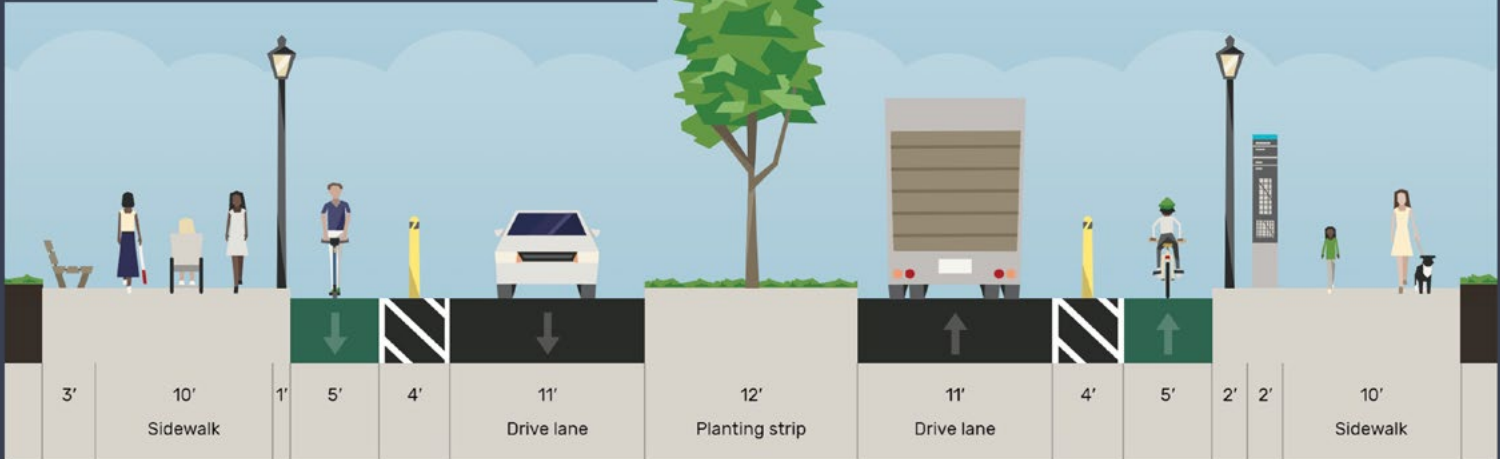
Rendering



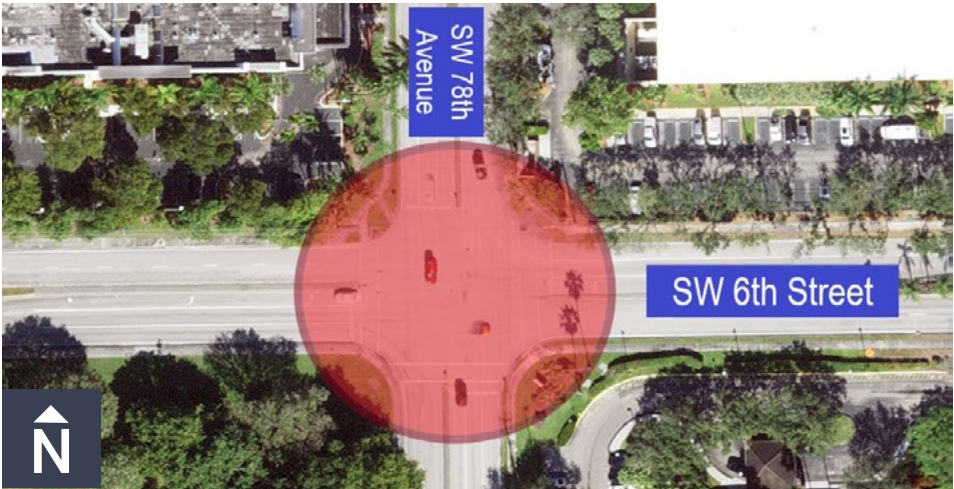
Existing Roadway Layout



Roadway Reconfiguration



Chapter 5: Recommendations: Roadways 4 & 5 SW 6th Street & SW 78th Avenue



Location: Intersection of SW 6th Street and SW 78th Avenue

Observations / Missing Facilities:

- No pedestrian-scale lighting, crosswalks, or detectable warning pads
- 4-way stop intersection
- Only intersection connecting traffic from University Dr to Pine Island and internal Midtown roads
- Minimal auto-oriented lighting
- Stormwater drains within crosswalk areas

Objectives

- ✓ Improve pedestrian facilities
- ✓ Encourage multimodal transportation
- ✓ Traffic calming
- ✓ Minimize potential impacts from additional traffic from Midtown Plantation developments


38
Crashes from Jan 2015 to Dec 2021

Injury Crash Data / Trends


78%
crashes were caused by left turn/angle collisions



37%
of crashes resulted in injuries



2
Crashes resulted in Serious Injury



Improvements

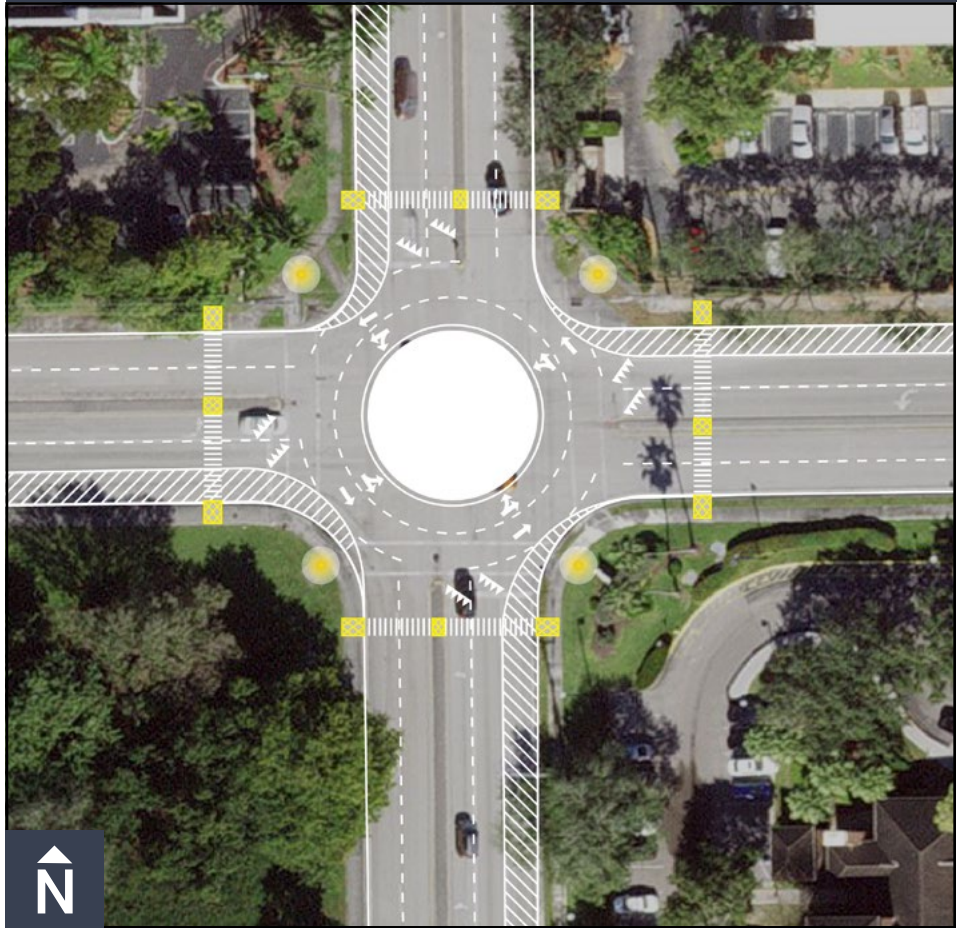
Near Term (0 – 2 years):

