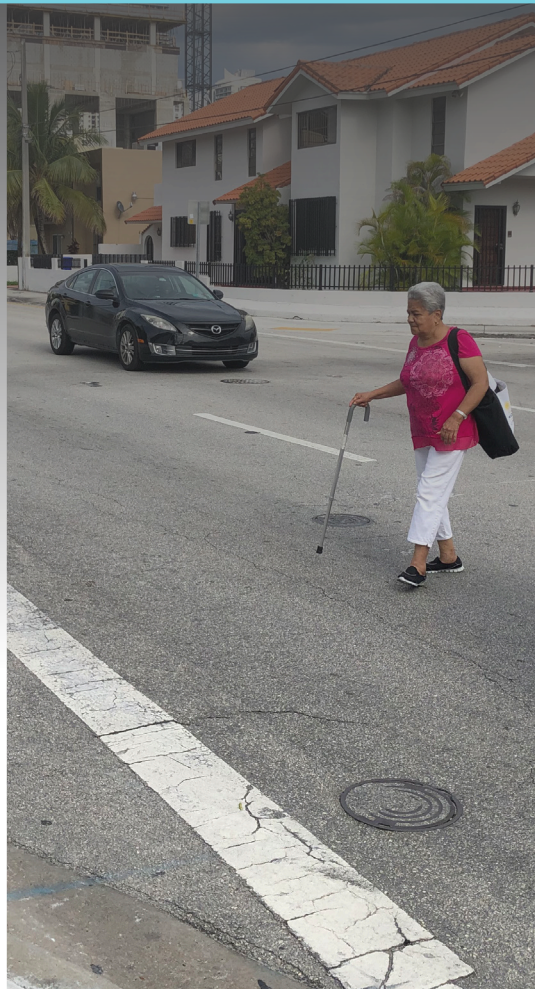


# SENIOR LIVING FACILITIES ROAD SAFETY AUDIT

## WORK ORDER # GPC VII-02

OCTOBER  
2019





## **Disclaimer**

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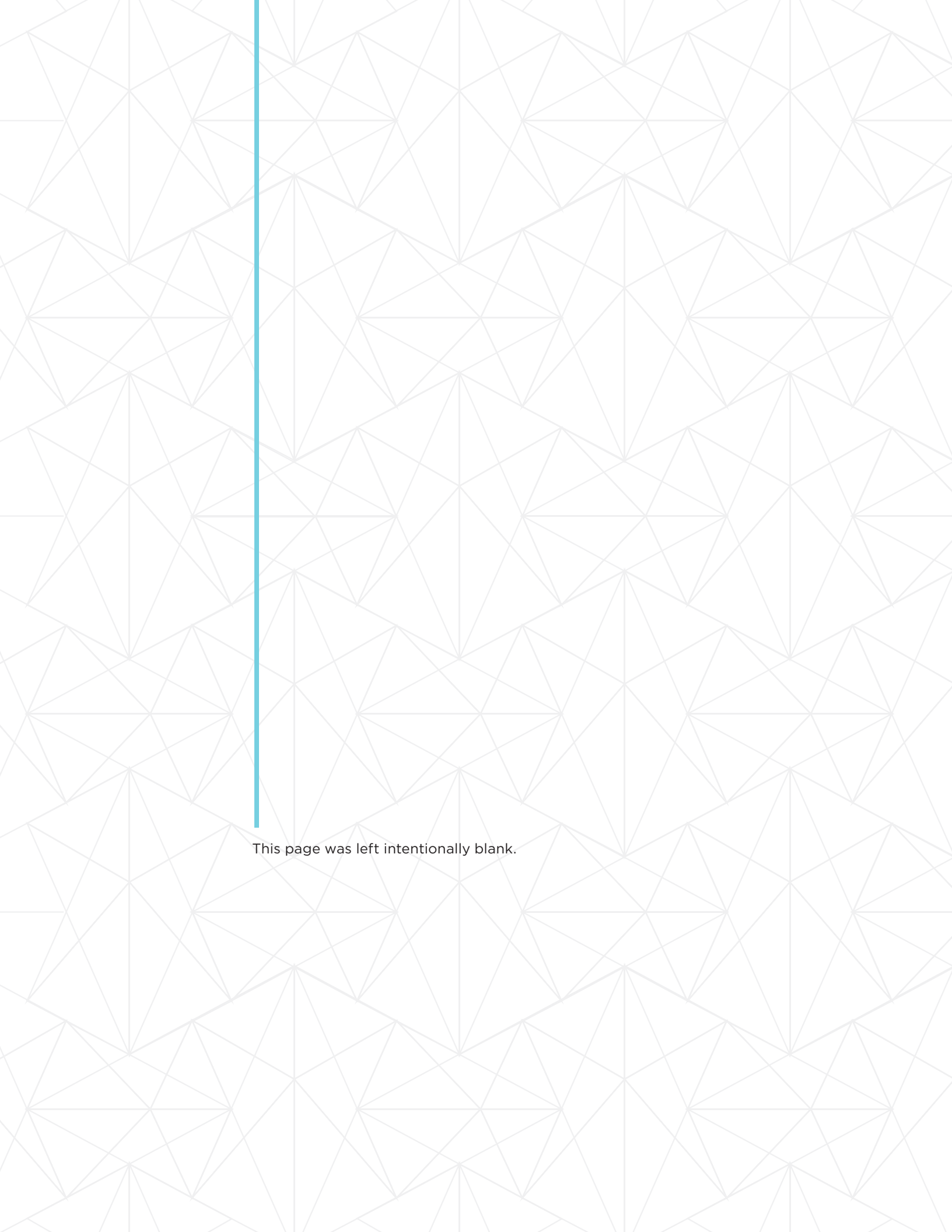


# Contents

## **EXECUTIVE SUMMARY**

## **ROAD SAFETY AUDIT REPORTS**

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- / Hialeah Residences and Vivian Villas
- / Jasmine



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## Executive Summary

The objective of this study is to evaluate traffic safety conditions and recommend improvements around senior living facilities that have been identified as priority locations to minimize potential for future crash occurrences and severity by recommending improvements.

The November 2017 [\*Aging Road Users Strategic Safety Plan\*](#), completed by the Miami-Dade County (MDC) Transportation Planning Organization (TPO), revealed that 11% of all crashes in MDC between 2008-2014 occurred within ¼ mile of older adult living centers. With the increasing trend in overall number of crashes involving 65 and older road users and continuously growing older adult population in the state, the MDC TPO recognizes the need to further investigate road conditions and identify locations to invest in improved safety for older adults.

The MDC TPO analyzed the crash data in the vicinity of over 140 older adult residential living centers and applied a weighted scoring system considering total crashes and crashes involving 65 and older road users within ¼ mile of an older adult living facility. The results of the scoring were a *field analysis priority list of assisted living sites*. Centers at the top of the priority list were considered “Tier 1” sites. Road Safety Audits (RSAs) were recommended to be conducted at the Tier 1 sites followed by Tier 2 and 3 if resources allow. The five (5) older adult living centers included under the Tier 1 sites list are:

- Joe Moretti II (240 SW 9<sup>th</sup> Street, Miami, FL 33130)
- Buena Vista Apartments (521 SW 6<sup>th</sup> Street, Miami, FL 33130) <sup>1</sup>
- Hialeah Residence (1280 W 46<sup>th</sup> Street, Hialeah, FL 33012)
- Vivian Villas (4650 W 12<sup>th</sup> Avenue, Hialeah, FL 33012) <sup>2</sup>
- Jasmine (128 SW 22<sup>nd</sup> Avenue, Miami, FL 33135)

A RSA is defined as a formal qualitative safety performance examination of a road or intersection. RSAs are conducted by an independent, multidisciplinary team composed of the stakeholders (state and local jurisdictions, law enforcement, community groups, etc.). The goal of an RSA is to identify and report potential road safety issues and opportunities for safety improvement for all road users. These RSAs were commissioned through the FY2019/2020 Unified Planning Work Program to develop short-term maintenance, near-term project, and long-term project suggestions to improve safety for all transportation users.

The multidisciplinary team or Study Advisory Committee (SAC) coordination included representatives from the following agencies and community groups to maximize the range of perspectives:

- FDOT District Six Office (Traffic Operations and Design offices)
- Department of Transportation and Public Works Engineering and Planning Divisions

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<sup>1</sup> The Buena Vista Apartments study area overlapped with the Joe Moretti II study area. A single report is provided for these facilities.

<sup>2</sup> The Vivian Villas study area overlapped with the Hialeah Residence study area. A single report is provided for these facilities.

- City of Miami
- City of Hialeah
- Miami-Dade Age Friendly Initiative
- Live Healthy Little Havana
- Older adult living facilities

Five tasks were performed to complete this project:

1. **Background Research** - a review of the following documents was completed in preparation for the RSAs:
  - 2017 Miami-Dade Aging Road User Strategic Safety Plan;
  - FHWA Road Safety Audit Guidelines;
  - current version of the FDOT Florida Design Manual, Miami-Dade Public Works Manual and the NACTO Urban Street Design Guide; and
  - 2019 Transportation Improvement Program and 2040 Long Range Transportation Plan.
    - No planned projects were identified to be relevant to the study location.
2. **Data Collection** - the following data was collected and summarized:
  - Roadway characteristics: roadway lanes, sidewalks, transit service and features, speed limit, intersection control, crosswalks, safety features, and landscaping;
  - Available traffic volumes, including auto, pedestrian, bicycle and transit ridership;
  - Crash data – Signal 4 Analytics, historical crash trends for the most recent full 5 years was analyzed; and
  - Existing and planned land use including significant destinations.
3. **Community Meetings** - the SAC conducted the outreach to the older adult living facilities, presented the data collected and gathered information regarding safety concerns from the older adult living facilities' residents and staff. Below are some pictures taken during these meetings. At the time of the field reviews and completion of this report, the Jasmine site was under construction and no community meeting was held for this facility.





4. **Field Reviews** - these were conducted during nighttime, daytime peak period, and day-time off-peak period with the support of the SAC. For each older adult living facility, a pre-audit meeting was conducted to debrief the SAC of the historical crash data, trends, and any additional information collected. Below are some pictures of the field review team.



5. **Documentation & Recommendations** - the team conducted an audit analysis with the background research information, collected data, and field review notes. A list of countermeasures to improve safety within the study area was developed for each older adult living facility. The following table provides a summary of the recommended improvements by location in order to address the identified safety concerns. The recommendations include both location specific and general/area wide items.

Improvements	Joe Moretti II and Buena Vista	Hialeah Residence and Vivian Villas	Jasmine
Area wide	11	3	4
Location Specific	47	31	25
<b>TOTAL</b>	<b>58</b>	<b>34</b>	<b>29</b>

This report presents the findings from the RSAs and detailed observation notes to support the proposed improvements. Each engineering improvement identified in this study is classified into one of three categories:

- **Short-Term or Maintenance Project** – it is anticipated that issues identified for maintenance may be addressed on a short timeframe and at a relatively low cost.
- **Near-Term Project** – activities that may be incorporated into an upcoming construction project in the area, including milling and resurfacing projects, or programmed separately through a pushbutton contract.
- **Long-Term Project** – activities that may be incorporated into upcoming construction projects or may need to be programmed for funding as separate projects and need further evaluation.

The following table provides a summary of the type of recommended improvement by older adult living facility. It is worth noting that for some of the safety concerns, a single engineering improvement was not adequate. For instance, some safety concerns presented a pressing need warranting a short-term solution while further evaluation is needed to find a long-term solution.

Recommended Improvements	Joe Moretti II and Buena Vista	Hialeah Residence and Vivian Villas	Jasmine
Short-Term or Maintenance Project	38	19	7
Long-Term Project	12	5	11
Near-Term Project	15	17	15
<b>TOTAL</b>	<b>65</b>	<b>41</b>	<b>33</b>

This assessment considered operational and safety related issues for all users near the older adult living facilities. This study was commissioned by MDC TPO to develop recommendations to improve the safety of all users throughout the study area.



# JOE MORETTI II

240 SW 9TH STREET, MIAMI, FL 33130

# BUENA VISTA APARTMENTS

521 SW 6TH STREET, MIAMI, FL 33130



CITY OF MIAMI  
MIAMI-DADE COUNTY

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- Appendix D Community Meeting Sign-in Sheet



## Acronyms

ADA:	Americans with Disabilities Act
FDOT:	Florida Department of Transportation
MDC:	Miami-Dade County
MDT:	Miami-Dade Transit
MPH:	Miles Per Hour
MUTCD:	Manual on Uniform Traffic Control Devices
RSA:	Road Safety Audit
TPO:	Transportation Planning Organization

## Study Area Characteristics

### Field Review Dates:

May 15-16, 2019

### Participants:

Kevin Walford – Miami-Dade Transportation Planning Organization  
Jacques Defrant – Florida Department of Transportation, District 6  
Ryan Raghunandan – Florida Department of Transportation, District 6  
Irene Soria Cordero – Miami-Dade County Dade Transportation & Public Works  
Juan Gutierrez – Live Healthy Little Havana  
Rosalba Colmenares – Live Healthy Little Havana  
Alejandro Diaz – Live Healthy Little Havana  
Benazir Portal – Kittelson & Associates, Inc.  
John Temple – Kittelson & Associates, Inc.  
Phillip Haas – Kittelson & Associates, Inc.  
Ryan Mansfield – Kittelson & Associates, Inc.

### Project Characteristics:

Field Review Type: All Users (, Vehicular, Pedestrian, Bicycle, Transit) with a focus on Senior Residents

Adjacent Land Use: Urban; Commercial, Residential, Institutional

Typical Posted Speed Limit: 30 MPH

Roadway Classifications: Urban Principal Arterial, Urban Major Collector, Urban Local

One-way road segments along:

- SW 4<sup>th</sup> Street;
- SW 6<sup>th</sup> Street;
- SW 7<sup>th</sup> Street;
- SW 8<sup>th</sup> Street;
- SW 4<sup>th</sup> Avenue;
- SW 5<sup>th</sup> Avenue;
- SW 6<sup>th</sup> Avenue; and
- SW 7<sup>th</sup> Avenue.

Terrain: Flat
















Field Review Climatic Conditions: Sunny/Partially Cloudy and Heavy Rain

### Project Limits:

The Miami-Dade County (MDC) Transportation Planning Organization (TPO) has conducted a series of Road Safety Audits (RSAs) at selected Assisted Living Facilities as a result of the November 2017 *Aging Road Users Strategic Safety Plan* recommendations. This RSA report documents the safety performance examination results of the existing roadway network in the vicinity of Joe Moretti II and Buena Vista. The project limits include a one-quarter mile radius around Joe Moretti II and Buena Vista assisted living facilities and are shown in **Figure 1**. Appendix A provides a detailed summary of the historical crash trends experienced within the study boundaries.

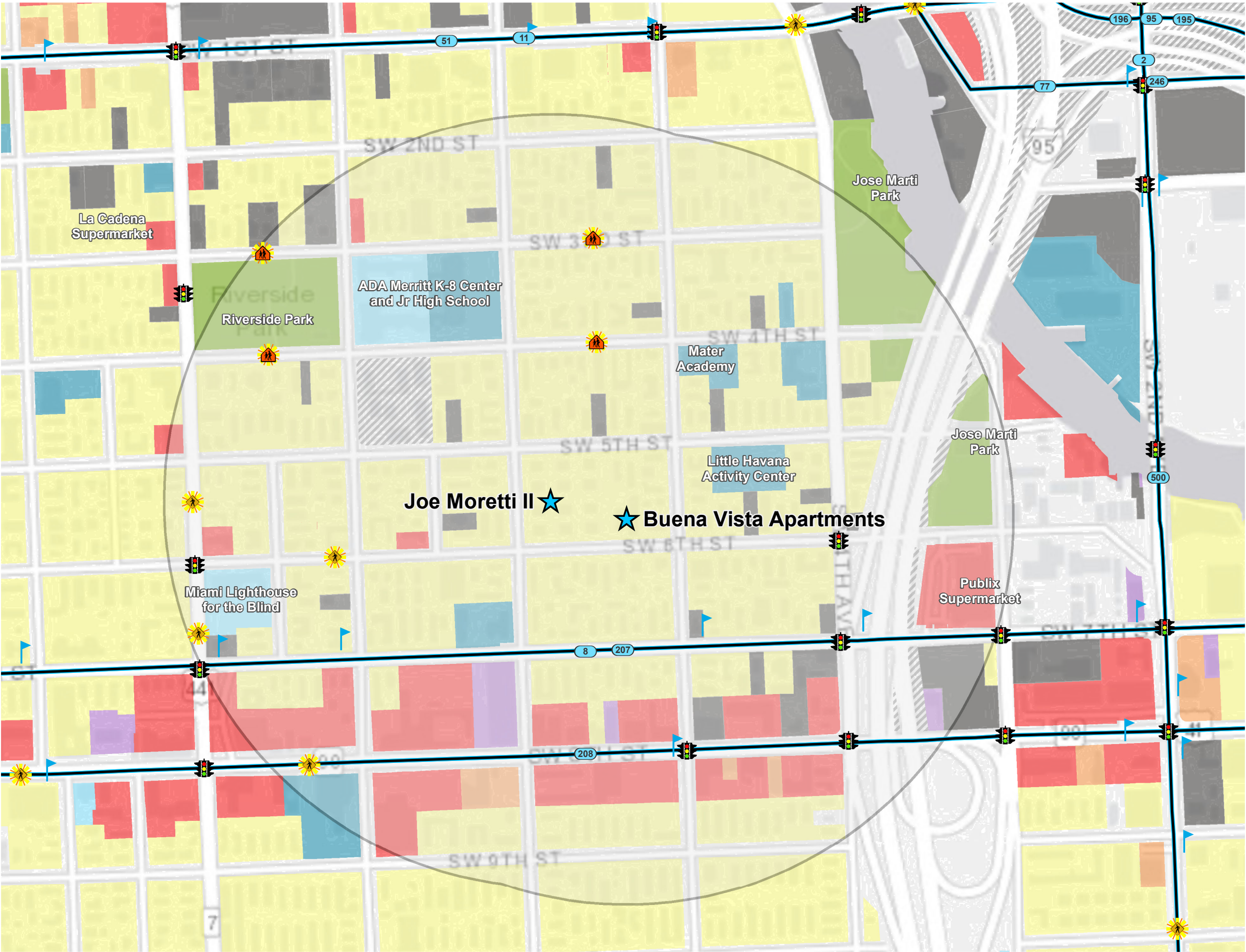
# Miami-Dade TPO

Figure 1  
Study Area

-  Traffic Signal
-  Flashing School Zone
-  Flashing Pedestrian Warning
-  Bus Stops
-  Bus Routes
-  Study Area
-  Parks
-  Education
-  Industrial
-  Institutional
-  Commercial
-  Residential
-  Office
-  Parking
-  Vacant



0 200 400 600 Feet





**Land Use Context:**

There is approximately 5.5 miles of roadway within the study area with I-95 running along the east side. The land use within the study area is made up mostly of single family and multi-family residential with the Joe Moretti II and Buena Vista assisted living facilities located on SW 6<sup>th</sup> Street. There are several educational and institutional land uses scattered throughout the area including Miami Lighthouse for the Blind on SW 8<sup>th</sup> Avenue, ADA Merritt K-8 Center on SW 4<sup>th</sup> Street, and Merritt Jr. High School on SW 4<sup>th</sup> Street. There is a concentration of commercial uses along SW 8<sup>th</sup> Street (Calle Ocho). Suggested changes to the study area should consider the varying contexts and address all users (e.g., senior residents, vehicles, pedestrians, bicycles, transit users).

**Transit:**

There are three Miami-Dade Transit (MDT) routes through the study area; routes 8/8A, 207, and 208. These routes run west along SW 7<sup>th</sup> Street and east along SW 8<sup>th</sup> Street. Appendix B provides a summary of the transit ridership by route.

**Road Safety Audit (RSA) process:**

The RSA process involves multi-disciplinary representatives from various stakeholder groups such as traffic operations, roadway design, safety, transportation planning, transit, and law enforcement. An RSA is typically conducted to identify potential safety issues and provide improvement suggestions in a collaborative team environment. The November 2017, MDC TPO *Aging Road Users Strategic Safety Plan* recommends RSAs to be conducted for the top tier locations. This RSA was commissioned through the FY2019/2020 Unified Planning Work Program to develop short-term maintenance, near-term project, and long-term project suggestions to improve safety for all transportation users. This study is intended to identify engineering, education, and enforcement improvements to be considered by MDC TPO staff and partner agencies (e.g., City of Miami, Miami-Dade County, FDOT, Miami-Dade Transportation & Public Works). Some improvements presented in this report may be implemented in the short-term while other suggested improvements will require further evaluation prior to implementation. Each engineering improvement identified in this study is classified into one of three categories:

- **Short-Term or Maintenance Project** – it is anticipated that issues identified for maintenance may be addressed on a short timeframe and at a relatively low cost.
- **Near-Term Project** – activities that may be incorporated into an upcoming construction project in the area, including milling and resurfacing projects, or programmed separately through a pushbutton contract.
- **Long-Term Project** – activities that may be incorporated into upcoming construction projects or may need to be programmed for funding as separate projects and need further evaluation.

The field review was conducted on Wednesday and Thursday, May 15-16, 2019. On Wednesday, the team met in the afternoon to discuss the study area and crash history. A walking assessment and observations were completed during the PM peak and night field review. On Thursday, the midday peak observations were performed and a meeting with the RSA Team was conducted in the afternoon to discuss suggestions for potential improvements. Appendix C provides a copy of the material shared with the RSA Team in preparation for the field review. Appendix D provides a copy of the sign-in sheets for the community meetings and field visit.

The safety concerns and suggested improvements reflect the consensus of the safety assessment team and not necessarily that of the MDC TPO.

## Field Review Findings

### STUDY AREA-WIDE

This section includes general recommendations throughout the study area. For location-specific recommendations, see the location specific issues in the following sections.

#### Issue #1: Vehicular Speed



#### Description of Issue:

Posted speeds are 30 MPH for the study area. Based on visual observation, speeds appear to routinely exceed 30 MPH on SW 7<sup>th</sup> Street.

#### Suggestions for Improvement:

- Near-Term Project –  
Identify resources to enforce posted speeds; consider investigating state or federal grants to provide speed enforcement.
- Long-Term Project –  
Conduct study to determine if travel lanes can be narrowed through resurfacing projects to reduce speeds.

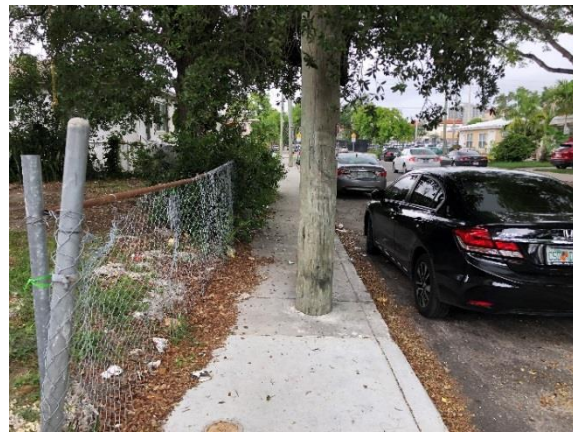
**Issue #2: Pedestrian Crossings****Description of Issue:**

Crosswalk pavement markings on major and minor streets throughout the study area are missing or faded.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project – Restripe intersection crosswalks where faded.
- Near-Term Project – Add crosswalks at signalized and stop controlled intersection approaches where they are currently missing. These crosswalks are intended to improve pedestrian safety by facilitating pedestrian crossings at designated locations.



**Issue #3: Narrow and Partially Obstructed Sidewalks****Description of Issue:**

The sidewalks, particularly on local roads, were observed to be narrow and in some circumstances obstructed by utilities, sign poles, and vegetation.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Vegetation adjacent to sidewalks throughout the corridor should be properly maintained; this improvement may require code enforcement on private property.
- Long-Term Project –  
Recommend further study to determine if alternative sidewalk alignment and/or additional right-of-way is necessary to allow for wider sidewalk where obstructions are present.



**Issue #4: Poor Sight Distance at Intersections****Description of Issue:**

Due to on street parking and other objects such as structures, walls/fences, and trees, many intersections have sight distance for vehicles. This leads to vehicles pulling into crosswalk areas as shown in the picture above.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Recommend further study to determine if removing sight obstructions and reducing on street parking near intersections to increase sight distance is needed.

**Issue #5: Sidewalk Slopes across Driveways****Description of Issue:**

Cross slopes of sidewalks across driveways are steep throughout the study area.

**Suggestions for Improvement:**

- Near-Term/Long-Term Project –  
Recommend further study to determine if driveway/sidewalk slope issues may be improved by reconstruction or relocation/closure of driveways. If driveways cannot be closed or relocated on private property, it may be necessary to provide an easement or purchase right of way to provide a flat surface sidewalk between driveways and private property.



**Issue #6: Improper Truncated Domes****Description of Issue:**

Marked crosswalks and truncated dome surfaces do not properly align at some intersections. For example, some crosswalks were observed to direct pedestrians away from the curb ramps while some truncated dome surfaces are oriented at 45-degree angles to crosswalks. These pedestrian features could misdirect a visually impaired pedestrian. It should be noted that blind pedestrians are active within the study area, particularly near Miami Lighthouse for the Blind (601 SW 8<sup>th</sup> Avenue).

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Replace deteriorated or misaligned truncated dome surfaces. Specific locations are discussed later in the report.
- Near-Term/Long-Term Project –  
Align crosswalks and curb ramps/truncated domes for future construction projects.

**Issue #7: Sign Visibility****Description of Issue:**

The pedestrian warning signs throughout the study area have inconsistent color of sign sheeting. Some have traditional engineering grade reflective yellow sheeting while others have high intensity fluorescent yellow-green sign sheeting. The latter are more visible to the road users and are the standard for warning signs associated with schools according to the MUTCD Section 2C.03.

**Suggestions for Improvement:**

- Near-Term Project –  
Replace traditional engineering grade reflective yellow pedestrian warning signs with high intensity fluorescent yellow-green sign sheeting for conspicuity and consistency in the area.

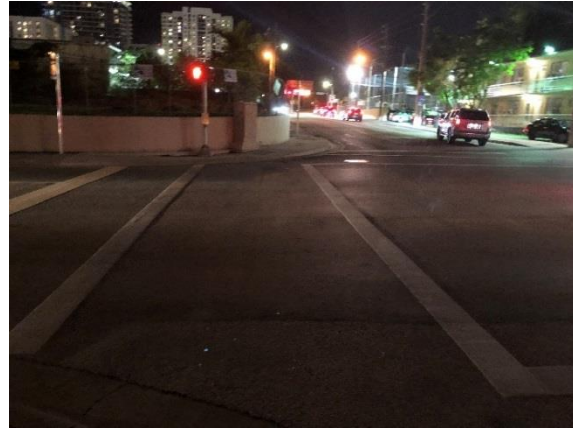


**Issue #8: Bicycle Facilities****Description of Issue:**

Sharrows are provided along SW 6<sup>th</sup> Street and SW 8<sup>th</sup> Avenue within the study area. Bicycles were observed making unsafe maneuvers, such as riding the wrong direction and riding on the sidewalk against traffic. Bicyclists were generally not observed riding in the roadway using sharrows.

**Suggestions for Improvement:**

- Near-Term or Maintenance Project –  
Conduct an educational campaign on bicycle safety and best practices on sharing the road.  
Consider adding signage for stop-controlled approaches at unsignalized intersections to alert drivers to look both ways for bicyclists.
- Long-Term Project –  
Conduct a study to evaluate the feasibility of lane repurposing (reducing the number of through lanes) to provide bike lanes.

**Issue #9: Roadway Lighting****Description of Issue:**

Lighting levels were inconsistent throughout the study area and low along some corridors and intersections. Large overhanging trees adjacent to the roadway partially block the roadway lighting, resulting in dark spots.

**Suggestions for Improvement:**

- Near-Term or Maintenance Project –  
Conduct maintenance work on the existing landscape and prevent lighting poles being blocked by tree branches.
- Long-Term Project –  
Lighting assessment studies are needed throughout the study area. Lighting alternatives with lower level light poles or pedestrian level lighting should be considered. When modifying intersections, upgrade lighting at intersections to match current FDOT intersection lighting standards.

**Issue #10: Roadway Signs Blocked****Description of Issue:**

Some roadway signs were blocked by vegetation in the study area. This prevents the driver from reading regulatory, directional and warning information.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Conduct vegetation maintenance throughout the area.



**Issue #11: Nighttime Issues****Description of Issue:****Lighting Issues –**

- 8<sup>th</sup> Avenue north of 6<sup>th</sup> Street overhead streetlight is out
- 6<sup>th</sup> Avenue between 6<sup>th</sup> Street and 7<sup>th</sup> Street has no lighting
- 6<sup>th</sup> Avenue and 9<sup>th</sup> Street intersection has no lighting
- 5<sup>th</sup> Avenue between 6<sup>th</sup> Street and 7<sup>th</sup> Street has no lighting
- 4<sup>th</sup> Avenue and 5<sup>th</sup> Street southbound has no lighting
- 5<sup>th</sup> Avenue and 5<sup>th</sup> Street poor lighting at intersection

**Signage Issues –**

- 6<sup>th</sup> Avenue and 6<sup>th</sup> Street southbound stop sign is not retroreflective
- 7<sup>th</sup> Avenue school signs are not retroreflective
- 3<sup>rd</sup> Avenue at 7<sup>th</sup> Street northbound no right turn sign is not retroreflective

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Conduct maintenance efforts to replace burnt out lights and replace signs that are damaged or have poor retroreflectivity.
- Long-Term Project –  
Install lighting where lighting is currently missing.

### SPECIFIC LOCATION ISSUES

The following section will include recommendations at specific locations throughout the study area.

#### Location: SW 7<sup>TH</sup> STREET AND SW 4<sup>TH</sup> AVENUE INTERSECTION

##### Issue #12: Worn/Faded No-Right Turn Sign



##### Description of Issue:

The No Right Turn sign is faded, it is no longer retroreflective and is blocked by bus stop shelter on the westbound approach. When the RSA Team drove by this intersection at night, the sign was not visible.

##### Suggestions for Improvement:

- Short-Term or Maintenance Project –  
Replace the No Right Turn sign.  
The post-mounted sign should be relocated to increase visibility.

**Location: SW 4<sup>TH</sup> AVENUE AND SW 7<sup>TH</sup> STREET INTERSECTION****Issue #13: Obstructed Sidewalk****Description of Issue:**

The sidewalk on the southbound approach to SW 4<sup>th</sup> Avenue and SW 7<sup>th</sup> Street is obstructed.

**Suggestions for Improvement:**

- Long-Term Project –  
Conduct further study to determine if alternative sidewalk alignment is available and/or additional right-of-way is necessary to allow for a wider sidewalk.



**Location: SW 4<sup>TH</sup> AVENUE AND SW 6<sup>TH</sup> STREET INTERSECTION****Issue #14: Obstructed Sidewalk****Description of Issue:**

The sidewalk on the west side of SW 4<sup>th</sup> Avenue is obstructed by overgrown vegetation. In addition, a concrete pole on the west side of SW 4<sup>th</sup> Avenue on the south leg is also obstructing the sidewalk.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Vegetation adjacent to the sidewalk should be properly maintained; may require code enforcement on private property.
- Long-Term Project –  
Conduct a study to determine if relocating the utility pole would be feasible and/or if widening the sidewalk is possible. Additional right-of-way may be required.

**Location: SW 4<sup>TH</sup> AVENUE AND SW 6<sup>TH</sup> STREET INTERSECTION****Issue #15: Utility Hole in Sidewalk****Description of Issue:**

There is an uncovered utility access hole in the sidewalk on the southwest corner of the intersection.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project – Consider covering the utility hole.



**Location: SW 4<sup>TH</sup> AVENUE AND SW 5<sup>TH</sup> STREET INTERSECTION****Issue #16: Obstructed Sidewalk****Description of Issue:**

The sidewalk is obstructed by overgrown vegetation and a School Zone speed limit sign.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Relocate the sign to an area where it would not impede pedestrian traffic.



**Location: SW 7<sup>TH</sup> STREET AND SW 5<sup>TH</sup> AVENUE INTERSECTION****Issue #17: Damaged Sidewalk****Description of Issue:**

The north side sidewalk of SW 7<sup>th</sup> Street on the east leg of the intersection is damaged and affects the connecting walkway to the multi-family residences in the area. The damaged sidewalk is located near 437 SW 7<sup>th</sup> Street.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project – Repair the sidewalk.

**Location: SW 7<sup>TH</sup> STREET AND SW 5<sup>TH</sup> AVENUE INTERSECTION****Issue #18: North/South Pedestrian Crossings on SW 7<sup>th</sup> Street from SW 4<sup>th</sup> Avenue to SW 8<sup>th</sup> Avenue****Description of Issue:**

Pedestrians were observed crossing SW 7<sup>th</sup> Street, particularly near transit stops. There are no marked north/south pedestrian crossings across SW 7<sup>th</sup> Street between SW 4<sup>th</sup> Avenue and SW 8<sup>th</sup> Avenue.

**Suggestions for Improvement:**

- Long-Term Project –  
Conduct a study to evaluate the need for a designated mid-block pedestrian crossing within the study area.



**Location: SW 7<sup>TH</sup> STREET AND SW 6<sup>TH</sup> AVENUE INTERSECTION****Issue #19: Regulatory signs for one-way street streets****Description of Issue:**

It was observed that a limited number of regulatory signs were provided at the unsignalized intersection of SW 7<sup>th</sup> Street and SW 6<sup>th</sup> Avenue to alert drivers of one-way roadway conditions. SW 7<sup>th</sup> Street is a one-way roadway with westbound traffic and SW 6<sup>th</sup> Avenue is a one-way roadway with southbound traffic. SW 7<sup>th</sup> Street is a high volume and higher speed roadway based on field observations. There are no signs on SW 7<sup>th</sup> Street to indicate SW 6<sup>th</sup> Avenue is a one-way street.

In addition, the No Left Turn sign facing southbound traffic on SW 6<sup>th</sup> Avenue is covered by the Stop sign on the northeast corner of the intersection.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Install One-Way signs (R6-1) on the near right and the far-left corners of the intersection facing westbound traffic on SW 7<sup>th</sup> Street according to the MUTCD Section 2B.40.07.  
Relocate No Left Turn sign (R3-2) facing southbound traffic on SW 6<sup>th</sup> Avenue to be visible to drivers.



**Location: SW 9<sup>TH</sup> STREET AND SW 5<sup>TH</sup> AVENUE INTERSECTION****Issue #20: Damaged Sign****Description of Issue:**

Stop sign on the southwest corner of the intersection has been hit and is bent in the direction away from oncoming motorists on SW 9<sup>th</sup> Street.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project – Replace sign pole.

**Location: SW 8<sup>TH</sup> STREET AND SW 7<sup>TH</sup> AVENUE INTERSECTION****Issue #21: Regulatory signs for one-way street streets****Description of Issue:**

It was observed that a limited number of regulatory signs were provided at the unsignalized intersection SW 7<sup>th</sup> Avenue and SW 8<sup>th</sup> Street to alert drivers of one-way roadway conditions. SW 8<sup>th</sup> Street is a one-way roadway with eastbound traffic.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Install One-Way signs (R6-1) on the near right and the far-left corners of the intersection facing westbound traffic on SW 7<sup>th</sup> Street according to the MUTCD Section 2B.40.07.  
Install No Left Turn sign (R3-2) at the far left-hand corner of the intersection or in conjunction with the Stop sign located on the near right-hand corner according to MUTCD Section 2B.18.04.



**Location: SW 6<sup>TH</sup> STREET AND SW 7<sup>TH</sup> AVENUE INTERSECTION****Issue #22: Regulatory signs for one-way street streets****Description of Issue:**

It was observed that a limited number of regulatory signs were provided at the unsignalized intersection of SW 6<sup>th</sup> Street and SW 7<sup>th</sup> Avenue to alert drivers of one-way roadway conditions. SW 6<sup>th</sup> Street is a one-way roadway with westbound traffic and SW 7<sup>th</sup> Avenue is a one-way roadway with northbound traffic.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Install No Right Turn sign (R3-1) facing northbound traffic on SW 7<sup>th</sup> Avenue in conjunction with the Stop sign located on the near right-hand corner according to MUTCD Section 2B.18.03.  
Install One-Way signs (R6-1) on the far-left corner of the intersection facing northbound traffic on SW 7<sup>th</sup> Avenue according to the MUTCD Section 2B.40.07. The existing sign on the far-left corner or northwest corner of the intersection is facing the wrong way or southbound traffic.



**Location: SW 4<sup>TH</sup> AVENUE AND SW 8<sup>TH</sup> STREET INTERSECTION****Issue #23: Traffic Conflict****Description of Issue:**

The north leg lane configuration at SW 4<sup>th</sup> Avenue and SW 8<sup>th</sup> Street includes three exclusive left-turn lanes and a single through lane. Some southbound drivers on the exclusive left-turn lanes driving on this intersection leg (from the I-95 southbound off-ramp) were observed to forcefully merge with the southbound through traffic. About half of the receiving area on the south leg of the intersection has chevron pavement markings restricting southbound vehicle travel path. Southbound traffic in the exclusive left-turn lane adjacent to the through lane was observed continuing southbound through the intersection and traversing through the chevron pavement markings.

**Suggestions for Improvement:**

- Near-Term Project –  
Conduct a study to evaluate the need to change the existing lane configuration on the north leg and the need for the chevron pavement markings on the south leg. An alternative lane configuration could include changing one of the exclusive left-turn lanes to a shared through/left.

**Location: SW 4<sup>TH</sup> AVENUE AND I-95 SOUTHBOUND ON-RAMP****Issue #24: Roadway Improvement****Description of Issue:**

The painted gore chevron markings and lane markings do not extend beyond the physical gore by the I-95 on-ramp just south of SW 4<sup>th</sup> Avenue.

**Suggestions for Improvement:**

- Near-Term Project –  
Extend chevron pavement markings to SW 9<sup>th</sup> Street.

Location: SW 4<sup>TH</sup> AVENUE SOUTH OF SW 8<sup>TH</sup> STREET

**Issue #25: Pedestrian Facility**



**Description of Issue:**

The sidewalk is cracked and depressed utility lids are present.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Repair the sidewalk and replace the utility lids.



**Location: SW 8<sup>TH</sup> AVENUE BETWEEN SW 4<sup>TH</sup> STREET AND SW 5<sup>TH</sup> STREET**

**Issue #26: Curb Ramp**



**Description of Issue:**

There is a curb ramp on the west side of SW 8<sup>th</sup> Avenue, south of SW 4<sup>th</sup> Street that does not lead to a crosswalk.

**Suggestions for Improvement:**

- Near-Term Project –  
Remove curb ramp or conduct study to determine if crossing should be installed.

**Location: SW 8<sup>TH</sup> AVENUE BETWEEN SW 5<sup>TH</sup> STREET AND SW 6<sup>TH</sup> STREET**

**Issue #27: Obstructed Sidewalk**



**Description of Issue:**

The west side sidewalk on SW 8<sup>th</sup> Avenue between SW 5<sup>th</sup> Street and 6<sup>th</sup> Street is obstructed by a utility pole and warning sign pole with flashing beacons.

**Suggestions for Improvement:**

- Long-Term Project –  
Conduct a study to determine if alternative sidewalk alignment and/or additional right-of-way is necessary to allow for wider sidewalk or if sign pole can be relocated.

**Location: SW 8<sup>TH</sup> AVENUE BETWEEN SW 7<sup>TH</sup> STREET AND SW 8<sup>TH</sup> STREET**

**Issue #28: Curb Ramp**



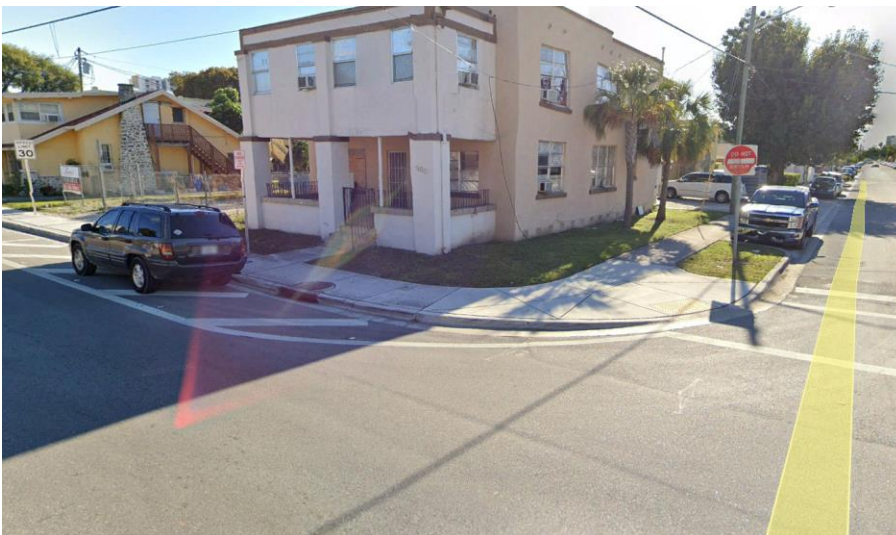
**Description of Issue:**

There is a curb ramp on the east side of SW 8<sup>th</sup> Avenue, south of SW 7<sup>th</sup> Street that does not lead to a crosswalk.

**Suggestions for Improvement:**

- Near-Term Project –  
Remove curb ramp or conduct study to determine if the crossing should be installed.



**Location: SW 8<sup>TH</sup> AVENUE AND SW 5<sup>TH</sup> STREET INTERSECTION****Issue #29: Hole in Sidewalk****Description of Issue:**

There is an exposed sign pole hole in ground on the southwest corner of the intersection.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Coordinate with the maintenance agency to determine if a sign is missing. Otherwise, consider filling if the hole in the sidewalk.

**Location: SW 8<sup>TH</sup> AVENUE AND SW 5<sup>TH</sup> STREET INTERSECTION****Issue #30: Sidewalk Access****Description of Issue:**

The sidewalk on the southeast corner of the intersection is obstructed by overgrown vegetation and a utility pole.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Vegetation adjacent to the sidewalk should be properly maintained; may require code enforcement on private property.
- Long-Term Project –  
Conduct a study to determine if alternative sidewalk alignment and/or additional right-of-way is necessary to allow for wider sidewalk.

**Location: SW 3<sup>RD</sup> AVENUE AND SW 5<sup>TH</sup> STREET INTERSECTION****Issue #31: Pedestrian Crossing****Description of Issue:**

Faded crosswalk striping on the west leg of the intersection. The intersection is missing a truncated dome surface on the northwest corner of the intersection – north/south crosswalk.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project – Restripe crosswalk and install truncated dome surface to the northwest corner.



**Location: SW 5<sup>TH</sup> AVENUE AND SW 5<sup>TH</sup> STREET INTERSECTION****Issue #32: Sloped Sidewalk****Description of Issue:**

The cross slope of the sidewalks across the driveway is steep. Shown in the picture above is the north side of SW 5<sup>th</sup> Avenue just east on SW 5<sup>th</sup> Street as an example of the issue in the area.

**Suggestions for Improvement:**

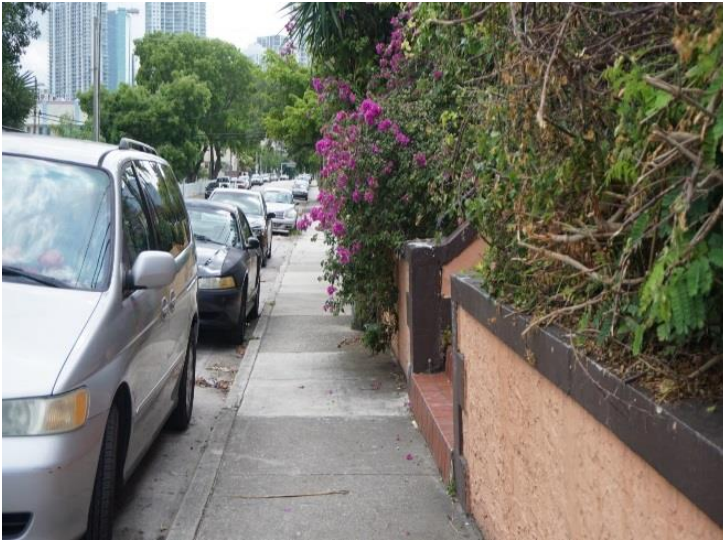
- Near-Term/Long-Term Project –  
Conduct a study to determine if driveway/sidewalk slope issues may be improved by reconstruction or relocation of the driveway. If driveways cannot be relocated on private property, it may be necessary to provide an easement or purchase right of way to provide a flat surface sidewalk between driveways and private property.

**Location: SW 7<sup>TH</sup> AVENUE AND SW 5<sup>TH</sup> STREET INTERSECTION****Issue #33: One-Way Sign****Description of Issue:**

It was observed that a limited number of regulatory signs were provided at the unsignalized intersection SW 7<sup>th</sup> Avenue and SW 5<sup>th</sup> Street to alert drivers of one-way roadway conditions. SW 7<sup>th</sup> Avenue is a one-way roadway with northbound traffic.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Install One-Way sign (R6-1) on the near right corner of the intersection facing eastbound traffic on SW 7<sup>th</sup> Street according to the MUTCD Section 2B.40.07.  
Install No Left Turn sign (R3-2) at the far left-hand corner of the intersection or in conjunction with the Stop sign located on the near right-hand corner according to MUTCD Section 2B.18.04.

**Location: SW 6<sup>TH</sup> COURT AND SW 6<sup>TH</sup> STREET****Issue #34: Obstructed Sidewalk****Description of Issue:**

The sidewalk is obstructed by overgrown vegetation (thorny bougainvillea) on the south side of SW 6<sup>th</sup> Street.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Vegetation adjacent to the sidewalk on the south side of SW 6<sup>th</sup> Street should be properly maintained; may require code enforcement on private property.

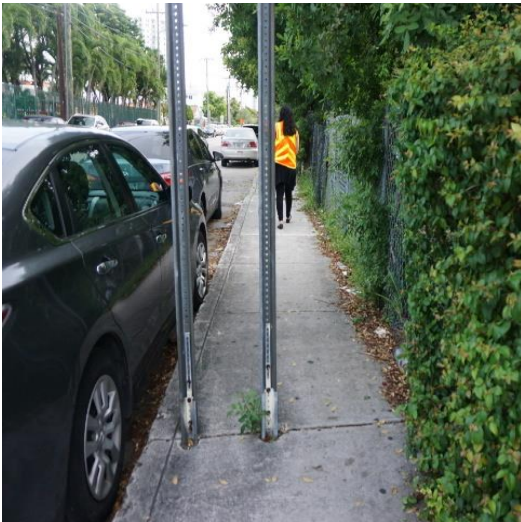


**Location: SW 3<sup>RD</sup> AVENUE AND SW 7<sup>TH</sup> STREET INTERSECTION****Issue #35: Pedestrian Crossing Signal****Description of Issue:**

The figure displayed on the pedestrian signal on the northwest corner of the intersection facing east is not visible.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Replace the pedestrian signal head for proper display.

**Location: SW 4<sup>TH</sup> AVENUE BETWEEN SW 4<sup>TH</sup> STREET AND SW 5<sup>TH</sup> STREET INTERSECTION****Issue #36: Speed Limit Sign****Description of Issue:**

A school speed limit sign facing northbound traffic on the east side of SW 4<sup>th</sup> Avenue between SW 4<sup>th</sup> Street and SW 5<sup>th</sup> Street is blocked by vegetation. The school speed limit sign poles block the sidewalk.

In addition, the Advance Stop Sign Warning sign facing northbound traffic on the east side of SW 4<sup>th</sup> Avenue between SW 4<sup>th</sup> Street and SW 5<sup>th</sup> Street (downstream of school speed limit sign) is covered by vegetation.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Relocate the school speed limit sign out of the sidewalk path.  
Conduct maintenance activity to the vegetation and landscape along SW 4<sup>th</sup> Avenue to prevent signs from getting blocked.

**Location: SW 5<sup>TH</sup> AVENUE BETWEEN SW 7<sup>TH</sup> STREET AND SW 8<sup>TH</sup> STREET**

**Issue #37: Sidewalk Obstruction**



**Description of Issue:**

The sidewalk on the east side of SW 5<sup>th</sup> Avenue between SW 7<sup>th</sup> Street and SW 8<sup>th</sup> Street is obstructed by overgrown vegetation. In addition, the fence was observed to encroach onto the sidewalk.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Conduct maintenance on the vegetation and consider conducting coordination with private owner to fix the fence encroaching onto the sidewalk.



**Location: SW 6<sup>TH</sup> AVENUE AND SW 6<sup>TH</sup> STREET INTERSECTION****Issue #38: Stop Sign Covered by Vegetation****Description of Issue:**

Additional regulatory signs should be provided at the unsignalized intersection of SW 6<sup>th</sup> Avenue and SW 6<sup>th</sup> Street to alert drivers of one-way roadway conditions. SW 6<sup>th</sup> Avenue is a one-way roadway with southbound traffic and SW 6<sup>th</sup> Street is a one-way roadway with westbound traffic.

In addition, the Stop sign on the northeast corner of the intersection, facing southbound traffic on SW 6<sup>th</sup> Avenue, is blocked by vegetation.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Install a One-Way sign (R6-1) on the far-left corner of the intersection facing southbound traffic on SW 6<sup>th</sup> Avenue according to the MUTCD Section 2B.40.07.

Conduct maintenance to trim vegetation on the northeast corner of the intersection.

**Location: SW 4<sup>TH</sup> AVENUE AND SW 4<sup>TH</sup> STREET INTERSECTION****Issue #39: Pedestrian Crossing****Description of Issue:**

Marked crosswalks are missing on all intersection approaches.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Install marked crosswalks on all the intersection approaches.



**Location: SW 6<sup>TH</sup> AVENUE AND SW 3<sup>RD</sup> STREET INTERSECTION****Issue #40: Pedestrian Crossing****Description of Issue:**

Eastbound intersection approach (west leg) has been repaved over the stop bar and crosswalk.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project – Restripe crosswalk and stop bar.



**Location: SW 5<sup>TH</sup> AVENUE BETWEEN SW 8<sup>TH</sup> STREET AND SW 9<sup>TH</sup> STREET**

**Issue #41: Sidewalk Obstruction**



**Description of Issue:**

Store items are blocking the sidewalk on the east side of SW 5<sup>th</sup> Avenue.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Coordinate with the shop owner to remove items from the sidewalk.

**Location: SW 5<sup>TH</sup> AVENUE AND SW 8<sup>TH</sup> STREET INTERSECTION****Issue #42: Pedestrian Signal Heads****Description of Issue:**

The signals on the pedestrian signal heads on the southeast and southwest corners of the intersection are not visible.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Conduct maintenance for malfunctioning pedestrian signal heads or replace them.

**Location: SW 8<sup>TH</sup> AVENUE AND SW 6<sup>TH</sup> STREET INTERSECTION****Issue #43: Pedestrian Crossing****Description of Issue:**

The pedestrian truncated dome surfaces at the ramps are not properly installed.

**Suggestions for Improvement:**

- Near-Term Project –  
Reinstall or replace the truncated dome surfaces to properly guide pedestrians to the crosswalks.

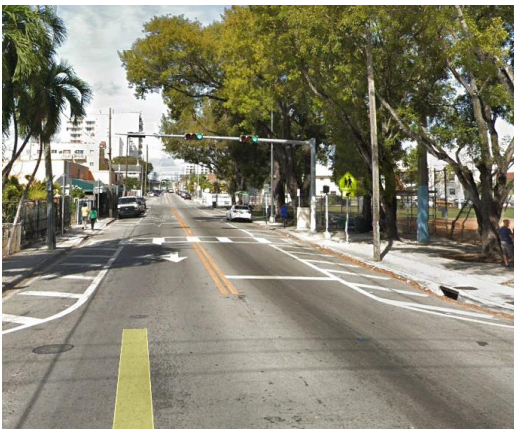


**Location: SW 8<sup>TH</sup> AVENUE AND SW 5<sup>TH</sup> STREET INTERSECTION****Issue #44: Pedestrian Crossing****Description of Issue:**

The Do Not Enter sign on the west leg of the intersection is vandalized with graffiti. In addition, the No Right Turn on the southeast corner, facing SW 8<sup>th</sup> Avenue southbound traffic, is blocked by vegetation. There are no marked east-west pedestrian crossings along SW 8<sup>th</sup> Avenue between SW 4<sup>th</sup> Street and SW 6<sup>th</sup> Street.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Replace the Do Not Enter sign. Conduct maintenance to trim outgrown vegetation.
- Long-Term Project –  
Conduct a study to evaluate the need for an east-west crosswalk along SW 8<sup>th</sup> Avenue.

**Location: SW 8<sup>TH</sup> AVENUE AND SW 4<sup>TH</sup> STREET INTERSECTION****Issue #45: Pedestrian Crossing****Description of Issue:**

The mid-block crossing is located approximately 70 feet north of the intersection. When the pedestrian signal is activated, vehicles traveling northbound stop and block the SW 8<sup>th</sup> Avenue and SW 4<sup>th</sup> Street intersection.

**Suggestions for Improvement:**

- Long-Term Project –  
Conduct a study to determine if east/west crosswalk can be relocated.

**Location: SW 4<sup>TH</sup> AVENUE AND SW 4<sup>TH</sup> STREET INTERSECTION****Issue #46: Pedestrian Crossing****Description of Issue:**

Crosswalk marking is missing at the intersection.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project – Install missing crosswalks.



**Location: SW 4<sup>TH</sup> STREET BETWEEN SW 4<sup>TH</sup> AVENUE AND SW 5<sup>TH</sup> AVENUE****Issue #47: Pedestrian Access****Description of Issue:**

Due to the adjacent driveways on the sidewalk, a majority of the sidewalk on both sides of SW 4<sup>th</sup> Street is sloped. This roadway feature creates potential issues for wheelchairs to use the sidewalk in addition to potential conflicts with parked vehicles.

**Suggestions for Improvement:**

- Near-Term Project –  
Conduct a study to determine if the sidewalk should be leveled.

**Location: SW 5<sup>TH</sup> AVENUE AND SW 4<sup>TH</sup> STREET INTERSECTION****Issue #48: Pedestrian Crossing****Description of Issue:**

The crosswalk markings are missing on the controlled approaches (east and west legs). In addition, there is poor sight distance due to the fence and parked vehicles near the intersection.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Install marked crosswalks on controlled approaches.
- Near-Term Project –  
Conduct a study to determine if intersection should be converted to an all-way stop. In addition, conduct a sight distance study to improve visibility at intersection.



**Location: SW 7<sup>TH</sup> AVENUE AND SW 5<sup>TH</sup> STREET INTERSECTION****Issue #49: Pedestrian Crossing****Description of Issue:**

The crosswalk markings are missing along SW 5<sup>th</sup> Street.

**Suggestions for Improvement:**

- Near-Term Project –  
Install marked crosswalks on controlled approaches along SW 5<sup>th</sup> Street.



**Location: SW 6<sup>TH</sup> STREET AND SW 7<sup>TH</sup> COURT INTERSECTION****Issue #50: Pedestrian Crossing****Description of Issue:**

Miami Lighthouse for the Blind is located on the SW corner of the intersection with access points on the south and west legs. Marked pedestrian crossings along SW 6<sup>th</sup> Street between SW 8<sup>th</sup> Avenue and SW 4<sup>th</sup> Avenue are faded or missing. Signage on north sidewalk is blocked by landscape.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Add pedestrian crossings on the north and south side. Conduct maintenance on landscape blocking signs.

**Location: SW 7<sup>TH</sup> AVENUE AND SW 3<sup>RD</sup> STREET INTERSECTION****Issue #51: Drainage****Description of Issue:**

The inlet on the northwest corner of the intersection is partially clogged with debris. The curb ramp is inaccessible when it rains.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Conduct maintenance work to remove debris.
- Near-Term Project –  
Evaluate if the inlet / drainage system needs modifications.



**Location: SW 8<sup>TH</sup> STREET ON-RAMP TO I-95 NORTHBOUND****Issue #52: Pedestrian Crossing****Description of Issue:**

Traffic headed to the I-95 ramp traffic on SW 8<sup>th</sup> Street was observed not yielding to pedestrians on crosswalk.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Install diamond shaped Yield line markings per MUTCD section 3B.16 in conjunction with Yield Here To Pedestrians (R1-5 series) signs (see Section 2B.11).



**Location: SW 8<sup>TH</sup> STREET AND SW 5<sup>TH</sup> AVENUE INTERSECTION****Issue #53: Traffic Signal Heads****Description of Issue:**

The signal heads are not located over the center of the roadway. A motorist in the left-most eastbound lane could have difficulty seeing the signal indications if a large truck or sightseeing bus were in the center lane.

**Suggestions for Improvement:**

- Near-Term Project –  
Reposition the signal heads to the center of the travel lanes.

**Location: SW 8<sup>TH</sup> STREET AND SW 5<sup>TH</sup> AVENUE INTERSECTION****Issue #54: One-Way Signs****Description of Issue:**

One-way signs are missing at the intersection.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Install One-Way signs (R6-1) on the near right and the far-left corners of the intersection according to the MUTCD Section 2B.40.07.

Location: SW 8<sup>TH</sup> STREET

## Issue #55: Sidewalk User Sign

**Description of Issue:**

The RSA Team observed a single sign, located on the southside of SW 8<sup>th</sup> Street just east of SW 7<sup>th</sup> Avenue, which prohibits bicycles, scooters, skates, skateboards, mopeds and other vehicles from using the sidewalk on SW 8<sup>th</sup> Street from SW 4<sup>th</sup> Avenue to Tamiami Canal Road (Palmetto Expressway). The sign references City ordinance 8-6. Bicyclists were observed using the sidewalk. Signing to regulate use of a facility should be easy to read.

**Suggestions for Improvement:**

- Near-Term Project –  
Recommend further study to determine if the regulation is enforced and remove or provide additional signs that are easy to read along the corridor.



**Location: SW 7<sup>TH</sup> STREET AND SW 8<sup>TH</sup> AVENUE INTERSECTION****Issue #56: Sign Visibility****Description of Issue:**

The nearside One-Way regulatory sign is located 30 feet from the northbound approach making it difficult for an approaching driver to see the sign.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Relocate the sign closer to the intersection to be within driver's sight.

**Location: SW 4<sup>TH</sup> AVENUE AND SW 8<sup>TH</sup> STREET INTERSECTION****Issue #57: Sign Visibility****Description of Issue:**

There are no One-Way arrow signs installed at the intersection for eastbound traffic. Also, the No Left Turn sign mounted on the traffic signal mast arm has degraded and is hard to see.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Install One-Way signs (R6-1) on the near right and the far-left corners of the intersection facing eastbound traffic on SW 8<sup>th</sup> Street according to the MUTCD Section 2B.40.07.  
Replace No Left Turn sign (R3-2) facing eastbound traffic on SW 8<sup>th</sup> Street.

**Location: SW 4<sup>TH</sup> STREET NEAR SW 4<sup>TH</sup> AVENUE****Issue #58: Curb Bulb-Out****Description of Issue:**

A curb bulb-out to control parking has been struck numerous times. The bulb-out is hard to see in the dark.

**Suggestions for Improvement:**

- Near-Term Project – Consider removing the stump. Reconstruct bulb-out to increase its visibility with pavement markings.



## Summary of Suggestions

This assessment considers operational and safety related issues for all users near Joe Moretti II and Buena Vista assisted living facilities. This study was commissioned by MDC TPO to develop recommendations to improve the safety of all users throughout the study area. The suggestions identified in this report are summarized as follows:

### Improvements:

Each suggestion identified in this study is classified into one of three categories:

- Short-Term or Maintenance Project – it is anticipated that issues identified for maintenance may be addressed by public agency staff on a short timeframe and at a relatively low cost.
- Near-Term Project – activities that may be incorporated into an upcoming construction project in the area, including milling and resurfacing projects, or programmed separately through a pushbutton design-build contract.
- Long-Term Project – activities that may be incorporated into upcoming construction projects or may need to be programmed for funding as separate projects.

### Education:

Potential corridor-focused education efforts are noted below:

- Educate Bicyclists: Warn bicyclists of the risks associated with riding on the sidewalk against the flow of traffic
- Educate Bicyclists: Educate bicyclists regarding best practices for nighttime riding and provide resources (e.g., bike lights, reflectors, wear bright or retroreflective clothing)
- Educate Motorists: Yield to pedestrians in crosswalks
- Educate Motorists: Watch for pedestrians and bicyclists at driveways (look both ways)
- Educate Pedestrians: Use of designated crosswalks and use of pedestrian signals
- Educate Pedestrians: Educate pedestrians regarding being visible at night

### Enforcement:

Potential corridor-focused enforcement efforts are noted below:

- Motorists: Consider investigating state or federal grants to increase speed enforcement in areas with high volumes of transit users, pedestrians, and bicycles.

The issues and suggested improvements reflect the consensus of the safety assessment team and not necessarily that of the MDC TPO.

The following table lists each issue identified within the study area as well as its categorized improvement type.

## SUMMARY OF RECOMMENDATIONS

Issue Number	Issue Location	Issue Type	Improvement Type
1	Area-Wide	Vehicular Speed	Near-Term Project
			Long-Term Project
2	Area-Wide	Pedestrian Crossings	Short-Term or Maintenance Project
			Near-Term Project
3	Area-Wide	Narrow and Partially Obstructed Sidewalks	Short-Term or Maintenance Project
			Long-Term Project
4	Area-Wide	Poor Sight Distance at Intersections	Short-Term or Maintenance Project
5	Area-Wide	Sidewalk Slopes across Driveways	Near-Term or Long-Term Project
6	Area-Wide	Improper Truncated Domes	Short-Term or Maintenance Project
			Near-Term or Long-Term Project
7	Area-Wide	Sign Visibility	Near-Term Project
8	Area-Wide	Bicycle Facilities	Near-Term or Maintenance Project
			Long-Term Project
9	Area-Wide	Roadway Lighting	Near-Term or Maintenance Project
			Long-Term Project
10	Area-Wide	Roadway Signs Blocked	Short-Term or Maintenance Project
11	Area-Wide	Nighttime Issues	Short-Term or Maintenance Project
			Long-Term Project
12	SW 7 <sup>th</sup> Street and SW 4 <sup>th</sup> Avenue Intersection	Worn/Faded No-Right Turn Sign	Short-Term or Maintenance Project
13	SW 4 <sup>th</sup> Avenue and SW 7 <sup>th</sup> Street Intersection	Obstructed Sidewalk	Long-Term Project
14	SW 4 <sup>th</sup> Avenue and SW 6 <sup>th</sup> Street Intersection	Obstructed Sidewalk	Short-Term or Maintenance Project
			Long-Term Project
15	SW 4 <sup>th</sup> Avenue and SW 6 <sup>th</sup> Street Intersection	Utility Hole in Sidewalk	Short-Term or Maintenance Project
16	SW 4 <sup>th</sup> Avenue and SW 5 <sup>th</sup> Street Intersection	Obstructed Sidewalk	Short-Term or Maintenance Project
17	SW 7 <sup>th</sup> Street and SW 5 <sup>th</sup> Avenue Intersection	Damaged Sidewalk	Short-Term or Maintenance Project

Issue Number	Issue Location	Issue Type	Improvement Type
18	SW 7 <sup>th</sup> Street and SW 5 <sup>th</sup> Avenue Intersection	North/South Pedestrian Crossings on SW 7 <sup>th</sup> Street from SW 4 <sup>th</sup> Avenue to SW 8 <sup>th</sup> Avenue	Long-Term Project
19	SW 7 <sup>th</sup> Street and SW 6 <sup>th</sup> Avenue Intersection	Regulatory signs for one-way street streets	Short-Term or Maintenance Project
20	SW 9 <sup>th</sup> Street and SW 5 <sup>th</sup> Avenue Intersection	Damaged Sign	Short-Term or Maintenance Project
21	SW 8 <sup>th</sup> Street and SW 7 <sup>th</sup> Avenue Intersection	Regulatory signs for one-way street streets	Short-Term or Maintenance Project
22	SW 6 <sup>th</sup> Street and SW 7 <sup>th</sup> Avenue Intersection	Regulatory signs for one-way street streets	Short-Term or Maintenance Project
23	SW 4 <sup>th</sup> Avenue and SW 8 <sup>th</sup> Street Intersection	Traffic Conflict	Near-Term Project
24	SW 4 <sup>th</sup> Avenue and I-95 Southbound On-Ramp	Roadway Improvement	Near-Term Project
25	SW 4 <sup>th</sup> Avenue South of SW 8 <sup>th</sup> Street	Pedestrian Facility	Short-Term or Maintenance Project
26	SW 8 <sup>th</sup> Avenue Between SW 4 <sup>th</sup> Street and SW 5 <sup>th</sup> Street	Curb Ramp	Near-Term Project
27	SW 8 <sup>th</sup> Avenue Between SW 5 <sup>th</sup> Street and SW 6 <sup>th</sup> Street	Obstructed Sidewalk	Long-Term Project
28	SW 8 <sup>th</sup> Avenue Between SW 7 <sup>th</sup> Street and SW 8 <sup>th</sup> Street	Curb Ramp	Near-Term Project
29	SW 8 <sup>th</sup> Avenue and SW 5 <sup>th</sup> Street Intersection	Hole in Sidewalk	Short-Term or Maintenance Project
30	SW 8 <sup>th</sup> Avenue and SW 5 <sup>th</sup> Street Intersection	Sidewalk Access	Short-Term or Maintenance Project
			Long-Term Project
31	SW 3 <sup>rd</sup> Avenue and SW 5 <sup>th</sup> Street Intersection	Pedestrian Crossing	Short-Term or Maintenance Project
32	SW 5 <sup>th</sup> Avenue and SW 5 <sup>th</sup> Street Intersection	Sloped Sidewalk	Near-Term or Long-Term Project
33	SW 7 <sup>th</sup> Avenue and SW 5 <sup>th</sup> Street Intersection	One-Way Sign	Short-Term or Maintenance Project
34	SW 6 <sup>th</sup> Court and SW 6 <sup>th</sup> Street	Obstructed Sidewalk	Short-Term or Maintenance Project
35	SW 3 <sup>rd</sup> Avenue and SW 7 <sup>th</sup> Street Intersection	Pedestrian Crossing Signal	Short-Term or Maintenance Project



Issue Number	Issue Location	Issue Type	Improvement Type
36	SW 4 <sup>th</sup> Avenue Between SW 4 <sup>th</sup> Street and SW 5 <sup>th</sup> Street Intersection	Speed Limit Sign	Short-Term or Maintenance Project
37	SW 5 <sup>th</sup> Avenue Between SW 7 <sup>th</sup> Street and SW 8 <sup>th</sup> Street	Sidewalk Obstruction	Short-Term or Maintenance Project
38	SW 6 <sup>th</sup> Avenue and SW 6 <sup>th</sup> Street Intersection	Stop Sign Covered by Vegetation	Short-Term or Maintenance Project
39	SW 4 <sup>th</sup> Avenue and SW 4 <sup>th</sup> Street Intersection	Pedestrian Crossing	Short-Term or Maintenance Project
40	SW 6 <sup>th</sup> Avenue and SW 3 <sup>rd</sup> Street Intersection	Pedestrian Crossing	Short-Term or Maintenance Project
41	SW 5 <sup>th</sup> Avenue Between SW 8 <sup>th</sup> Street and SW 9 <sup>th</sup> Street	Sidewalk Obstruction	Short-Term or Maintenance Project
42	SW 5 <sup>th</sup> Avenue and SW 8 <sup>th</sup> Street Intersection	Pedestrian Signal Heads	Short-Term or Maintenance Project
43	SW 8 <sup>th</sup> Avenue and SW 6 <sup>th</sup> Street Intersection	Pedestrian Crossing	Near-Term Project
44	SW 8 <sup>th</sup> Avenue and SW 5 <sup>th</sup> Street Intersection	Pedestrian Crossing	Short-Term or Maintenance Project
			Long-Term Project
45	SW 8 <sup>th</sup> Avenue and SW 4 <sup>th</sup> Street Intersection	Pedestrian Crossing	Long-Term Project
46	SW 4 <sup>th</sup> Avenue and SW 4 <sup>th</sup> Street Intersection	Pedestrian Crossing	Short-Term or Maintenance Project
47	SW 4 <sup>th</sup> Street Between SW 4 <sup>th</sup> Avenue and SW 5 <sup>th</sup> Avenue	Pedestrian Access	Near-Term Project
48	SW 5 <sup>th</sup> Avenue and SW 4 <sup>th</sup> Street Intersection	Pedestrian Crossing	Short-Term or Maintenance Project
			Near-Term Project
49	SW 7 <sup>th</sup> Avenue and SW 5 <sup>th</sup> Street Intersection	Pedestrian Crossing	Near-Term Project
50	SW 6 <sup>th</sup> Street and SW 7 <sup>th</sup> Court Intersection	Pedestrian Crossing	Short-Term or Maintenance Project
51	SW 7 <sup>th</sup> Avenue and SW 3 <sup>rd</sup> Street Intersection	Drainage	Short-Term or Maintenance Project
			Near-Term Project
52	SW 8 <sup>th</sup> Street On-Ramp to I-95 Northbound	Pedestrian Crossing	Short-Term or Maintenance Project
53	SW 8 <sup>th</sup> Street and SW 5 <sup>th</sup> Avenue Intersection	Traffic Signal Heads	Near-Term Project

Issue Number	Issue Location	Issue Type	Improvement Type
54	SW 8 <sup>th</sup> Street and SW 5 <sup>th</sup> Avenue Intersection	One-Way Signs	Short-Term or Maintenance Project
55	SW 8 <sup>th</sup> Street	Sidewalk User Sign	Near-Term Project
56	SW 7 <sup>th</sup> Street and SW 8 <sup>th</sup> Avenue Intersection	Sign Visibility	Short-Term or Maintenance Project
57	SW 4 <sup>th</sup> Avenue and SW 8 <sup>th</sup> Street Intersection	Sign Visibility	Short-Term or Maintenance Project
58	SW 4 <sup>th</sup> Street near SW 4 <sup>th</sup> Avenue	Curb Bulb-Out	Near-Term Project

## Appendix A

### Historical Crash Summary



# Senior Living Facilities Road Safety Audit

## Joe Moretti II and Buena Vista Apartments

### City of Miami

#### Background

The Senior Living Facilities Road Safety Audit focused on the areas surrounding Joe Moretti II Apartments and Buena Vista Apartments includes several corridors as follows that were identified as focus areas based on their crash history:

- SW 7th St from US 441 to SW 3rd Ave
- SW 8th St from west of SW 7th Ave to I-95 NB entry ramps
- US 441 from SW 7th St to SW 4th St
- SW 6th Ave from SW 9th St to SW 2nd St
- SW 5th Ave from SW 9th St to SW 2nd St
- SW 4th Ave from SW 9th St to north of SW 3rd St

The general segment characteristics for the are reviewed below:

- Posted speed limits of 30 mph, with roadways through residential areas generally unsigned:
- A mix of one-way and two-way operations, with mostly two lanes (three lanes on SW 7th St and SW 8th St).
- There are no marked bicycle lanes. Sharrows are present on some roadways.
- There are continuous sidewalks on both sides of the roadways throughout the study area.
- Overhead street lighting is present at some intersections and sporadic along segments.
- Curb and gutter is present the study area.
- The land use is primarily residential with a few parks and schools throughout the area and commercial uses centered along the SW 8th St corridor.
- This area is served by bus routes 8 and 207 along SW 6th St, SW 7th St and route 208 along SW 8th St.
- There are seven (7) signalized intersections throughout the study area:
  - US 441 at SW 6th St
    - Standard crosswalk markings
    - All crosswalks include pedestrian actuated signals with push buttons
  - US 441 at SW 7th St
    - Standard crosswalk markings
    - All crosswalks include pedestrian actuated signals with push buttons
  - SW 5th Ave at SW 8th St
    - Special emphasis crosswalk markings
    - All crosswalks include pedestrian actuated signals with push buttons
  - SW 4th Ave at SW 8th St
    - Standard crosswalk markings (no east leg crosswalk, south leg crosswalk and SE corner sidewalk are new)

- All crosswalks include pedestrian actuated signals with push buttons
- SW 4th Ave at SW 7th St
  - Standard crosswalk markings (no south leg crosswalk)
  - All crosswalks include pedestrian actuated signals with push buttons
- SW 4th Ave at SW 6th St
  - Standard crosswalk markings
  - All crosswalks include pedestrian actuated signals with push buttons
- SW 3rd Ave at SW 7th St
  - Standard crosswalk markings
  - All crosswalks include pedestrian actuated signals with push buttons

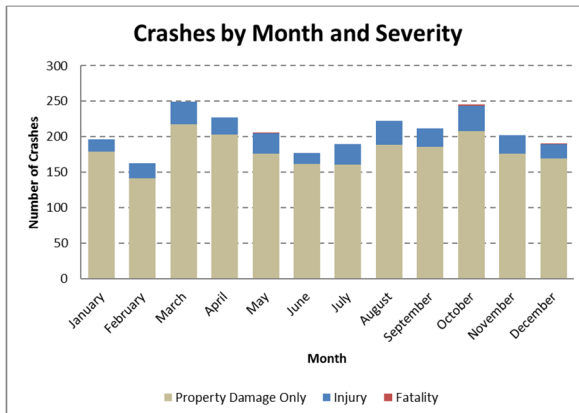
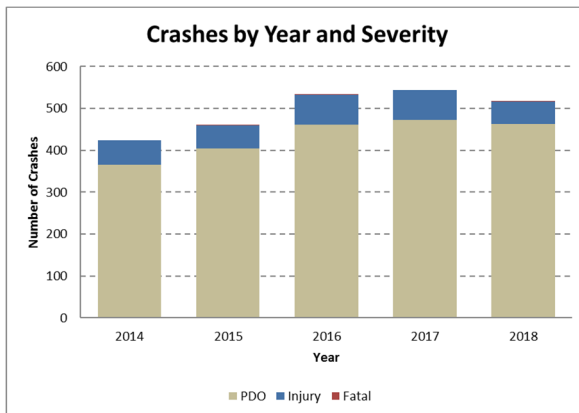
### Crash History (2014 – 2018):

Five (5) years of available vehicular crash data, 2014 to 2018, was obtained from the Signal Four Analytics database and utilized for historical crash analysis.

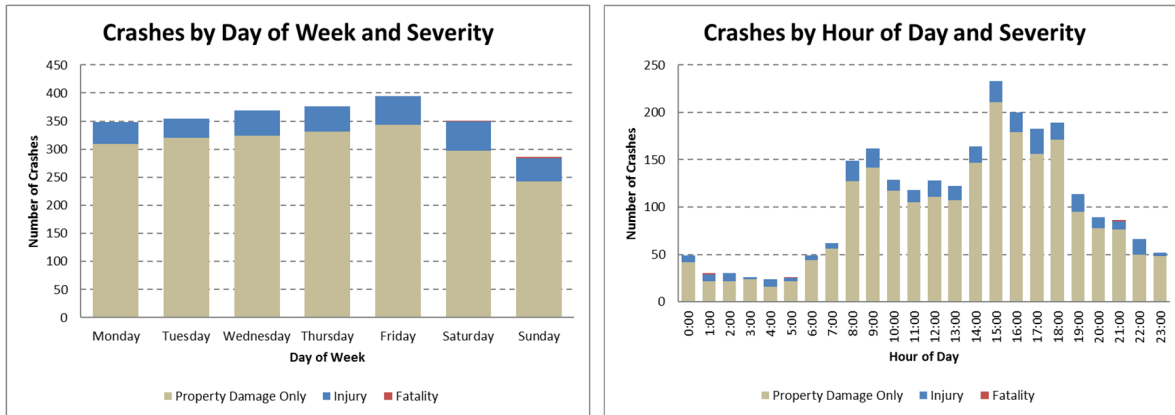
#### Overall Study Area

A total of 2,480 vehicular crashes were reported over the five-year study period. Of the 2,480 crashes reported during the study period, there were three fatal crashes (0.1 percent), 309 injury crashes (13 percent), and 2,168 property damage only (PDO) crashes (87 percent). There were 15 bicycle involved crashes (0.6 percent) and 28 pedestrian involved crashes (1 percent):

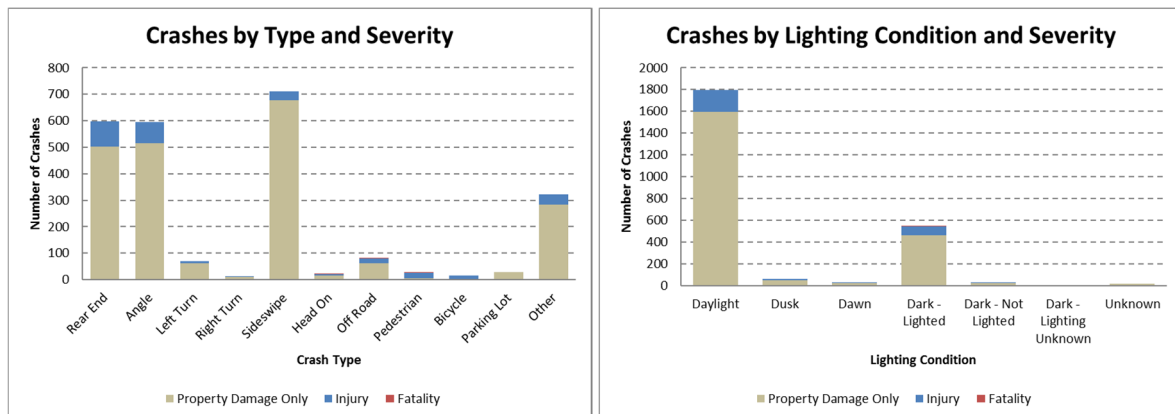
The reported crashes are displayed by different measures of time (year, month, day, and hour) below. Overall, the number of crashes has increased between 2014 and 2017, and decreased from that point in 2018. March (249 crashes) and October (245 crashes) were the highest crash months during the year, while Friday (395 crashes) was the highest crash day of the week. Seventy-four (74) percent of all crashes occurred between 7:00 AM and 7:00 PM.



## JOE MORETTI II AND BUENA VISTA APARTMENTS HISTORICAL CRASH SUMMARY



The reported crashes by crash type are displayed below. Twenty-nine (29) percent (710 crashes) were sideswipe crashes, twenty-four (24) percent (597 crashes) were rear-end crashes, and twenty-four (24) percent (595 crashes) were angle crashes. Twenty-eight (28) percent of crashes occurred under non-daylight conditions.



Among the crashes that occurred during non-daylight conditions, general trends are similar to those presented for all crashes in the study area. Sideswipe, rear-end, and angle crashes remain the predominant crash types, with crashes per year increasing from 2014 through 2018. Non-daylight crashes do occur more heavily on weekends, with the highest crash day being Saturday (140 crashes, 21 percent). High crash locations of the non-daylight crashes are similar to overall high crash locations, with clusters occurring at the signalized intersections on SW 7th St and SW 8th St and along US 441. Eight-four (84) percent of the non-daylight crashes were PDO crashes, 15 percent were injury crashes, and all three (3) fatal crashes that occurred in the study area occurred in non-daylight conditions (0.4 percent of non-daylight crashes).

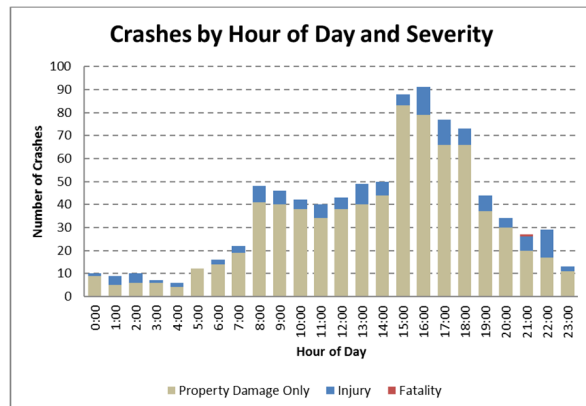
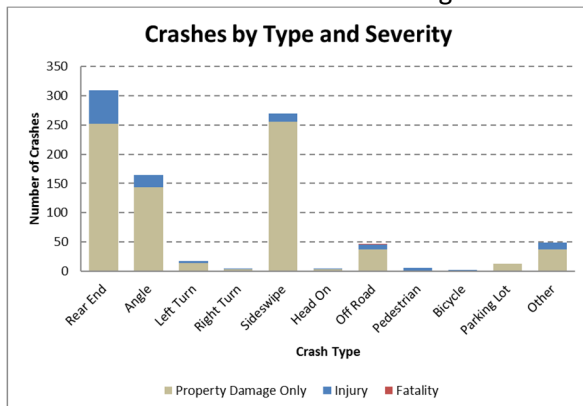
A total of 333 crashes in the study area involved elderly users, with 85 percent PDO crashes and 15 percent injury crashes. These crashes primarily occurred between 7am and 7pm (92 percent) and were fairly evenly distributed from Monday to Saturday throughout the week, with the lowest number of crashes occurring on Sunday (27 crashes, 8 percent). The most prevalent crash types included sideswipe (32 percent), angle (28 percent), and rear-end (17 percent).

Further details on crashes located within the six previously identified high-crash corridors in the study area are provided below.



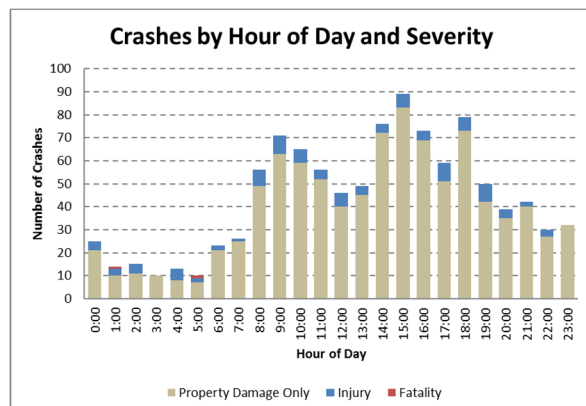
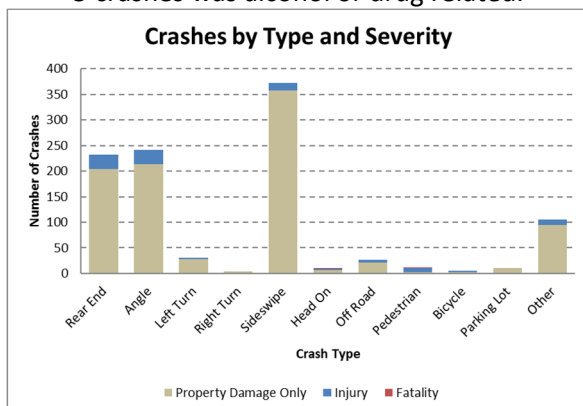
**SW 7th St from US 441 to SW 3rd Ave (886 total crashes)**

- 1 fatal crash, 14 percent (126 crashes) were injury-related, and 86 percent (759 crashes) were PDO.
- 35 percent (309 crashes) were rear-end, 31 percent (270 crashes) were sideswipe, and 19 percent (164 crashes) were angle.
  - 73 of the 309 rear-end crashes occurred in the westbound direction.
  - 196 of the 309 rear-end crashes occurred in the southbound direction.
- 27 percent (237 crashes) occurred in non-daylight conditions.
- October (93 crashes) was the highest crash month.
- 37 percent (329 crashes) occurred between 3:00 PM and 7:00 PM.
- 6 crashes were pedestrian involved and 2 crashes were bicyclist involved.
- 12 crashes were alcohol or drug related.



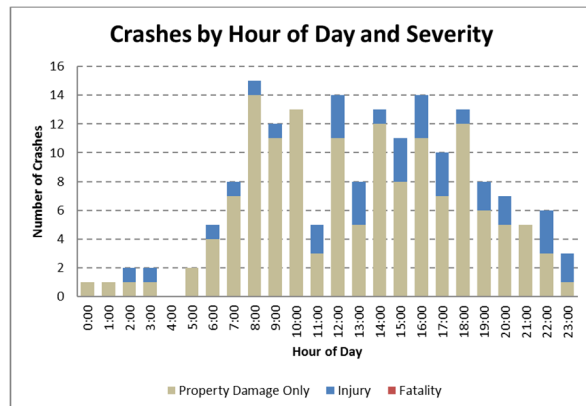
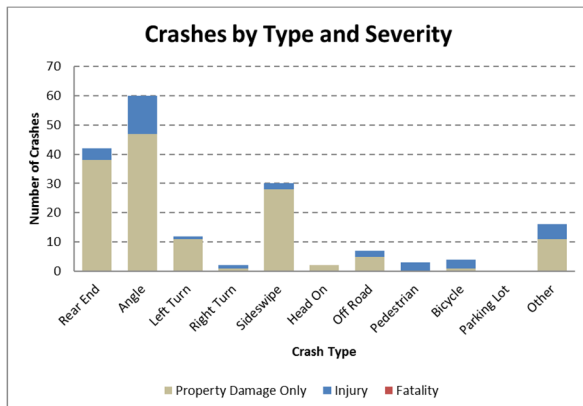
**SW 8th St from west of SW 7th Ave to I-95 NB entry ramps (1048 total crashes)**

- 2 fatal crashes, 10 percent (101 crashes) were injury-related, and 90 percent (945 crashes) were PDO.
- 36 percent (372 crashes) were sideswipe, 23 percent (241 crashes) were angle, and 22 percent (232 crashes) were rear-end.
  - 85 of the 232 rear-end crashes occurred in the eastbound direction.
  - 78 of the 232 rear-end crashes occurred in the southbound direction.
- 31 percent (323 crashes) occurred in non-daylight conditions.
- March (110 crashes) was the highest crash month.
- 29 percent (300 crashes) occurred between 3:00 PM and 7:00 PM.
- 12 crashes were pedestrian involved and 5 crashes were bicyclist involved.
- 5 crashes was alcohol or drug related.