- Install Pedestrian-Scale Lighting (all corners)
- Install signage: pedestrian crossing
- Refurbish crosswalk pavement markings to high-visibility pattern
- Install detectable warning surfaces at curb ramps

Short Term (2 – 5 years):

1. Convert intersection to Roundabout
(At current 4-lane configuration or with 2-lane reconfiguration on SW 6th Street)
2. Create new crosswalks including:
 - Detectable warning surfaces
 - High-visibility pavement markings
 - Pedestrian Refuge Island
 - Signage

Rendering



Chapter 5: Recommendations: Roadway 6 Cypress Road

Focus Locations for Recommendations



Focus Location

Intersection at NW 70th Av:
Recommendation Group #1

NW 69th Av (block south of Cypress Rd):
Recommendation Group #1

Intersection at NW 69th Av:
Recommendation Group #1

Multiblock area from Holloway Canal to E Acre Dr.:
Recommendation Group #1



Chapter 5: Recommendations: Roadway 6 Cypress Road

Recommendations Group #1: Safety Treatments and Mobility Improvements

Location	Intersection at NW 70th Av	Intersection at NW 69th Av	NW 69th Av (between Cypress Rd & Broward Bl)	Cypress Rd east of Holloway Canal
High Visibility Pavement Markings	Yes	Yes	Yes, at new midblock crosswalk	
Ped-Scale Lighting	Yes	Yes	Yes, at new midblock crosswalk	
Crosswalk Signage: Advanced	Yes	Yes	Yes, at new midblock crosswalk	
Crosswalk Signage: In-Street		Yes (on NW 69th Av)	Yes, at new midblock crosswalk	
Detectable Warning Surface	Yes	Yes	Yes, at new midblock crosswalk	Yes, at Deicke Auditorium and at all intersections (with sidewalks)
Rectangular Rapid Flashing Beacons (RRFB)		Yes (over NW 69th Av - south side)	Yes, at new midblock crosswalk	
Mast Arm Conversion	Yes			
Leading Pedestrian Interval (LPI)				
Left Turn Signal	Yes (Warrant Study)			
Other	<ul style="list-style-type: none">• Refurbish curb ramps• Accessible Pedestrian Signals	<ul style="list-style-type: none">• Quick-Build Mini Roundabout	<ul style="list-style-type: none">• Midblock crosswalk is needed at location of frequent jaywalking (north of entrance to Plantation Towne Square / Publix Shopping Center)	<ul style="list-style-type: none">• Shared Lane Markings• “Bicyclists may use road” signs• Add in missing sidewalk on northern side of roadway• Modular Speed Cushions• Radar Speed Limit Signs

Chapter 5: Recommendations: Roadway 7 NW 5th Street

Focus Locations for Recommendations



Focus Location

Intersection at NW 46th Ave:
Recommendation Group #2



Intersection at NW 42nd Ave:
Recommendation Group #2



Multiblock area from NW 45th Te to NW 43rd Av:
Recommendation Group #2



Chapter 5: Recommendations: Roadway 7 NW 5th Street



Location: Multiblock area from NW 42nd Av to US 441

Observations / Missing Facilities:

- Intersection of NW 42nd Av: Missing / Low visibility crosswalks, no detectable warning mats, no left turn signals, no pedestrian-scaled lighting, and no wayfinding that NW 42nd Av leads directly to school
- No pedestrian scaled lighting within multiblock area
- Heavy traffic during school's morning drop-off and afternoon pick up
- Bicyclists riding on sidewalks
- Cut through traffic

Objectives

- ✓ Improve intersection safety
- ✓ Reduce left turn collisions
- ✓ Reduce vehicle speeds on NW 5th St
- ✓ Reduce cut-through traffic on NW 5th St
- ✓ Increase area lighting
- ✓ Improve pedestrian facilities
- ✓ Enhance awareness of walk-to-school
- ✓ Encourage bicycle riding in roadway

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Crashes from Jan 2015 to Dec 2021

Injury Crash Data / Trends

54%

of injury crashes were caused by left turn / angle collisions (27% by rear-end collisions)



32%

of crashes resulted in injuries



2

Injury crash involved a pedestrian



Improvements

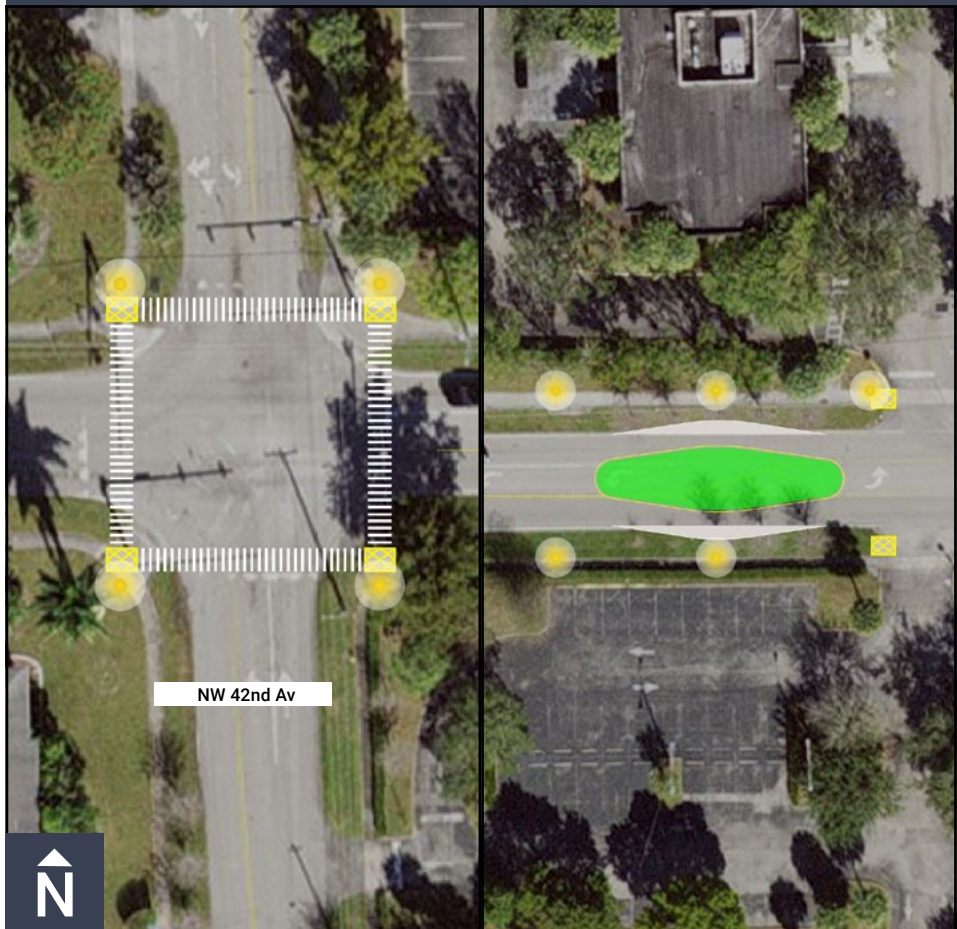
Near Term (0 – 2 years):