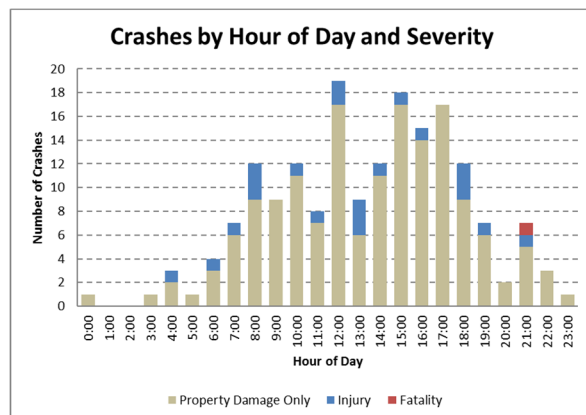
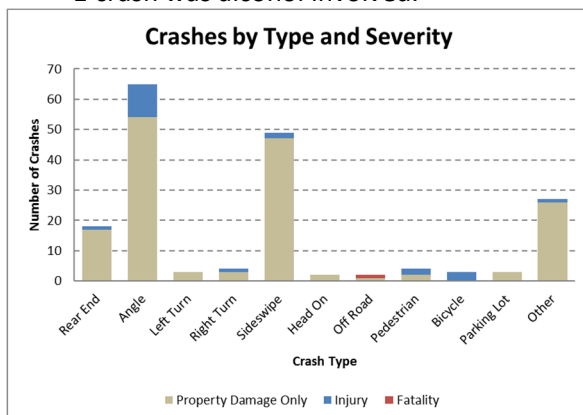


**US 441 from SW 7th St to SW 4th St (178 total crashes)**

- 19 percent (34 crashes) were injury-related, and 81 percent (144 crashes) were PDO.
- 34 percent (60 crashes) were angle, 24 percent (42 crashes) were rear-end, and 17 percent (30 crashes) were sideswipe.
  - 14 of the 42 rear-end crashes occurred in the westbound direction.
  - 12 of the 42 rear-end crashes occurred in the southbound direction.
  - 10 of the 42 rear-end crashes occurred in the northbound direction.
- 26 percent (47 crashes) occurred in non-daylight conditions.
- September (26 crashes) was the highest crash month.
- 34 percent (61 crashes) occurred between 2:00 PM and 7:00 PM.
- 3 crashes were pedestrian involved and 4 crashes were bicyclist involved.
- 1 crash was alcohol involved.

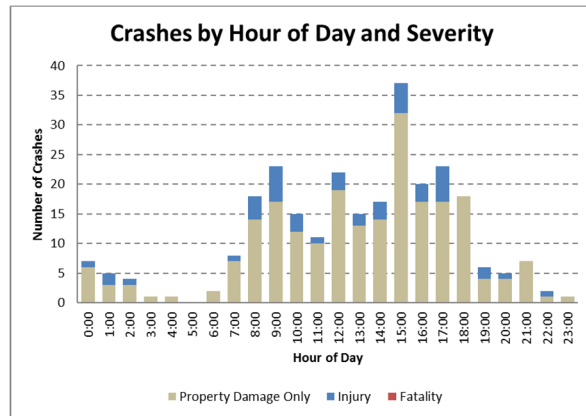
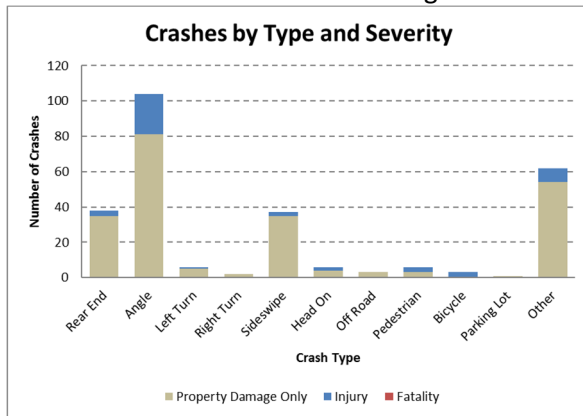
**SW 6th Ave from SW 9th St to SW 2nd St (180 total crashes)**

- 1 fatal crash, 12 percent (21 crashes) were injury, and 88 percent (158 crashes) were PDO.
- 36 percent (65 crashes) were angle, 27 percent (49 crashes) were sideswipe, and 10 percent (18 crashes) were rear-end.
  - 6 of the 18 rear-end crashes occurred in the westbound direction.
  - 5 of the 18 rear-end crashes occurred in the eastbound direction.
- 19 percent (35 crashes) occurred in non-daylight conditions.
- October (24 crashes) was the highest crash month.
- 41 percent (74 crashes) occurred between 2:00 PM and 7:00 PM.
- 4 crashes were pedestrian involved and 3 crashes were bicyclist involved.
- 1 crash was alcohol involved.



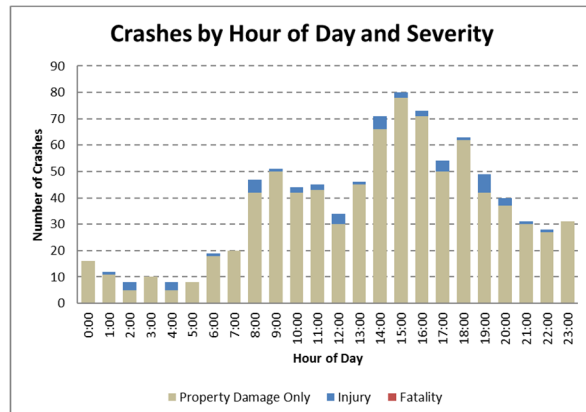
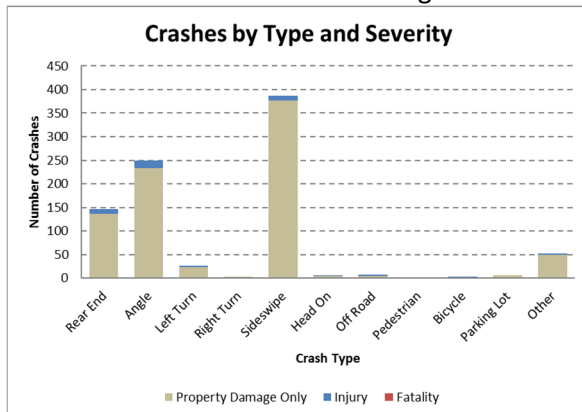
**SW 5th Ave from SW 9th St to SW 2nd St (268 total crashes)**

- 17 percent (45 crashes) were injury-related, and 83 percent (223 crashes) were PDO.
- 39 percent (104 crashes) were angle, 14 percent (38 crashes) were rear-end, and 14 percent (37 crashes) were sideswipe.
  - 9 of the 38 rear-end crashes occurred in the northbound direction.
  - 18 of the 38 rear-end crashes occurred in the eastbound direction.
- 17 percent (46 crashes) occurred in non-daylight conditions.
- April (30 crashes) was the highest crash month.
- 37 percent (98 crashes) occurred between 3:00 PM and 7:00 PM.
- 3 crashes were pedestrian involved and 3 crashes were bicyclist involved.
- 3 crashes were alcohol or drug involved.



**SW 4th Ave from SW 9th St to north of SW 3rd St (888 total crashes)**

- 6 percent (49 crashes) were injury-related, and 95 percent (839 crashes) were PDO.
- 44 percent (387 crashes) were sideswipe, 28 percent (250 crashes) were angle, and 17 percent (147 crashes) were rear-end.
  - 66 of the 38 rear-end crashes occurred in the southbound direction.
  - 47 of the 147 rear-end crashes occurred in the eastbound direction.
- 31 percent (276 crashes) occurred in non-daylight conditions.
- April (91 crashes) was the highest crash month.
- 38 percent (341 crashes) occurred between 2:00 PM and 7:00 PM.
- 1 crash was pedestrian involved and 2 crashes were bicyclist involved.
- 4 crashes were alcohol or drug involved.





## CRASH ANALYSIS - Joe Moretti II & Buena Vista Apartments

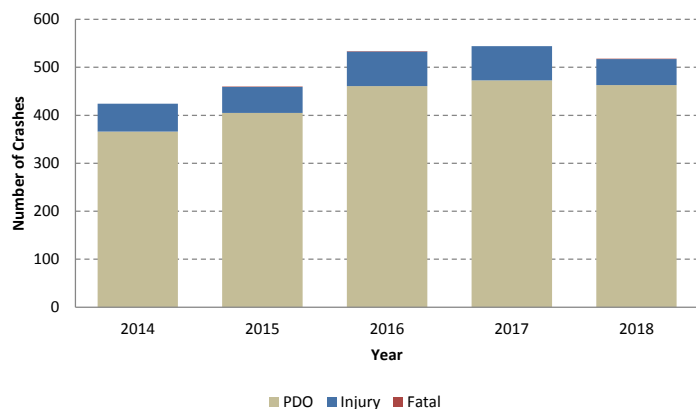
							Severity			Total	Average	Percent
		2014	2015	2016	2017	2018	Property Damage Only	Injury	Fatality			
Type of Crash	Rear End	88	100	140	140	129	503	94	0	597	119.40	24.1%
	Angle	103	104	133	130	125	515	80	0	595	119.00	24.0%
	Left Turn	20	13	11	17	9	62	8	0	70	14.00	2.8%
	Right Turn	1	1	4	2	4	10	2	0	12	2.40	0.5%
	Sideswipe	116	130	140	164	160	677	33	0	710	142.00	28.6%
	Head On	2	8	2	4	5	15	5	1	21	4.20	0.8%
	Off Road	9	15	18	20	19	63	17	1	81	16.20	3.3%
	Pedestrian	5	3	8	10	2	6	21	1	28	5.60	1.1%
	Bicycle	2	7	2	2	2	3	12	0	15	3.00	0.6%
	Parking Lot	7	19	0	2	2	30	0	0	30	6.00	1.2%
	Other	71	60	76	53	61	284	37	0	321	64.20	12.9%
<b>Total Crashes</b>		<b>424</b>	<b>460</b>	<b>534</b>	<b>544</b>	<b>518</b>	<b>2168</b>	<b>309</b>	<b>3</b>	<b>2480</b>	<b>490.50</b>	<b>100.0%</b>
Crash Severity	PDO	366	405	461	473	463				2168	433.60	87.4%
	Possible Injury	38	28	52	45	37				200	40.00	8.1%
	Nonincapacitating Injury	16	22	17	19	10				84	16.80	3.4%
	Incapacitating Injury	4	4	3	7	7				25	5.00	1.0%
	Fatal	0	1	1	0	1				3	0.60	0.1%
Light Conditions	Daylight	314	329	385	398	372	1593	205	0	1798	359.60	72.5%
	Dusk	12	15	10	10	15	49	13	0	62	12.40	2.5%
	Dawn	2	7	8	3	8	22	6	0	28	5.60	1.1%
	Dark - Lighted	90	102	116	121	118	464	80	3	547	109.40	22.1%
	Dark - Not Lighted	5	3	8	8	3	22	5	0	27	5.40	1.1%
	Dark - Lighting Unknown	0	0	0	0	0	0	0	0	0	0.00	0.0%
	Unknown	1	4	7	4	2	18	0	0	18	3.60	0.7%
Surface Condition	Dry	384	416	467	490	486	1957	283	3	2243	448.60	90.4%
	Wet	40	43	66	54	31	208	26	0	234	46.80	9.4%
	Other	0	1	1	0	1	3	0	0	3	0.60	0.1%
Month	January	26	30	39	47	54	179	17	0	196	39.20	7.9%
	February	33	31	38	28	33	141	22	0	163	32.60	6.6%
	March	39	41	46	64	59	218	31	0	249	49.80	10.0%
	April	39	42	50	51	45	203	24	0	227	45.40	9.2%
	May	43	31	52	41	39	176	29	1	206	41.20	8.3%
	June	35	36	25	49	32	162	15	0	177	35.40	7.1%
	July	38	40	25	43	44	161	29	0	190	38.00	7.7%
	August	40	50	38	47	47	189	33	0	222	44.40	9.0%
	September	30	34	58	41	49	186	26	0	212	42.40	8.5%
	October	44	43	61	44	53	208	36	1	245	49.00	9.9%
	November	24	40	61	37	40	176	26	0	202	40.40	8.1%
	December	33	42	41	52	23	169	21	1	191	38.20	7.7%
Day of Week	Monday	58	61	83	83	63	310	38	0	348	69.60	14.0%
	Tuesday	71	56	74	73	81	320	35	0	355	71.00	14.3%
	Wednesday	69	66	74	82	78	324	45	0	369	73.80	14.9%
	Thursday	54	74	84	93	71	331	45	0	376	75.20	15.2%
	Friday	74	85	72	73	91	344	51	0	395	79.00	15.9%
	Saturday	54	64	92	76	65	297	53	1	351	70.20	14.2%
	Sunday	44	54	55	64	69	242	42	2	286	57.20	11.5%
	0:00	8	10	9	14	8	42	7	0	49	9.80	2.0%
	1:00	3	4	9	8	6	22	7	1	30	6.00	1.2%
	2:00	5	3	9	7	6	22	8	0	30	6.00	1.2%
	3:00	2	3	10	6	5	24	2	0	26	5.20	1.0%
	4:00	3	5	4	4	8	16	8	0	24	4.80	1.0%
	5:00	4	5	7	5	5	22	3	1	26	5.20	1.0%
	6:00	4	6	15	13	11	44	5	0	49	9.80	2.0%

### ***CRASH ANALYSIS - Joe Moretti II & Buena Vista Apartments***

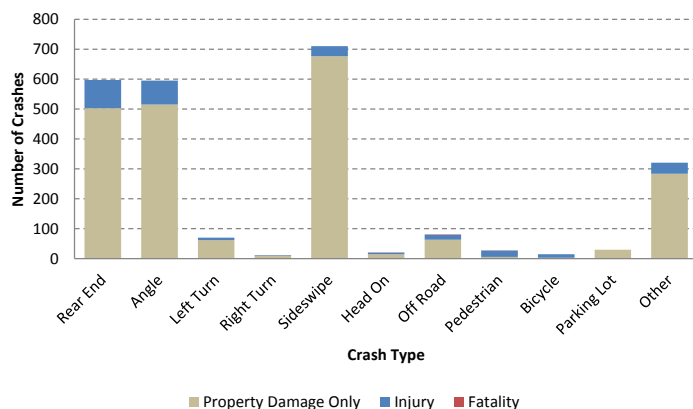
Hour of Day	7:00	14	11	10	21	6	56	6	0	62	12.40	2.5%
	8:00	25	26	38	30	30	127	22	0	149	29.80	6.0%
	9:00	28	39	37	31	27	142	20	0	162	32.40	6.5%
	10:00	24	25	25	33	22	117	12	0	129	25.80	5.2%
	11:00	15	24	28	29	22	105	13	0	118	23.60	4.8%
	12:00	20	20	30	27	31	111	17	0	128	25.60	5.2%
	13:00	22	23	29	22	26	107	15	0	122	24.40	4.9%
	14:00	38	30	27	41	28	147	17	0	164	32.80	6.6%
	15:00	42	36	50	47	58	211	22	0	233	46.60	9.4%
	16:00	35	34	37	44	50	179	21	0	200	40.00	8.1%
	17:00	32	39	43	34	35	156	27	0	183	36.60	7.4%
	18:00	32	34	34	38	51	171	18	0	189	37.80	7.6%
	19:00	17	23	27	26	21	95	19	0	114	22.80	4.6%
	20:00	19	18	18	17	17	78	11	0	89	17.80	3.6%
	21:00	13	27	12	19	15	76	9	1	86	17.20	3.5%
	22:00	9	8	17	17	15	50	16	0	66	13.20	2.7%
	23:00	10	7	9	11	15	48	4	0	52	10.40	2.1%
Time Period	12AM-6AM	25	30	48	44	38	148	35	2	185	37.00	7.5%
	6AM-12PM	110	131	153	157	118	591	78	0	669	133.80	27.0%
	12PM-6PM	189	182	216	215	228	911	119	0	1030	206.00	41.5%
	6PM-12AM	100	117	117	128	134	518	77	1	596	119.20	24.0%
Alcohol & Drugs	None	421	458	529	538	513	2151	305	3	2459	491.80	99.2%
	Alcohol Involved	2	2	5	4	4	13	4	0	17	3.40	0.7%
	Drugs Involved	0	0	0	2	0	2	0	0	2	0.40	0.1%
	Alcohol and Drugs	1	0	0	0	1	2	0	0	2	0.40	0.1%
	Undetermined	0	0	0	0	0	0	0	0	0	0.00	0.0%
Distraction Related	Y	20	28	35	31	16	117	13	0	130	26.00	5.2%
	N	404	432	499	513	502	2051	296	3	2350	470.00	94.8%

## CRASH ANALYSIS - Joe Moretti II & Buena Vista Apartments

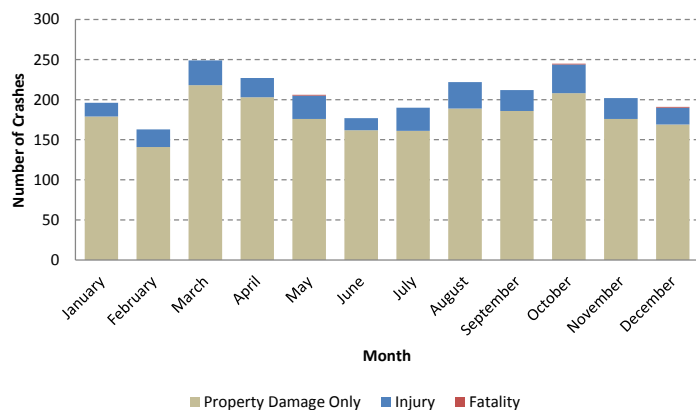
### Crashes by Year and Severity



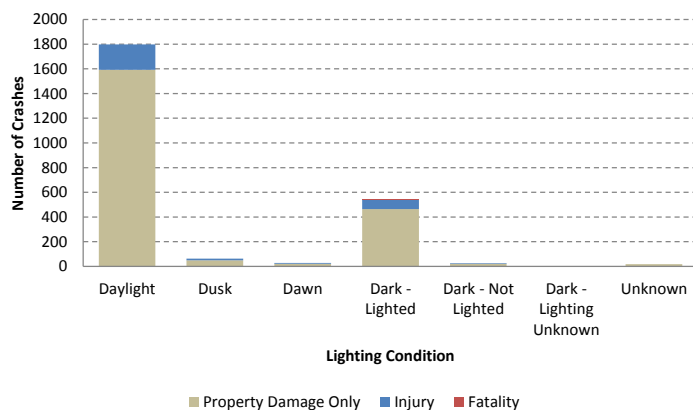
### Crashes by Type and Severity



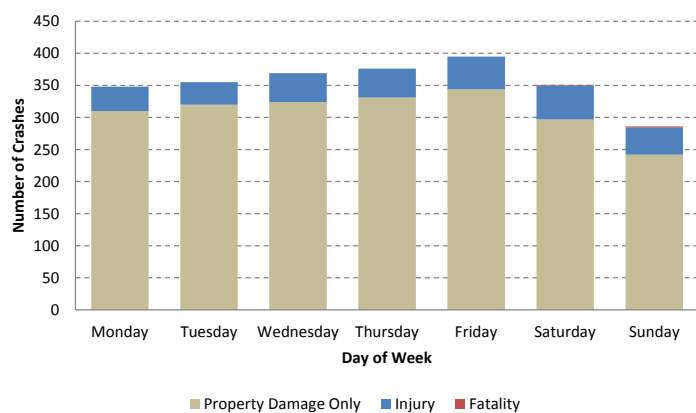
### Crashes by Month and Severity



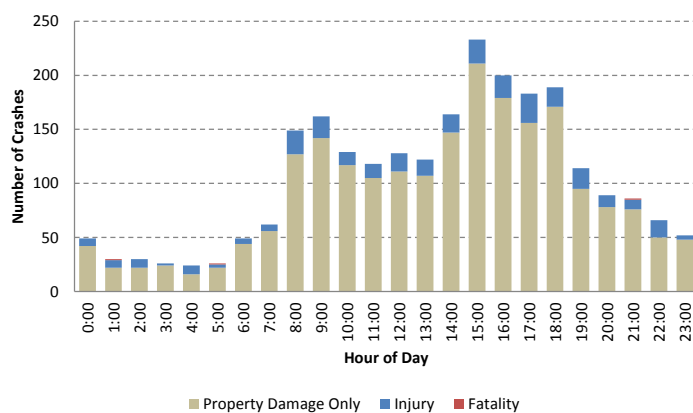
### Crashes by Lighting Condition and Severity



### Crashes by Day of Week and Severity



### Crashes by Hour of Day and Severity





## CRASH ANALYSIS - Joe Moretti II & Buena Vista Apartments (elderly road users)

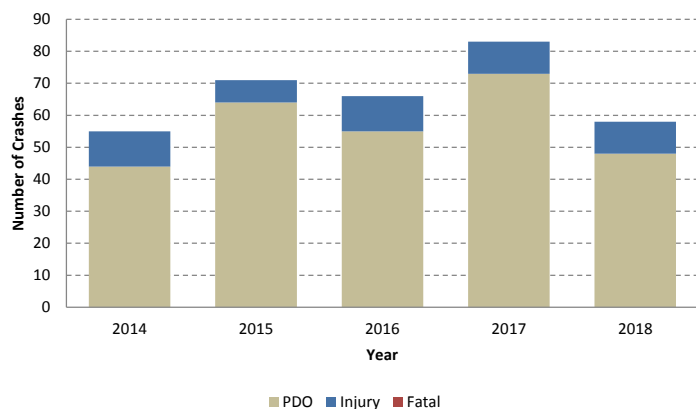
							Severity			Total	Average	Percent
		2014	2015	2016	2017	2018	Property Damage Only	Injury	Fatality			
Type of Crash	Rear End	7	10	13	19	9	51	7	0	58	11.60	17.4%
	Angle	17	19	19	16	22	77	16	0	93	18.60	27.9%
	Left Turn	3	2	2	2	2	9	2	0	11	2.20	3.3%
	Right Turn	0	0	1	2	3	6	0	0	6	1.20	1.8%
	Sideswipe	17	21	18	35	17	103	5	0	108	21.60	32.4%
	Head On	0	1	0	1	0	1	1	0	2	0.40	0.6%
	Off Road	1	2	0	0	1	3	1	0	4	0.80	1.2%
	Pedestrian	4	1	2	2	1	1	9	0	10	2.00	3.0%
	Bicycle	0	0	1	0	1	0	2	0	2	0.40	0.6%
	Parking Lot	0	2	0	0	0	2	0	0	2	0.40	0.6%
	Other	6	13	10	6	2	31	6	0	37	7.40	11.1%
<b>Total Crashes</b>		<b>55</b>	<b>71</b>	<b>66</b>	<b>83</b>	<b>58</b>	<b>284</b>	<b>49</b>	<b>0</b>	<b>333</b>	<b>68.75</b>	<b>100.0%</b>
Crash Severity	PDO	44	64	55	73	48				284	56.80	85.3%
	Possible Injury	7	3	6	7	6				29	5.80	8.7%
	Nonincapacitating Injury	2	3	4	1	3				13	2.60	3.9%
	Incapacitating Injury	2	1	1	2	1				7	1.40	2.1%
	Fatal	0	0	0	0	0				0	0.00	0.0%
Light Conditions	Daylight	50	56	55	72	50	243	40	0	283	56.60	85.0%
	Dusk	1	2	0	1	2	4	2	0	6	1.20	1.8%
	Dawn	0	0	0	0	0	0	0	0	0	0.00	0.0%
	Dark - Lighted	4	11	10	9	6	34	6	0	40	8.00	12.0%
	Dark - Not Lighted	0	1	0	0	0	0	1	0	1	0.20	0.3%
	Dark - Lighting Unknown	0	0	0	0	0	0	0	0	0	0.00	0.0%
	Unknown	0	1	1	1	0	3	0	0	3	0.60	0.9%
Surface Condition	Dry	52	68	58	76	57	265	46	0	311	62.20	93.4%
	Wet	3	3	8	7	1	19	3	0	22	4.40	6.6%
	Other	0	0	0	0	0	0	0	0	0	0.00	0.0%
Month	January	3	7	5	9	4	27	1	0	28	5.60	8.4%
	February	3	5	4	6	4	18	4	0	22	4.40	6.6%
	March	5	6	4	12	8	29	6	0	35	7.00	10.5%
	April	5	8	2	3	3	17	4	0	21	4.20	6.3%
	May	5	5	7	4	3	22	2	0	24	4.80	7.2%
	June	4	9	5	9	2	26	3	0	29	5.80	8.7%
	July	5	3	3	2	6	16	3	0	19	3.80	5.7%
	August	8	8	2	9	6	29	4	0	33	6.60	9.9%
	September	2	2	9	5	6	21	3	0	24	4.80	7.2%
	October	7	4	12	9	5	28	9	0	37	7.40	11.1%
	November	3	8	9	6	5	26	5	0	31	6.20	9.3%
	December	5	6	4	9	6	25	5	0	30	6.00	9.0%
Day of Week	Monday	9	13	9	14	6	47	4	0	51	10.20	15.3%
	Tuesday	7	11	10	8	6	37	5	0	42	8.40	12.6%
	Wednesday	7	11	9	10	12	45	4	0	49	9.80	14.7%
	Thursday	9	7	11	22	12	50	11	0	61	12.20	18.3%
	Friday	11	16	10	10	9	46	10	0	56	11.20	16.8%
	Saturday	8	8	12	13	6	38	9	0	47	9.40	14.1%
	Sunday	4	5	5	6	7	21	6	0	27	5.40	8.1%
	0:00	2	1	1	0	0	3	1	0	4	0.80	1.2%
	1:00	0	0	1	0	0	0	1	0	1	0.20	0.3%
	2:00	0	0	0	1	0	1	0	0	1	0.20	0.3%
	3:00	0	0	0	0	0	0	0	0	0	0.00	0.0%
	4:00	0	0	0	1	0	1	0	0	1	0.20	0.3%
	5:00	0	0	0	0	0	0	0	0	0	0.00	0.0%
	6:00	0	0	1	0	0	1	0	0	1	0.20	0.3%

**CRASH ANALYSIS - Joe Moretti II & Buena Vista Apartments (elderly road users)**

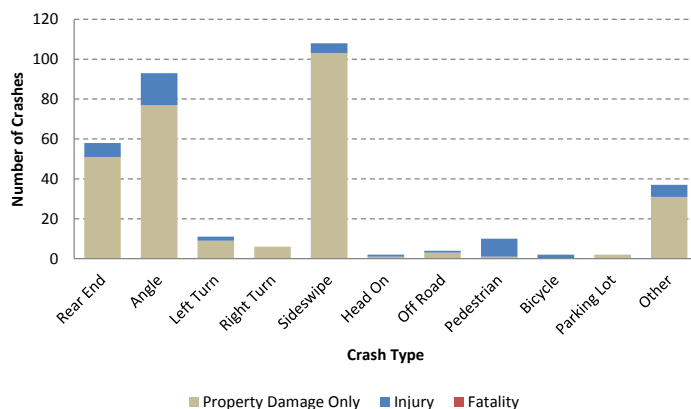
Hour of Day	7:00	0	0	1	3	1	5	0	0	5	1.00	1.5%
	8:00	4	1	7	4	3	16	3	0	19	3.80	5.7%
	9:00	8	12	4	5	4	29	4	0	33	6.60	9.9%
	10:00	5	2	3	4	5	17	2	0	19	3.80	5.7%
	11:00	1	7	4	5	2	19	0	0	19	3.80	5.7%
	12:00	2	4	4	6	3	16	3	0	19	3.80	5.7%
	13:00	5	5	6	6	3	18	7	0	25	5.00	7.5%
	14:00	4	6	9	13	3	31	4	0	35	7.00	10.5%
	15:00	8	7	3	8	11	30	7	0	37	7.40	11.1%
	16:00	3	5	6	8	6	22	6	0	28	5.60	8.4%
	17:00	5	4	9	8	3	26	3	0	29	5.80	8.7%
	18:00	3	6	1	6	6	19	3	0	22	4.40	6.6%
	19:00	2	3	3	3	6	14	3	0	17	3.40	5.1%
	20:00	0	1	1	0	1	3	0	0	3	0.60	0.9%
	21:00	1	4	1	1	0	7	0	0	7	1.40	2.1%
	22:00	0	2	0	0	1	2	1	0	3	0.60	0.9%
	23:00	2	1	1	1	0	4	1	0	5	1.00	1.5%
Time Period	12AM-6AM	2	1	2	2	0	5	2	0	7	1.40	2.1%
	6AM-12PM	18	22	20	21	15	87	9	0	96	19.20	28.8%
	12PM-6PM	27	31	37	49	29	143	30	0	173	34.60	52.0%
	6PM-12AM	8	17	7	11	14	49	8	0	57	11.40	17.1%
Alcohol & Drugs	None	54	71	66	81	58	282	48	0	330	66.00	99.1%
	Alcohol Involved	1	0	0	0	0	0	1	0	1	0.20	0.3%
	Drugs Involved	0	0	0	2	0	2	0	0	2	0.40	0.6%
	Alcohol and Drugs	0	0	0	0	0	0	0	0	0	0.00	0.0%
	Undetermined	0	0	0	0	0	0	0	0	0	0.00	0.0%
Distraction Related	Y	0	4	4	6	2	16	0	0	16	3.20	4.8%
	N	55	67	62	77	56	268	49	0	317	63.40	95.2%

## CRASH ANALYSIS - Joe Moretti II & Buena Vista Apartments (elderly road users)

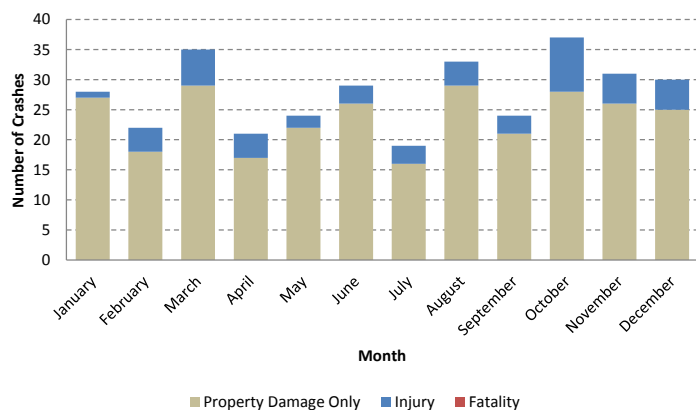
### Crashes by Year and Severity



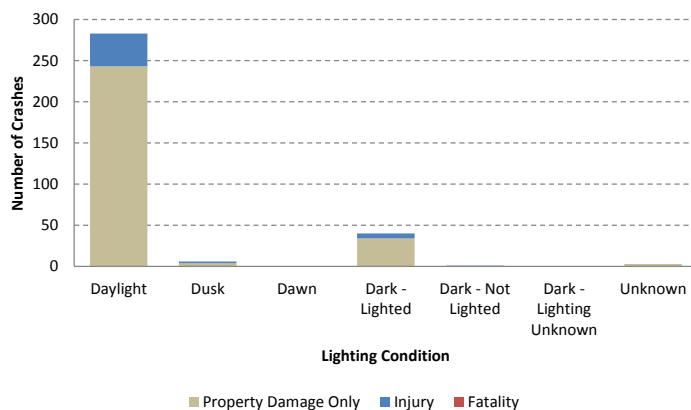
### Crashes by Type and Severity



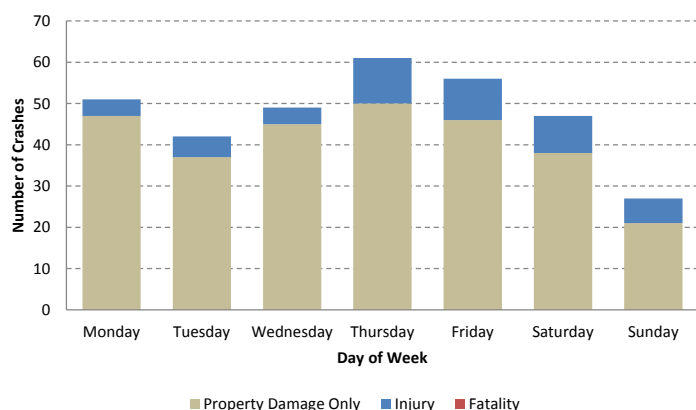
### Crashes by Month and Severity



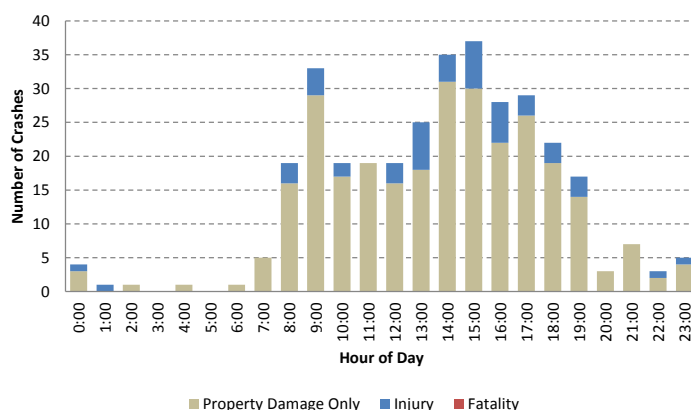
### Crashes by Lighting Condition and Severity



### Crashes by Day of Week and Severity


















### Crashes by Hour of Day and Severity





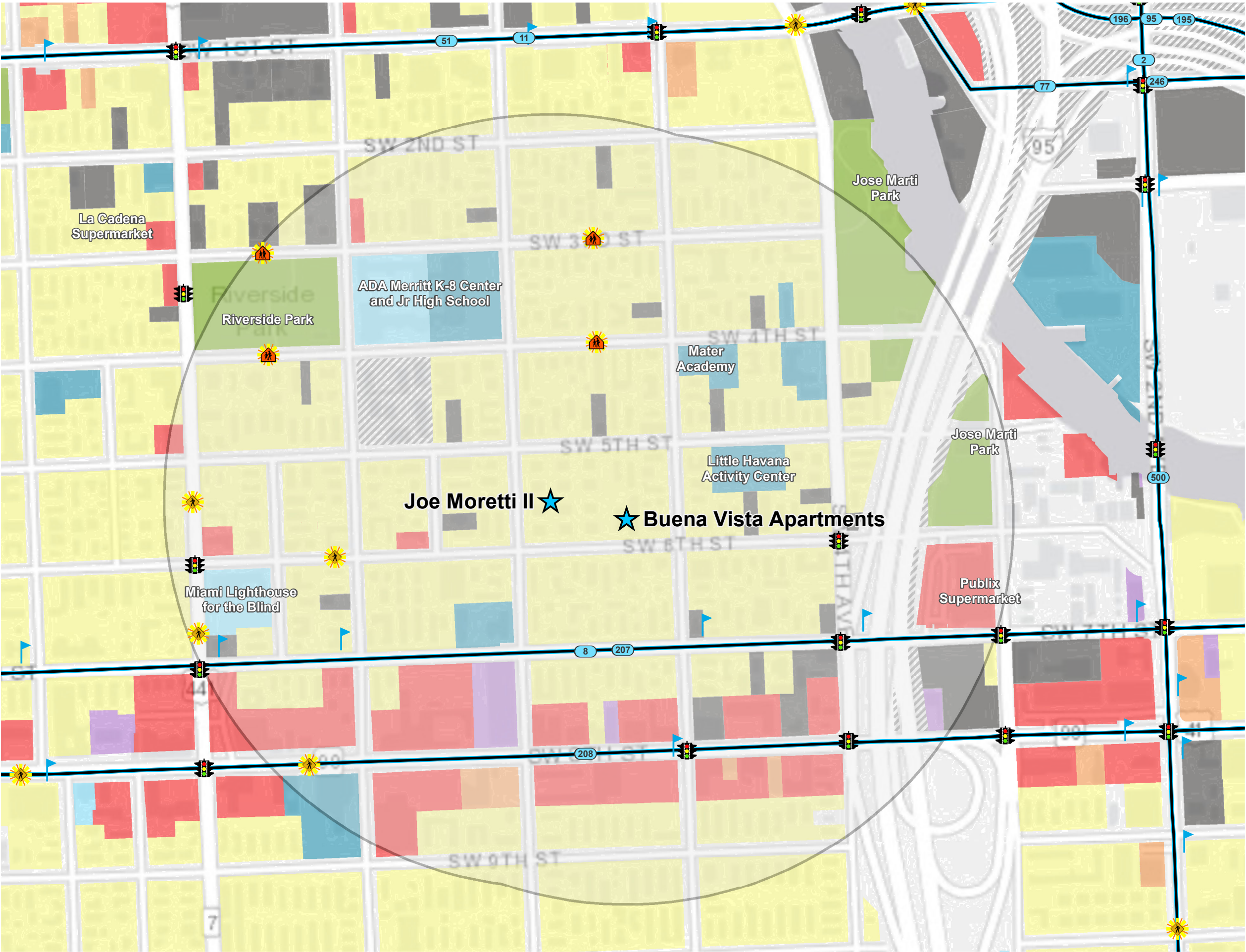
# Miami-Dade TPO

Figure 1  
Study Area

-  Traffic Signal
-  Flashing School Zone
-  Flashing Pedestrian Warning
-  Bus Stops
-  Bus Routes
-  Study Area
-  Parks
-  Education
-  Industrial
-  Institutional
-  Commercial
-  Residential
-  Office
-  Parking
-  Vacant



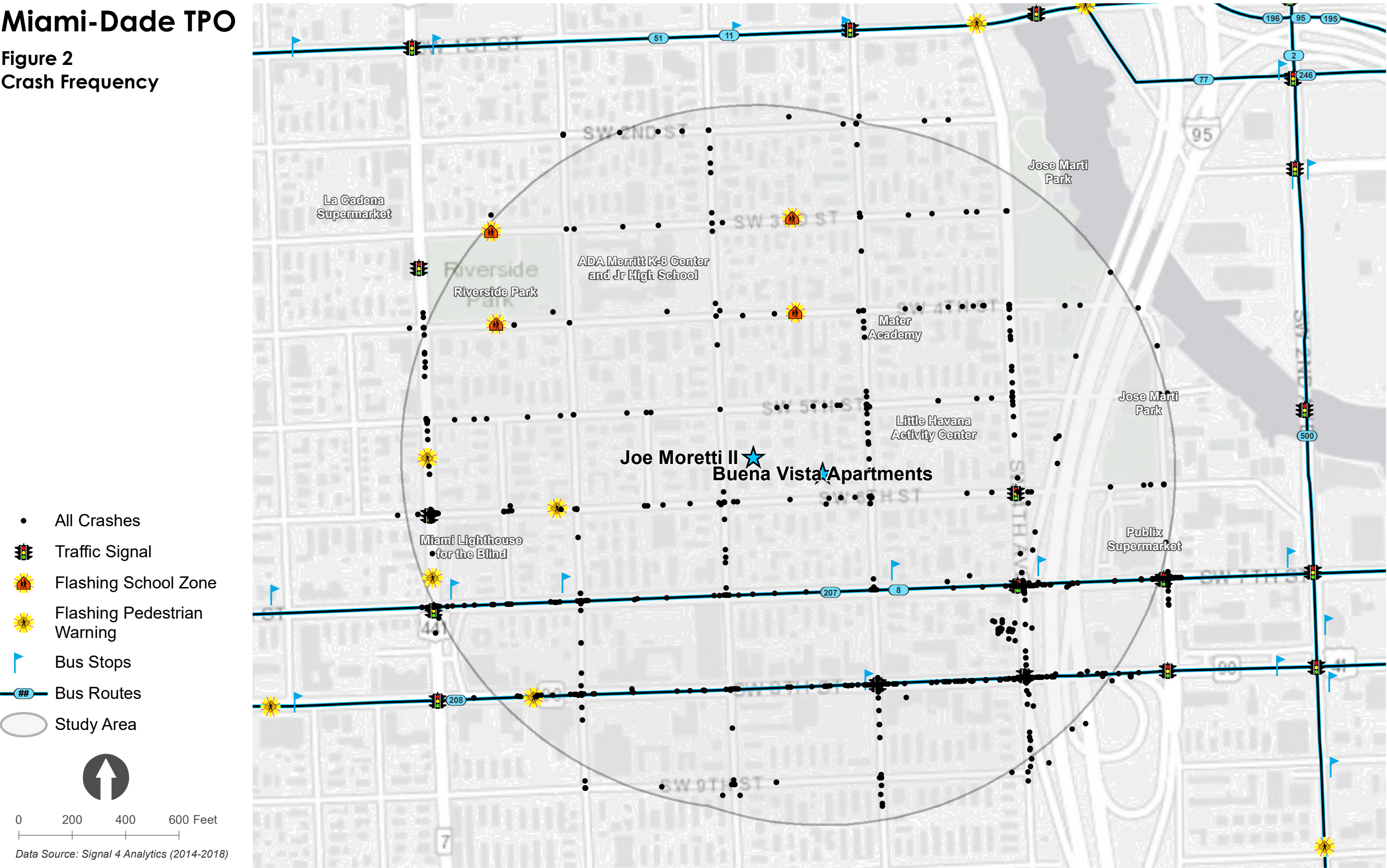
0 200 400 600 Feet





# Miami-Dade TPO









Figure 2  
Crash Frequency





# Miami-Dade TPO

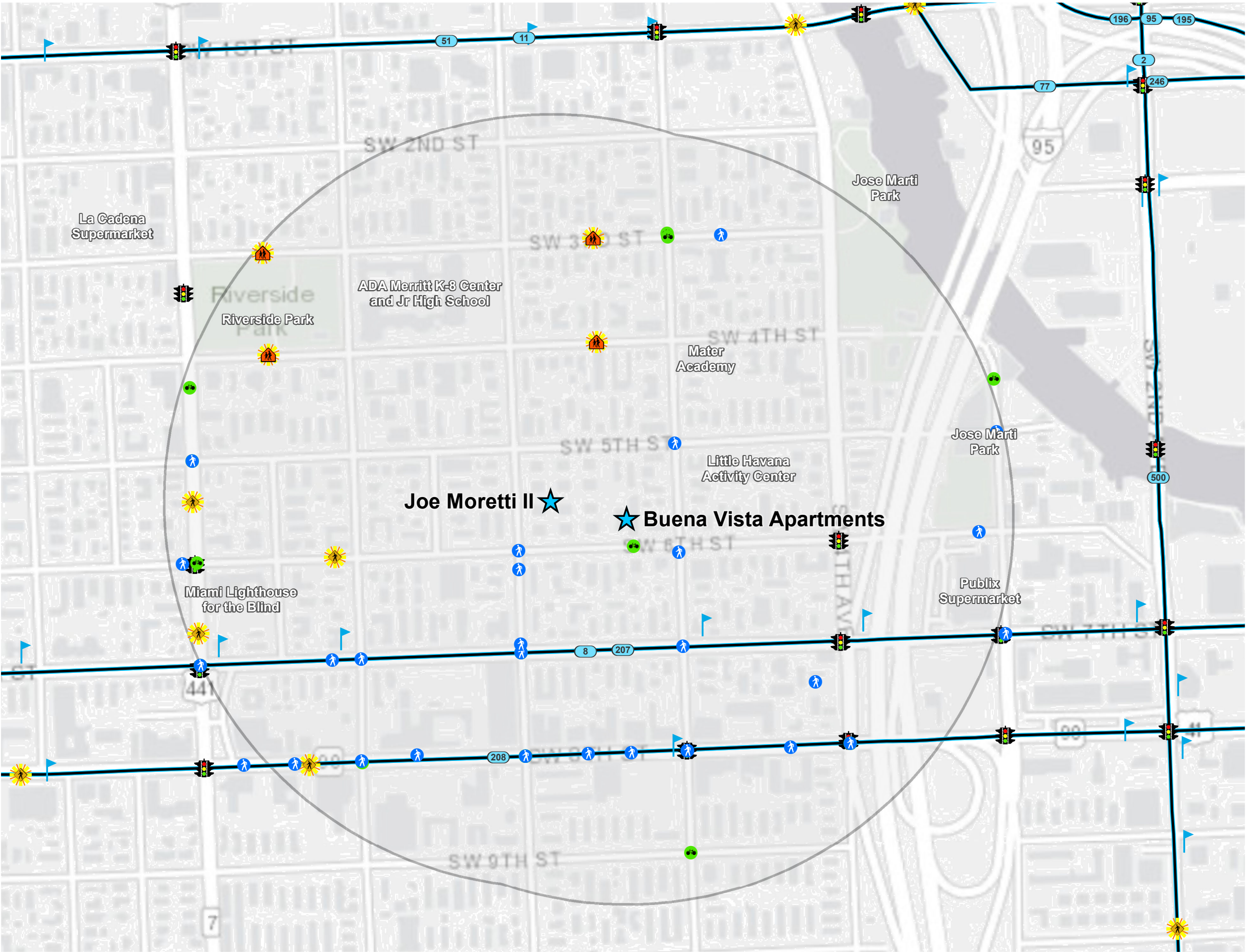
Figure 3  
Bicycle & Pedestrian  
Crashes

-  Pedestrian Involved Crashes
-  Bicycle Involved Crashes
-  Traffic Signal
-  Flashing School Zone
-  Flashing Pedestrian Warning
-  Bus Stops
-  Bus Routes
-  Study Area



0 200 400 600 Feet

Data Source: Signal 4 Analytics (2014-2018)





# Miami-Dade TPO

Figure 4  
Nighttime Crashes

Nighttime Crashes

Traffic Signal

Flashing School Zone

Flashing Pedestrian Warning

Bus Stops

Bus Routes

Study Area

0

200

400

600 Feet

Data Source: Signal 4 Analytics (2014-2018)



# Miami-Dade TPO

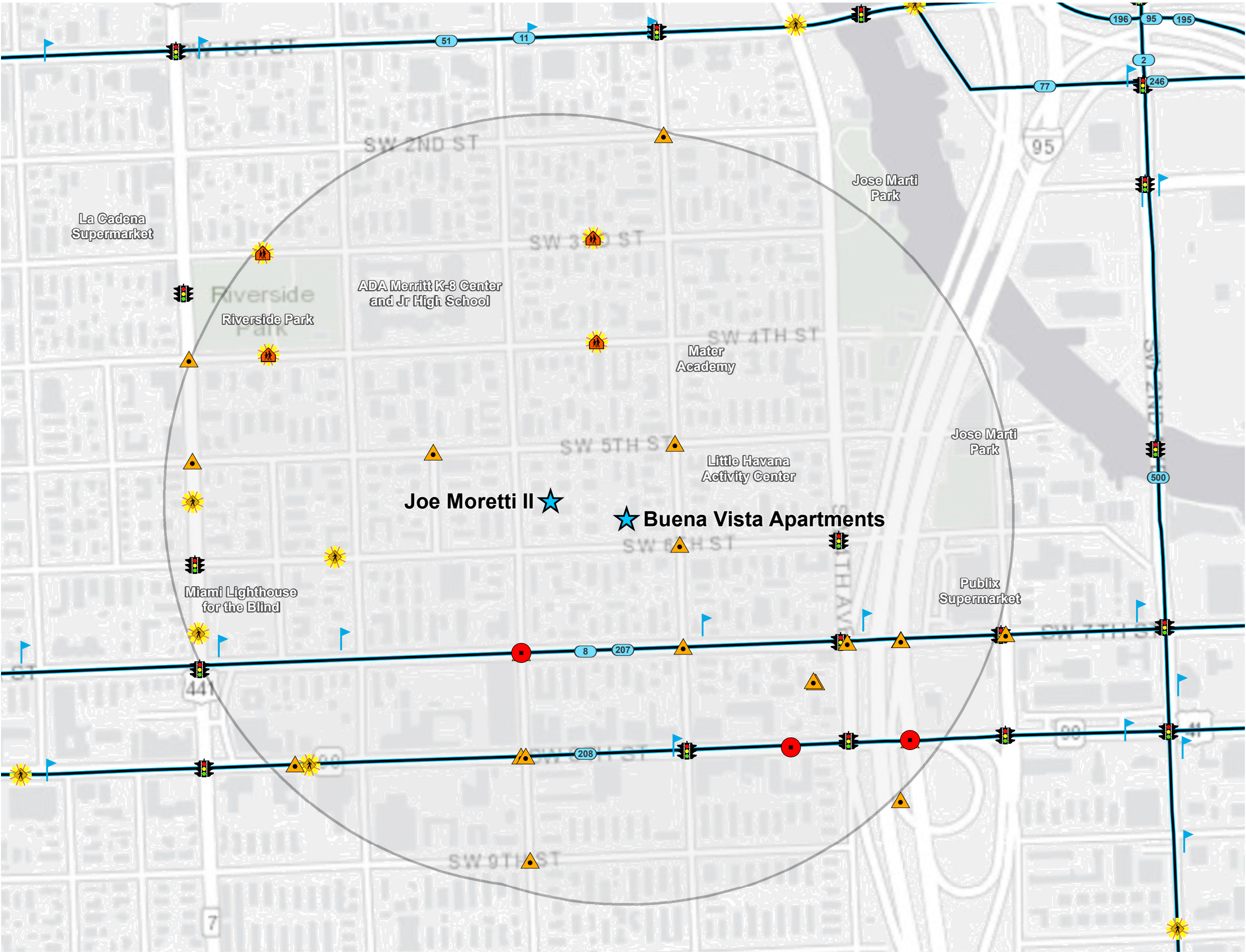
Figure 5  
Fatal & Severe Injury  
Crashes

- Fatal Crashes
- Severe Injury Crashes
- Traffic Signal
- Flashing School Zone
- Flashing Pedestrian Warning
- Bus Stops
- Bus Routes
- Study Area



0 200 400 600 Feet









Data Source: Signal 4 Analytics (2014-2018)





# Miami-Dade TPO

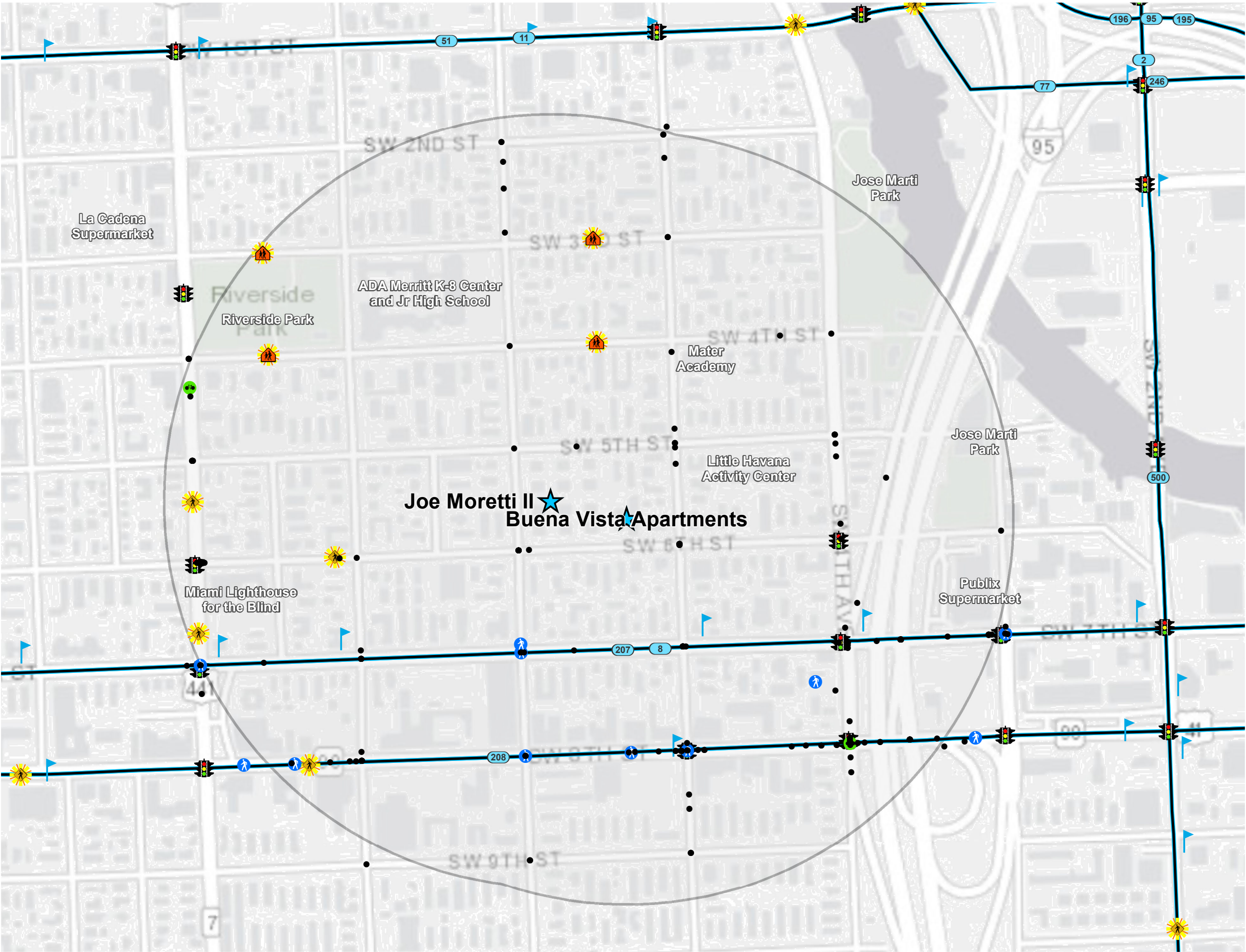
Figure 6  
Crashes with Elderly  
Road Users

- Elderly Crashes
-  Pedestrian Involved Crashes
-  Bicycle Involved Crashes
-  Traffic Signal
-  Flashing School Zone
-  Flashing Pedestrian Warning
-  Bus Stops
-  Bus Routes
-  Study Area



0 200 400 600 Feet

Data Source: Signal 4 Analytics (2014-2018)





## Appendix B

### Transit Ridership

## Transit Ridership Data by Route and Stops (all)

RouteID	BusTotalCount	StopID	StopName	Year	Direction
8	189	8123	SW 7 ST & SW 4 AV	2018	
8	5019	8123	SW 7 ST & SW 4 AV	2018	West
8	14	8123	SW 7 ST & SW 4 AV	2019	
8	3283	8123	SW 7 ST & SW 4 AV	2019	West
8	275	8124	SW 7 ST & SW 5 AV	2018	
8	13585	8124	SW 7 ST & SW 5 AV	2018	West
8	11	8124	SW 7 ST & SW 5 AV	2019	
8	8381	8124	SW 7 ST & SW 5 AV	2019	West
8	302	8125	SW 7 ST & SW 7 AV	2018	
8	8122	8125	SW 7 ST & SW 7 AV	2018	West
8	6	8125	SW 7 ST & SW 7 AV	2019	
8	4733	8125	SW 7 ST & SW 7 AV	2019	West
8	166	8126	SW 7 ST & SW 8 AV	2018	
8	8866	8126	SW 7 ST & SW 8 AV	2018	West
8	5	8126	SW 7 ST & SW 8 AV	2019	
8	5995	8126	SW 7 ST & SW 8 AV	2019	West
8	227	8195	SW 8 ST & SW 5 AV	2018	
8	22657	8195	SW 8 ST & SW 5 AV	2018	East
8	10	8195	SW 8 ST & SW 5 AV	2019	
8	14411	8195	SW 8 ST & SW 5 AV	2019	East
207	43	8123	SW 7 ST & SW 4 AV	2018	
207	11	8123	SW 7 ST & SW 4 AV	2019	
207	84	8124	SW 7 ST & SW 5 AV	2018	
207	18	8124	SW 7 ST & SW 5 AV	2019	
207	56	8125	SW 7 ST & SW 7 AV	2018	
207	2	8125	SW 7 ST & SW 7 AV	2019	
207	56	8126	SW 7 ST & SW 8 AV	2018	
207	13	8126	SW 7 ST & SW 8 AV	2019	
208	133	8195	SW 8 ST & SW 5 AV	2018	
208	15	8195	SW 8 ST & SW 5 AV	2019	

## Transit Ridership Data by Route and Stops (weekday)

RouteID	BusTotalCount	StopID	StopName	Year	Direction	IsWeekday
8	189	8123	SW 7 ST & SW 4 AV	2018		TRUE
8	5019	8123	SW 7 ST & SW 4 AV	2018	West	TRUE
8	14	8123	SW 7 ST & SW 4 AV	2019		TRUE
8	3283	8123	SW 7 ST & SW 4 AV	2019	West	TRUE
8	275	8124	SW 7 ST & SW 5 AV	2018		TRUE
8	13585	8124	SW 7 ST & SW 5 AV	2018	West	TRUE
8	11	8124	SW 7 ST & SW 5 AV	2019		TRUE
8	8381	8124	SW 7 ST & SW 5 AV	2019	West	TRUE
8	302	8125	SW 7 ST & SW 7 AV	2018		TRUE
8	8122	8125	SW 7 ST & SW 7 AV	2018	West	TRUE
8	6	8125	SW 7 ST & SW 7 AV	2019		TRUE
8	4733	8125	SW 7 ST & SW 7 AV	2019	West	TRUE
8	166	8126	SW 7 ST & SW 8 AV	2018		TRUE
8	8866	8126	SW 7 ST & SW 8 AV	2018	West	TRUE
8	5	8126	SW 7 ST & SW 8 AV	2019		TRUE
8	5995	8126	SW 7 ST & SW 8 AV	2019	West	TRUE
8	227	8195	SW 8 ST & SW 5 AV	2018		TRUE
8	22657	8195	SW 8 ST & SW 5 AV	2018	East	TRUE
8	10	8195	SW 8 ST & SW 5 AV	2019		TRUE
8	14411	8195	SW 8 ST & SW 5 AV	2019	East	TRUE
207	43	8123	SW 7 ST & SW 4 AV	2018		TRUE
207	11	8123	SW 7 ST & SW 4 AV	2019		TRUE
207	84	8124	SW 7 ST & SW 5 AV	2018		TRUE
207	18	8124	SW 7 ST & SW 5 AV	2019		TRUE
207	56	8125	SW 7 ST & SW 7 AV	2018		TRUE
207	2	8125	SW 7 ST & SW 7 AV	2019		TRUE
207	56	8126	SW 7 ST & SW 8 AV	2018		TRUE
207	13	8126	SW 7 ST & SW 8 AV	2019		TRUE
208	133	8195	SW 8 ST & SW 5 AV	2018		TRUE
208	15	8195	SW 8 ST & SW 5 AV	2019		TRUE



## Appendix C

### Field Material and Presentation



**Miami-Dade Transportation  
Planning Organization**

## **Community Meeting**

**Joe Moretti II Apartments & Buena Vista Apartments**

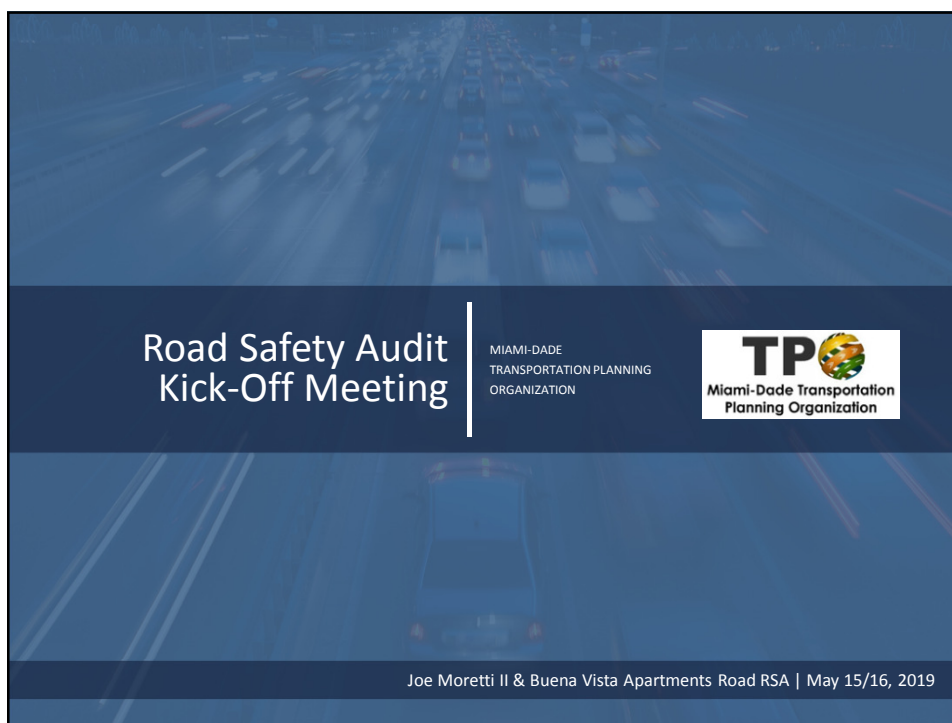
### **COMMUNITY FEEDBACK FOR ROAD SAFETY**

**When: Wednesday, May 15<sup>th</sup> @ 2:30 PM**

**Where: Joe Moretti I Apts. – Community Center  
240 SW 9<sup>th</sup> Street Miami, FL 33130**

**We want YOUR input to improve road safety.  
We are looking to document any potential road  
issues you have encountered walking, driving, or  
bicycling and recommend improvements.**





1

## Schedule

Kick-Off Meeting (2:00 – 2:30 PM)

- Purpose of Field Visit
  - Day 1 PM Field Visit – Corridors with High Crash Frequency
  - Day 1 Nighttime Field Visit – Sign retroreflectivity and pavement markings conditions – Driving only
  - Day 2 Midday Field Visit – Corridors not covered in PM Field Visit
- Assign RSA responsibilities

Community Meeting (2:30 – 3:30 AM)

PM Peak Field Visit (3:30 – 5:30 PM)

Nighttime Field Visit (8:30 – 9:30 PM) – Driving

2

2





## Joe Moretti II/Buena Vista Apartments

### Project Location Identification

What is the issue?

- Over 10% of all crashes in Miami-Dade County between 2008-2014 occurred within ¼ mile of elderly living centers

How was this location selected?

- Over 140 older adult residential living centers were reviewed
- ¼ mile radius used as the study area for each living center
- Living centers were ranked by the following criteria:
  - Total number of crashes from 2012-2014
  - Number of crashes involving 65 and older road users

Source: Aging Road Users Strategic Safety Plan, November 2017

3

3



## Field Review Responsibilities

- For the Day 1 (3:30-5:30 PM) and Day 2 (9-11 AM) Walking Field Visit:
  - Evaluate all roadway and roadside features, design elements and local conditions (glare, night visibility, adjacent land uses) that would increase the likelihood and severity of a crash
  - Observe how road users are interacting with the road facility
  - Determine if the needs of all road users have been adequately and safely met
  - Observe physical evidence of past crashes and off-road excursions
  - Record flashing don't walk timings for crosswalks
  - Recording yellow/all-red clearance intervals for each vehicular movement
- For the Day 1 Nighttime (8:30-9:30 PM) Field Visit
  - Drive the study area
  - Observe lighting, retroreflectivity of signs, and pavement marking conditions

4

4

## » Field Review Responsibilities

- Wear your safety vest!
- Everyone should take as many notes and pictures as they can!
- For PM/Nighttime (Day 1) and Midday (Day 2) review
  - Divide into two teams:
    - Team A will observe:
      - SW 8<sup>th</sup> Ave from SW 4<sup>th</sup> St to SW 7<sup>th</sup> St
      - SW 8<sup>th</sup> St from SW 8<sup>th</sup> Ave to SW 3<sup>rd</sup> Ave
      - SW 4<sup>th</sup> Ave from SW 9<sup>th</sup> St to SW 7<sup>th</sup> St
    - Team B will observe:
      - SW 4<sup>th</sup> Ave from SW 2<sup>nd</sup> St to SW 7<sup>th</sup> St
      - SW 7<sup>th</sup> St from SW 3<sup>rd</sup> Ave to SW 8<sup>th</sup> Ave

5

5

## Team Field Assignments

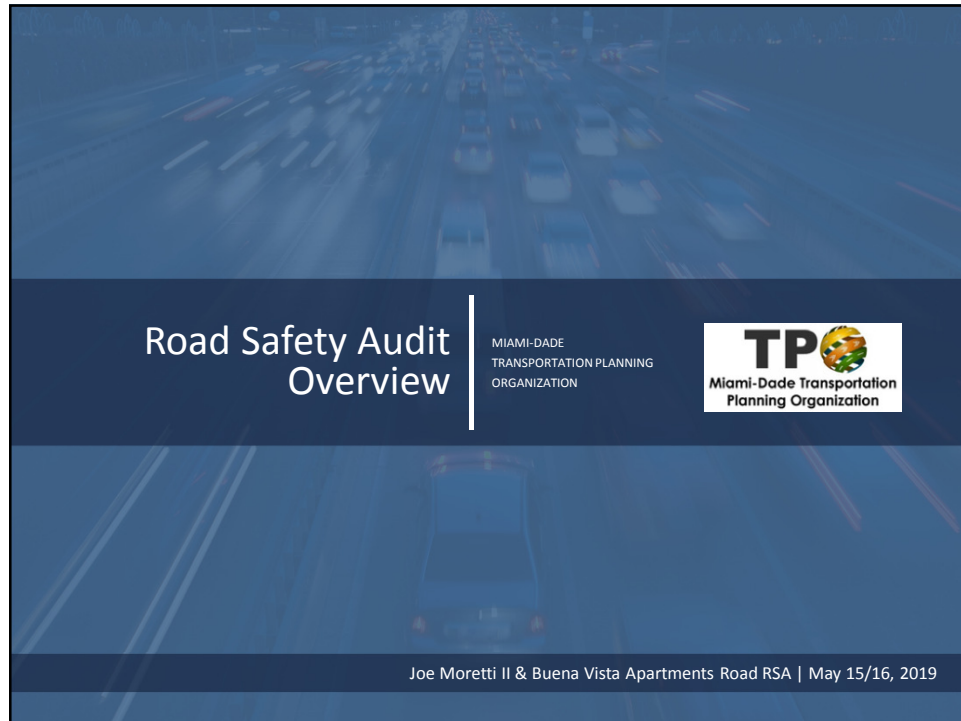
Miami-Dade TPO

Figure 2  
Crash Frequency

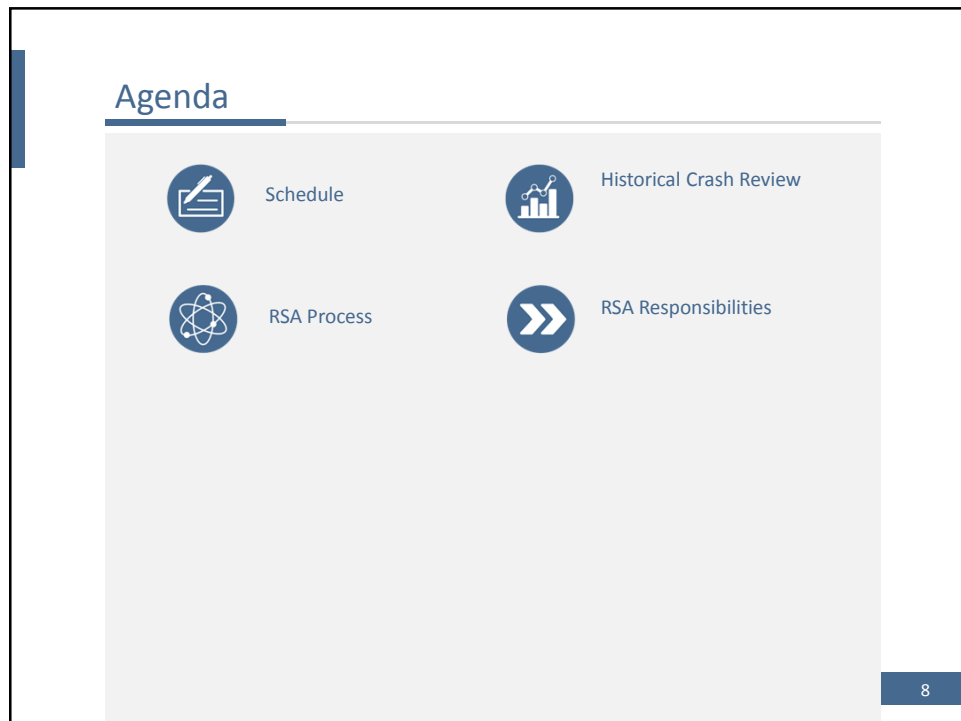


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6



7



8



## Today's Schedule

### Community Meeting (2:30 – 3:30 AM)

- What is a Road Safety Audit?
- Joe Moretti II / Buena Vista Apartments study area historical crash review
- Request input from community for potential improvements

PM Peak Field Visit (3:30 – 5:30 PM)

Nighttime Field Visit

Midday Field Visit (9 – 11 AM) – Wednesday, May 16<sup>th</sup>

9

9

## Tomorrow's Schedule May 16<sup>th</sup>

Pre-Audit Refresher (8:30 – 9:00 AM)

Midday Field Visit (9 – 11 AM)

Debrief RSA Observations Meeting (11 AM – 12 PM)

- Discuss safety issues observed during field review
- Summarize and record observations by intersection and segment
- Discuss and record potential improvements/countermeasures

10

10



11

## Basic Concepts

- What is a Road Safety Audit (RSA)?
- Why do we need RSAs?
- When do we conduct RSAs?

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## What is a Road Safety Audit?

A road safety audit is a formal safety performance examination of an existing or future road or intersection by an independent audit team.

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## What is a Road Safety Audit?

- *formal:* procedures and documentation
- *safety performance:* focus on safety
- *independent:* auditors detached from project team
- *audit team:* “Multi-disciplinary Team”  
Highway safety and traffic operations professionals, Law enforcement, Transit Agencies, Maintenance, Community stakeholders

14

14



## A Road Safety Audit ...

- Considers the safety of All Road Users



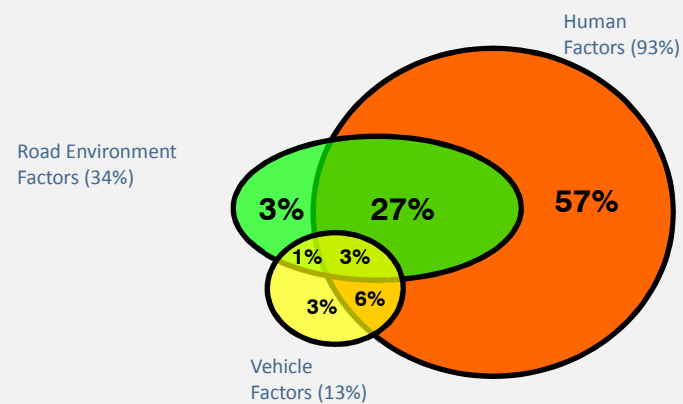
- Examines the interaction of road users and roadway elements
- Identifies safety issues
- Proactively considers and recommends mitigation measures

15

15

## Why do we need RSAs?

### Typical Reported Crash Causes



Source: HSM Chapter 3 Figure 3-3

16

16

## Why do we need RSAs?

- Relatively few road-related safety issues are identified in collision reports.
- Road designs should anticipate and accommodate road user behaviors (driver/pedestrian/bicycle/transit).
- Easier to design and build safer roads than to modify some entrenched driver/pedestrian/bicycle and transit rider behaviors.

17

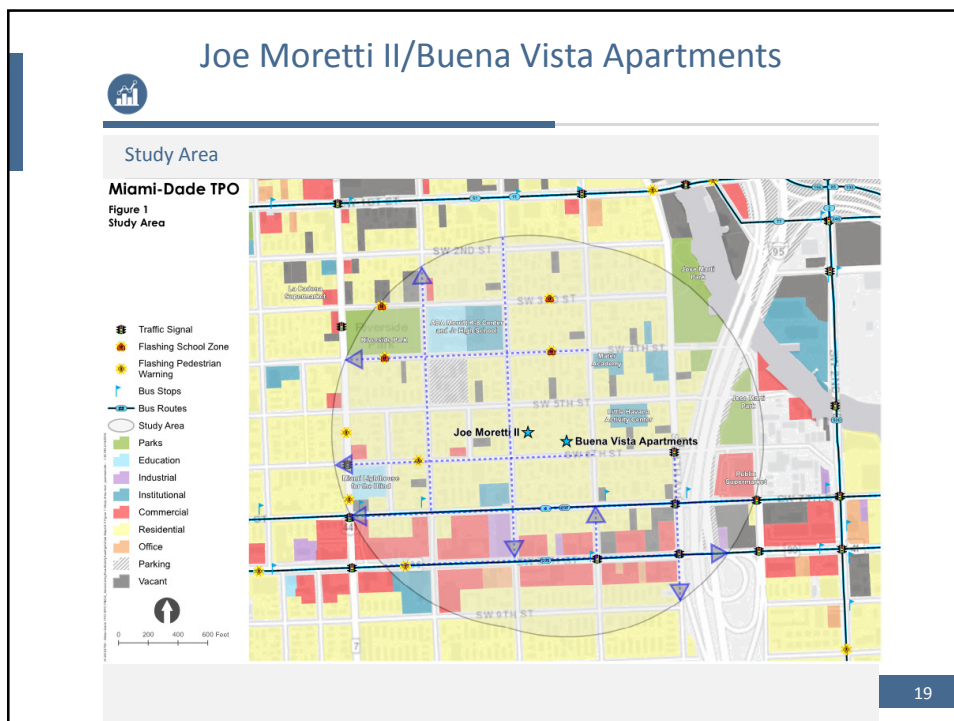
17

## Why do we need RSAs?

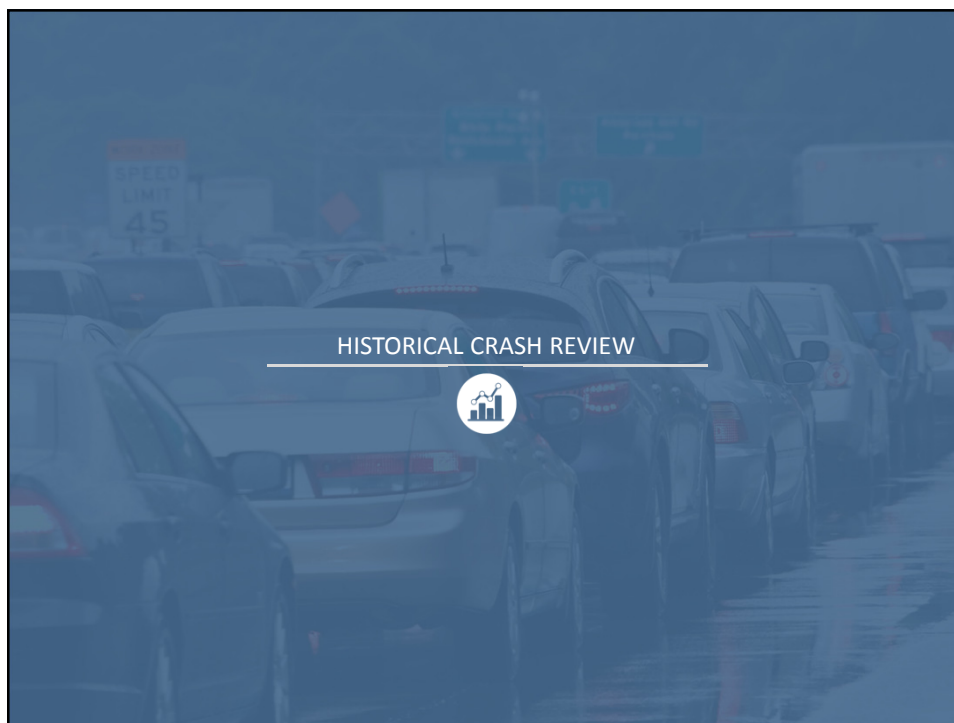
- There are many competing interests in the project implementation process:
  - Safety, Cost, Environment, Capacity, Accommodation of Users, etc.
- Safety is an explicit consideration in the project implementation process; safety must not “fall through the cracks”.
- RSAs identify opportunities to improve safety.

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19



20



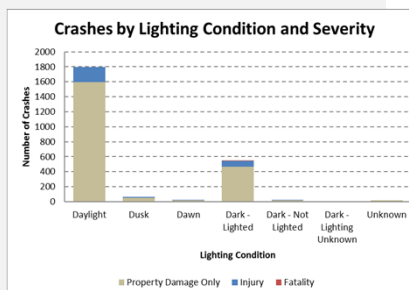
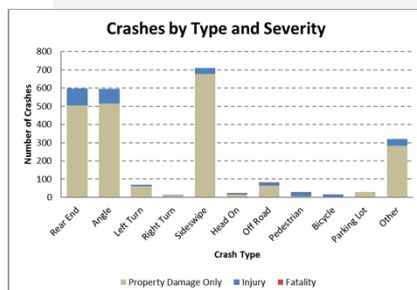


## Joe Moretti II/Buena Vista Apartments



### Study Area Crash Statistics

- 710 sideswipe (29%), 597 angle (24%), and 595 rear-end (24%)
- 28% of crashes in non-daylight conditions
- 1% of crashes were drug or alcohol involved



23

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## Joe Moretti II/Buena Vista Apartments



### Crash Frequency – High Crash Segments

**Miami-Dade TPO**  
Figure 2  
Crash Frequency



24

24

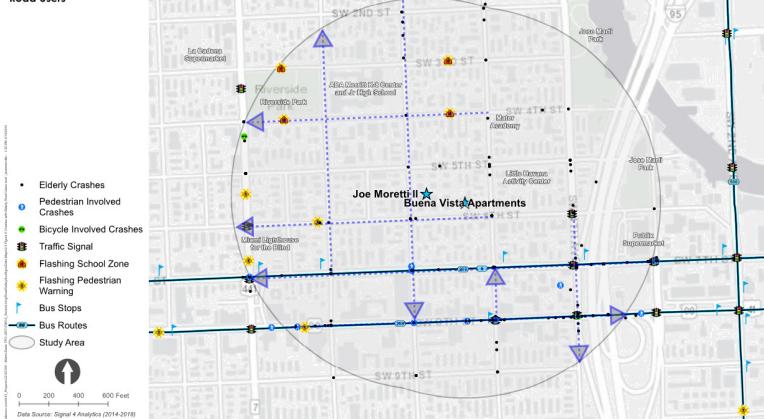
## Joe Moretti II/Buena Vista Apartments



### Crashes with Elderly Road Users

Miami-Dade TPO

Figure 6  
Crashes with Elderly  
Road Users



25

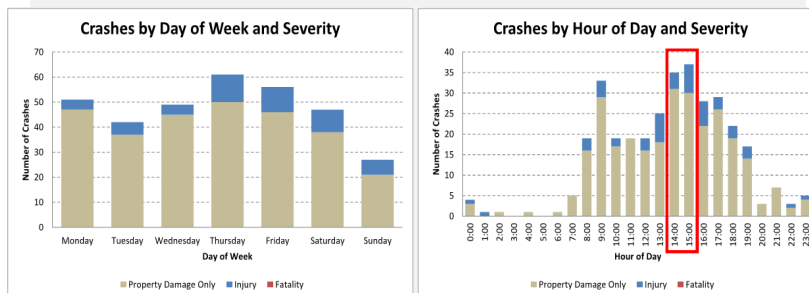
25

## Joe Moretti II/Buena Vista Apartments



### Study Area Statistics of Elderly Crashes

- 333 total crashes between 2014 and 2018
  - 49 injury, 284 PDO
  - 2 bike and 10 pedestrian
- Higher crashes observed in March, August, and October
- Higher crashes observed on Thursday/Friday, PM peak hour



26

26

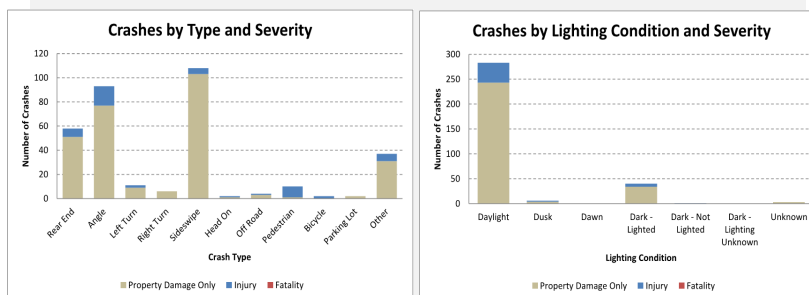


## Joe Moretti II/Buena Vista Apartments



### Study Area Statistics of Elderly Crashes

- 108 sideswipe (32%), 93 angle (28%), 58 rear-end (17%), and 11 left turn (3%)
- 12% of crashes in dark conditions with lighting
- 186 of 305 crashes occurred within signalized intersection influence areas



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## Joe Moretti II/Buena Vista Apartments



### Bicycle & Pedestrian Crashes

**Miami-Dade TPO**  
Figure 3  
Bicycle & Pedestrian  
Crashes



28

28

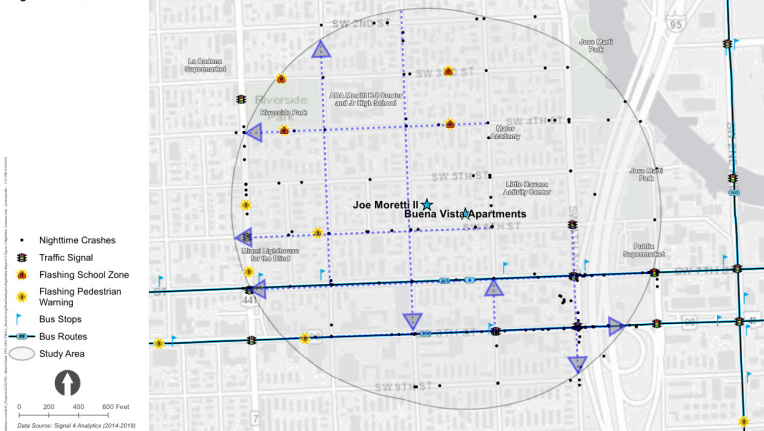
## Joe Moretti II/Buena Vista Apartments



### Nighttime Crashes

Miami-Dade TPO

Figure 4  
Nighttime Crashes



29

29

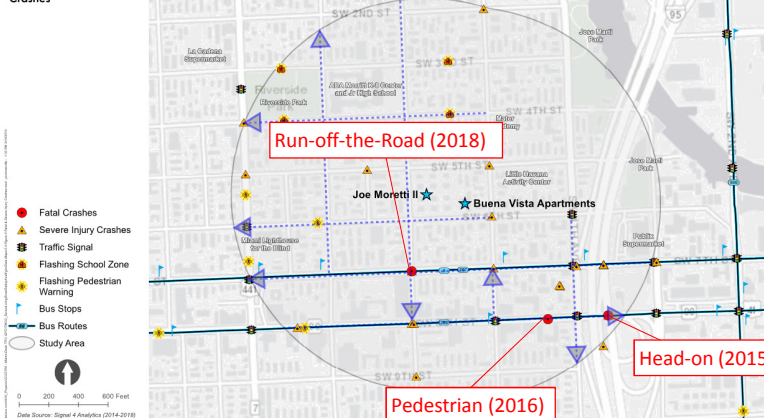
## Joe Moretti II/Buena Vista Apartments



### Fatal & Severe Injury Crashes

Miami-Dade TPO

Figure 5  
Fatal & Severe Injury Crashes



30

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Appendix D  
Community Meeting Sign-in Sheet



MDC TPO Road Safety Audit - Meeting Sign-In Sheet

Thursday, May 16, 2019

Wednesday

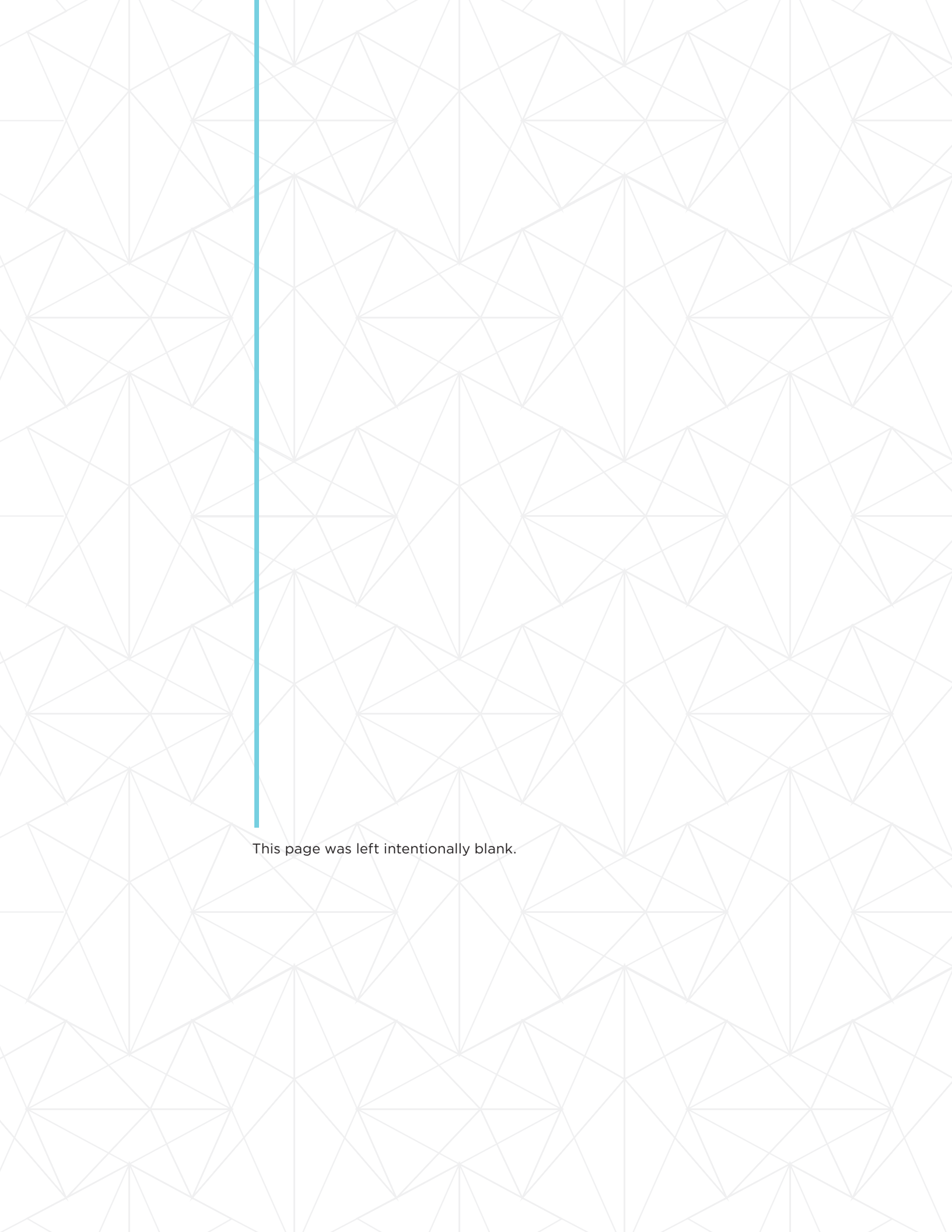
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# MDC TPO Road Safety Audit - Meeting Sign-In Sheet

Wednesday, May 15, 2019

Thursday

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# HIALEAH RESIDENCE

1280 W 46TH STREET, HIALEAH, FL 33012

# VIVIAN VILLAS

4650 W 12TH AVENUE, HIALEAH, FL 33012



CITY OF HIALEAH  
MIAMI-DADE COUNTY

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- Appendix A Historical Crash Summary
- Appendix B Transit Ridership
- Appendix C Field Material and Presentation
- Appendix D Community Meeting Sign-in Sheet

## Acronyms

ADA:	Americans with Disabilities Act
FDOT:	Florida Department of Transportation
MDC:	Miami-Dade County
MDT:	Miami-Dade Transit
MPH:	Miles Per Hour
MUTCD:	Manual on Uniform Traffic Control Devices
RSA:	Road Safety Audit
TPO:	Transportation Planning Organization

## Study Area Characteristics

Field Review Dates:

June 26, 2019

### Participants:

Kevin Walford – Miami-Dade Transportation Planning Organization

David Henderson – Miami-Dade Transportation Planning Organization

Jacques Defrant – Florida Department of Transportation, District 6

Ryan Raghunandan – Florida Department of Transportation, District 6

Irene Soria Cordero – Miami-Dade County Dade Transportation & Public Works

Yanek Fernandez – Miami-Dade County Dade Transportation & Public Works

Benazir Portal – Kittelson & Associates, Inc.