- At NW 42nd Avenue intersection - refurbish crosswalk pavement markings to high-visibility pattern
- Improve signage for walk-to-school
- Install detectable warning surfaces at intersection curb ramps and all sidewalk / driveway connections
- Install pedestrian-scale lighting between NW 42nd Av and US 441
- Create new mid-block crosswalk between NW 42nd Av and US 441:
 - Detectable warning surfaces
 - High-visibility pavement markings
 - Signage • RRFB

Short Term (2 – 5 years):

1. Roadway reconfiguration to chicane
2. Convert mid-block crosswalk to raised crosswalk

Rendering



Chapter 5: Recommendations: Roadway 7 NW 5th Street



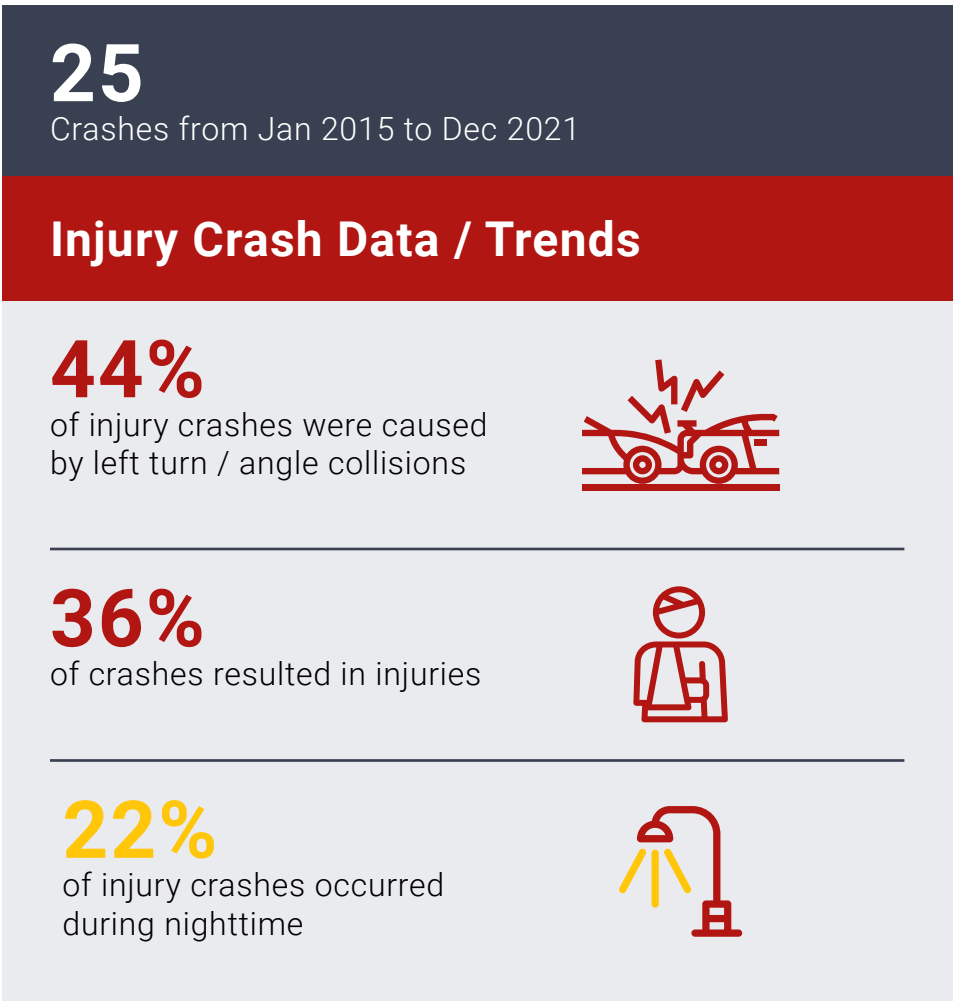
Location: Multiblock area from NW 45th Te to NW 43rd Ave

Observations / Missing Facilities:

- Traffic calming just east of NW 43rd Av is not effective
- No additional traffic calming
- Wide openings to side streets
- Heavy westbound traffic (leading to intersection at NW 46th Avenue)
- No wayfinding at NW 43rd Ave to indicate proximity to elementary school or nearby parks
- Bicyclists riding on sidewalks

Objectives

- ✓ Reduce collisions at side streets entrances
- ✓ Reduce vehicle speeds on NW 5th St
- ✓ Reduce cut-through traffic on NW 5th St
- ✓ Increase area lighting
- ✓ Improve pedestrian facilities
- ✓ Enhance awareness of walk-to-school
- ✓ Encourage bicycle riding in roadway