John Temple – Kittelson & Associates, Inc.

Phillip Haas – Kittelson & Associates, Inc.

Ryan Mansfield – Kittelson & Associates, Inc.

### Project Characteristics:

Field Review Type: All Users (Senior Residents, Vehicular, Pedestrian, Bicycle, Transit)

Adjacent Land Use: Urban; Commercial, Residential, Office, Industrial

Typical Posted Speed Limit: 30 MPH

Roadway Classifications: Urban Principal Arterial, Urban Minor Arterial, Urban Major Collector, Urban Local

Terrain: Flat

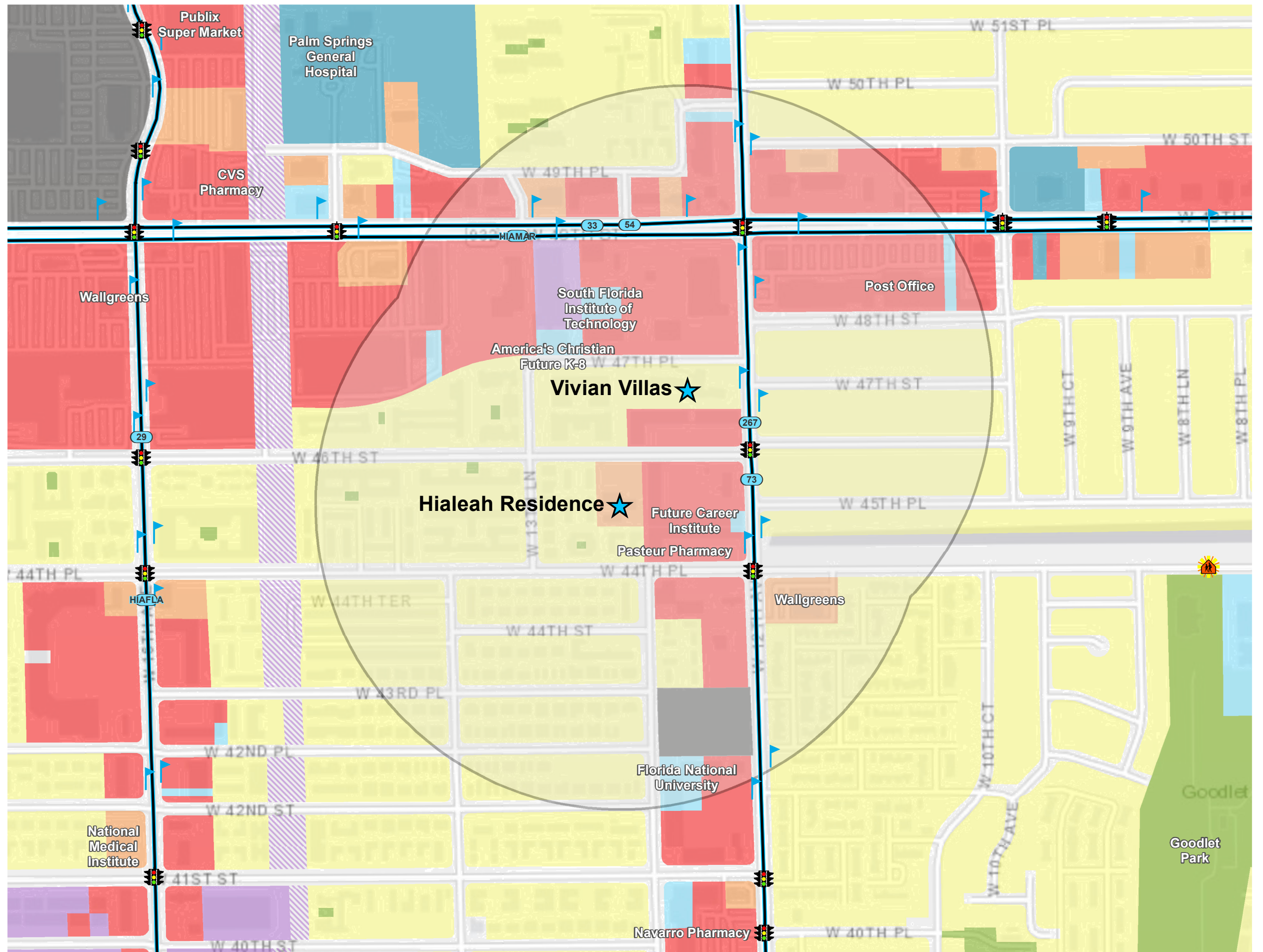
Field Review Climatic Conditions: Sunny

### Project Limits:

The Miami-Dade County (MDC) Transportation Planning Organization (TPO) has conducted a series of Road Safety Audits (RSA) at selected assisted living facilities as a result of the November 2017 *Aging Road Users Strategic Safety Plan* recommendations. This RSA report documents the safety performance examination results of the existing roadway network in the vicinity of Hialeah Residences and Vivian Villas. The project limits include a one-quarter mile radius around Hialeah Residences and Vivian Villas and are shown in **Figure 1**. Appendix A provides a detailed summary of the historical crash trends experienced within the study boundaries.



### Figure 1 Study Area



**Land Use Context:**

There is approximately 5 miles of roadway within the study area. The land use within the study area is made up mostly of single family and multi-family residential use with Hialeah Residence located on W 46<sup>th</sup> Street and Vivian Villas on W 47<sup>th</sup> Place. There are several educational land uses scattered throughout the area including South Florida Institute of Technology and America's Christian Future K-8 on W 47<sup>th</sup> Place and Florida National University on W 12<sup>th</sup> Avenue. There is a focus of commercial use along W 12<sup>th</sup> Avenue and W 49<sup>th</sup> Street. Suggested changes to the study area should consider the varying contexts and address all users (e.g., senior residents, vehicles, pedestrians, bicycles, transit users). Due to varying contexts within the study area, the focus may shift from one mode type to another.

**Transit:**

There are four Miami-Dade Transit (MDT) routes through the study area; route 73 and 267 run north/south along W 12<sup>th</sup> Avenue and route 33 and 54 run east/west along W 49<sup>th</sup> Street. Appendix B provides a summary of the transit ridership by route.

**Road Safety Audit Process:**

The RSA process involves multi-disciplinary representatives from various stakeholder groups, such as traffic operations, roadway design, safety, transportation planning, transit, and law enforcement. An RSA is typically conducted to identify potential safety issues and provide improvement suggestions in a team collaborative team environment. The November 2017, MDC TPO *Aging Road Users Strategic Safety Plan* recommends RSAs to be conducted for the top tier locations. This RSA was commissioned through the FY2019/2020 Unified Planning Work Program to develop short-term maintenance, near-term project, and long-term project suggestions to improve safety for all transportation users. This study is intended to identify engineering, education, and enforcement improvements to be considered by MDC TPO staff and partner agencies (e.g., City of Miami, Miami-Dade County, FDOT, Miami-Dade Transportation & Public Works). Some improvements presented in this report may be implemented in the short-term while other suggested improvements will require further evaluation prior to implementation. Each engineering improvement identified in this study is classified into one of three categories:

- **Short-Term or Maintenance Project** – it is anticipated that issues identified for maintenance may be addressed on a short timeframe and at a relatively low cost.
- **Near-Term Project** – activities that may be incorporated into an upcoming construction project in the area, including milling and resurfacing projects, or programmed separately through a pushbutton contract.
- **Long-Term Project** – activities that may be incorporated into upcoming construction projects or may need to be programmed for funding as separate projects and need further evaluation.

The field review was conducted on Wednesday, June 26, 2019. On Wednesday, the team met in the morning to discuss the study area and crash history. A walking assessment was conducted, and observations were made during the mid-day peak hours, PM peak hours, and the night field review. In the afternoon, the RSA team gathered to discuss suggestions for potential improvements in the study area. Appendix C provides a copy of the material shared with the RSA Team in preparation for the field review. Appendix D provides a copy of the sign-in sheets for the community meetings and field visit.

The safety concerns and suggested improvements reflect the consensus of the safety assessment team and not necessarily that of the MDC TPO.

## Field Review Findings

### Location: STUDY AREA-WIDE

The following section will include general recommendations throughout the study-area. For location-specific recommendations, see the location specific issues following this section.

#### Issue #1: Narrow and Partially Obstructed Sidewalks



#### Description of Issue:

Some sidewalks were observed to be narrow and/or are obstructed by utilities, sign poles, and vegetation.

#### Suggestions for Improvement:

- Short-Term or Maintenance Project –  
Vegetation adjacent to sidewalks throughout the corridor should be properly maintained; may require code enforcement on private property.
- Long-Term Project –  
Recommend further study to determine if alternative sidewalk alignment and/or additional right-of-way is necessary to allow for wider sidewalk where obstructions are present.



**Issue #2: Poor Sight Distance at Intersections****Description of Issue:**

Due to on street parking and other objects such as structures, walls/fences, and trees, many intersections have insufficient sight distance for vehicles.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project – Recommend further study to determine if removing sight obstructions and reducing on-street parking near intersections is needed to increase sight distance.



**Issue #3: Nighttime Issues****Description of Issue:****Lighting Issues –**

- W 44<sup>th</sup> Place by W 14<sup>th</sup> Avenue, multiple overhead streetlights are out on W 44<sup>th</sup> Place
- W 42<sup>nd</sup> Place west of W 12<sup>th</sup> Lane, an overhead streetlight is out
- W 43<sup>rd</sup> Place east of W 16<sup>th</sup> Avenue, an overhead streetlight is out
- W 49<sup>th</sup> Place, west of W 12<sup>th</sup> Avenue, an overhead streetlight is out

- W 49<sup>th</sup> Street west of W 12<sup>th</sup> Lane, missing lights from poles
- W 13<sup>th</sup> Avenue and W 46<sup>th</sup> Street, an overhead streetlight is out on the southwest corner.

Signage Issues –

- W 10<sup>th</sup> Avenue and W 48<sup>th</sup> Street, there is poor visibility of median and keep right sign facing westbound traffic.
- W 12<sup>th</sup> Avenue and W 48<sup>th</sup> Street, poor visibility of oncoming traffic. This is a potential location for a bi-directional media as the intersection has right turn only on the westbound approach.
- W 49<sup>th</sup> Street and W 12<sup>th</sup> Avenue, the internally illuminated sign on the mast arm of the southwest is off.
- W 46<sup>th</sup> Street and W 16<sup>th</sup> Avenue, all internally illuminated signs are off
- W 12<sup>th</sup> Avenue along the study limits: curbs / medians have low or no visibility.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Conduct maintenance efforts to replace burnt out lights and replace signs that are damaged or have poor retroreflectivity.
- Near-Term Projects –  
Install lighting where lighting is currently missing.  
Install a bi-directional medial at W 12<sup>th</sup> Avenue and W 48<sup>th</sup> Street.  
Use paint or object markers to increase visibility at night of medians and curbs.

### SPECIFIC LOCATION ISSUES

The following section will include recommendations at specific locations within the study area.

#### Location: W 12<sup>TH</sup> AVENUE AND W 46<sup>TH</sup> STREET INTERSECTION

##### Issue #4: Pedestrian Facility



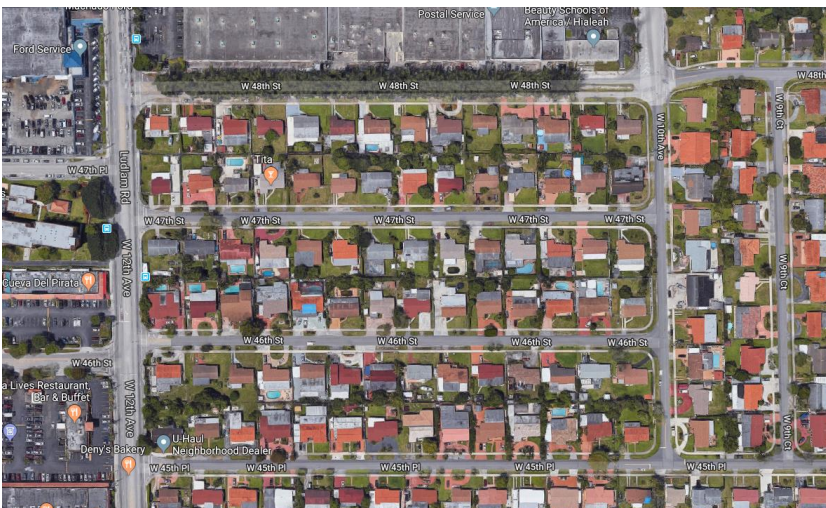
##### Description of Issue:

The intersection is signalized for the north, south and west legs. However, the east leg is stop controlled with a Right-Turn Only restriction. There are marked crosswalks on the east, west, and south legs of the intersection, the north leg does not have marked crosswalk. Pedestrian signals along with push buttons are available for the south leg (east-west peds), however pedestrian signal heads are missing on the east and west legs (north-south peds).

##### Suggestions for Improvement:

- Near-Term Project –  
Install pedestrian signal heads and push buttons on the west leg.
- Long-Term Project –  
Evaluate incorporating the east leg as part of the intersection, including pedestrian signal heads and push buttons. In addition, consider adding a marked crosswalk on the north leg.



**Location: W 12<sup>TH</sup> AVENUE AND W 45<sup>TH</sup> PLACE INTERSECTION****Issue #5: Traffic Control****Description of Issue:**

The intersection is the only location that vehicles from the neighborhood to the east are allowed to turn left to head southbound on W 12<sup>th</sup> Avenue, W 46<sup>th</sup> Street and W 48<sup>th</sup> Street are stop controlled with right-turn only restrictions. It was observed that a majority of the vehicles exiting this intersection were turning left. There is a driveway access located across this intersection on the west side of W 12<sup>th</sup> Avenue.

**Suggestions for Improvement:**

- Near-Term Project –  
Consider restricting turning movements to right-in right-out only for both the east and west intersection legs with a bi-directional median.



**Location: W 12<sup>TH</sup> AVENUE AND W 44<sup>TH</sup> PLACE INTERSECTION****Issue #6: Pedestrian Facility****Description of Issue:**

It was observed that only the east leg crosswalk has special emphasis markings.

Street name sign on the mast arm across the east leg of the intersection facing eastbound traffic is broken.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Install special emphasis crosswalk markings for all intersection legs.  
Replace street name sign on the mast arm across the east leg of the intersection.

**Location: W 12<sup>TH</sup> AVENUE AND W 44<sup>TH</sup> PLACE INTERSECTION****Issue #7: Pedestrian Facility****Description of Issue:**

Abandoned telephone circuit junction box on utility pole within sidewalk area on the southwest corner of the intersection (south side of W 44<sup>th</sup> Place) has loose wires and exposed components which could pose a hazard to pedestrians and bicyclists.

Additionally, porous, rubber section within sidewalk has caved in and posed a tripping hazard to pedestrians.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Coordinate with utility owner to remove the hazard. Remove the rubber section and replace with concrete.



**Location: W 12<sup>TH</sup> AVENUE BETWEEN W 43<sup>RD</sup> PLACE AND W 41<sup>ST</sup> STREET**

**Issue #8: Pedestrian Facility**



**Description of Issue:**

This segment has bus stops northbound and southbound and the closest crosswalks (east-west) is at W 44<sup>th</sup> Place and W 37<sup>th</sup> Street or 0.15 and 0.07 miles, respectively. In addition, there were no pedestrian signal heads present at the intersection of W 12<sup>th</sup> Avenue and W 41<sup>st</sup> Street. Attached is the ridership for Route 73 for these bus stops for 2018 and 2019.

**Suggestions for Improvement:**

- Near-Term Project –
  - Add a crosswalk to the north leg at the intersection of W 12<sup>th</sup> Avenue and W 41<sup>st</sup> Street.
  - Add pedestrian signals at the intersection of W 12<sup>th</sup> Avenue and W 41<sup>st</sup> Street.
- Long-Term Project –
  - Consider:
    - evaluating the need for a midblock crosswalk north of W 42<sup>nd</sup> Street,
    - relocating the southbound bus stop north of W 42<sup>nd</sup> Street.

**Location: W 13<sup>TH</sup> LANE AND W 46<sup>TH</sup> STREET INTERSECTION****Issue #9: Traffic Control****Description of Issue:**

Residents from Hialeah Residence shared that they use this intersection to cross north-south. The intersection provides crosswalks on the north and south legs to accommodate east-west crossings and no crosswalks are provided for the north-south crossings. It was observed that vehicles traveling east-west speed along W 46<sup>th</sup> Street as the only controlled intersections are at W 12<sup>th</sup> Avenue and W 16<sup>th</sup> Avenue (0.50 miles). The curb ramps are missing detectable warnings.

**Suggestions for Improvement:**

- Long-Term Project –  
Conduct analysis for traffic calming measures along the segment, including a roundabout at the intersection of W 46<sup>th</sup> Street and W 13<sup>th</sup> Lane. Consider adding midblock crossing/additional crossing along this segment north-south.

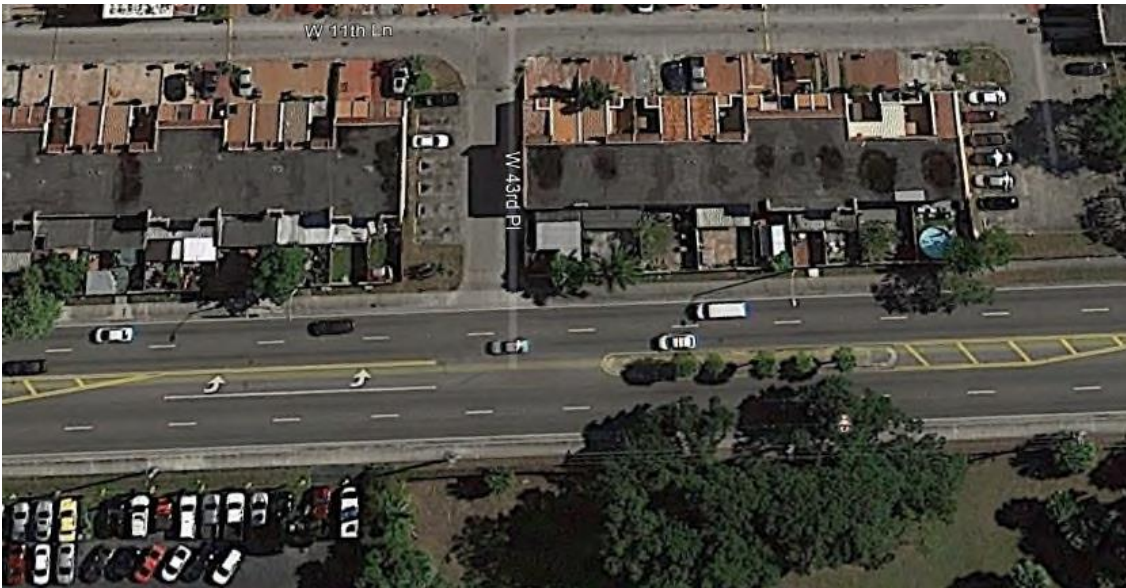


**Location: W 13<sup>TH</sup> LANE AND W 47<sup>TH</sup> PLACE INTERSECTION****Issue #10: Traffic Control****Description of Issue:**

Two driveway entrances are located adjacent to each other at the bend of a 90-degree curve. The driveway into the shopping center to the north was observed to be used as a cut-through route, experiencing relatively heavy use. Due to the 90-degree curve, visibility of the driveways is limited on several of the approaches.

**Suggestions for Improvement:**

- Long-Term Project –  
Conduct an evaluation for the need of an all-way stop-controlled intersection at this location, especially to avoid conflicts between northbound vehicles accessing the driveways and westbound vehicles coming from W 47<sup>th</sup> Place headed southbound on W 13<sup>th</sup> Lane.

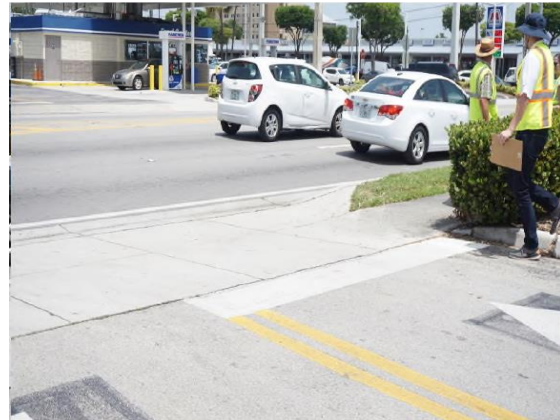
**Location: W 12<sup>TH</sup> AVENUE AND W 43<sup>RD</sup> PLACE INTERSECTION (FACING SOUTH)****Issue #11: Signage****Description of Issue:**

Sign is faded and illegible on the west side of W 12<sup>th</sup> Avenue along southbound lanes just south of W 43<sup>rd</sup> Place.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project – Review necessity of sign and replace as required.



**Location: W 12<sup>TH</sup> AVENUE AND W 44<sup>TH</sup> PLACE INTERSECTION****Issue #12: Traffic Control****Description of Issue:**

Vehicles exiting the Walgreens on the southeast corner of the intersection through the driveway on the east side of W 12<sup>th</sup> Avenue currently turn right to travel northbound or make an illegal left turn to travel southbound. The left turn movement drive over the yellow restricted pavement marking. The queue to make this movement can cause a disruption of traffic flow for vehicles driving northbound on W 12<sup>th</sup> Avenue.

**Suggestions for Improvement:**

- Near-Term Project –  
Modify driveway lane configuration to allow right turn only movements from the W 12<sup>th</sup> Avenue southeast corner of the intersection. Pavement arrow markings and a lane assignment should be installed showing right turn only.  
In addition, extend the median island to prevent the southbound crossing movement.



**Location: W 12<sup>TH</sup> AVENUE AND W 44<sup>TH</sup> PLACE INTERSECTION****Issue #13: Pedestrian Facility****Description of Issue:**

A length of broken cable hangs from a transmission line pole and is loosely coiled on ground near sidewalk on the northwest corner of the intersection. If disturbed, a pedestrian or bicyclist could become entangled.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Contact appropriate maintaining agency to remove or reattach cable as appropriate.

**Location: W 12<sup>TH</sup> AVENUE AND W 44<sup>TH</sup> PLACE INTERSECTION****Issue #14: Pedestrian Facility****Description of Issue:**

The pedestrian pushbuttons and attendant signs on all four corners are on a 45-degree angle with respect to the streets they control. The name of the street for which the pedestrian signals are activated, W 12<sup>th</sup> Avenue, is missing from the sign. (Pedestrian signals for the east and west legs of the intersection display WALK automatically during the north-south through movement and do not have pushbuttons.) A pedestrian could be confused by the configuration and improperly cross an approach. (A bicyclist who pushed the button while the RSA team was present thought the pushbutton controlled the pedestrian signals to cross W 44<sup>th</sup> Place.)

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Modify or install new pushbutton signs indicating the pushbutton is for crossing W 12<sup>th</sup> Avenue.



**Location: W 12<sup>TH</sup> AVENUE AND W 44<sup>TH</sup> PLACE INTERSECTION****Issue #15: Pedestrian Facility****Description of Issue:**

A section of sidewalk on the north side of W 44<sup>th</sup> Place just west of W 12<sup>th</sup> Avenue is missing, and grass has begun to grow in its place.

**Suggestions for Improvement:**

- Near-Term Project –  
Fill in missing section of sidewalk.



**Location: W 12<sup>TH</sup> AVENUE AND W 45<sup>TH</sup> PLACE INTERSECTION****Issue #16: Pedestrian Facility****Description of Issue:**

Exposed signal enclosure on the east side of W 12<sup>th</sup> Avenue along the northbound lanes just north of W 45<sup>th</sup> Place. Becomes a tripping hazard within the minimum width of the sidewalk.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project – Replace the lid of the signal enclosure.

**Location: W 12<sup>TH</sup> AVENUE AND W 46<sup>TH</sup> STREET INTERSECTION****Issue #17: Pedestrian Facility****Description of Issue:**

Sidewalk clear width less than 32 inches due to a post mounted Do Not Block the intersection sign and cabinet on the southeast corner of the intersection.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project – Consider alternative sign mounting options or placement in order to remove the sidewalk obstruction.
- Near-Term Project – Consider relocating the cabinet to allow for adequate sidewalk width.

**Location: W 12<sup>TH</sup> AVENUE AND W 47<sup>TH</sup> STREET INTERSECTION****Issue #18: Pedestrian Facility****Description of Issue:**

Sidewalk clear width less than 32 inches on the east side of W 12<sup>th</sup> Avenue just north of W 47<sup>th</sup> Street.

**Suggestions for Improvement:**

- Near-Term Project –  
Coordinate with utilities to relocate pole to satisfy ADA standards.



**Location: Location: W 12<sup>TH</sup> AVENUE AND W 47<sup>TH</sup> STREET INTERSECTION****Issue #19: Pedestrian Facility****Description of Issue:**

A significant amount of debris and trash was observed on the sidewalk of the north side of W 47<sup>th</sup> Street, east of W 12<sup>th</sup> Avenue.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Remove trash and debris from sidewalk.

**Location: W 12<sup>TH</sup> AVENUE AND W 50<sup>TH</sup> PLACE INTERSECTION (FACING NORTH)****Issue #20: Pedestrian Facility****Description of Issue:**

Sidewalk appears to drop gradually in grade. Area could be difficult to traverse.

**Suggestions for Improvement:**

- Near-Term Project –  
Correct sidewalk grades to allow safe usage.

**Location: 1012-14 W 49<sup>TH</sup> STREET****Issue #21: Pedestrian Facility****Description of Issue:**

On the south side of W 49<sup>th</sup> Street just west of W 10<sup>th</sup> Avenue, the curb area of sidewalk over the drainage grate is crumbling and a significant chunk has broken off, creating a tripping hazard.

**Suggestions for Improvement:**

- Near-Term Project –  
Repair or replace the broken sidewalk.



**Location: W 12<sup>TH</sup> AVENUE AND W 49<sup>TH</sup> STREET****Issue #22: Bicycle Facility****Description of Issue:**

Bicyclist resorting to using sign poles from car dealership to secure their bicycle on the southwest corner of the intersection.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project – Increase the number of bike racks along W 49<sup>th</sup> Street. Several cyclists were observed along W 49<sup>th</sup> Street during the field visit.

**Location: W 12<sup>TH</sup> LANE AND W 44<sup>TH</sup> PLACE INTERSECTION****Issue #23: Pedestrian Facility****Description of Issue:**

Crosswalk on W 12<sup>th</sup> Lane does not have truncated domes at both ends.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Install truncated domes on curb ramps.

**Location: W 12<sup>TH</sup> AVENUE AND W 46<sup>TH</sup> STREET INTERSECTION****Issue #24: Traffic Control****Description of Issue:**

Overhead limbs of roadside trees obscure driver's view of traffic signal heads until vehicle is close to the intersection on the eastbound approach on W 46<sup>th</sup> Street.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project – Trim overhead foliage.



**Location: W 12<sup>TH</sup> AVENUE AND W 46<sup>TH</sup> STREET INTERSECTION****Issue #25: Pedestrian Facility****Description of Issue:**

There are no pedestrian signal heads on the west leg of the intersection. Signal poles are existent on each corner.

**Suggestions for Improvement:**

- Near-Term Project –  
Install pedestrian signal heads with pushbuttons to allow WALK during N-S through phase.

**Location: W 12<sup>TH</sup> AVENUE AND W 46<sup>TH</sup> STREET INTERSECTION****Issue #26: Pedestrian Facilities****Description of Issue:**

This crosswalk is the only one at the intersection having pedestrian signals. Observations of the pedestrian signal operations reveal a 7-second WALK followed by a 10-second flashing don't walk countdown. The countdown period is insufficient to allow the pedestrian to cross the five traffic lanes or 65 feet.

**Suggestions for Improvement:**

- Near-Term Project –  
Adjust pedestrian signal clearance intervals on W 12<sup>th</sup> Avenue to accommodate at a minimum a walking speed of 3.5 seconds for all pedestrian crossing times.

**Location: W 12<sup>TH</sup> AVENUE AND W 46<sup>TH</sup> STREET INTERSECTION****Issue #27: Pedestrian Facility****Description of Issue:**

Roadside tree foliage impedes pedestrian movements on the sidewalk on the east side of W 12<sup>th</sup> Avenue just south of W 46<sup>th</sup> Street.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project – Trim foliage.



**Location: W 12<sup>TH</sup> AVENUE BETWEEN W 44<sup>TH</sup> PLACE AND W 42<sup>ND</sup> PLACE****Issue #28: Roadway****Description of Issue:**

There are two raised median areas which have three and five palm trees respectively. The trees are sizable with trunks about 10-12 inches in diameter. The terminals of the curbed median are paved and tapered from pavement grade up to full-depth, Type-F curb height. This essentially forms a ramp for vehicles straying into the median area, providing no impediment to impacting the palm trees. The first palm tree in each of the two median areas bear evidence of vehicle impacts. The posted speed limit on this section of W 12<sup>th</sup> Avenue is 40 MPH. The palm trees pose a potential hazard to motorists.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Replace the palm trees with less hazardous landscaping, such as bushes.
- Near-Term Project –  
Remove the tapered curve, providing a full curb height around the nose of the median.

**Location: W 12<sup>TH</sup> AVENUE NORTH OF W 42<sup>ND</sup> STREET**

**Issue #29: Pedestrian Facility**



**Description of Issue:**

There are midblock bus stops on both sides of W 12<sup>th</sup> Avenue, several hundred feet north of a raised median section. Pedestrians disembarking buses most likely cross W 12<sup>th</sup> Avenue at the bus stop locations instead of walking south to W 41<sup>st</sup> Street which is a signalized intersection.

**Suggestions for Improvement:**

- Near-Term Project –  
Consider relocating the bus stops to a point near the northern terminus of the raised median and provide a paved refuge area within the median for pedestrians crossing between relocated bus stops.

**Location: W 46<sup>TH</sup> STREET BETWEEN W 12<sup>TH</sup> AVENUE AND W 15<sup>TH</sup> AVENUE**

**Issue #30: Pedestrian Facility**



**Description of Issue:**

Overhead branches from trees on adjacent private properties encroach upon sidewalks and impede pedestrians and bicyclists at several locations along W 46<sup>th</sup> Street.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Coordinate with code enforcement to trim tree branches that impede the safe passage on the sidewalk.



**Location: W 49<sup>TH</sup> PLACE BETWEEN W 14<sup>TH</sup> LANE AND W 12<sup>TH</sup> LANE**

**Issue #31: Parking**



**Description of Issue:**

Vehicles parking in restricted parking zones along the southside sidewalk on W 49<sup>th</sup> Place restrict line of sight for vehicles attempting to pull out onto the road.

**Suggestions for Improvement:**

- Near-Term Project –  
Increase enforcement of parking restrictions.

**Location: W 12<sup>TH</sup> LANE AND W 49<sup>TH</sup> PLACE INTERSECTION****Issue #32: Pedestrian Facility****Description of Issue:**

Crosswalk paint is worn out on the south side of the intersection. The southeast corner of the intersection is missing a curb ramp and access to the sidewalk is blocked by landscape.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project – Conduct maintenance to repaint crosswalk.
- Near-Term Project – Install curb ramp to connect with crosswalk.



Location: W 49<sup>TH</sup> PLACE WEST OF W 12<sup>TH</sup> LANE

**Issue #33: Pedestrian Facility**



**Description of Issue:**

The sidewalk ends as it connects to the driveway at Courtyards II Condominium and turns into a gravel pathway. This creates a tripping hazard for pedestrians.

**Suggestions for Improvement:**

- Near-Term Project –  
Fill in missing section of sidewalk.



**Location: W 12<sup>TH</sup> AVENUE AND W 49<sup>TH</sup> PLACE INTERSECTION****Issue #34: Pedestrian Facility****Description of Issue:**

The Ford Dealership on the southwest corner of the W 49<sup>th</sup> Place and W 12<sup>th</sup> Avenue intersection has vehicles parked in driveways that are blocking sections of the sidewalk.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Remove vehicles from the sidewalk and increase enforcement to eliminate future occurrences.

## Summary of Suggestions

This assessment considers operational and safety related issues for all users near Hialeah Residences and Vivian Villas. This study was commissioned by the MDC TPO to develop recommendations to improve the safety of all users throughout the study area. The suggestions identified in this report are summarized as follows:

### Improvements:

Each suggestion identified in this study is classified into one of three categories:

- Short-Term or Maintenance Project – it is anticipated that issues identified for maintenance may be addressed by public agency staff on a short timeframe and at a relatively low cost.
- Near-Term Project – activities that may be incorporated into an upcoming construction project in the area, including milling and resurfacing projects, or programmed separately through a pushbutton design-build contract.
- Long-Term Project – activities that may be incorporated into upcoming construction projects or may need to be programmed for funding as separate projects.

### Education:

Potential corridor-focused education efforts are noted below:

- Educate Bicyclists: Warn bicyclists of the risks associated with riding on the sidewalk against the flow of traffic
- Educate Bicyclists: Educate bicyclists regarding best practices for nighttime riding and provide resources (e.g., bike lights, reflectors, wear bright or retroreflective clothing)
- Educate Motorists: Yield to pedestrians in crosswalks
- Educate Motorists: Watch for pedestrians and bicyclists at driveways (look both ways)
- Educate Pedestrians: Use of designated crosswalks and use of pedestrian signals
- Educate Pedestrians: Educate pedestrians regarding being visible at night

### Enforcement:

Potential corridor-focused enforcement efforts are noted below:

- Motorists: Consider investigating state or federal grants to increase speed enforcement in areas with high volumes of transit users, pedestrians, and bicycles.

The issues and suggested improvements reflect the consensus of the safety assessment team and not necessarily that of the MDC TPO.

The following table lists each issue identified within the study area as well as its categorized improvement type.

## SUMMARY OF RECOMMENDATIONS

Issue Number	Issue Location	Issue Type	Improvement Type
1	Study Area-Wide	Narrow and Partially Obstructed Sidewalks	Short-Term or Maintenance Project
			Long-Term Project
2	Study Area-Wide	Poor Sight Distance at Intersections	Short-Term or Maintenance Project
3	Study Area-Wide	Nighttime Issues	Short-Term or Maintenance Project
			Near-Term Project
4	W 12 <sup>th</sup> Avenue and W 46 <sup>th</sup> Street Intersection	Pedestrian Facility	Near-Term Project
			Long-Term Project
5	W 12 <sup>th</sup> Avenue and W 45 <sup>th</sup> Place Intersection	Traffic Control	Near-Term Project
6	W 12 <sup>th</sup> Avenue and W 44 <sup>th</sup> Place Intersection	Pedestrian Facility	Short-Term or Maintenance Project
7	W 12 <sup>th</sup> Avenue and W 44 <sup>th</sup> Place Intersection	Pedestrian Facility	Short-Term or Maintenance Project
8	W 12 <sup>th</sup> Avenue between W 43 <sup>rd</sup> Place and W 41 <sup>st</sup> Street	Pedestrian Facility	Near-Term Project
			Long-Term Project
9	W 13 <sup>th</sup> Lane and W 46 <sup>th</sup> Street Intersection	Traffic Control	Long-Term Project
10	W 13 <sup>th</sup> Lane and W 47 <sup>th</sup> Place Intersection	Traffic Control	Long-Term Project
11	W 12 <sup>th</sup> Avenue and W 43 <sup>rd</sup> Place Intersection (Facing South)	Signage	Short-Term or Maintenance Project
12	W 12 <sup>th</sup> Avenue and W 44 <sup>th</sup> Place Intersection	Traffic Control	Near-Term Project
13	W 12 <sup>th</sup> Avenue and W 44 <sup>th</sup> Place intersection	Pedestrian Facility	Short-Term or Maintenance Project
14	W 12 <sup>th</sup> Avenue and W 44 <sup>th</sup> Place intersection	Pedestrian Facility	Short-Term or Maintenance Project
15	W 12 <sup>th</sup> Avenue and W 44 <sup>th</sup> Place Intersection	Pedestrian Facility	Near-Term Project
16	W 12 <sup>th</sup> Avenue and W 45 <sup>th</sup> Place Intersection	Pedestrian Facility	Short-Term or Maintenance Project
17	W 12 <sup>th</sup> Avenue and W 46 <sup>th</sup> Street Intersection	Pedestrian Facility	Short-Term or Maintenance Project
			Near-Term Project



Issue Number	Issue Location	Issue Type	Improvement Type
18	W 12 <sup>th</sup> Avenue and W 47 <sup>th</sup> Street Intersection	Pedestrian Facility	Near-Term Project
19	W 12 <sup>th</sup> Avenue and W 47 <sup>th</sup> Street Intersection	Pedestrian Facility	Short-Term or Maintenance Project
20	W 12 <sup>th</sup> Avenue and W 50 <sup>th</sup> Place Intersection (Facing North)	Pedestrian Facility	Near-Term Project
21	1012-14 W 49 <sup>th</sup> Street	Pedestrian Facility	Near-Term Project
22	W 12 <sup>th</sup> Avenue and W 49 <sup>th</sup> Street	Bicycle Facility	Short-Term or Maintenance Project
23	W 12 <sup>th</sup> Lane and W 44 <sup>th</sup> Place Intersection	Pedestrian Facility	Short-Term or Maintenance Project
24	W 12 <sup>th</sup> Avenue and W 46 <sup>th</sup> Street Intersection	Traffic Control	Short-Term or Maintenance Project
25	W 12 <sup>th</sup> Avenue and W 46 <sup>th</sup> Street Intersection	Pedestrian Facility	Near-Term Project
26	W 12 <sup>th</sup> Avenue and W 46 <sup>th</sup> Street intersection	Pedestrian Facilities	Near-Term Project
27	W 12 <sup>th</sup> Avenue and W 46 <sup>th</sup> Street intersection	Pedestrian Facility	Short-Term or Maintenance Project
28	W 12 <sup>th</sup> Avenue between W 44 <sup>th</sup> Place and W 42 <sup>nd</sup> Place	Roadway	Short-Term or Maintenance Project
			Near-Term Project
29	W 12 <sup>th</sup> Avenue north of W 42 <sup>nd</sup> Street	Pedestrian Facility	Near-Term Project
30	W 46 <sup>th</sup> Street between W 12 <sup>th</sup> Avenue and W 15 <sup>th</sup> Avenue	Pedestrian Facility	Short-Term or Maintenance Project
31	W 49 <sup>th</sup> Place Between W 14 <sup>th</sup> Lane and W 12 <sup>th</sup> Lane	Parking	Near-Term Project
32	W 12 <sup>th</sup> Lane and W 49 <sup>th</sup> Place Intersection	Pedestrian Facility	Short-Term or Maintenance Project
			Near-Term Project
33	W 49 <sup>th</sup> Place west of W 12 <sup>th</sup> Lane	Pedestrian Facility	Near-Term Project
34	W 12 <sup>th</sup> Avenue and W 49 <sup>th</sup> Place Intersection	Pedestrian Facility	Short-Term or Maintenance Project

## Appendix A

### Historical Crash Summary

# Senior Living Facilities Road Safety Audit

## Vivian Villas and Hialeah Residence

### City of Hialeah, Florida

#### Background

The Senior Living Facilities Road Safety Audit focused on the areas surrounding Vivian Villas and Hialeah Residence includes several corridors as follows that were identified as focus areas based on their crash history:

- W 49th Pl from W 13th Ln to W 12th Ln – 0.12 miles
- W 49th St (SR 932) from east of W 14th Ln to west of W 10th Ave – 0.42 miles
- W 46th St from east of W 16th Ave to W 12th Ave – 0.36 miles
- W 44th Pl from W 15th Ave to west of W 10th Ct – 0.51 miles
- W 14th Ave from W 42nd Pl to W 44th Pl – 0.15 miles
- W 12th Ave from W 42nd St to W 50th Pl – 0.58 miles

The general segment characteristics for the are reviewed below:

- Posted speed limits of 40 mph on SR 932 and W 12th Ave, 35 mph on W 44th Pl and W 46th St, with roadways through residential areas generally unsigned.
- SR 932 is a 6-lane divided roadway, W 12th Ave is a 4-lane divided roadway, W 44th Pl and W 46th St are 2-lane roadways with a two-way left-turn lane, and the majority of the roads in residential areas a two-lane roads with no marked centerline.
- There are no marked bicycle facilities.
- There are continuous sidewalks on both sides of the roadways throughout the majority of the study area.
- Overhead street lighting is present at some intersections and sporadic along segments.
- Curb and gutter is present throughout most of the study area.
- The land use is primarily commercial along SR 932 and W 12th Ave, with single-family and multi-family residential throughout the remainder of the study area.
- This area is served by bus routes 33 and 54 along SR 932 and routes 73 and 267 along W 12th Ave.
- There are three (3) signalized intersections throughout the study area:
  - SR 932 at W 12th Ave
    - Special emphasis crosswalk markings
    - All crosswalks include pedestrian actuated signals with push buttons
  - W 46th St at W 12th Ave
    - Standard crosswalk markings and special emphasis markings on east leg
    - All crosswalks include pedestrian actuated signals with push buttons
  - W 44th Pl at W 12th Ave
    - Standard crosswalk markings, no crosswalk on north leg
    - No pedestrian walk signals, only pedestrian push-buttons on south leg



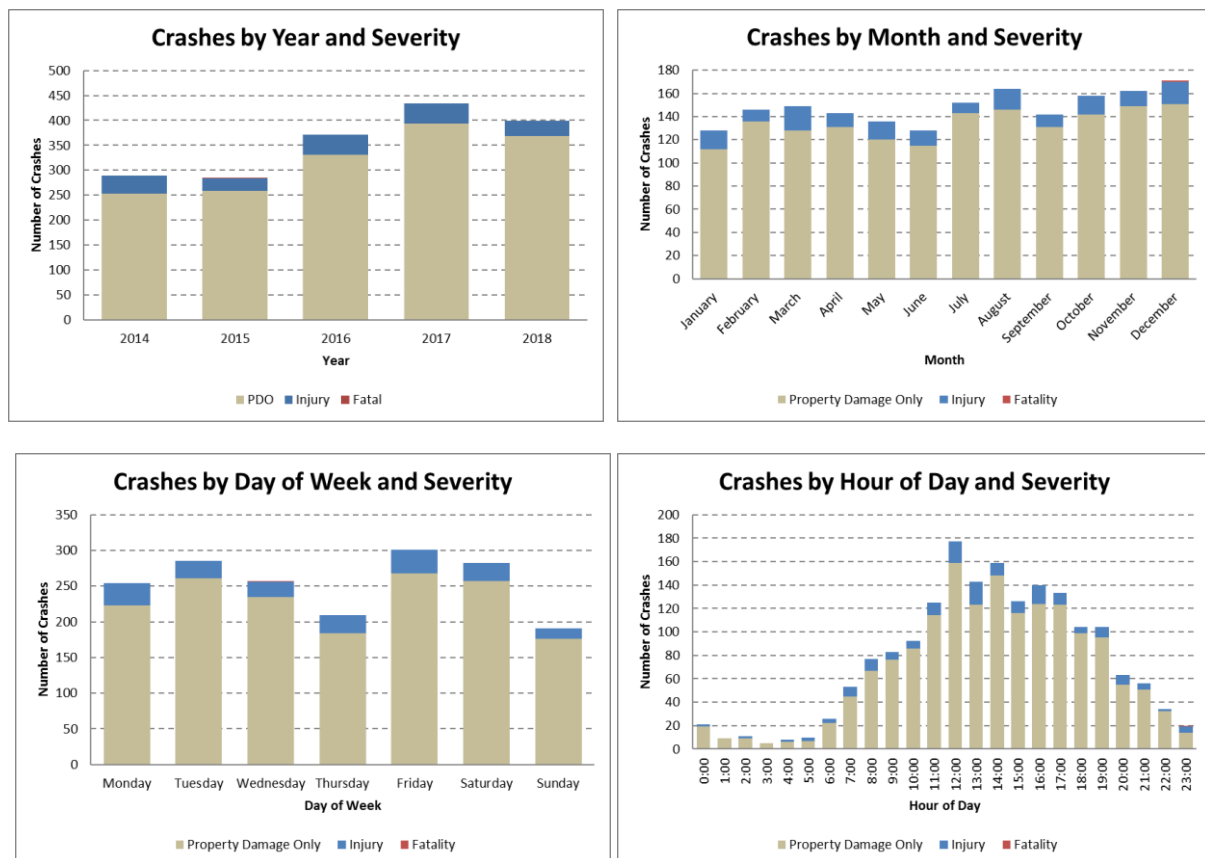
### Crash History (2014 – 2018):

Five (5) years of available vehicular crash data, 2014 to 2018, was obtained from the Signal Four Analytics database and utilized for historical crash analysis.

#### Overall Study Area

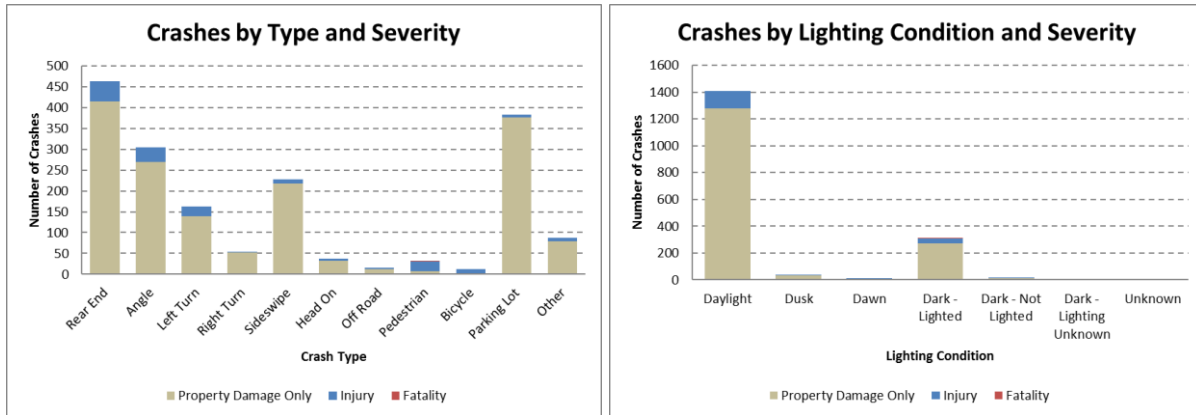
A total of 1,779 vehicular crashes were reported over the five-year study period. Of the 1,779 crashes reported during the study period, there was one fatal crashes (0.1 percent), 174 injury crashes (10 percent), and 1,604 property damage only (PDO) crashes (90 percent). There were 13 bicycle involved crashes (0.7 percent) and 32 pedestrian involved crashes (2 percent):

The reported crashes are displayed by different measures of time (year, month, day, and hour) below. Overall, the number of crashes has increased between 2014 and 2017, and decreased from that point in 2018. December (171 crashes) and August (164 crashes) were the highest crash months during the year, while Friday (301 crashes) was the highest crash day of the week. Seventy-four (79) percent of all crashes occurred between 7:00 AM and 7:00 PM.



The reported crashes by crash type are displayed below. Twenty-six (26) percent (463 crashes) were rear end crashes, twenty-two (22) percent (376 crashes) were parking lot crashes, and seventeen (17)

percent (227 crashes) were angle crashes. Twenty-one (21) percent of crashes occurred under non-daylight conditions.



Among the crashes that occurred during non-daylight conditions, general trends are somewhat similar to those presented for all crashes in the study area. Total non-daylight crashes increase slightly from 2014 through 2018 (61 to 73 crashes) and then increase significantly in 2018 (101 crashes). Rear-end, parking lot, and angle crashes remain the predominant crash types. Non-daylight crashes do occur more heavily on weekends, but they highest crash day remains Friday (63 crashes, 17 percent). High crash locations of the non-daylight crashes are similar to overall high crash locations, with clusters along SR 932, W 44th Pl, W 12th St, and W 49th Pl. Eight-eight (88) percent of the non-daylight crashes were PDO crashes, 11 percent were injury crashes, and the one fatal crash that occurred in the study area occurred in non-daylight conditions (0.3 percent of non-daylight crashes).

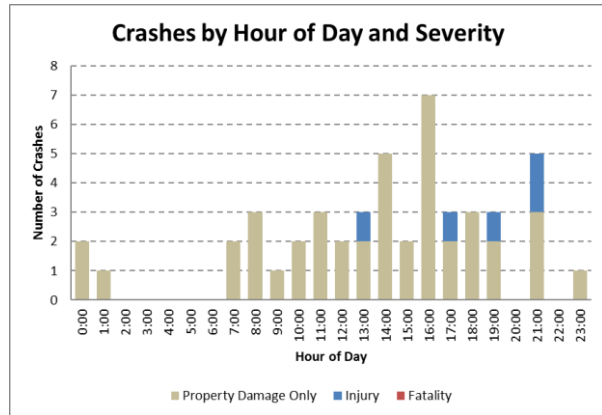
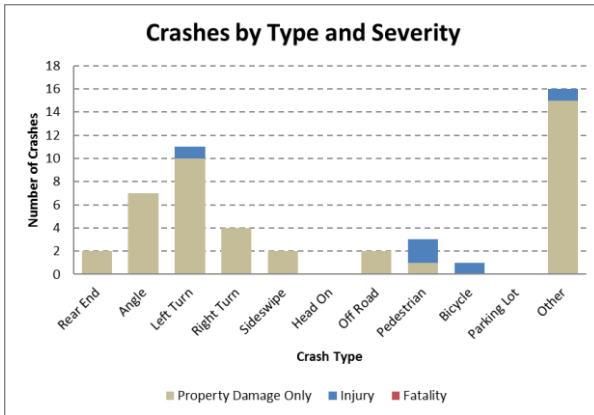
A total of 441 crashes in the study area involved elderly users, with 88 percent PDO crashes, 11 percent injury crashes, and one fatal crash (0.2 percent). These crashes primarily occurred between 7am and 7pm (91 percent) and were fairly evenly distributed from Monday to Saturday throughout the week, with the lowest number of crashes occurring on Sunday (39 crashes, 9 percent). The most prevalent crash types included rear end (22 percent), angle (17 percent), and parking lot (16 percent).

Further details on crashes located within the six previously identified high-crash corridors in the study area are provided below.

#### **W 49th Pl from W 13th Ln to W 12th Ln (48 total crashes)**

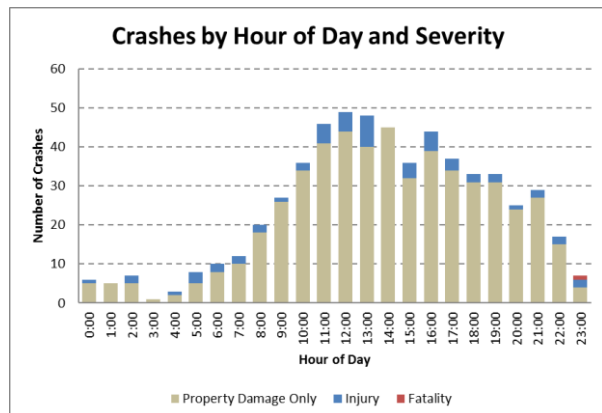
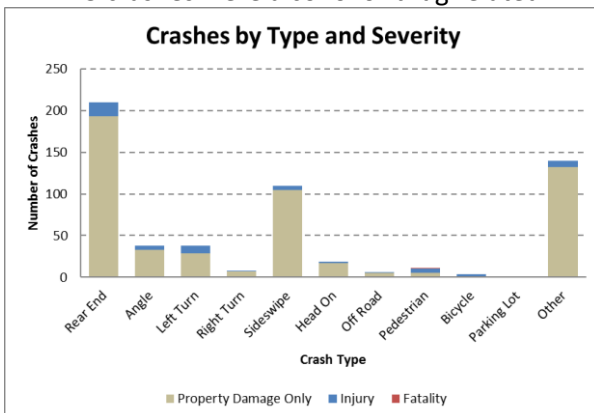
- 10 percent (5 crashes) were injury-related, and 90 percent (43 crashes) were PDO.
- 33 percent (16 crashes) were classified as “other” crash type, 23 percent (11 crashes) were left-turn, and 14 percent (7 crashes) were angle.
- 29 percent (14 crashes) occurred in non-daylight conditions.
- 29 percent (14 crashes) occurred between 4:00 PM and 7:00 PM.
- 3 crashes were pedestrian involved and 1 crash was bicyclist involved.
- 0 crashes were alcohol or drug related.

## VIVIAN VILLAS AND HIALEAH RESIDENCE HISTORICAL CRASH SUMMARY



### W 49th St (SR 932) from east of W 14th Ln to west of W 10th Ave (584 total crashes)

- 1 fatal crash, 10 percent (57 crashes) were injury-related, and 90 percent (526 crashes) were PDO.
- 36 percent (210 crashes) were rear end, 24 percent (140 crashes) were classified as “other”, and 19 percent (110 crashes) were sideswipe.
  - 76 of the 210 rear end crashes occurred in the eastbound direction.
  - 82 of the 210 rear end crashes occurred in the westbound direction.
- 25 percent (145 crashes) occurred in non-daylight conditions.
- 32 percent (188 crashes) occurred between 11:00 AM and 3:00 PM.
- 11 crashes were pedestrian involved and 4 crashes were bicyclist involved.
- 3 crashes were alcohol or drug related.

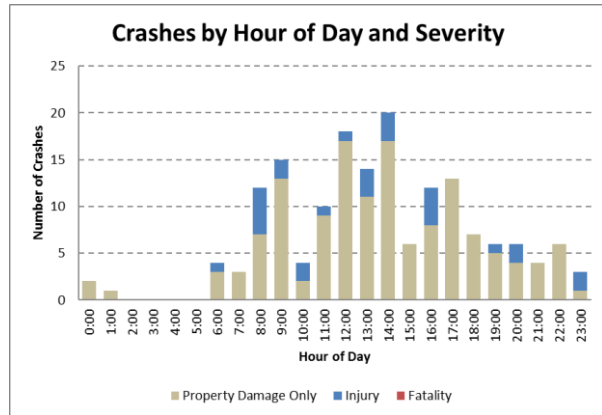
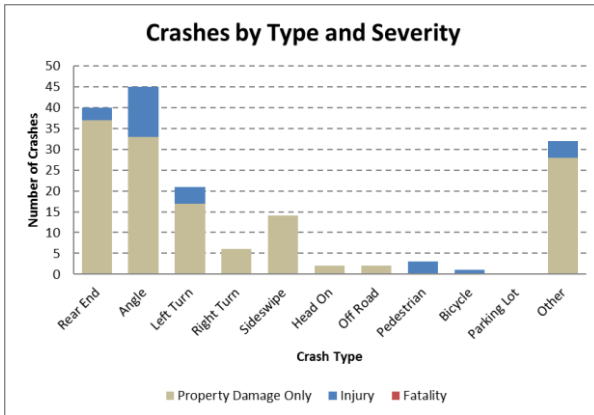


### W 46th St from east of W 16th Ave to W 12th Ave (166 total crashes)

- 16 percent (27 crashes) were injury-related, and 84 percent (139 crashes) were PDO.
- 27 percent (45 crashes) were angle, 24 percent (40 crashes) were rear end, and 19 percent (32 crashes) were classified as “other” crash type.
  - 13 of the 40 rear-end crashes occurred in the eastbound direction.
  - 12 of the 40 rear-end crashes occurred in the southbound direction.
  - 7 of the 40 rear-end crashes occurred in the westbound direction.
- 24 percent (39 crashes) occurred in non-daylight conditions.
- 37 percent (62 crashes) occurred between 11:00 AM and 3:00 PM.
- 3 crashes were pedestrian involved and 1 crash was bicyclist involved.
- 0 crashes were alcohol or drug involved.

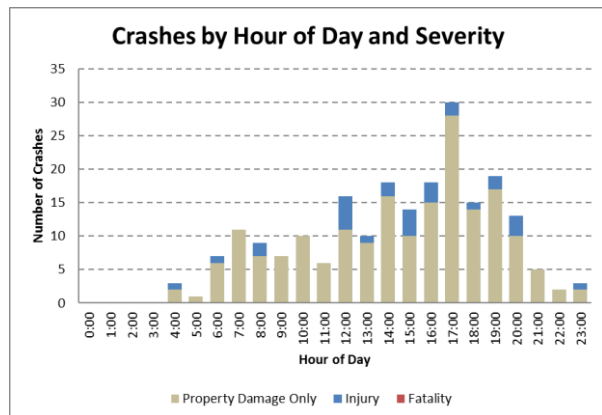
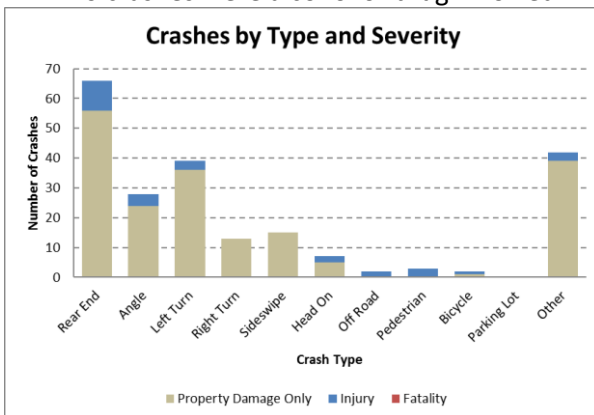


## VIVIAN VILLAS AND HIALEAH RESIDENCE HISTORICAL CRASH SUMMARY



### W 44th PI from W 15th Ave to west of W 10th Ct (217 total crashes)

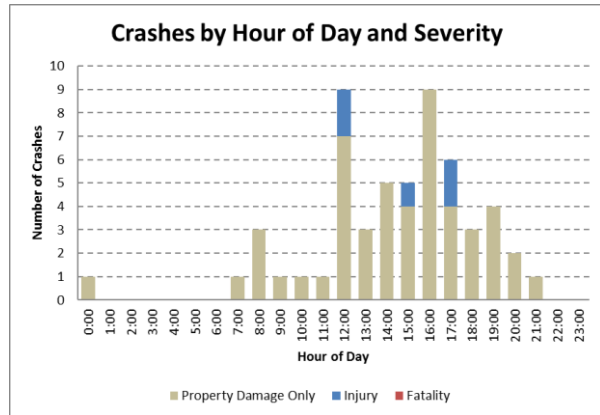
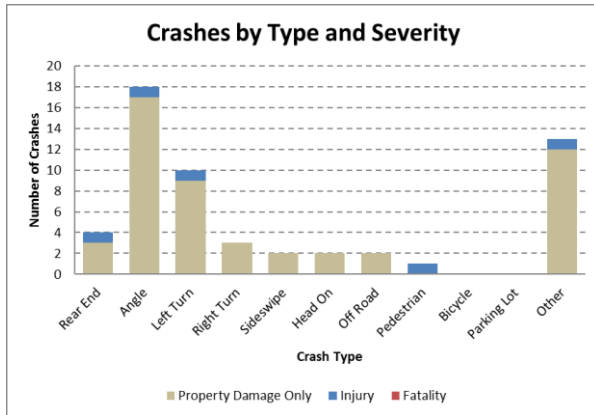
- 13 percent (28 crashes) were injury, and 87 percent (189 crashes) were PDO.
- 30 percent (66 crashes) were rear end, 19 percent (42 crashes) were classified as “other”, and 18 percent (39 crashes) were left-turn.
  - 26 of the 66 rear end crashes occurred in the westbound direction.
  - 13 of the 66 rear end crashes occurred in the eastbound direction.
  - 13 of the 66 rear end crashes occurred in the northbound direction.
- 26 percent (56 crashes) occurred in non-daylight conditions.
- 38 percent (74 crashes) occurred between 4:00 PM and 8:00 PM.
- 3 crashes were pedestrian involved and 2 crashes were bicyclist involved.
- 0 crashes were alcohol or drug involved.



### W 14th Ave from W 42nd PI to W 44th PI (55 total crashes)

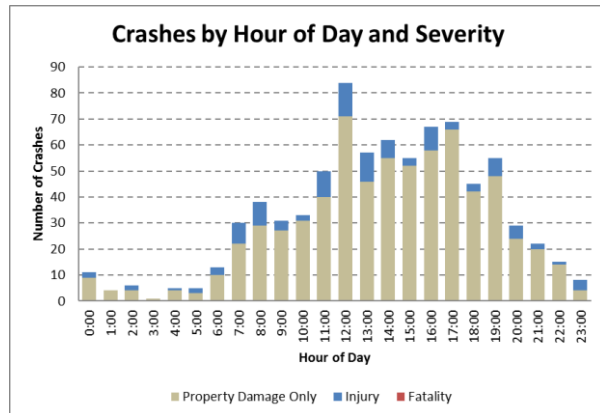
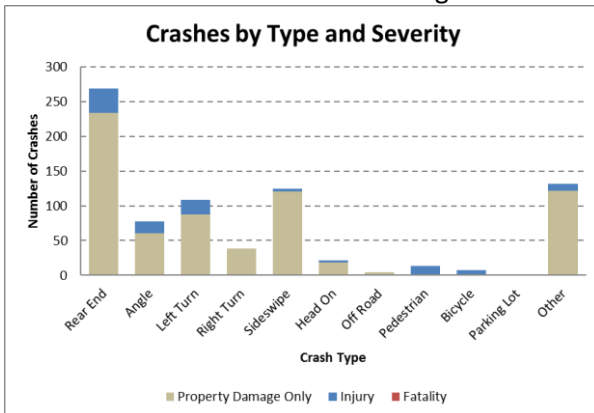
- 9 percent (5 crashes) were injury-related, and 11 percent (50 crashes) were PDO.
- 33 percent (18 crashes) were angle, 24 percent (13 crashes) were classified as “other”, and 18 percent (10 crashes) were left-turn.
- 20 percent (11 crashes) occurred in non-daylight conditions.
- 46 percent (25 crashes) occurred between 2:00 PM and 6:00 PM.
- 1 crash was pedestrian involved and 0 crashes were bicyclist involved.
- 0 crashes were alcohol or drug involved.

## VIVIAN VILLAS AND HIALEAH RESIDENCE HISTORICAL CRASH SUMMARY



### W 12th Ave from W 42nd St to W 50th PI (795 total crashes)

- 14 percent (111 crashes) were injury-related, and 76 percent (684 crashes) were PDO.
- 34 percent (269 crashes) were rear end, 17 percent (132 crashes) were classified as “other”, and 16 percent (125 crashes) were sideswipe.
  - 98 of the 269 rear end crashes occurred in the northbound direction.
  - 94 of the 269 rear end crashes occurred in the southbound direction.
  - 34 of the 269 rear end crashes occurred in the eastbound direction.
  - 31 of the 269 rear end crashes occurred in the westbound direction.
- 23 percent (180 crashes) occurred in non-daylight conditions.
- 26 percent (203 crashes) occurred between 12:00 PM and 3:00 PM.
- 13 crashes were pedestrian involved and 7 crashes were bicyclist involved.
- 3 crashes were alcohol or drug involved.



# Miami-Dade TPO

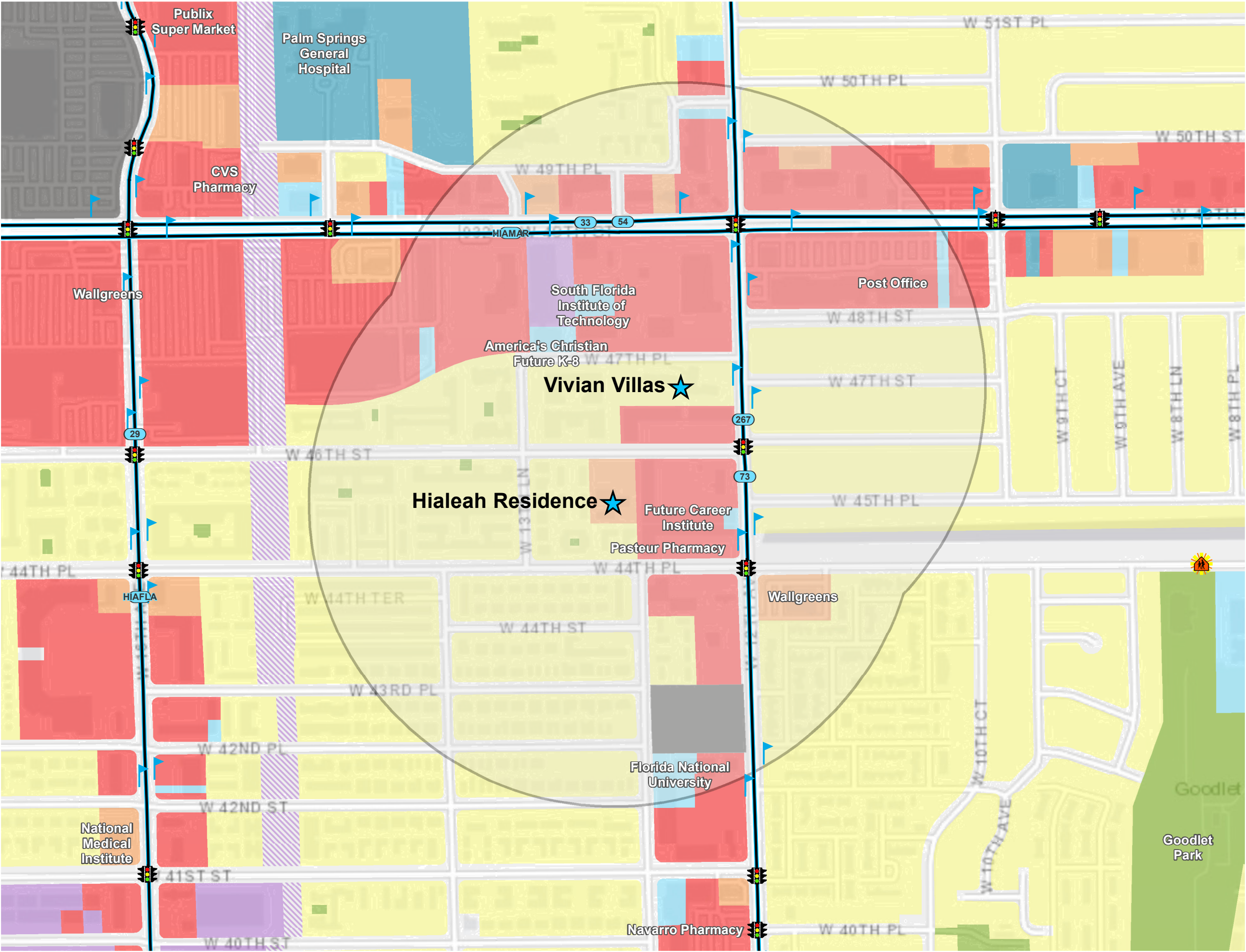
Figure 1  
Study Area

- Traffic Signal
- Flashing School Zone
- Flashing Pedestrian Warning
- Bus Stops
- Bus Routes
- Study Area
- Parks
- Education
- Industrial
- Major Transmission Lines
- Institutional
- Commercial
- Residential
- Office
- Vacant



0 200 400 600 800 Feet







Data Source: Signal 4 Analytics (2014-2018)





# Miami-Dade TPO

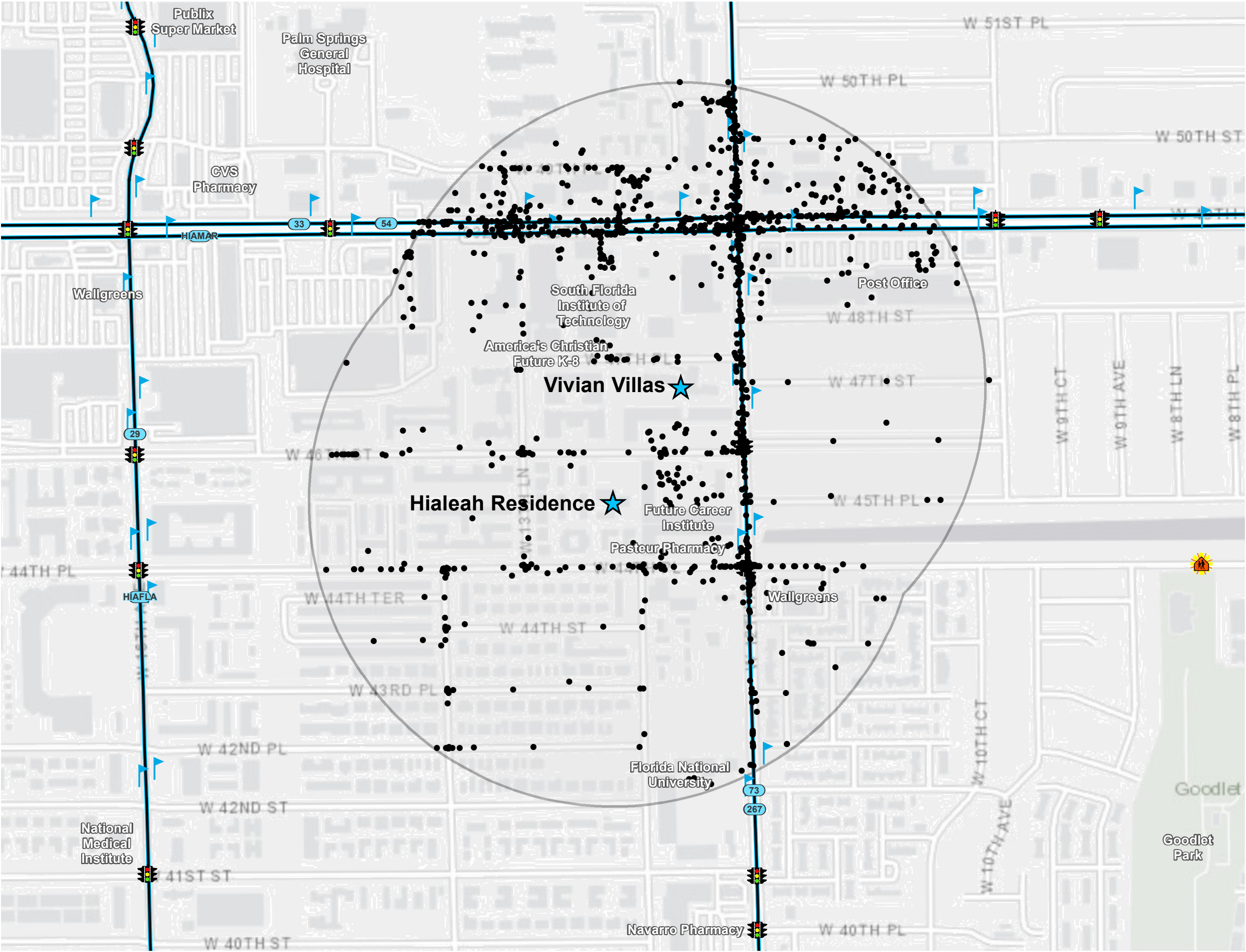
Figure 2  
Crash Frequency

- All Crashes
-  Traffic Signal
-  Flashing School Zone
-  Flashing Pedestrian Warning
-  Bus Stops
-  Bus Routes
-  Study



0 200 400 600 800 Feet









Data Source: Signal 4 Analytics (2014-2018)





# Miami-Dade TPO

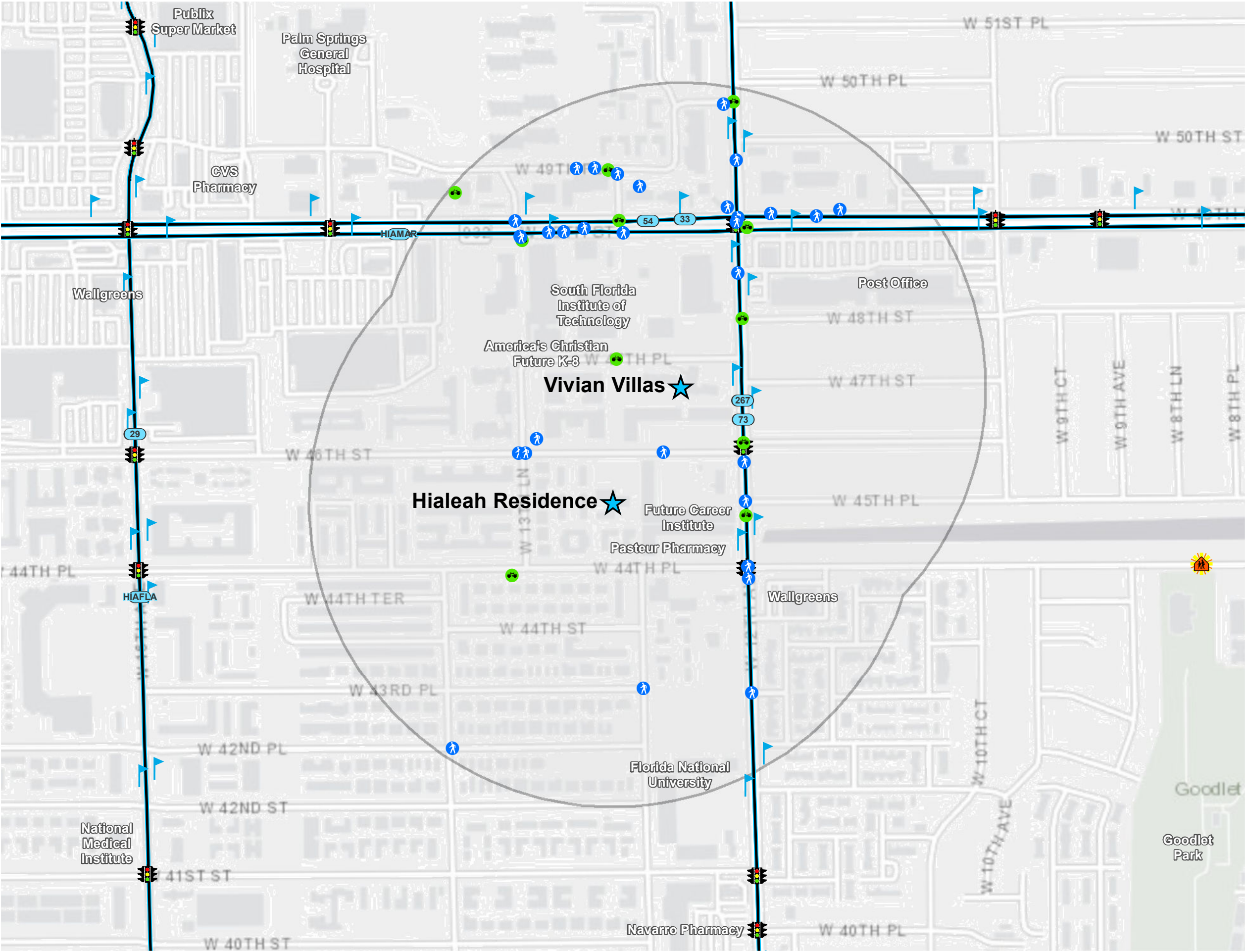
Figure 3  
Bicycle & Pedestrian  
Crashes

-  Pedestrian Involved Crashes
-  Bicycle Involved Crashes
-  Traffic Signal
-  Flashing School Zone
-  Flashing Pedestrian Warning
-  Bus Stops
-  Bus Routes
-  Study Area



0 200 400 600 800 Feet

Data Source: Signal 4 Analytics (2014-2018)





# Miami-Dade TPO

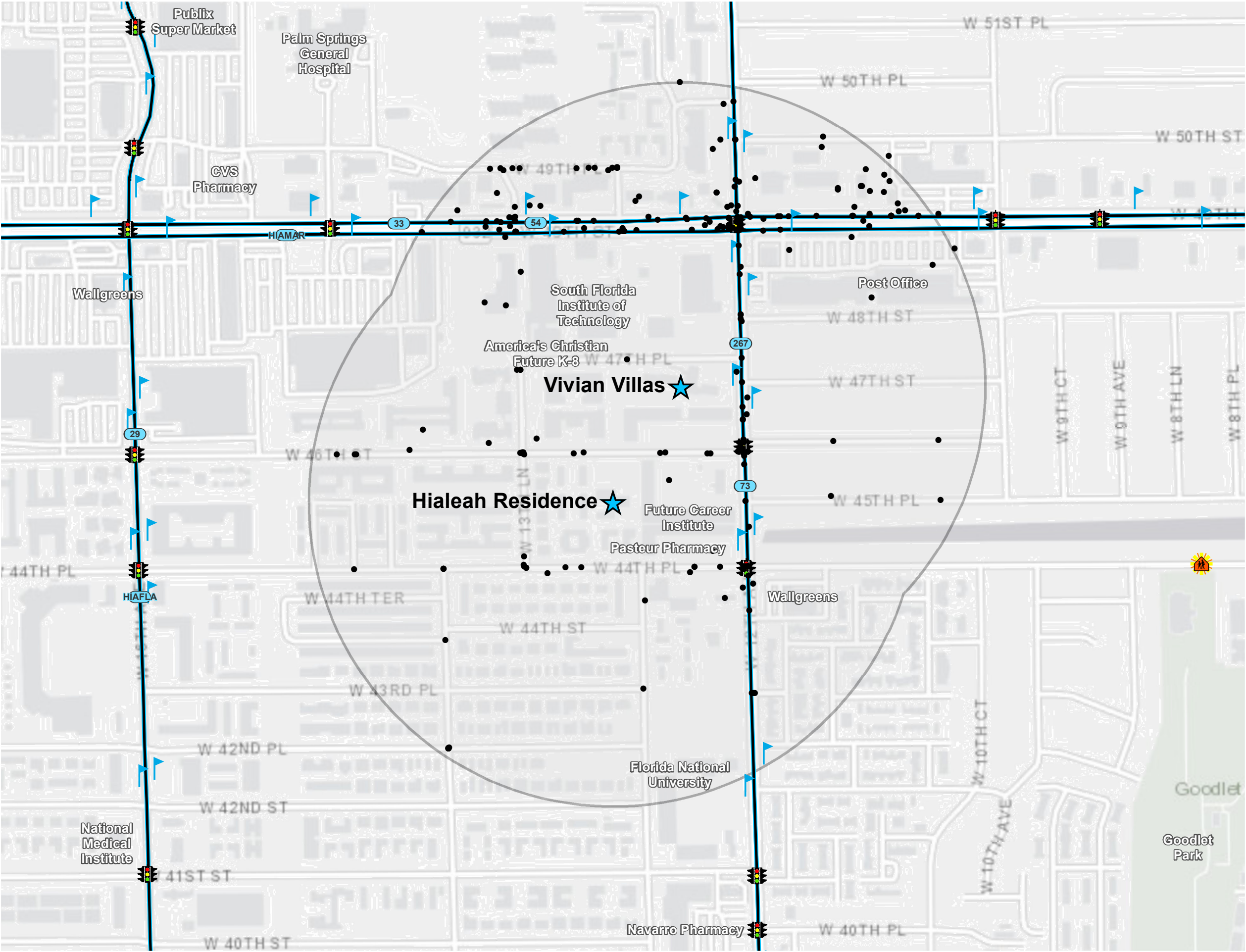
Figure 4  
Nighttime Crashes

- Nighttime Crashes
- 🚦 Traffic Signal
- 🚓 Flashing School Zone
- 🚶 Flashing Pedestrian Warning
- 🚏 Bus Stops
- 🚌 Bus Routes
- Study Area



0 200 400 600 800 Feet

Data Source: Signal 4 Analytics (2014-2018)





# Miami-Dade TPO

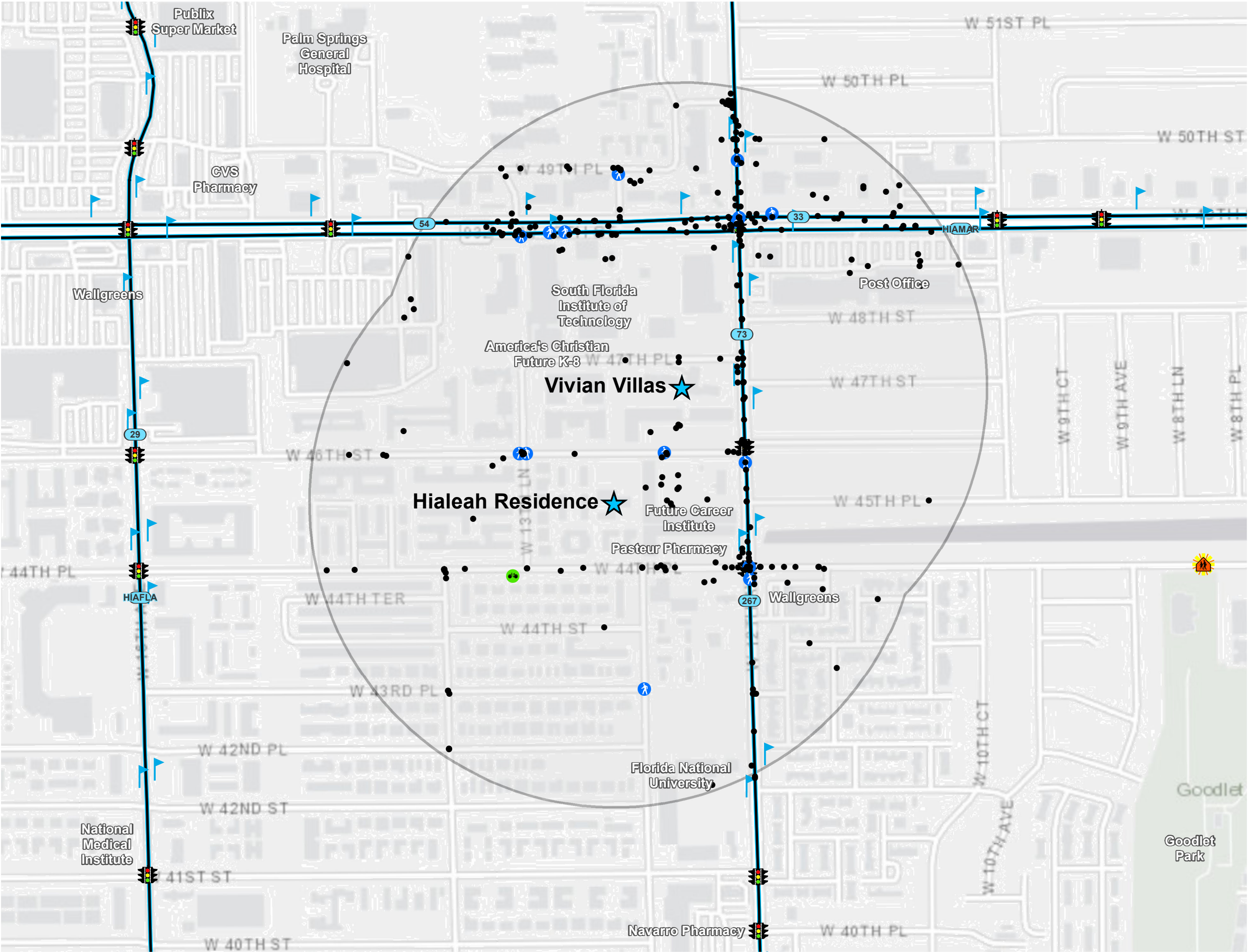
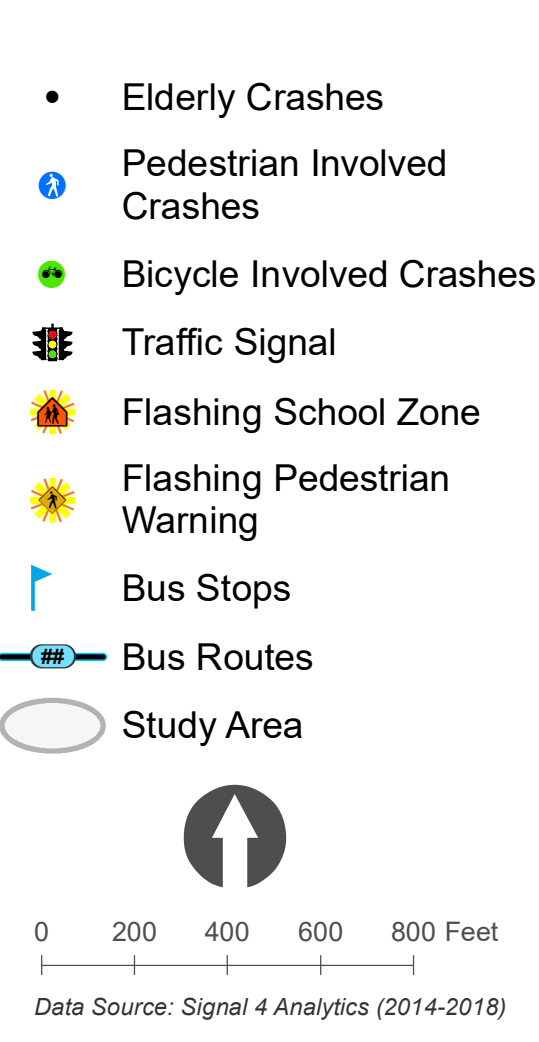
Figure 5  
Fatal & Severe Injury  
Crashes