Improvements

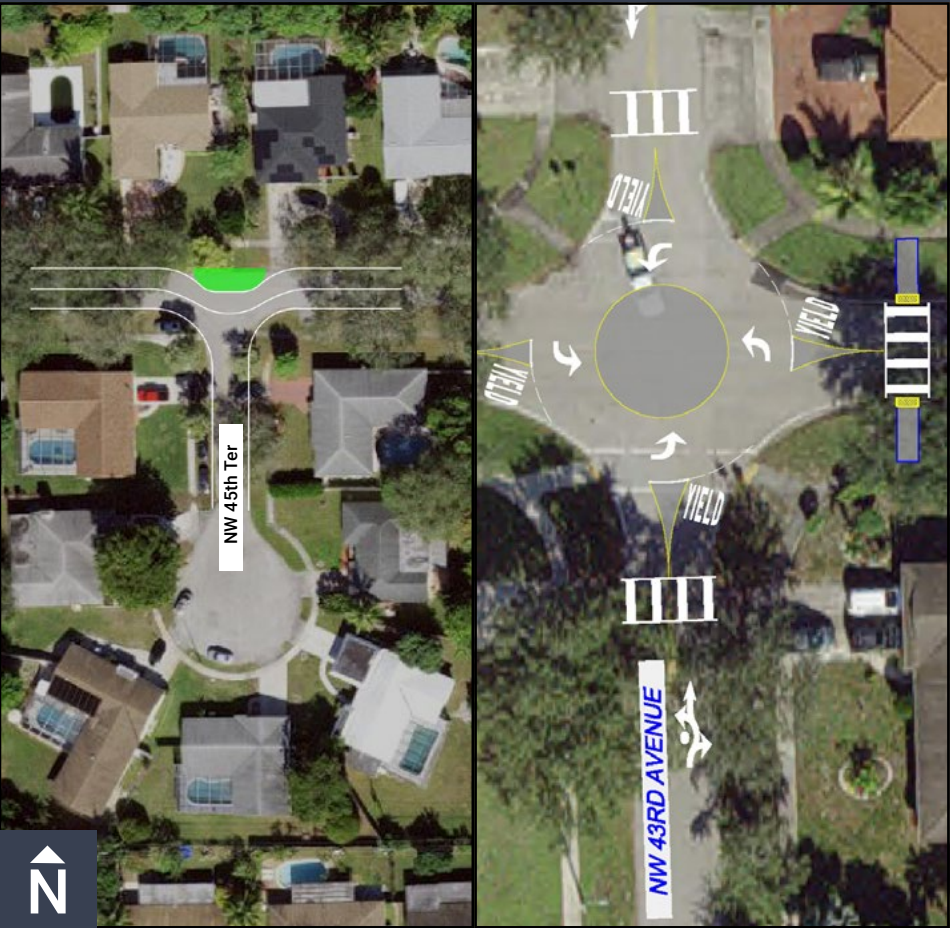
Near Term (0 – 2 years):

- Install Speed Radar Feedback Signs
- Install modular speed cushions at mid-block locations
- Quick build chicane in general location of NW 45th Te
- **At side street entrances:**
 - Refurbish pavement markings
 - Tighten intersection radii
- **At NW 43rd Avenue intersection**
 - Refurbish crosswalk pavement markings to high-visibility pattern
 - Install pedestrian-scale lighting at corners
 - Quick Build Mini-Roundabout

Short Term (2 – 5 years):

1. Roadway reconfiguration to chicane at location of quick-build chicane
2. Replace quick-build mini-roundabout with permanent mini roundabout.

Rendering



Chapter 5: Recommendations: Roadway 7 NW 5th Street



Location: Intersection at NW 46th Avenue

Observations / Missing Facilities:

- No pedestrian-scale lighting
- Low-visibility crosswalks
- 4-way stop intersection
- Heavy traffic during morning rush hour

Objectives

- ✓ Improve intersection safety
- ✓ Improve intersection visibility / lighting
- ✓ Reduce vehicle speeds on NW 5th St and NW 46th Ave
- ✓ Reduce cut-through traffic on NW 5th St and NW 46th Ave
- ✓ Improve pedestrian facilities
- ✓ Enhance awareness of walk-to-school or nearby parks
- ✓ Encourage bicycle riding in roadway

44

Crashes from Jan 2015 to Dec 2021

Injury Crash Data / Trends

50%

of injury crashes were caused by left turn / angle collisions (27% by rear-end collisions)



32%

of crashes resulted in injuries



21%

of injury crashes occurred during nighttime



Improvements

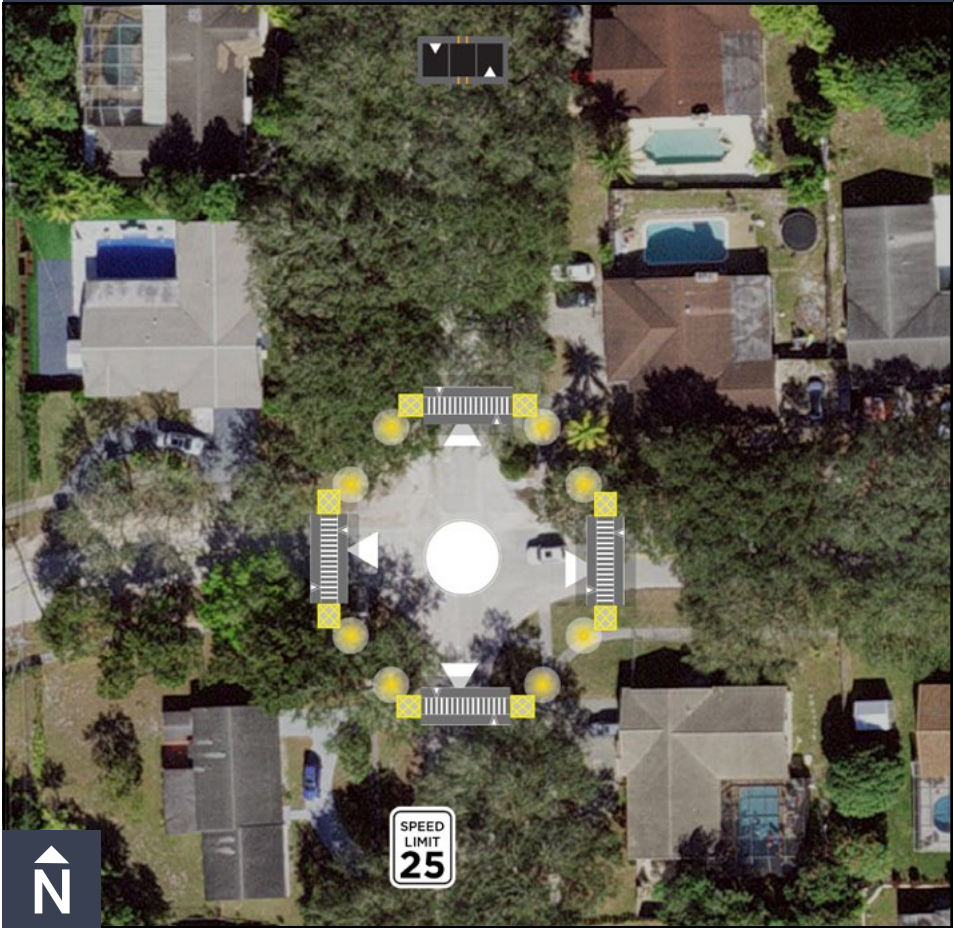
Near Term (0 – 2 years):

- Install Speed Radar Feedback Sign south of intersection (for NB traffic)
- Install pedestrian-scale lighting at corners
- Install Quick Build Mini-Roundabout
- Install modular speed cushion north of intersection

Short Term (2 – 5 years):

1. Replace quick-build mini-roundabout with permanent mini-roundabout.
2. Install raised crosswalks on all intersection legs:
 - High-visibility pavement markings
 - Signage