# Miami-Dade TPO

Figure 6  
Crashes with Elderly  
Road Users



## Appendix B

### Transit Ridership



## Transit Ridership Data by Route and Stops (weekday)

RouteID	BusTotalCount	StopID	StopName	Year	Direction	IsWeekday
33	4	2376	W 49 ST & W 13 LN	2018		TRUE
33	2553	2376	W 49 ST & W 13 LN	2018	East	TRUE
33	2	2376	W 49 ST & W 13 LN	2019		TRUE
33	1648	2376	W 49 ST & W 13 LN	2019	East	TRUE
33	55	2377	W 49 ST & W 12 AV	2018		TRUE
33	7274	2377	W 49 ST & W 12 AV	2018	East	TRUE
33	12	2377	W 49 ST & W 12 AV	2019		TRUE
33	7758	2377	W 49 ST & W 12 AV	2019	East	TRUE
33	65	2407	W 49 ST & W 12 AV	2018		TRUE
33	2384	2407	W 49 ST & W 12 AV	2018	West	TRUE
33	4	2407	W 49 ST & W 12 AV	2019		TRUE
33	2192	2407	W 49 ST & W 12 AV	2019	West	TRUE
33	7	2408	W 49 ST & W 13 LA	2018		TRUE
33	339	2408	W 49 ST & W 13 LA	2018	West	TRUE
33	3	2408	W 49 ST & W 13 LA	2019		TRUE
33	256	2408	W 49 ST & W 13 LA	2019	West	TRUE
54	11	2376	W 49 ST & W 13 LN	2018		TRUE
54	2168	2376	W 49 ST & W 13 LN	2018	East	TRUE
54	14	2376	W 49 ST & W 13 LN	2019		TRUE
54	1798	2376	W 49 ST & W 13 LN	2019	East	TRUE
54	23	2377	W 49 ST & W 12 AV	2018		TRUE
54	5868	2377	W 49 ST & W 12 AV	2018	East	TRUE
54	12	2377	W 49 ST & W 12 AV	2019		TRUE
54	5031	2377	W 49 ST & W 12 AV	2019	East	TRUE
54	34	2407	W 49 ST & W 12 AV	2018		TRUE
54	5270	2407	W 49 ST & W 12 AV	2018	West	TRUE
54	9	2407	W 49 ST & W 12 AV	2019		TRUE
54	4872	2407	W 49 ST & W 12 AV	2019	West	TRUE
54	6	2408	W 49 ST & W 13 LA	2018		TRUE
54	679	2408	W 49 ST & W 13 LA	2018	West	TRUE
54	2	2408	W 49 ST & W 13 LA	2019		TRUE
54	592	2408	W 49 ST & W 13 LA	2019	West	TRUE
73	102	485	W 12 AV & 48 ST	2018		TRUE
73	4873	485	W 12 AV & 48 ST	2018	North	TRUE
73	1	485	W 12 AV & 48 ST	2018	West	TRUE
73	9	485	W 12 AV & 48 ST	2019		TRUE
73	3388	485	W 12 AV & 48 ST	2019	North	TRUE
73	81	491	W 12 AV & 49 ST HIALEAH	2018		TRUE
73	5597	491	W 12 AV & 49 ST HIALEAH	2018	South	TRUE
73	9	491	W 12 AV & 49 ST HIALEAH	2019		TRUE
73	4077	491	W 12 AV & 49 ST HIALEAH	2019	South	TRUE
73	31	2179	W 12 AV & W 42 ST	2018		TRUE

73	1100	2179	W 12 AV & W 42 ST	2018	North	TRUE
73	4	2179	W 12 AV & W 42 ST	2019		TRUE
73	761	2179	W 12 AV & W 42 ST	2019	North	TRUE
73	89	2180	W 12 AV & W 44 PL	2018		TRUE
73	2429	2180	W 12 AV & W 44 PL	2018	North	TRUE
73	13	2180	W 12 AV & W 44 PL	2019		TRUE
73	1658	2180	W 12 AV & W 44 PL	2019	North	TRUE
73	45	2181	W 12 AV & W 46 ST	2018		TRUE
73	1094	2181	W 12 AV & W 46 ST	2018	North	TRUE
73	159	2181	W 12 AV & W 46 ST	2019	North	TRUE
73	234	2182	W 12 AV & W 50 ST	2018		TRUE
73	7291	2182	W 12 AV & W 50 ST	2018	North	TRUE
73	3	2182	W 12 AV & W 50 ST	2018	West	TRUE
73	15	2182	W 12 AV & W 50 ST	2019		TRUE
73	5084	2182	W 12 AV & W 50 ST	2019	North	TRUE
73	98	2209	W 12 AV & W 50 ST	2018		TRUE
73	5344	2209	W 12 AV & W 50 ST	2018	South	TRUE
73	5	2209	W 12 AV & W 50 ST	2019		TRUE
73	3747	2209	W 12 AV & W 50 ST	2019	South	TRUE
73	70	2210	W 12 AV & #4650	2018		TRUE
73	4081	2210	W 12 AV & #4650	2018	South	TRUE
73	8	2210	W 12 AV & #4650	2019		TRUE
73	2963	2210	W 12 AV & #4650	2019	South	TRUE
73	77	2211	W 12 AV & W 44 PL	2018		TRUE
73	4835	2211	W 12 AV & W 44 PL	2018	South	TRUE
73	7	2211	W 12 AV & W 44 PL	2019		TRUE
73	3278	2211	W 12 AV & W 44 PL	2019	South	TRUE
73	52	2212	W 12 AV & W 42 ST	2018		TRUE
73	1649	2212	W 12 AV & W 42 ST	2018	South	TRUE
73	3	2212	W 12 AV & W 42 ST	2019		TRUE
73	1303	2212	W 12 AV & W 42 ST	2019	South	TRUE

## Transit Ridership Data by Route and Stops (all)

RouteID	BusTotalCount	StopID	StopName	Year	Direction
33	11	2376	W 49 ST & W 13 LN	2018	
33	3178	2376	W 49 ST & W 13 LN	2018	East
33	2	2376	W 49 ST & W 13 LN	2019	
33	1966	2376	W 49 ST & W 13 LN	2019	East
33	68	2377	W 49 ST & W 12 AV	2018	
33	8545	2377	W 49 ST & W 12 AV	2018	East
33	15	2377	W 49 ST & W 12 AV	2019	
33	9025	2377	W 49 ST & W 12 AV	2019	East
33	73	2407	W 49 ST & W 12 AV	2018	
33	3002	2407	W 49 ST & W 12 AV	2018	West
33	5	2407	W 49 ST & W 12 AV	2019	
33	2683	2407	W 49 ST & W 12 AV	2019	West
33	9	2408	W 49 ST & W 13 LA	2018	
33	452	2408	W 49 ST & W 13 LA	2018	West
33	3	2408	W 49 ST & W 13 LA	2019	
33	327	2408	W 49 ST & W 13 LA	2019	West
54	14	2376	W 49 ST & W 13 LN	2018	
54	2675	2376	W 49 ST & W 13 LN	2018	East
54	14	2376	W 49 ST & W 13 LN	2019	
54	2221	2376	W 49 ST & W 13 LN	2019	East
54	27	2377	W 49 ST & W 12 AV	2018	
54	7237	2377	W 49 ST & W 12 AV	2018	East
54	15	2377	W 49 ST & W 12 AV	2019	
54	6399	2377	W 49 ST & W 12 AV	2019	East
54	45	2407	W 49 ST & W 12 AV	2018	
54	6052	2407	W 49 ST & W 12 AV	2018	West
54	11	2407	W 49 ST & W 12 AV	2019	
54	5455	2407	W 49 ST & W 12 AV	2019	West
54	8	2408	W 49 ST & W 13 LA	2018	
54	785	2408	W 49 ST & W 13 LA	2018	West
54	2	2408	W 49 ST & W 13 LA	2019	
54	675	2408	W 49 ST & W 13 LA	2019	West
73	119	485	W 12 AV & 48 ST	2018	
73	5500	485	W 12 AV & 48 ST	2018	North
73	1	485	W 12 AV & 48 ST	2018	West
73	11	485	W 12 AV & 48 ST	2019	
73	3782	485	W 12 AV & 48 ST	2019	North
73	88	491	W 12 AV & 49 ST HIALEAH	2018	
73	6266	491	W 12 AV & 49 ST HIALEAH	2018	South
73	10	491	W 12 AV & 49 ST HIALEAH	2019	
73	4469	491	W 12 AV & 49 ST HIALEAH	2019	South
73	32	2179	W 12 AV & W 42 ST	2018	
73	1215	2179	W 12 AV & W 42 ST	2018	North
73	4	2179	W 12 AV & W 42 ST	2019	



73	845	2179	W 12 AV & W 42 ST	2019	North
73	95	2180	W 12 AV & W 44 PL	2018	
73	2661	2180	W 12 AV & W 44 PL	2018	North
73	13	2180	W 12 AV & W 44 PL	2019	
73	1846	2180	W 12 AV & W 44 PL	2019	North
73	50	2181	W 12 AV & W 46 ST	2018	
73	1223	2181	W 12 AV & W 46 ST	2018	North
73	1	2181	W 12 AV & W 46 ST	2019	
73	176	2181	W 12 AV & W 46 ST	2019	North
73	269	2182	W 12 AV & W 50 ST	2018	
73	8742	2182	W 12 AV & W 50 ST	2018	North
73	3	2182	W 12 AV & W 50 ST	2018	West
73	17	2182	W 12 AV & W 50 ST	2019	
73	6182	2182	W 12 AV & W 50 ST	2019	North
73	104	2209	W 12 AV & W 50 ST	2018	
73	6057	2209	W 12 AV & W 50 ST	2018	South
73	5	2209	W 12 AV & W 50 ST	2019	
73	4249	2209	W 12 AV & W 50 ST	2019	South
73	80	2210	W 12 AV & #4650	2018	
73	4643	2210	W 12 AV & #4650	2018	South
73	8	2210	W 12 AV & #4650	2019	
73	3364	2210	W 12 AV & #4650	2019	South
73	82	2211	W 12 AV & W 44 PL	2018	
73	5187	2211	W 12 AV & W 44 PL	2018	South
73	7	2211	W 12 AV & W 44 PL	2019	
73	3555	2211	W 12 AV & W 44 PL	2019	South
73	55	2212	W 12 AV & W 42 ST	2018	
73	1817	2212	W 12 AV & W 42 ST	2018	South
73	4	2212	W 12 AV & W 42 ST	2019	
73	1452	2212	W 12 AV & W 42 ST	2019	South

## Appendix C

### Field Material and Presentation



**Miami-Dade Transportation  
Planning Organization**

# **Community Meeting**

**Hialeah Residences**

## **COMMUNITY FEEDBACK FOR ROAD SAFETY**

**When: Wednesday, June 26<sup>th</sup> @ 10:00 AM**

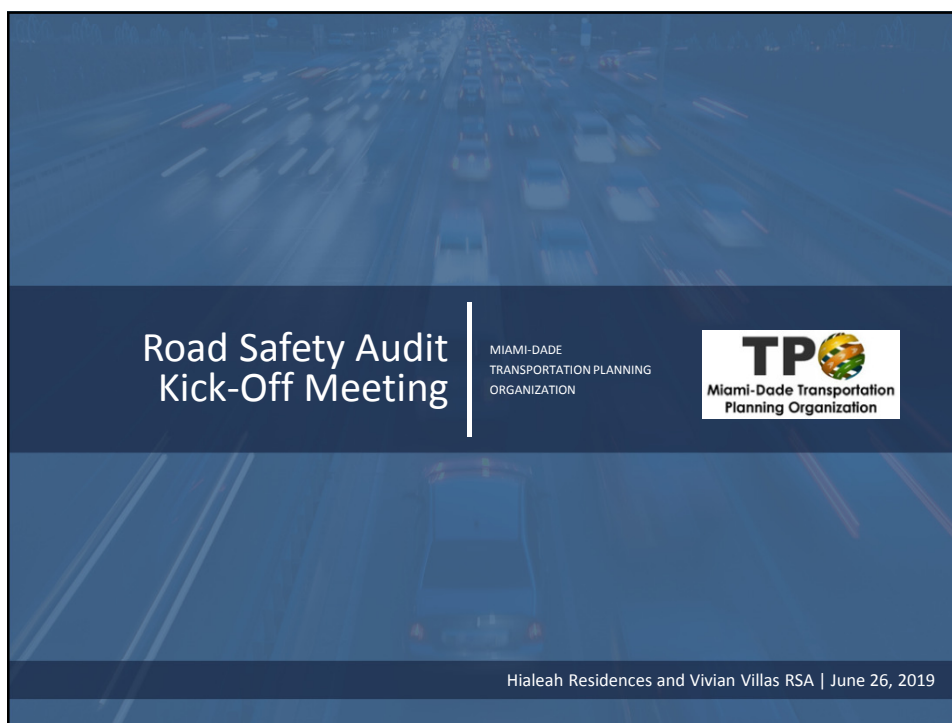
**Where: Hialeah Residences**

**1280 West 46<sup>th</sup> Street Hialeah, FL 33012**

**We want YOUR input to improve road safety.  
We are looking to document any potential road  
issues you have encountered walking, driving, or  
bicycling and recommend improvements.**







1

## Schedule

---

Kick-Off Meeting (9:30 – 10:00 AM)

- Purpose of Field Visit
  - Mid-Day and PM Field Visits – Corridors with High Crash Frequency
  - Nighttime Field Visit – Sign retroreflectivity and pavement markings conditions
- Assign RSA responsibilities

Community Meeting – Hialeah Residences (10:00 – 11:00 AM)

Community Meeting – Vivian Villas (11:15 AM – 12:15 PM)

Mid-Day Field Visit (12:30 PM – 2:30 PM)

PM Peak Field Visit (4:00 PM – 6:00 PM)

Debrief on Field Observations – Hialeah Residences (6:15 PM – 7:15 PM)

2

2



## Joe Moretti II/Buena Vista Apartments

### Project Location Identification

What is the issue?

- Over 10% of all crashes in Miami-Dade County between 2008-2014 occurred within ¼ mile of elderly living centers

How was this location selected?

- Over 140 older adult residential living centers were reviewed
- ¼ mile radius used as the study area for each living center
- Living centers were ranked by the following criteria:
  - Total number of crashes from 2012-2014
  - Number of crashes involving 65 and older road users

Source: Aging Road Users Strategic Safety Plan, November 2017

3

3



## Field Review Responsibilities

- For the Walking Field Visit:
  - Evaluate all roadway and roadside features, design elements and local conditions (glare, night visibility, adjacent land uses) that would increase the likelihood and severity of a crash
  - Observe how road users are interacting with the road facility
  - Determine if the needs of all road users have been adequately and safely met
  - Observe physical evidence of past crashes and off-road excursions
  - Record flashing don't walk timings for crosswalks
  - Recording yellow/all-red clearance intervals for each vehicular movement
- For the Nighttime Field Visit:
  - Drive the study area
  - Observe lighting, retroreflectivity of signs, and pavement marking conditions

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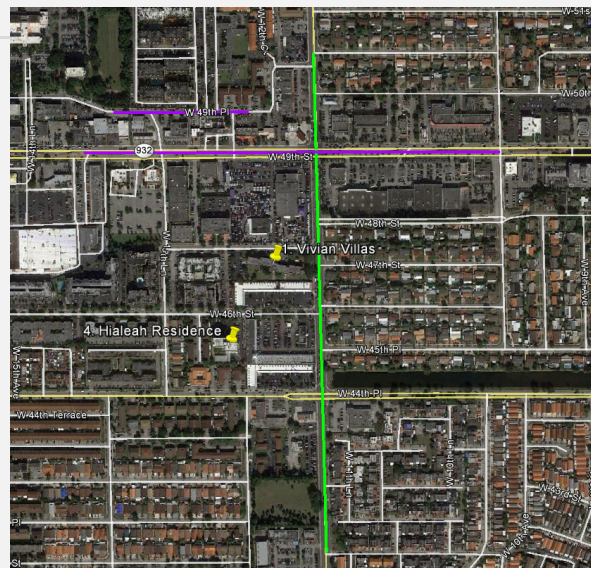
## » Field Review Responsibilities – Mid-Day Review

- Wear your safety vest!
- Everyone should take as many notes and pictures as they can!
- Divide into two teams:
  - **Team A will observe:**
    - W 12<sup>th</sup> Ave from W 42<sup>nd</sup> St to W 50<sup>th</sup> Pl
  - **Team B will observe:**
    - SR 932 / W 49<sup>th</sup> St from east of W 14<sup>th</sup> Ln to west of W 10<sup>th</sup> Ave
    - W 49<sup>th</sup> Pl from W 13<sup>th</sup> Ln to W 12<sup>th</sup> Ln

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## » Team Field Assignments – Mid-Day Review



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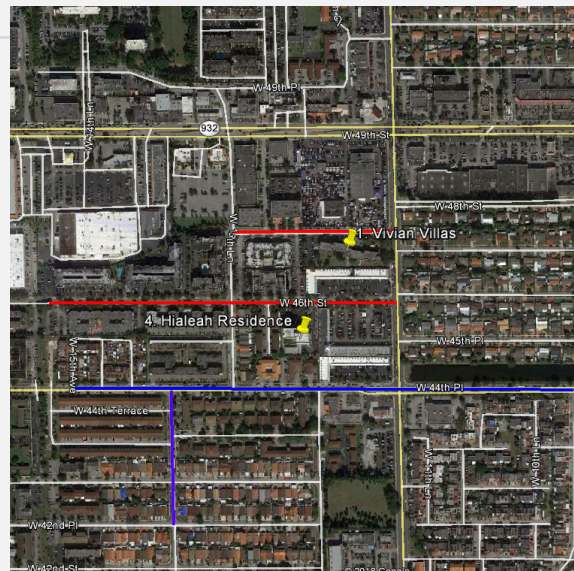
## » Field Review Responsibilities – PM Peak Review

- Wear your safety vest!
- Everyone should take as many notes and pictures as they can!
- Divide into two teams:
  - **Team A will observe:**
    - W 44<sup>th</sup> Pl from W 15<sup>th</sup> Ave to west of W 10<sup>th</sup> Ct
    - W 14<sup>th</sup> Ave from W 44<sup>th</sup> Pl to W 42<sup>nd</sup> Pl
  - **Team B will observe:**
    - W 46<sup>th</sup> St from rear Home Depot Entrance to W 12<sup>th</sup> Ave
    - W 47<sup>th</sup> Pl from W 13<sup>th</sup> Ln to W 12<sup>th</sup> Ave

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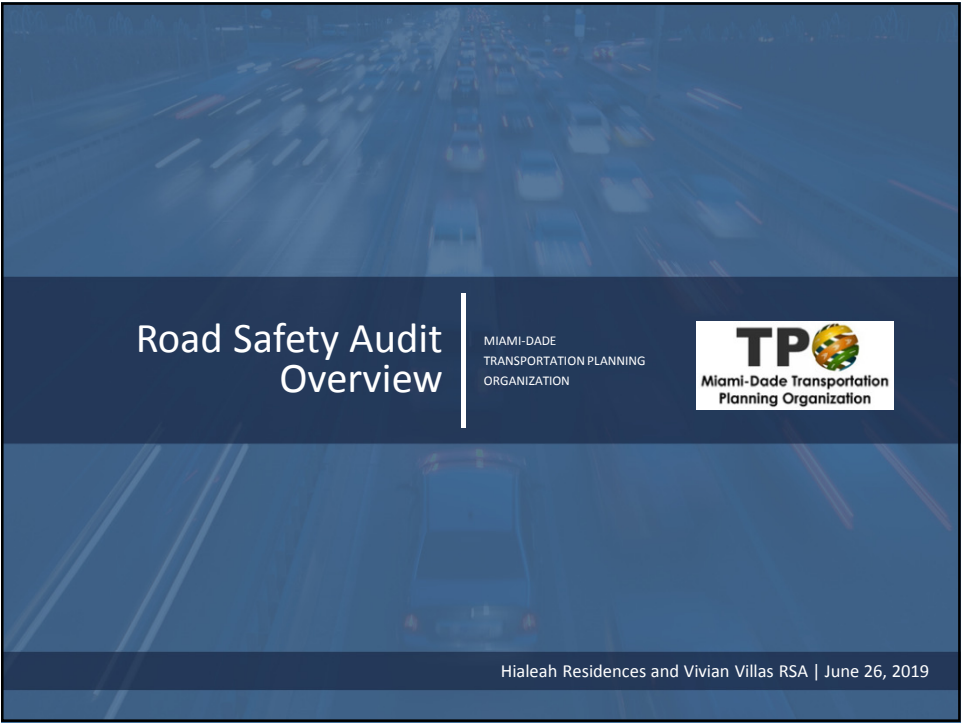
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## » Team Field Assignments – PM Peak Review

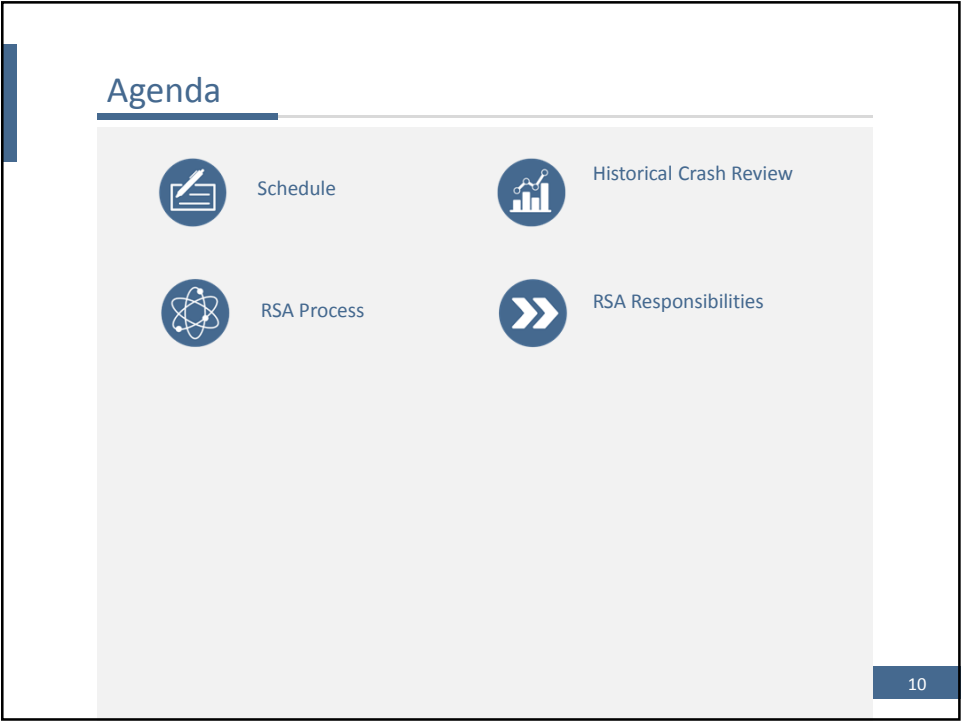


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## Today's Schedule

### Community Meeting

- What is a Road Safety Audit?
- Hialeah Residences and Vivian Villas study area historical crash review
- Request input from community for potential improvements

### Mid-Day Field Visit (12:30 – 2:30 PM)

### PM Peak Field Visit (4:00 – 6:00 PM)

### Debrief on Field Observations – Hialeah Residences (6:15 – 7:15 PM)

- Discuss safety issues observed during field review
- Summarize and record observations by intersection and segment
- Discuss and record potential improvements/countermeasures

### Nighttime Field Visit

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## ROAD SAFETY AUDIT INTRODUCTION



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## Basic Concepts

- What is a Road Safety Audit (RSA)?
- Why do we need RSAs?
- When do we conduct RSAs?

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## What is a Road Safety Audit?

A road safety audit is a formal safety performance examination of an existing or future road or intersection by an independent audit team.

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## What is a Road Safety Audit?

- *formal:* procedures and documentation
- *safety performance:* focus on safety
- *independent:* auditors detached from project team
- *audit team:* “Multi-disciplinary Team”  
Highway safety and traffic operations professionals, Law enforcement, Transit Agencies, Maintenance, Community stakeholders

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## A Road Safety Audit ...

- Considers the safety of All Road Users



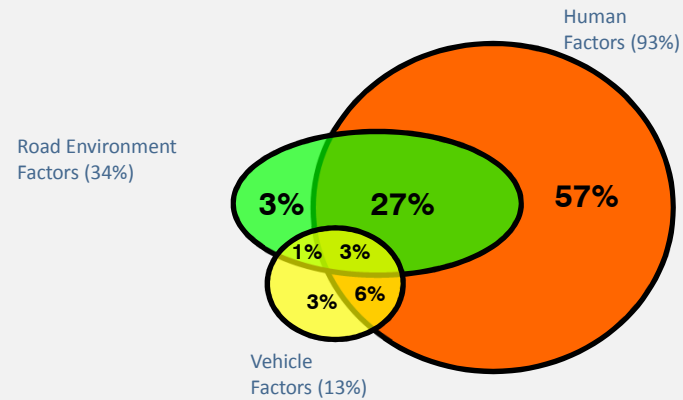
- Examines the interaction of road users and roadway elements
- Identifies safety issues
- Proactively considers and recommends mitigation measures

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## Why do we need RSAs?

### Typical Reported Crash Causes



Source: HSM Chapter 3 Figure 3-3

17

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## Why do we need RSAs?

- Relatively few road-related safety issues are identified in collision reports.
- Road designs should **anticipate** and **accommodate** road user behaviors (driver/pedestrian/bicycle/transit).
- Easier to design and build safer roads than to modify some entrenched driver/pedestrian/bicycle and transit rider behaviors.

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## Why do we need RSAs?

- There are many competing interests in the project implementation process:
  - Safety, Cost, Environment, Capacity, Accommodation of Users, etc.
- Safety is an explicit consideration in the project implementation process; safety must not “fall through the cracks”.
- RSAs identify opportunities to improve safety.

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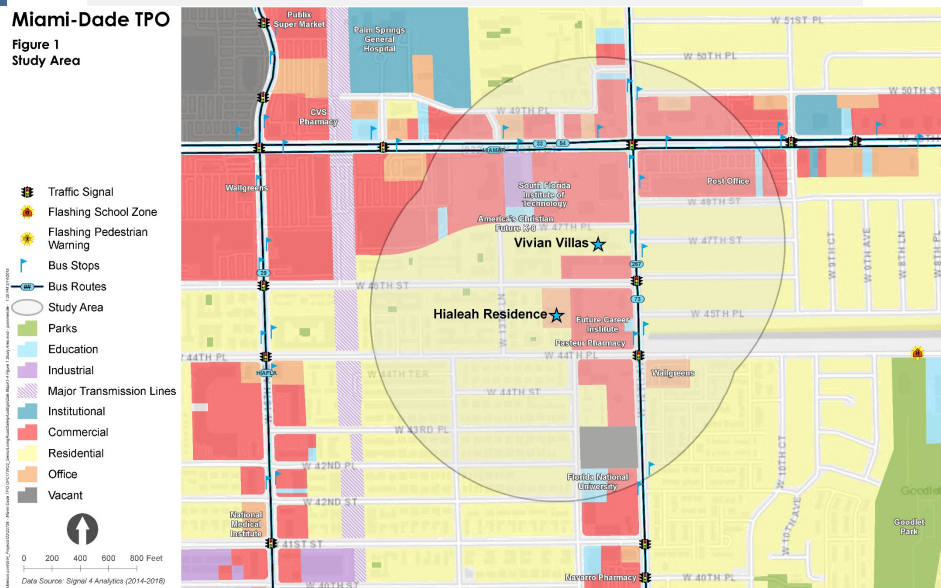
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## Hialeah Residences & Vivian Villas

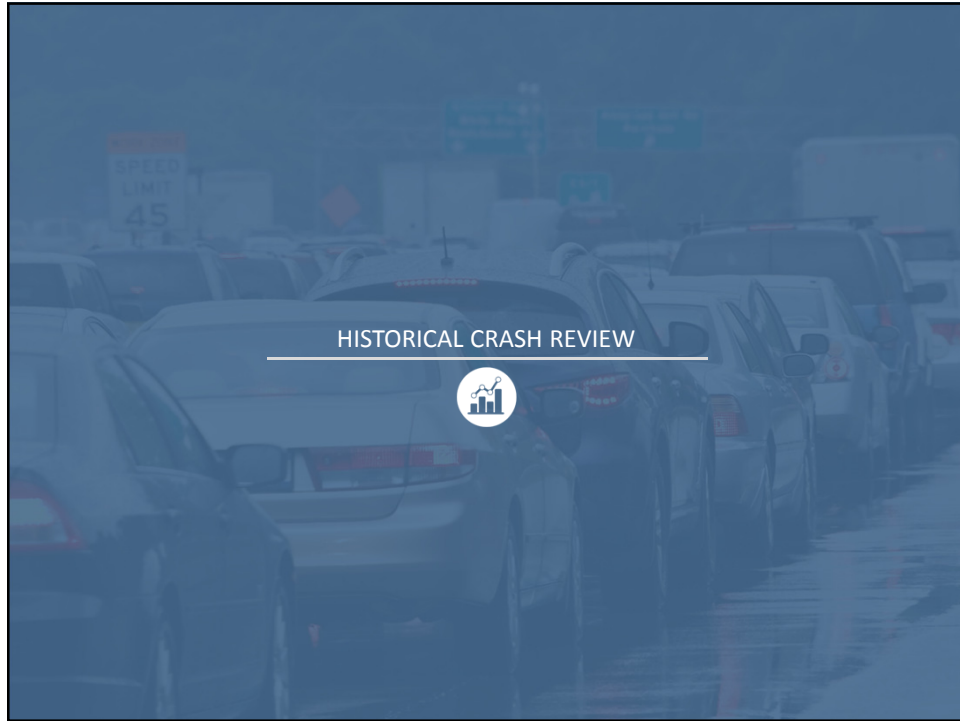
Miami-Dade TPO

Figure 1  
Study Area

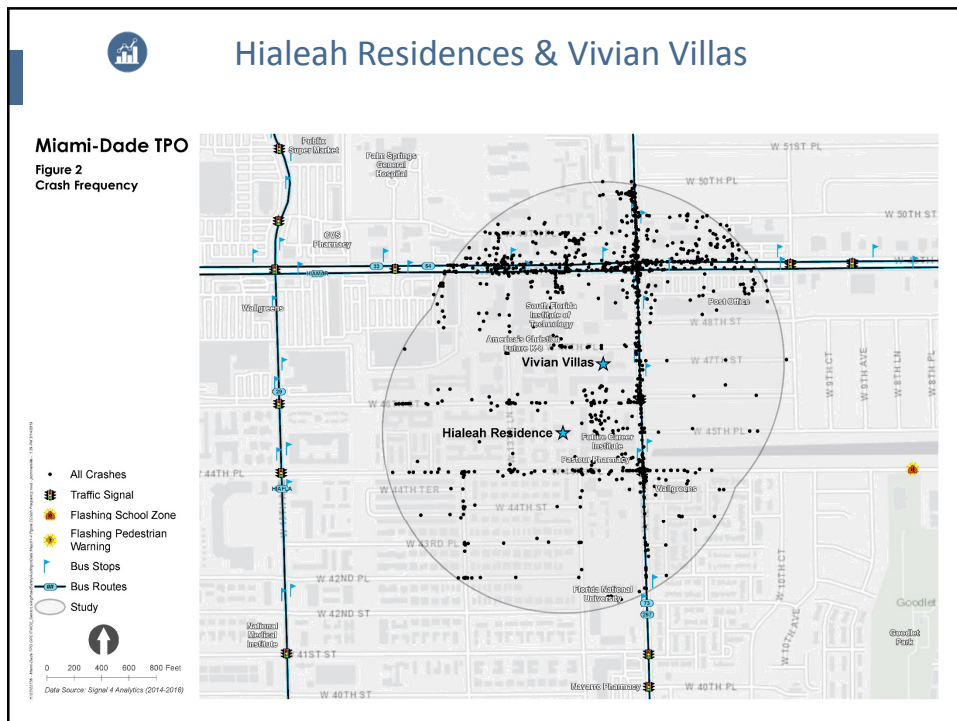


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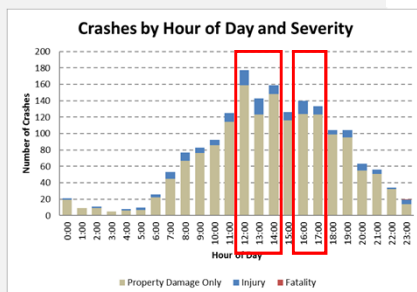
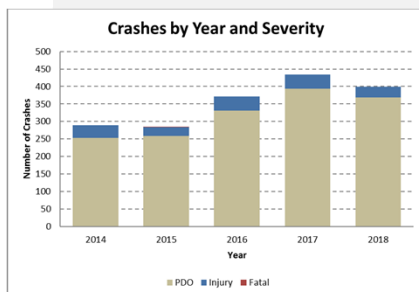
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## Hialeah Residences & Vivian Villas

### Study Area Crash Statistics

- 1,779 total crashes between 2014 and 2018
  - 1 fatal, 174 injury, 1,604 PDO
  - 13 bicyclist and 32 pedestrian
- Higher crashes observed in December and August
- Higher crashes observed on Friday & with Mid-Day and PM peaks



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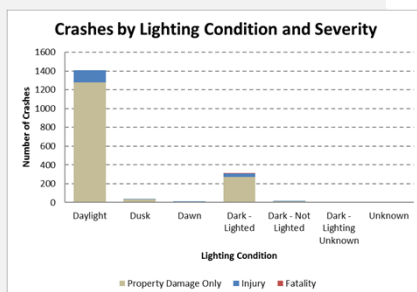
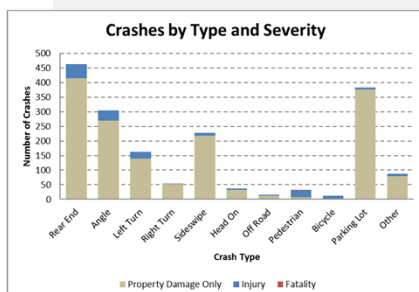
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## Hialeah Residences & Vivian Villas

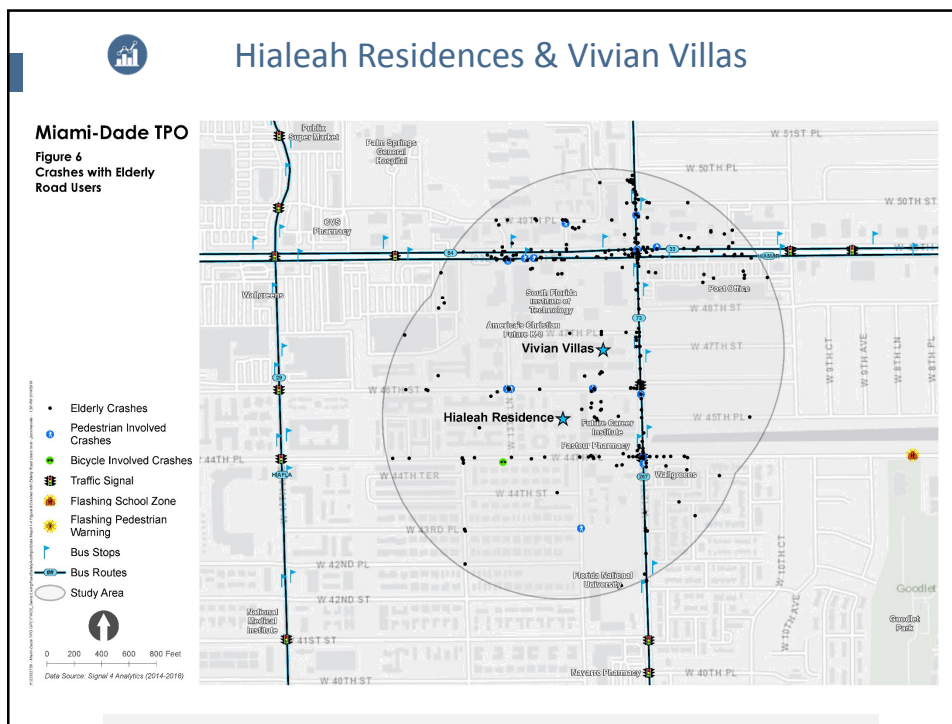
### Study Area Crash Statistics

- 463 rear-end (26%), 304 angle (17%), and 227 sideswipe (13%)
- 21% of crashes in non-daylight conditions
  - 0.3% of crashes were drug or alcohol involved

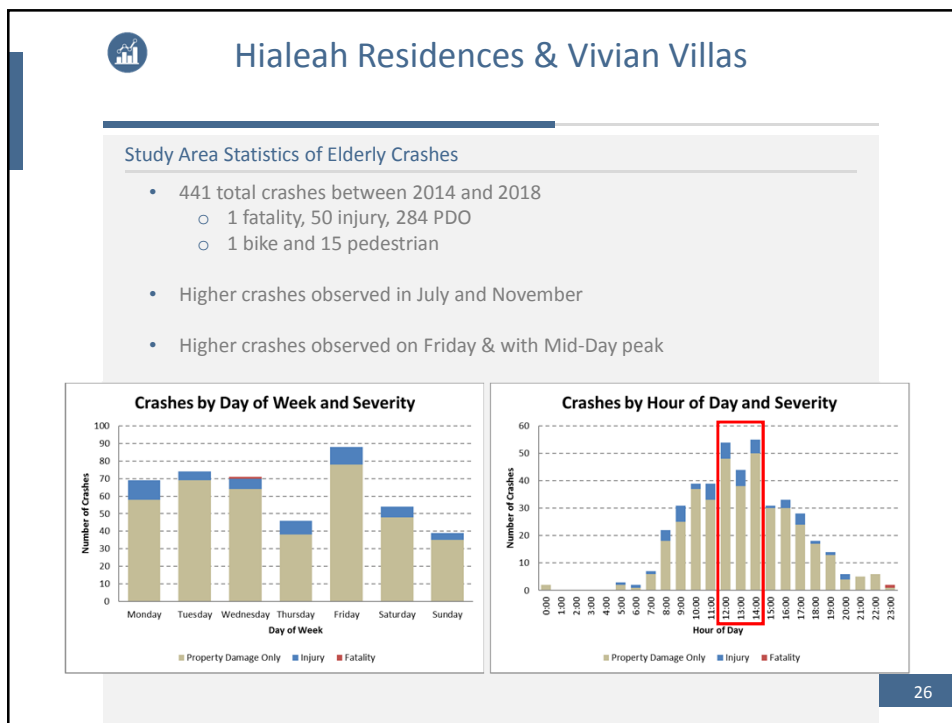


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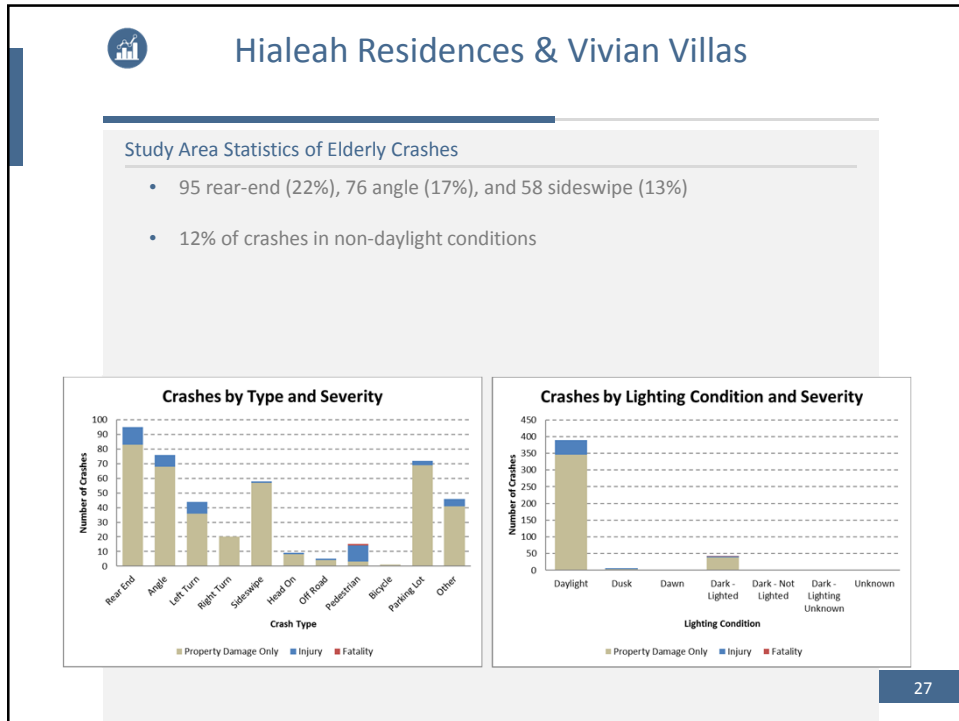
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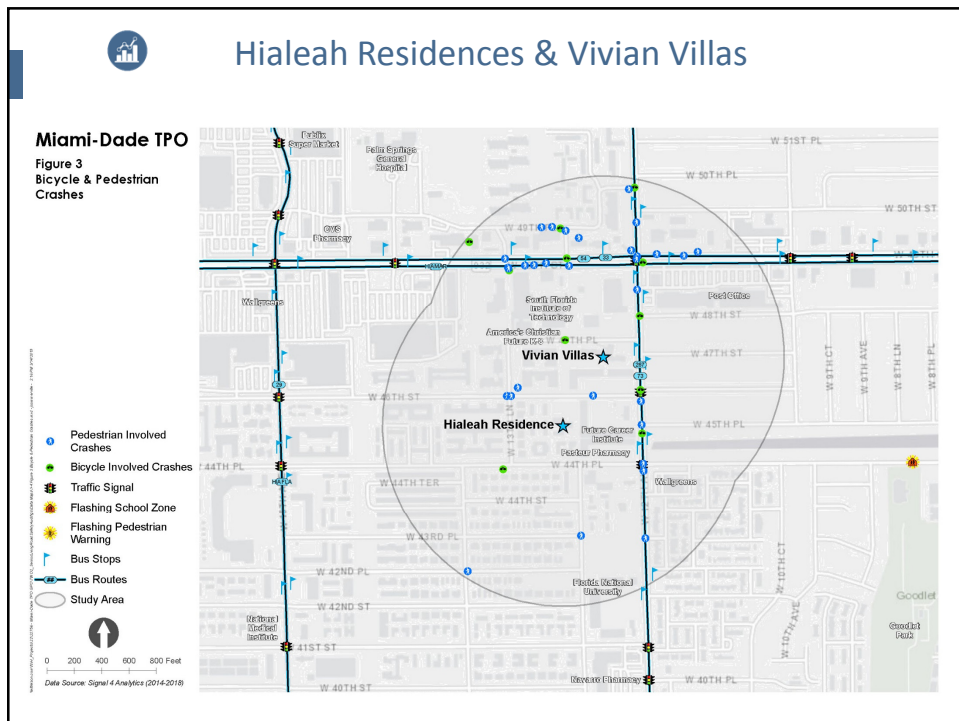
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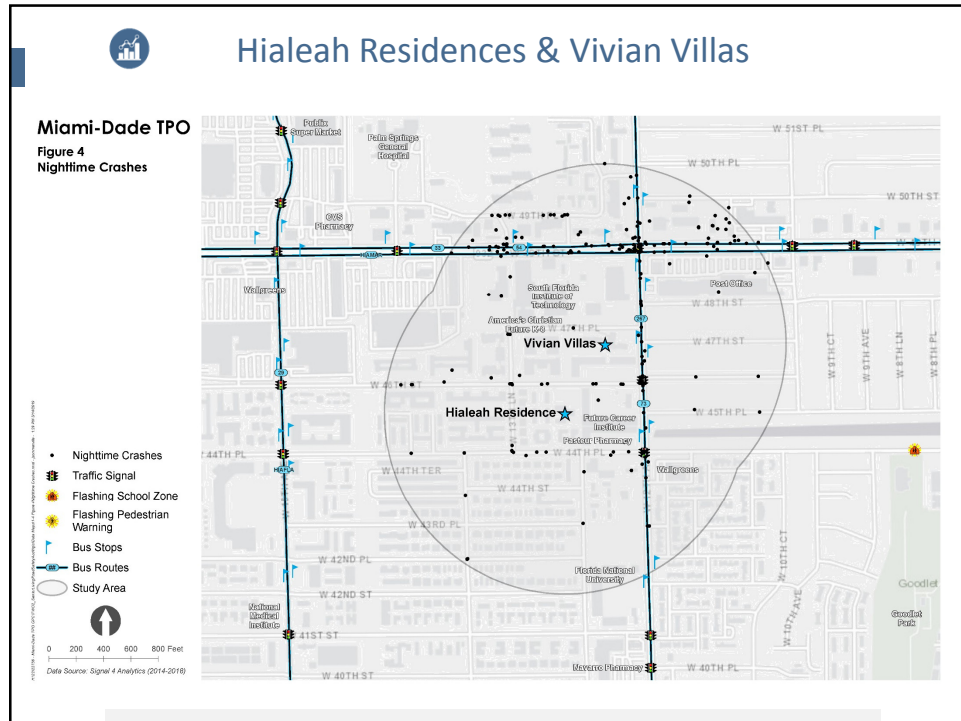