Rendering



Chapter 5: Recommendations: Roadway 8 NW 46th Avenue

Focus Locations for Recommendations



Focus Location

One-way traffic area (NW 9th Ct):
Recommendation Group #2



Multiblock area adjacent to Jim Ward Community Center:
Recommendation Group #2



Intersection at NW 6th Ct:
Recommendation Group #2



Intersection at NW 5th St:
Recommendation Group #2

(please refer to Roadway 7 – NW 5th St)

Chapter 5: Recommendations: Roadway 8 NW 46th Avenue



Location: Multiblock area adjacent to Jim Ward Community Center

Observations / Missing Facilities:

- Several school bus stops in this location
- Bicyclists riding on sidewalks
- Speeding
- A lot of walkers using walking paths at Jim Ward Community Center
- Signalized crosswalk in front of Jim Ward Community Center with low visibility crosswalks

Objectives

- ✓ Reduce vehicle speeds on NW 46th Ave
- ✓ Reduce cut-through traffic on NW 46th Ave
- ✓ Reduce collisions at side streets entrances
- ✓ Increase area lighting
- ✓ Improve pedestrian facilities
- ✓ Enhance awareness of pedestrians
- ✓ Encourage bicycle riding in roadway

29

Crashes from Jan 2015 to Dec 2021

Injury Crash Data / Trends

45%

of injury crashes were caused by left turn / angle collisions



41%

of crashes resulted in injuries



27%

of injury crashes occurred during nighttime



Improvements

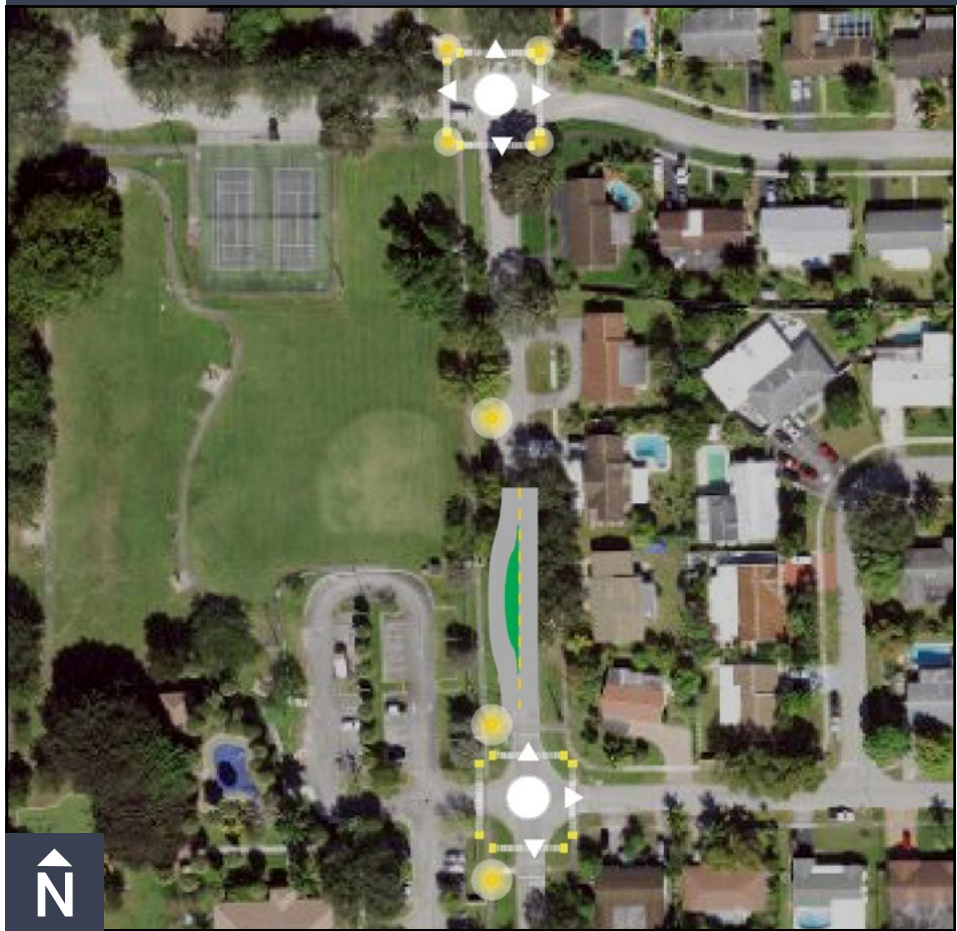
Near Term (0 – 2 years):

- Install Speed Radar Feedback Sign south of NW 3rd St (for NB traffic)
- Install Crosswalk Signage – In-Street
- Refurbish crosswalk pavement markings to high-visibility pattern
- Install Quick Build Mini-Roundabouts at NW 3rd Ct and NW 4th St
- Create new mid-block crosswalks south of NW 3rd St and north of NW 4th Ct:
 - Detectable warning surfaces
 - High-visibility pavement markings
 - Signage

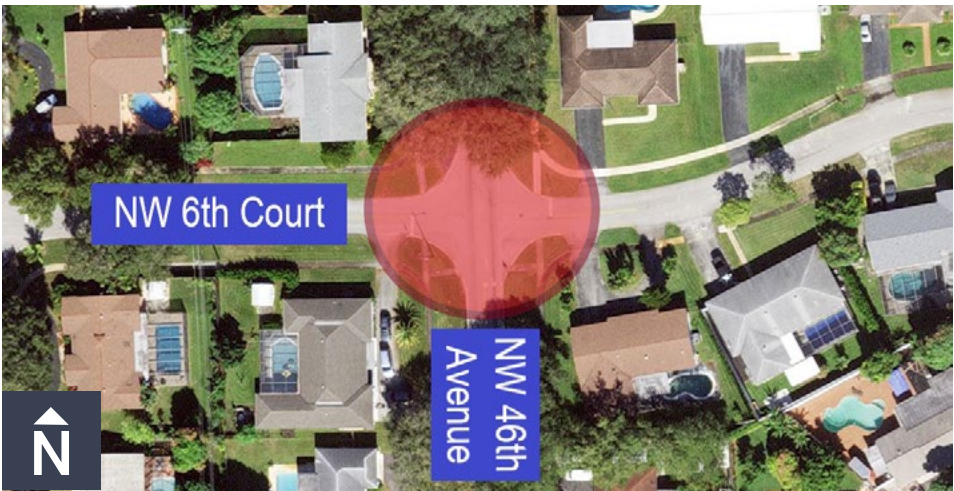
Short Term (2 – 5 years):

- Roadway reconfiguration to chicane in right-of-way abutting Jim Ward Community Center
- Replace quick-build mini-roundabouts with permanent mini-roundabouts
- Convert mid-block crosswalks to raised crosswalks

Rendering



Chapter 5: Recommendations: Roadway 8 NW 46th Avenue



Location: Intersection at NW 6th Ct

Observations / Missing Facilities:

- Intersection leads to rear entrance (pedestrian only access) to Plantation Elementary School
- No wayfinding for school or Park East Park
- No crosswalks
- Bicyclists riding on sidewalks
- Speeding

Objectives

- ✓ Reduce vehicle speeds on NW 46th Ave
- ✓ Reduce cut-through traffic on NW 46th Ave
- ✓ Improve intersection visibility / lighting
- ✓ Improve pedestrian facilities
- ✓ Enhance awareness of walk-to-school
- ✓ Encourage bicycle riding in roadway

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Crashes from Jan 2015 to Dec 2021

Injury Crash Data / Trends

60%

of injury crashes were caused by rear-end collisions (40% by angle collisions)



50%

of crashes resulted in injuries



1

Injury crash involved a pedestrian



Improvements

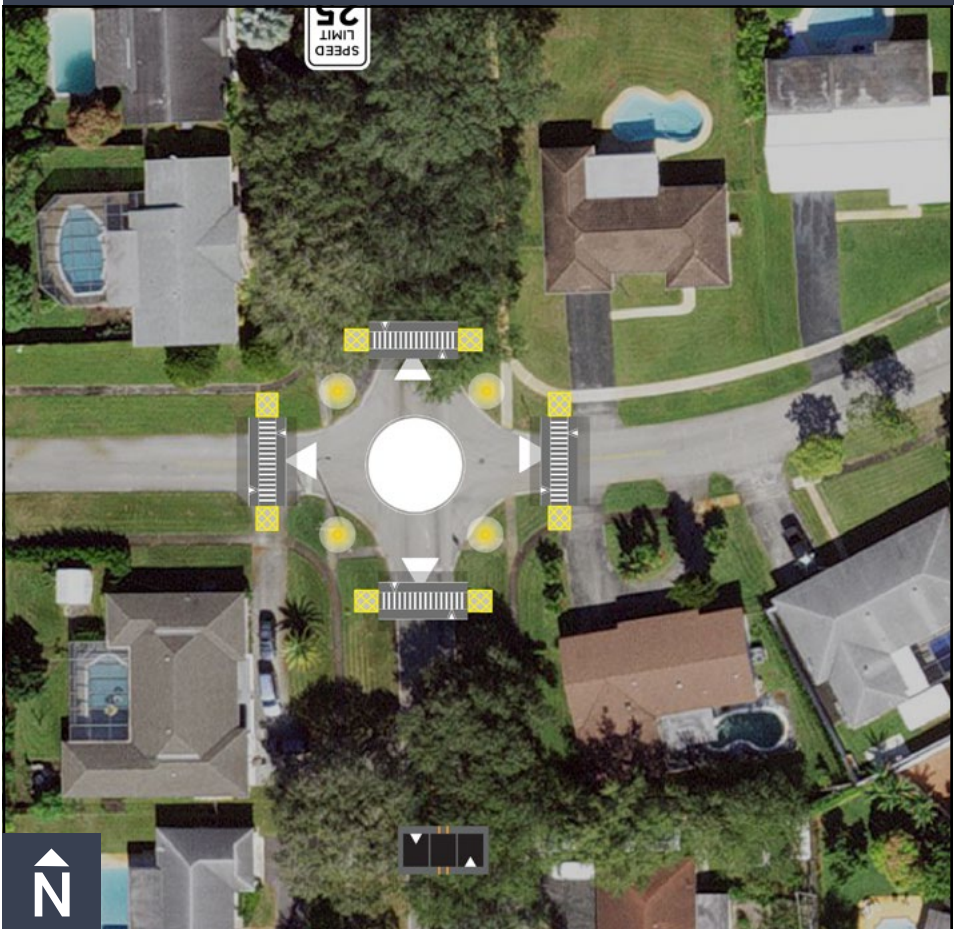
Near Term (0 – 2 years):

- Refurbish crosswalk pavement markings to high-visibility pattern
- Install Crosswalk Signage – In-Street
- Install Speed Radar Feedback Sign north of intersection (for SB traffic)
- Install pedestrian-scale lighting at corners
- Install Quick Build Mini-Roundabout
- Install modular speed cushion north of intersection

Short Term (2 – 5 years):

1. Replace quick-build mini-roundabout with permanent mini-roundabout.
2. Install raised crosswalks on all intersection legs
 - High-visibility pavement markings
 - Signage

Rendering



Chapter 5: Recommendations: Roadway 8 NW 46th Avenue



Multiblock area on NW 9th Ct and NW 9th Dr

Observations / Missing Facilities:

- Roadway splits into one-way traffic patterns
- No crosswalks adjacent to the T-intersection
- Southbound cars speed up after turn onto NW 46th Av
- Bicyclists riding on sidewalks
- No wayfinding for connectivity to / from Greenway

Objectives

- ✓ Reduce vehicle speeds on NW 46th Ave
- ✓ Reduce cut-through traffic on NW 46th Ave
- ✓ Increase area lighting, including greenway lighting
- ✓ Improve pedestrian facilities
- ✓ Encourage bicycle riding in roadway



Intersection at NW 8th St, NW 46th Av, and NW 9th Dr (looking west), At this location, all west bound traffic is diverted north to NW 9th Ct.

Improvements

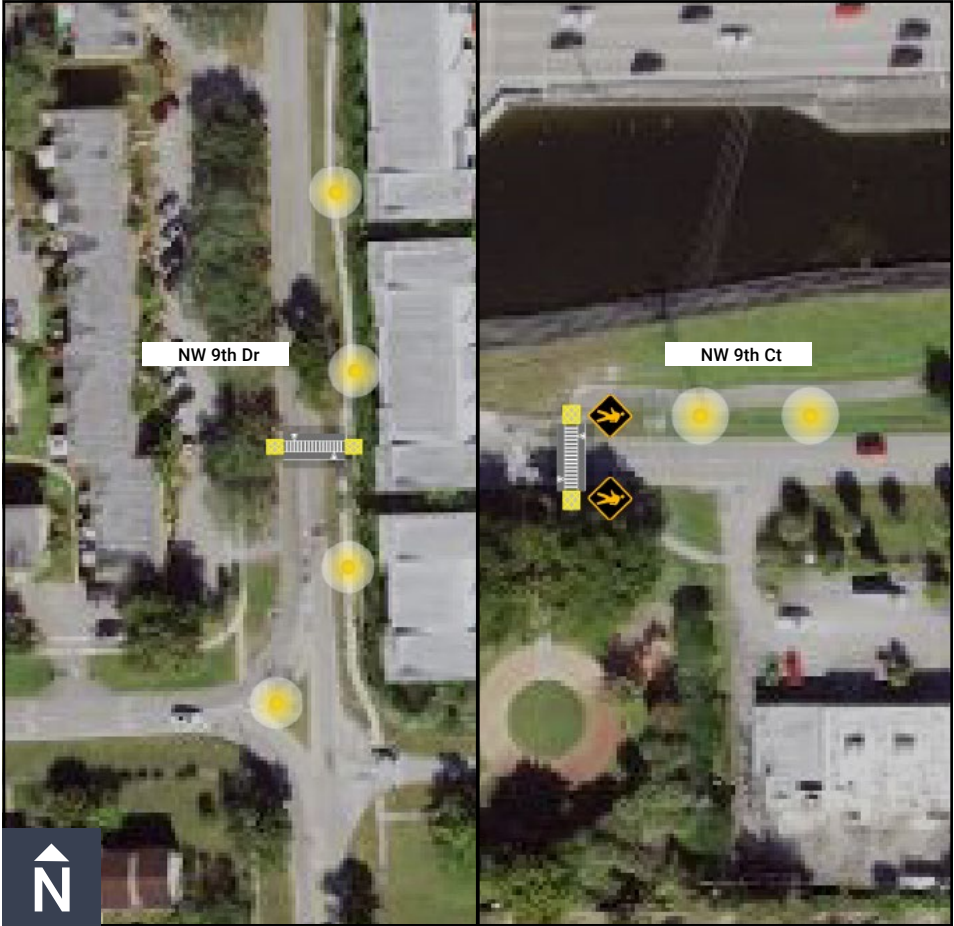
Near Term (0 – 2 years):

- Install pedestrian-scale lighting within eastern right-of-way NW 46th Ave
- Install pedestrian-scale lighting in right of way abutting greenway along NW 9th Ct
- Install lighting in landscaped median at intersection of NW 46th Av and NW 8th St
- Install modular speed cushions midway between NW 8th St and NW 9th Ct, and on NW 9th Ct
- Refurbish existing crosswalks on NW 9th Court
- Install RRFB at existing crosswalks on NW 9th Court

Short Term (2 – 5 years):

1. Replace existing crosswalks on NW 9th Court with raised crosswalks:
 - High-visibility pavement markings
 - Signage

Rendering



Draft for City of Plantation Review Only

Chapter 6: COST ESTIMATES AND FUNDING OPPORTUNITIES





Chapter 6: Cost Estimates & Funding Opportunities

Introduction

This chapter provides planning-level cost estimates and potential funding sources for Recommendation Group #2 project concepts. All of the information is provided in a consolidated “Cost Estimates and Funding Sources” Matrix.

Planning-Level Cost Estimates

Planning-level cost estimates were prepared using a bottom-up approach, which considered unit cost for key construction components required to construct or install the concept’s improvements based upon FDOT Historical Item Average Unit Cost History for Broward County (Area 12), March 2021 to March 2022. The costs were then adjusted for quantities as well as rounded up for planning purposes.

The cost estimates include construction costs as well as mobilization, maintenance of traffic, preliminary engineering/design and construction engineering and inspection, and additional overhead costs.

The cost estimates are based on the planning-level analysis and represent typical or prototype improvements. It is anticipated that the costs will be further refined during future project development.

Funding Sources

Potential funding sources include local, county, MPO, state, federal, and private grant funding sources. Consideration to the project timing, components, location, costs, and adjacent land uses was given in identifying potential funding sources. Additionally while funding sources are identified on a project location basis, certain funding sources may only be applicable for funding corridor-wide improvements.

Cost Estimates and Funding Sources Matrix

The Cost Estimates and Funding Sources Matrix is a consolidated table providing the costs and funding opportunities for each location. Costs are separately listed for each location’s near-term improvements and short-term improvements. Some specific recommendations, such as pedestrian-scaled lighting, are individually listed due to their cost and/or separate utility.

The individual costs sheets are included in Appendix Section H.



**Draft for City of
Plantation Review Only**



Cost Estimates and Funding Opportunities Matrix		Near-term (0-2 Years)	Short-term (2-5 Years)	City of Plantation	Broward County	City of Plantation CIP	BMPO - Complete Streets and Localized Initiatives (CSLIP)	BMPO - Mobility Hub	BMPO - 2050 MTP	Broward County Surtax / MCP	Nonprofit Organization Grant	State Grant (Discretionary)	Federal Grant (Discretionary)	Construction Costs (2021 \$)	Mobilization / MOT / Contingency / Soft Costs (75%)	Total Costs (2021 \$)
Project Location		Time-frame		Agency		Funding Programs								Cost Estimates		
Nob Hill Rd	Intersection at NW 4 th Ct	★		☑	+	\$								\$7,548	\$5,661	\$13,209
	Intersection at NW 4 th Ct		★	☑	+	\$	\$M							\$286,845	\$215,133	\$501,978
	Intersection at NW 6 th St / Central Park Pl	★		☑	+	\$								\$117,225	\$87,919	\$205,143
Total Costs for Nob Hill Rd									\$M	\$				\$411,617	\$308,713	\$720,330



<div> <div>Cost Estimates and Funding Opportunities Matrix</div> <div> <div> <div>★ = Near-term project</div> <div>☆ = Short-term project</div> <div>☑ = Primary Agency</div> <div>⊕ = Secondary / Support Agency</div> <div>\$ = Funding Opportunity</div> <div>\$M = MPO Funding Opportunity</div> </div> </div> </div>		Near-term (0-2 Years)	Short-term (2-5 Years)	City of Plantation	Broward County	City of Plantation CIP	BMPO - Complete Streets and Localized Initiatives (CSLIP)	BMPO - Mobility Hub	BMPO - 2050 MTP	Broward County Surfax / MCP	Nonprofit Organization Grant	State Grant (Discretionary)	Federal Grant (Discretionary)	Construction Costs (2021 \$)	Mobilization / MOT / Contingency / Soft Costs (75%)	Total Costs (2021 \$)
Project Location		Time-frame		Agency		Funding Programs								Cost Estimates		
Cleary BI	East entrance to Plantation Promenade Shopping Center	★		☑	⊕	\$								\$26,767	\$20,075	\$46,842
	East entrance to Plantation Promenade - Option 1 (Directional Median)		☆	☑	⊕	\$	\$M			\$				\$178,637	\$133,978	\$312,615
	East entrance to Plantation Promenade - Option 2 (Roundabout)		☆	☑	⊕	\$	\$M			\$				\$776,784	\$582,588	\$1,359,372
	Intersection at Central Park Place	★		☑	⊕	\$								\$9,501	\$7,126	\$16,627
	Intersection at Central Park Place - Pedestrian Scaled Lighting	★		☑	⊕	\$								\$118,913	\$89,185	\$208,098
	Intersection at Central Park Place		☆	☑	⊕	\$	\$M			\$				\$555,602	\$416,701	\$972,303
	Intersection at Central Park Drive	★		☑	⊕	\$								\$17,304	\$12,978	\$30,281
	Intersection at Central Park Drive - Pedestrian Scaled Lighting	★		☑	⊕	\$								\$118,913	\$89,185	\$208,098
	Intersection at Central Park Drive		☆	☑	⊕	\$	\$M			\$				\$555,602	\$416,701	\$972,303
	Entrances to Central Park (Central Park Dr & NW 91 st Av)	★		☑	⊕	\$					\$			\$115,288	\$86,466	\$201,753
	Entrances to Central Park (NW 91 st Av)		☆	☑	⊕	\$	\$M			\$	\$			\$228,604	\$171,453	\$400,057
	Midtown North / Lauderdale West Dr to NW 82 nd Av	★		☑	⊕	\$		\$M						\$93,396	\$70,047	\$163,443
	Midtown North / Lauderdale West Dr to NW 82 nd Av		☆	☑	⊕	\$	\$M	\$M		\$				\$161,639	\$121,229	\$282,868
	Midtown North / NW 85 th Te	★		☑	⊕	\$		\$M						\$52,648	\$39,486	\$92,134
	Midtown North / NW 85 th Te		☆	☑	⊕	\$	\$M	\$M		\$				\$138,414	\$103,811	\$242,225
Total Cleary BI (with Plantation Promenade Option 1)									\$M			\$	\$	\$2,372,738	\$1,779,554	\$4,152,292
Total Cleary BI (with Plantation Promenade Option 2)									\$M			\$	\$	\$2,970,885	\$2,228,164	\$5,199,049

Chapter 6: Cost Estimates & Funding

Draft for City of
Plantation Review Only



Cost Estimates and Funding Opportunities Matrix		Near-term (0-2 Years)	Short-term (2-5 Years)	City of Plantation	Broward County	City of Plantation CIP	BMPO - Complete Streets and Localized Initiatives (CSLIP)	BMPO - Mobility Hub	BMPO - 2050 MTP	Broward County Surtax / MCP	Nonprofit Organization Grant	State Grant (Discretionary)	Federal Grant (Discretionary)	Construction Costs (2021 \$)	Mobilization / MOT / Contingency / Soft Costs (75%)	Total Costs (2021 \$)
Project Location		Time-frame	Agency		Funding Programs								Cost Estimates			
SW 6 th St	Entire Roadway	★		**		\$	\$M	\$M						\$143,209	\$107,406	\$250,615
	Entire Roadway / Roadway Reconfiguration		★	**		\$	\$M	\$M						\$739,346	\$554,509	\$1,293,855
	Entire Roadway / Pedestrian Scaled Lighting		★	**		\$	\$M	\$M						\$352,910	\$264,683	\$617,593
	Intersection at SW 78 th Ave	★		**		\$	\$M	\$M						\$41,490	\$31,117	\$72,607
	Intersection at SW 78 th Ave		★	**		\$	\$M	\$M						\$317,775	\$238,331	\$556,106
Total Costs for SW 6th St									\$M	\$			\$	\$1,594,730	\$1,196,047	\$2,790,777

**Draft for City of
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Cost Estimates and Funding Opportunities Matrix		Near-term (0-2 Years)	Short-term (2-5 Years)	City of Plantation	Broward County	City of Plantation CIP	BMPO - Complete Streets and Localized Initiatives (CSLIP)	BMPO - Mobility Hub	BMPO - 2050 MTP	Broward County Surtax / MCP	Nonprofit Organization Grant	State Grant (Discretionary)	Federal Grant (Discretionary)	Construction Costs (2021 \$)	Mobilization / MOT / Contingency / Soft Costs (75%)	Total Costs (2021 \$)
Project Location		Time-frame		Agency		Funding Programs								Cost Estimates		
NW 5 th St	NW 42 Av and one block east	★		..		\$	\$M							\$77,036	\$57,777	\$134,814
	NW 42 Av and one block east / Pedestrian Scaled Lighting	★		..		\$	\$M							\$297,283	\$222,962	\$520,246
	NW 42 Av and one block east		★	..		\$	\$M							\$28,026	\$21,020	\$49,046
	Multiblock area from NW 45 th Ter to NW 43 rd Av	★		..		\$	\$M							\$53,197	\$39,898	\$93,094
	Multiblock area from NW 45 th Ter to NW 43 rd Av / Quick-Build Mini Roundabout	★		..		\$								\$18,000	\$13,500	\$31,500
	Multiblock area from NW 45 th Ter to NW 43 rd Av		★	..		\$	\$M							\$88,335	\$66,252	\$154,587
	Intersection at NW 46 th Av	★		..		\$	\$M							\$64,681	\$48,511	\$113,192
	Intersection at NW 46 th Av: Quick-Build Mini Roundabout	★		..		\$								\$18,000	\$13,500	\$31,500
	Intersection at NW 46 th Av		★	..		\$	\$M							\$83,427	\$62,571	\$145,998
Total Costs for NW 5th St									\$M	\$	\$	\$	\$	\$727,987	\$545,990	\$1,273,976



Cost Estimates and Funding Opportunities Matrix		Near-term (0-2 Years)	Short-term (2-5 Years)	City of Plantation	Broward County	City of Plantation CIP	BMPO - Complete Streets and Localized Initiatives (CSLIP)	BMPO - Mobility Hub	BMPO - 2050 MTP	Broward County Surtax / MCP	Nonprofit Organization Grant	State Grant (Discretionary)	Federal Grant (Discretionary)	Construction Costs (2021 \$)	Mobilization / MOT / Contingency / Soft Costs (75%)	Total Costs (2021 \$)
Project Location		Time-frame		Agency		Funding Programs								Cost Estimates		
NW 46 th Av	Multiblock area adjacent to Jim Ward Community Center	★		**		\$	\$M							\$130,870	\$98,153	\$229,023
	Multiblock area adjacent to Jim Ward Community Center / Enhanced Street Lighting	★				\$	\$M							\$154,440	\$115,830	\$270,270
	Multiblock area adjacent to Jim Ward Community Center / Quick-Build Mini Roundabouts	★				\$								\$36,000	\$27,000	\$63,000
	Multiblock area adjacent to Jim Ward Community Center		★	**		\$	\$M							\$168,000	\$126,000	\$294,000
	NW 5th Ct to NW 6 th Ct	★		**		\$	\$M							\$68,135	\$51,101	\$119,236
	NW 5th Ct to NW 6 th Ct		★			\$	\$M							\$83,427	\$62,571	\$145,998
	Multiblock area at NW 9 Ct and NW 9 Dr	★				\$	\$M							\$86,898	\$65,173	\$152,071
	Multiblock area at NW 9 Ct and NW 9 Dr / Pedestrian Scaled Lighting	★				\$	\$M							\$297,283	\$222,962	\$520,246
	Multiblock area at NW 9 Ct and NW 9 Dr		★			\$	\$M							\$20,083	\$15,062	\$35,146
Total Costs for NW 46th Av									\$M	\$	\$	\$	\$	\$1,045,137	\$783,853	\$1,828,990