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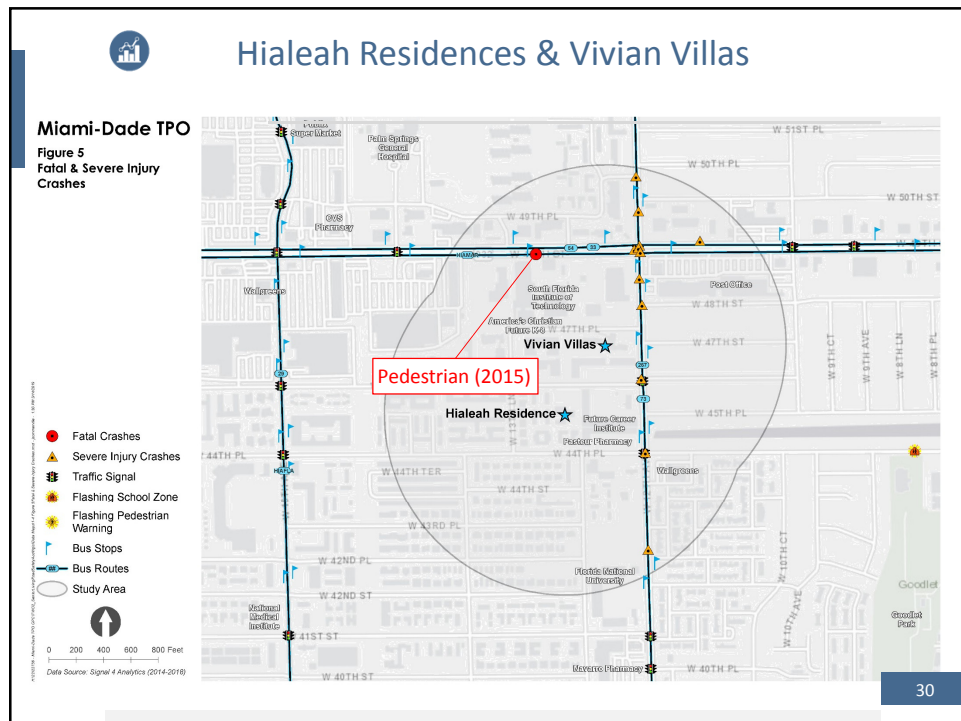


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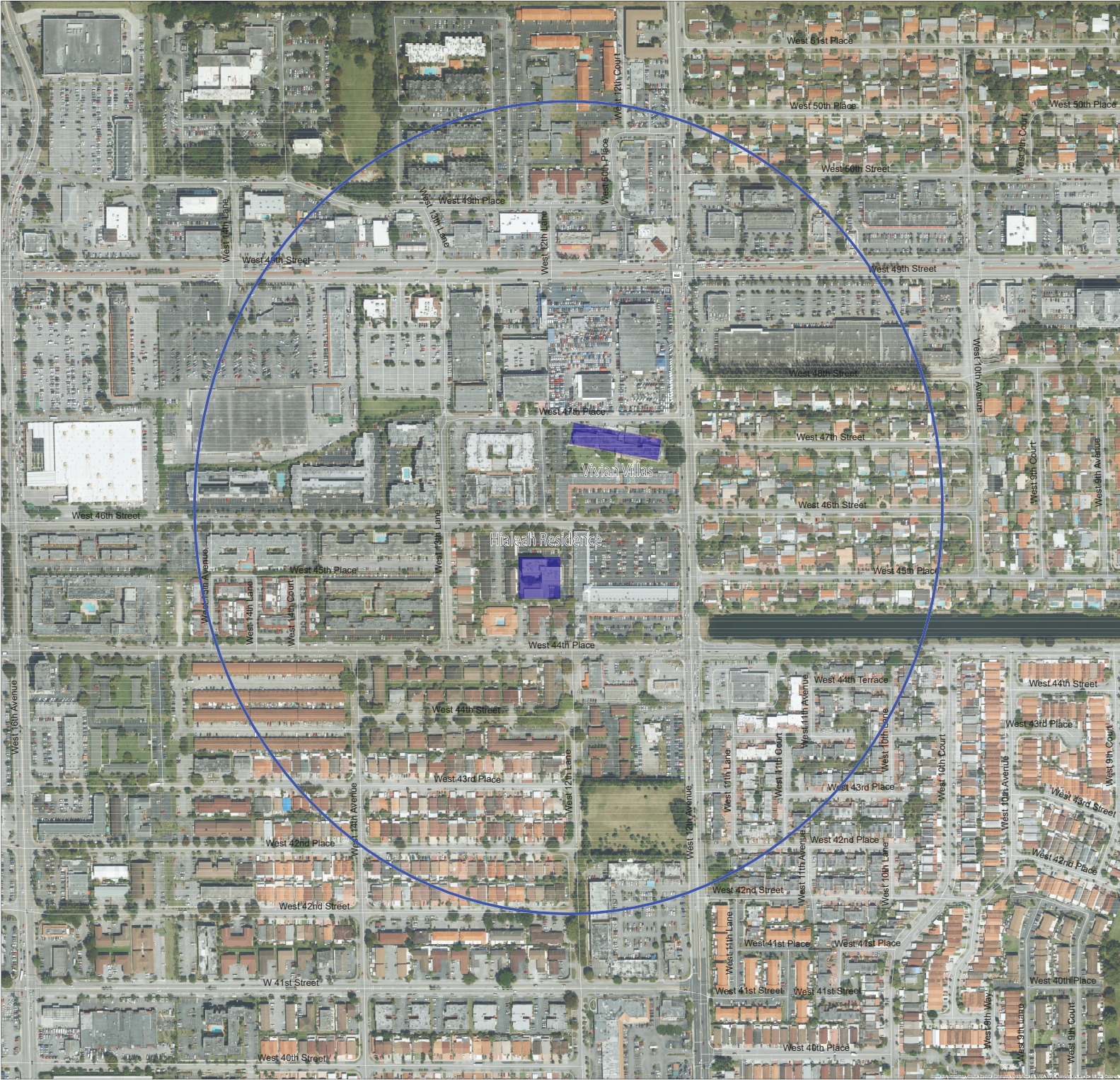


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## Hialeah Residences and Vivian Villas: Signal Timing Observations

Name:  
 Organization  
 Date:  
 Time:

Notes:

SR 932 at W 12th Ave								
	Movement							
	EBT	EBL	WBT	WBL	NBT	NBL	SBT	SBL
Actual Yellow Time (from field review)								
Actual All Red Time (from field review)								
Walk Time	Eastbound		Westbound		Northbound		Southbound	
Flash Don't Walk								

W 46th St at W 12th Ave								
	Movement							
	EB	NBT	NBL	SBT				
Actual Yellow Time (from field review)								
Actual All Red Time (from field review)								
Walk Time	Eastbound		Westbound		Northbound		Southbound	
Flash Don't Walk								

W 44th Pl at W 12th Ave								
	Movement							
	EBT	EBL	WBT	WBL	NBT	NBL	SBT	SBL
Actual Yellow Time (from field review)								
Actual All Red Time (from field review)								
Walk Time	Eastbound		Westbound		Northbound		Southbound	
Flash Don't Walk								

Appendix D  
Community Meeting Sign-in Sheet



PROJECT#

DATE

PROJECT NAME

SUBJECT

BY

SHEET#

OF

<u>Name</u>	<u>Organization</u>	<u>Email</u>
Irene Soria	Miami-Dade County	isoriac@miamidade.gov
Yanek Fernandez	Miami-Dade County	yanek@miami-ade.gov
JACQUES DEFRANT	FDOT	jacques.defrantp dot.state.fl.us
Kevin C Walford	TPO	Kevin.Walford@mdtpo.org
Phillip Haas	KAI	
RYAN RAGHUNANDAN	FDOT	ryan.raghunandan@dot.state.fl.us
David Henderson	TPO	david.henderson@mdtpo.org

# JASMINE

128 SW 22ND AVENUE, MIAMI, FL 33135



CITY OF MIAMI  
MIAMI-DADE COUNTY

## Contents

Study Area Characteristics .....	4
Field Review Findings .....	7
Summary of Suggestions.....	36

## List of Appendix

- Appendix A Historical Crash Summary
- Appendix B Transit Ridership
- Appendix C Field Material and Presentation

## Acronyms

ADA:	Americans with Disabilities Act
FDOT:	Florida Department of Transportation
MDC:	Miami-Dade County
MDT:	Miami-Dade Transit
MPH:	Miles Per Hour
MUTCD:	Manual on Uniform Traffic Control Devices
RSA:	Road Safety Audit
TPO:	Transportation Planning Organization



## Study Area Characteristics

### Field Review Dates:

June 26-27, 2019

### Participants:

Kevin Walford – Miami-Dade Transportation Planning Organization  
Jacques Defrant – Florida Department of Transportation, District 6  
Ryan Raghunandan – Florida Department of Transportation, District 6  
Irene Soria Cordero – Miami-Dade County Dade Transportation & Public Works  
Isabel Kilzi Rovira (Urban Health Solutions/Urban Health Partnerships)  
Benazir Portal – Kittelson & Associates, Inc.  
John Temple – Kittelson & Associates, Inc.  
Phillip Haas – Kittelson & Associates, Inc.  
Ryan Mansfield – Kittelson & Associates, Inc.

### Project Characteristics:

Field Review Type: All Users (Senior Residents, Vehicular, Pedestrian, Bicycle, Transit)

Adjacent Land Use: Urban; Commercial, Residential, Institutional, Educational

Typical Posted Speed Limit: 30 MPH

Roadway Classifications: Urban Minor Arterial, Urban Local

One-way road segments along:

- Flagler Street;
- SW 1<sup>st</sup> Street; and
- SW 5<sup>th</sup> Street.

Terrain: Flat

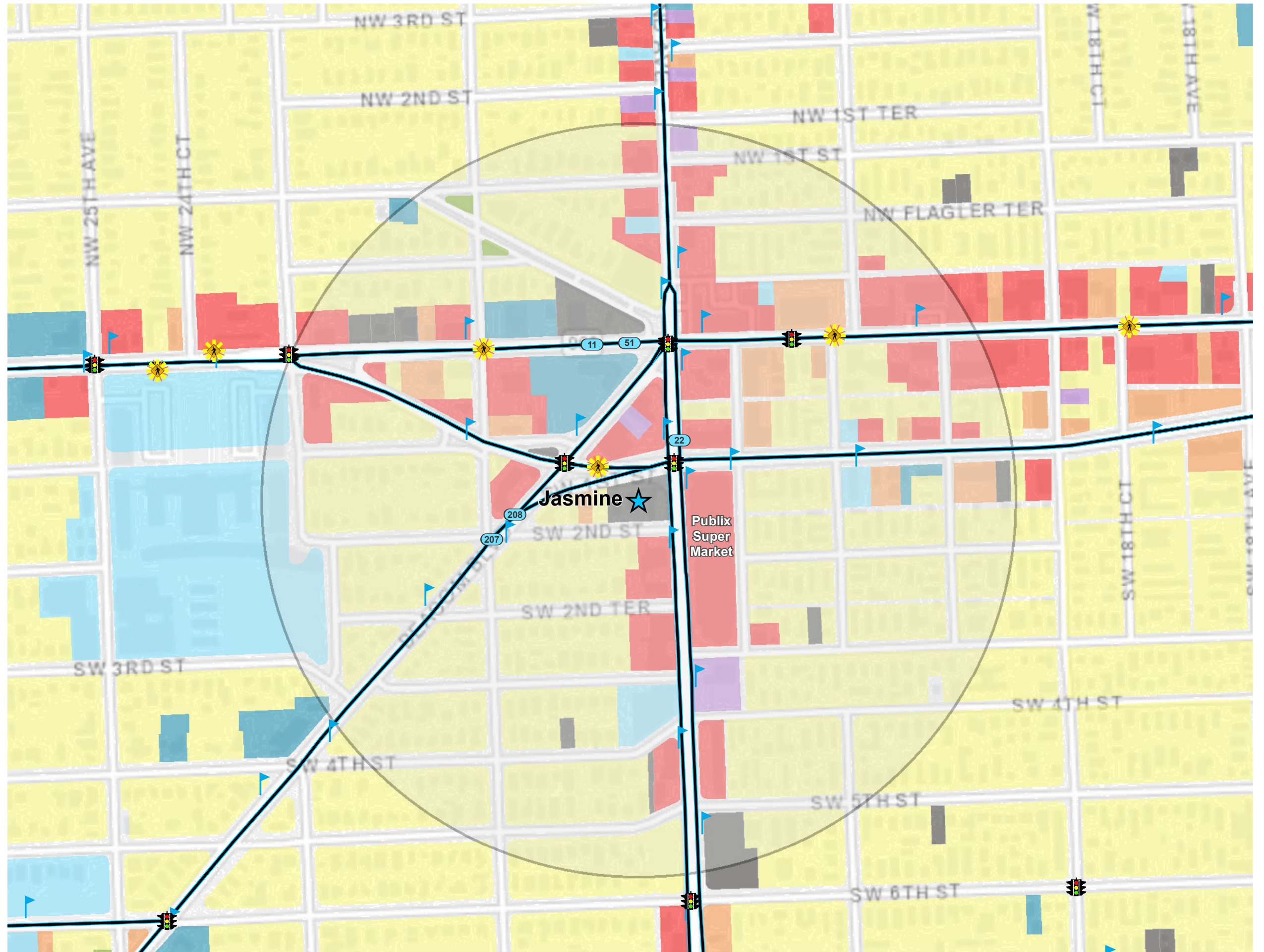
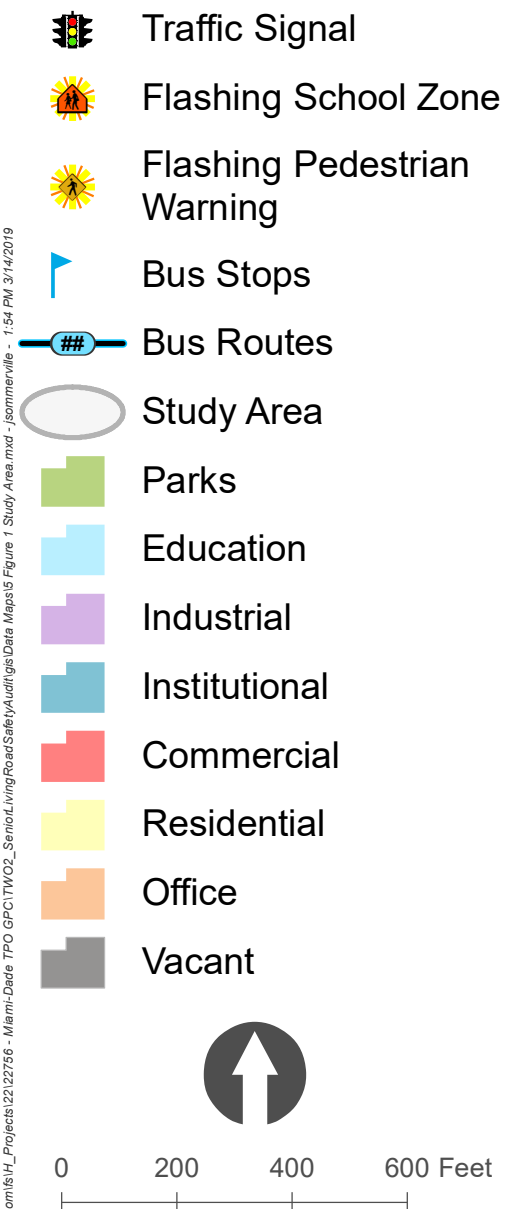
Field Review Climatic Conditions: Sunny/Partially Cloudy

### Project Limits:

The Miami-Dade County (MDC) Transportation Planning Organization (TPO) has conducted a series of Road Safety Audits (RSAs) at selected assisted living facilities as a result of the November 2017 *Aging Road Users Strategic Safety Plan* recommendations. This RSA report documents the safety performance examination results of the existing roadway network in the vicinity of Jasmine. The project limits include a one-half mile radius around the Jasmine assisted living facility and are shown in **Figure 1**. Appendix A provides a detailed summary of the historical crash trends experienced within the study boundaries.

# Miami-Dade TPO

### Figure 1 Study Area



**Land Use Context:**

There is approximately 5.5 miles of roadway within the study area. The land use within the study area is made up mostly of single family and multi-family residential with the Jasmine assisted living facility located by SW 22<sup>nd</sup> Avenue and SW 2<sup>nd</sup> Street. There are several commercial and institutional land uses scattered throughout the area including Publix Super Market by SW 22<sup>nd</sup> Avenue and SW 1<sup>st</sup> Street and the Miami Police Department by Beacom Boulevard and W Flagler Street. There is a concentration of commercial uses along SW 22<sup>nd</sup> Avenue as well as Flagler Street. Suggested changes in the study area should consider the varying contexts and address all users (e.g., senior residents, vehicles, pedestrians, bicycles, transit users). Due to varying contexts within the study area, the focus may shift from one mode type to another.

**Transit:**

There are four Miami-Dade Transit (MDT) routes through the study area; route 22 runs along SW 22<sup>nd</sup> Avenue and routes 11, 51, and 208 run along West Flagler Street. Appendix B provides a summary of the transit ridership by route.

**Road Safety Audit Process:**

The RSA process involves multi-disciplinary representatives from various stakeholder groups such as traffic operations, roadway design, safety, transportation planning, transit, and law enforcement. An RSA is typically conducted to identify potential safety issues and provide improvement suggestions in a collaborative team environment. The November 2017, MDC TPO *Aging Road Users Strategic Safety Plan* recommends RSAs to be conducted for the top tier locations. This RSA was commissioned through the FY2019/2020 Unified Planning Work Program to develop short-term maintenance, near-term project, and long-term project suggestions to improve safety for all transportation users. This study is intended to identify engineering, education, and enforcement improvements to be considered by MDC TPO staff and partner agencies (e.g., City of Miami, Miami-Dade County, FDOT, Miami-Dade Transportation & Public Works). Some improvements presented in this report may be implemented in the short-term while other suggested improvements will require further evaluation prior to implementation. Each engineering improvement identified in this study is classified into one of three categories:

- **Short-Term or Maintenance Project** – it is anticipated that issues identified for maintenance may be addressed on a short timeframe and at a relatively low cost.
- **Near-Term Project** – activities that may be incorporated into an upcoming construction project in the area, including milling and resurfacing projects, or programmed separately through a pushbutton contract.
- **Long-Term Project** – activities that may be incorporated into upcoming construction projects or may need to be programmed for funding as separate projects and need further evaluation.

The field review was conducted on Wednesday and Thursday, June 26-27, 2019. On Wednesday, the team conducted the night field review of the study area. On Thursday, a walking assessment was conducted during the midday peak, followed by the PM peak review and a meeting with the RSA Team at the end of the walking assessment to discuss suggestions for potential improvements. Appendix C provides a copy of the material shared with the RSA Team in preparation for the field review.

The issues and suggested improvements reflect the consensus of the safety assessment team and not necessarily that of the MDC TPO.



## Field Review Findings

### Location: STUDY AREA-WIDE

This section includes general recommendations throughout the study-area. For specific location recommendations, see the location specific issues in the following section.

#### Issue #1: Vehicular Speed



#### Description of Issue:

Posted speeds are 30 MPH for the study area. Based on visual observation, speeds appear to routinely exceed 30 MPH on West Flagler Street and SW 22<sup>nd</sup> Avenue.

#### Suggestions for Improvement:

- Near-Term Project –  
Identify resources to enforce posted speeds; consider investigating state or federal grants to provide speed enforcement.
- Long-Term Project –  
Conduct a study to determine if travel lanes can be narrowed through resurfacing projects to reduce speeds.



**Issue #2: Pedestrian Crossings****Description of Issue:**

Crosswalk pavement markings on major and minor streets throughout the study area are missing or faded.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Restripe intersection crosswalks where faded.
- Near-Term Project –  
Add crosswalks at signalized and stop controlled intersection approaches where they are currently missing. These crosswalks are intended to improve pedestrian safety by facilitating pedestrian crossings at designated locations.

### Issue #3: Roadway Lighting

#### Description of Issue:

Lighting levels throughout the study area were inconsistent. Lighting levels were low along some corridors and/or at intersections, with the exceptions of Beacom Boulevard, West Flagler Street, SW 22<sup>nd</sup> Avenue north of SW 3<sup>rd</sup> Street, and SW 1<sup>st</sup> Street west of SW 22<sup>nd</sup> Avenue.

In addition, many stop signs in the study were not retroreflective.

#### Suggestions for Improvement:

- Near-Term or Long-Term Projects –  
Lighting and sign reflectivity assessment studies are needed throughout the study area. Lighting alternatives with lower level light poles or pedestrian level lighting should be considered. When modifying intersections, upgrade lighting at intersections to match current FDOT intersection lighting standards.



**Issue #4: Nighttime Issues****Description of Issue:**

## Lighting Issues –

- SW 1<sup>st</sup> Street and SW 22<sup>nd</sup> Avenue has a burnt-out light on the northeast corner
- SW 1<sup>st</sup> Street and SW 22<sup>nd</sup> Avenue is missing a light on the southwest corner
- West Flagler Street east of SW 22<sup>nd</sup> Avenue at the RRFB has a burnt-out light on the south side
- West Flagler Street and SW 22<sup>nd</sup> Avenue has a burnt-out light on the northeast corner
- West Flagler Street and SW 22<sup>nd</sup> Avenue has a burnt-out light on the south side of the west leg
- West Flagler Street is not lit on the north side of the road west of SW 22<sup>nd</sup> Avenue
- West Flagler Terrace and SW 23<sup>rd</sup> Avenue has a burnt-out light on the northeast corner
- SW 2<sup>nd</sup> Terrace has a burnt-out light on the south side
- SW 4<sup>th</sup> Street between SW 21<sup>st</sup> Avenue and SW 19<sup>th</sup> Avenue has two burnt out lights

## Pavement Marking Issues –

- Beacom Boulevard has faded lane markings that are not clearly visible at night

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Conduct maintenance efforts to replace burnt out lights and replace signs that are damaged or have poor retroreflectivity.
- Near-Term Project –  
Restripe lane pavement markings on Beacom Boulevard.
- Long-Term Projects –  
Conduct lighting study to determine if additional lighting is needed.

**SPECIFIC LOCATION ISSUES**

The following section will include recommendations at specific locations within the study area.

**Location: SW 22<sup>ND</sup> AVENUE AND SW 3<sup>RD</sup> STREET INTERSECTION****Issue #5: Pedestrian Facility****Description of Issue:**

The pedestrian curb ramp by the southwest corner of SW 22<sup>nd</sup> Avenue and SW 3<sup>rd</sup> Street leads pedestrians into the street and does not face the crosswalk.

**Suggestions for Improvement:**

- Near-Term Projects –  
Re-orient curb ramp to lead into the crosswalk and install truncated dome surface.



**Location: SW 22<sup>ND</sup> AVENUE AND SW 3<sup>RD</sup> STREET INTERSECTION****Issue #6: Pedestrian Facility****Description of Issue:**

There are no marked east-west pedestrian crossings along SW 22<sup>nd</sup> Avenue between SW 1<sup>st</sup> Street and SW 6<sup>th</sup> Street (approximately 0.3 miles).

**Suggestions for Improvement:**

- Long-Term Projects –  
Conduct a study to evaluate the need for a designated mid-block pedestrian crossing within the study area.

Location: **WEST SIDE OF SW 22<sup>ND</sup> AVENUE NORTH OF SW 6<sup>TH</sup> STREET**

**Issue #7: Pedestrian Facility**



**Description of Issue:**

With the construction of the multi-story residential building on the west side of SW 22<sup>nd</sup> Avenue just north of SW 6<sup>th</sup> Street, there are several former driveways that require unnecessary undulation on the sidewalk surface to pedestrians and bicyclists.

**Suggestions for Improvement:**

- Near-Term Project –  
Reconstruct sidewalk to remove unnecessary driveway ramps and level the sidewalk grade.

**Location: SW 22<sup>ND</sup> AVENUE AND SW 6<sup>TH</sup> STREET INTERSECTION****Issue #8: Pedestrian Facility****Description of Issue:**

The crosswalk on the west side of SW 22<sup>nd</sup> Avenue, crossing SW 6<sup>th</sup> Street does not have truncated domes at both ends and stop bar/crosswalk pavement markings are worn out / faded.

**Suggestions for Improvement:**

- Near-Term Project –  
Install truncated domes. Re-paint the crosswalks and stop bars at the intersection.

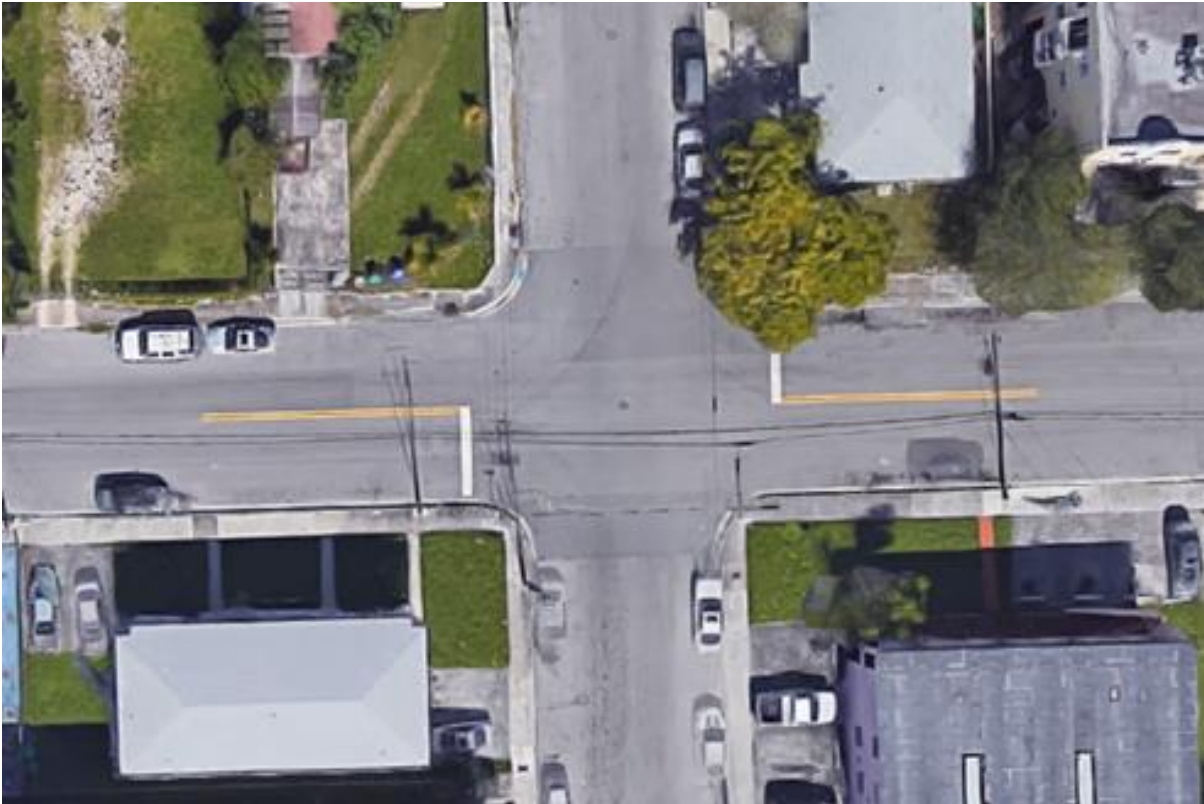
**Location: SW 22<sup>ND</sup> AVENUE AND SW 1<sup>ST</sup> STREET INTERSECTION****Issue #9: Pedestrian Facility****Description of Issue:**

Intersection is missing a pedestrian crossing signal on the northeast corner of SW 22<sup>nd</sup> Avenue and SW 3<sup>rd</sup> Street, facing northbound pedestrians.

**Suggestions for Improvement:**

- Near-Term Project –  
Install a pedestrian crossing signal that faces southbound across SW 1<sup>st</sup> Street.



**Location: NW 21<sup>ST</sup> AVENUE AND NW FLAGLER TERRACE INTERSECTION****Issue #10: Traffic Control****Description of Issue:**

At NW Flagler Terrace and NW 21<sup>st</sup> Avenue, vehicles were observed stopping on the northbound and southbound approaches, which are uncontrolled approaches. Vehicles parked near the corners of the intersection obstruct line of sight.

**Suggestions for Improvement:**

- Long-Term Project –  
Conduct a study to determine if the intersection should be converted to all-way stop control.

**Location: NW 21<sup>ST</sup> AVENUE AND NW FLAGLER TERRACE INTERSECTION****Issue #11: Pedestrian Facility****Description of Issue:**

The intersection is missing crosswalks the east and west legs of the intersection. All four corners of the intersection have high curb with no transition for pedestrians or wheelchairs to transition from the sidewalks to the street.

The sight distance on the southbound approach is obstructed due to a fence with vegetation on the northeast corner.

**Suggestions for Improvement:**

- Near-Term Project –  
Install curb ramps all four corners with truncated domes and provide crosswalks running parallel to NW Flagler Terrace.  
Consider adding bulb-outs at the intersection to reduce the pedestrian crossing distance and increase pedestrian visibility.

**Location: SW 22<sup>ND</sup> AVENUE AND SW 2<sup>ND</sup> STREET INTERSECTION****Issue #12: Pedestrian Facility****Description of Issue:**

The Jasmine assisted living facility is under construction on the northwest corner of SW 22<sup>nd</sup> Avenue and SW 2<sup>nd</sup> Street. The main development entrance is along SW 2<sup>nd</sup> Street, on the south side of the building. The potential safety issue at this intersection is the latent demand that Jasmine residents will create to cross SW 22<sup>nd</sup> Avenue to access Publix on the east side. It is unlikely residents will walk north to the SW 22<sup>nd</sup> Avenue and SW 1<sup>st</sup> Street intersection to cross at the signal and then head back south again to the Publix entrance on SW 22<sup>nd</sup> Avenue, south of SW 2<sup>nd</sup> Street. Residents will likely cross SW 22<sup>nd</sup> Avenue diagonally to/from the Publix entrance by SW 2<sup>nd</sup> Street. Pedestrians were observed performing this walking route.

**Suggestions for Improvement:**

- Long-Term Projects –  
Conduct a study to evaluate the need for a designated mid-block pedestrian crossing near SW 2<sup>nd</sup> Street.



**Location: WEST FLAGLER STREET BETWEEN SW 22<sup>ND</sup> AVENUE AND SW 20<sup>TH</sup> AVENUE****Issue #13: Pedestrian Facility****Description of Issue:**

There is a midblock crossing immediately east of NW 21<sup>st</sup> Avenue to cross West Flagler Street which is equipped with rectangular rapid flashing beacons (RRFBs) on both sides of the crosswalk; however, vehicles are not compliant when pedestrians activate the RRFBs. In addition, there is a bus and trolley stop and Family Dollar Store east of the midblock crossing near SW 20<sup>th</sup> Avenue where pedestrians were observed crossing.

**Suggestions for Improvement:**

- Long-Term Project –  
Conduct a study to determine if the pedestrian crossing should be relocated or modified.



**Location: SW 22<sup>ND</sup> AVENUE / BEACOM BOULEVARD AND WEST FLAGLER STREET INTERSECTION****Issue #14: Signal Timing****Description of Issue:**

Westbound traffic on West Flagler Street making a slight left onto Beacom Boulevard has a green light during the same time that the pedestrian signal instructs pedestrian to walk on the Beacom Boulevard leg. Conflicts between pedestrians and westbound left turning vehicles onto Beacom Boulevard were observed.

**Suggestions for Improvement:**

- Long-Term Project –  
Conduct a study to determine if intersection improvements are needed to raise awareness in drivers of pedestrians crossing Beacom Boulevard and inform vehicles to yield the right-of-way. Improvements could include additional signage, median extension, or crosswalk realignment for increased visibility.

**Location: SW 22<sup>ND</sup> AVENUE / BEACOM BOULEVARD AND WEST FLAGLER STREET INTERSECTION****Issue #15: Pedestrian Crossing****Description of Issue:**

There is no marked pedestrian crosswalk on the southwest leg of the SW 22<sup>nd</sup> Avenue / Beacom Boulevard and West Flagler Street intersection. The northbound traffic on Beacom Boulevard are forced to turn right to head southbound on SW 22<sup>nd</sup> Avenue. However, the approach has no traffic control device and conflicts with potential pedestrian patterns encourage by the curb ramps adjacent to the movement.

**Suggestions for Improvement:**

- Near-Term Project –  
Install a stop sign at the Beacom Boulevard northbound approach where it intersects with SW 22<sup>nd</sup> Avenue. In addition, install a marked pedestrian crosswalk on this intersection leg.

**Location: SW 22<sup>ND</sup> AVENUE / BEACOM BOULEVARD AND WEST FLAGLER STREET INTERSECTION****Issue #16: Pedestrian Crossing****Description of Issue:**

There is no crosswalk across the west leg of the intersection. Pedestrians wanting to travel south to Beacom Boulevard must cross Flagler Street on the east side of the intersection and then cross SW 22<sup>nd</sup> Avenue.

**Suggestions for Improvement:**

- Near-Term Project –  
Install a marked pedestrian crosswalk on the west leg of SW 22<sup>nd</sup> Avenue / Beacom Boulevard and West Flagler Street.



**Location: SW 22<sup>ND</sup> AVENUE / BEACOM BOULEVARD AND WEST FLAGLER STREET INTERSECTION****Issue #17: Lane Geometry and Signing****Description of Issue:**

The intersection of Flagler Street and SW 22<sup>nd</sup> Avenue and Beacom Boulevard is a confusing geometry for drivers. Unfamiliar drivers may not perceive and comprehend the left turn options until they are within the intersection. This may be influencing the high number of crashes at the intersection.

**Suggestions for Improvement:**

- Long-Term Project –  
Conduct intersection study to determine if intersection geometry or signing can be improved to increase safety for all roadway users.



**Location: SW 23<sup>RD</sup> AVENUE AND WEST FLAGLER STREET INTERSECTION****Issue #18: Pedestrian Facility****Description of Issue:**

There are two medical centers on the north side of West Flagler Street in the vicinity of the SW 23<sup>rd</sup> Avenue intersection and a supermarket on the southeast corner of the intersection. A marked pedestrian crossing with RRFBs is provided on the east leg of the intersection; however, vehicles were observed to neglect stopping for pedestrians during the flashing RRFBs. Most pedestrians observed at this location were seniors. Pedestrians informed the study team that they do not press the push button anymore since vehicles do not stop.

**Suggestions for Improvement:**

- Long-Term Project –  
Conduct a study to determine if the pedestrian crossing on the east leg should be modified to a full signal.

**Location: SW 24<sup>TH</sup> AVENUE AND WEST FLAGLER STREET INTERSECTION****Issue #19: Pedestrian Facility****Description of Issue:**

The pedestrian signal heads for the east-west pedestrian crossings are not showing a WALK interval.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Conduct maintenance on the pedestrian signals and program WALK time in the controller.

**Location: SW 23<sup>RD</sup> AVENUE AND BEACOM BOULEVARD INTERSECTION****Issue #20: Pedestrian Facility****Description of Issue:**

There are no marked pedestrian crossings along Beacom Boulevard between SW 1<sup>st</sup> Street and SW 6<sup>th</sup> Street (approximately 0.4 miles) with at least four bus stops along this segment. At the SW 23<sup>rd</sup> Avenue intersection, multiple residents were observed walking from the neighborhood southeast of Beacom Boulevard to the supermarket on West Flagler Street. The bus stop on the southeast corner of the SW 23<sup>rd</sup> Avenue and Beacom Boulevard was observed to be active during the field observations.

**Suggestions for Improvement:**

- Long-Term Project –  
Conduct a study to evaluate the feasibility of an alternative intersection design (e.g., roundabout) at Beacom Boulevard/SW 2<sup>nd</sup> Street/SW 23<sup>rd</sup> Avenue. In addition, evaluate the need for traffic calming measures along Beacom Boulevard.



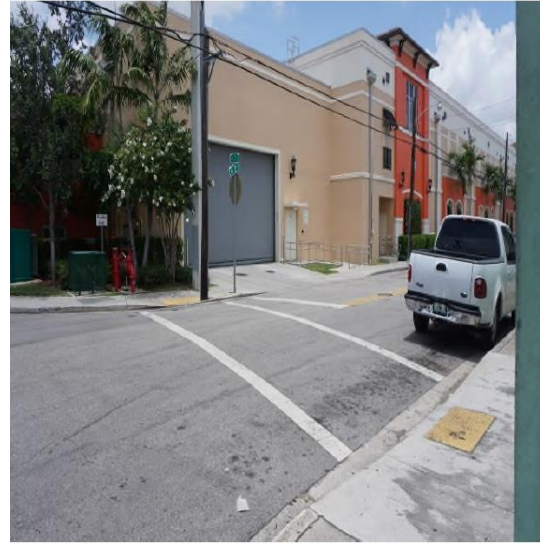
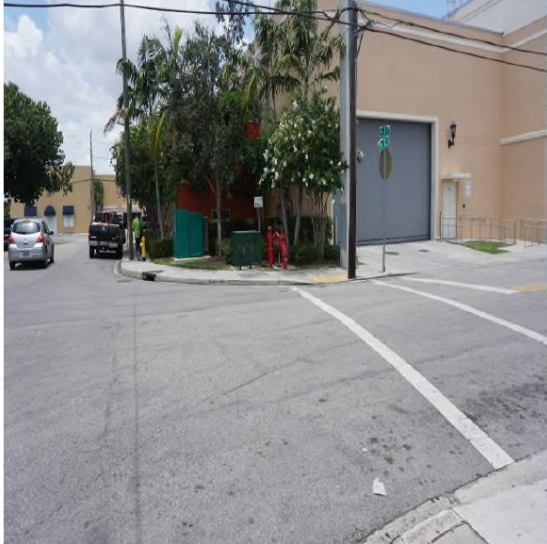
**Location: SW 20<sup>TH</sup> AVENUE AND WEST FLAGLER STREET INTERSECTION****Issue #21: Pedestrian Facility****Description of Issue:**

Pedestrian warning signs facing westbound traffic on both sides of Flagler Street, west of SW 20<sup>th</sup> Avenue, are blocked by landscaping.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Conduct maintenance to trim landscaping or potentially relocate behind the signs.

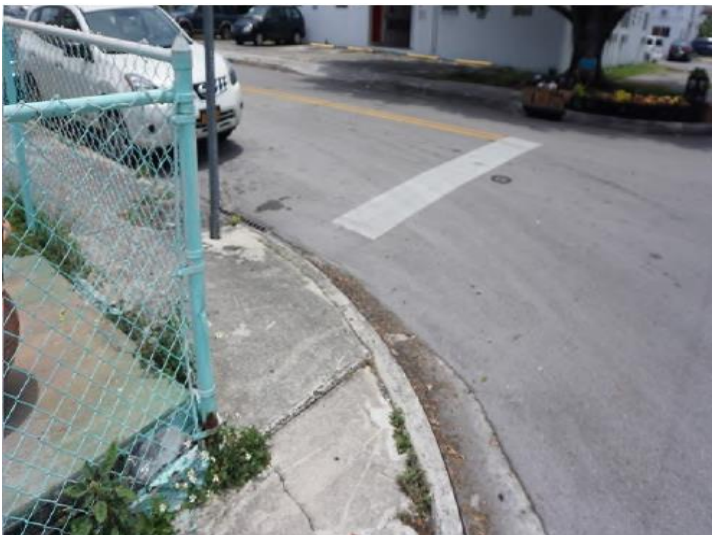
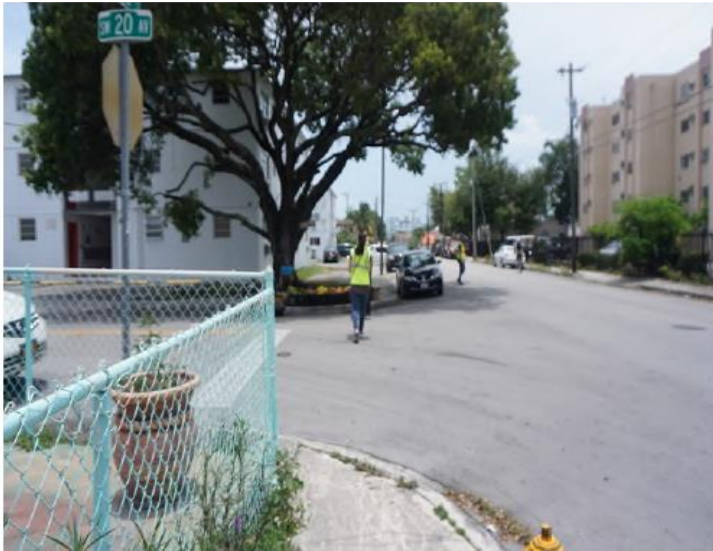


**Location: SW 21<sup>ST</sup> COURT AND SW 3<sup>RD</sup> STREET INTERSECTION****Issue #22: Pedestrian Facility****Description of Issue:**

Pedestrian crosswalk on the north leg of the SW 21<sup>st</sup> Court and SW 3<sup>rd</sup> Street intersection is offset to the north out of the line of sight of oncoming traffic. The offset creates difficulty for pedestrians and vehicles to see each other.

**Suggestions for Improvement:**

- Near-Term Project –  
Relocate pedestrian crosswalk to the south to be in the line of sight of drivers traveling on SW 3<sup>rd</sup> Street.

**Location: SW 20<sup>TH</sup> AVENUE AND SW 3<sup>RD</sup> STREET INTERSECTION****Issue #23: Pedestrian Facility****Description of Issue:**

The sidewalk on the northeast and northwest corners of SW 20<sup>th</sup> Avenue and SW 3<sup>rd</sup> Street is narrow making it difficult for pedestrians to maneuver through the sidewalk. The north leg (currently stop-controlled) is missing curb ramps and a marked crosswalk.

**Suggestions for Improvement:**

- Near-Term Project –  
Install curb ramps with truncated domes and add a crosswalk on the north leg.

**Location: SW 23<sup>RD</sup> AVENUE BETWEEN SW 5<sup>TH</sup> STREET AND SW 4<sup>TH</sup> STREET**

**Issue #24: Pedestrian Facility**



**Description of Issue:**

The sidewalk on the east side of SW 23<sup>rd</sup> Avenue between SW 5<sup>th</sup> Street and SW 4<sup>th</sup> Street is uneven due to tree roots.

**Suggestions for Improvement:**

- Near-Term Project –  
Level the sidewalk.



**Location: NW 21<sup>ST</sup> AVENUE NORTH OF WEST FLAGLER STREET****Issue #25: Pedestrian Facility****Description of Issue:**

The sidewalk along both sides of NW 21<sup>st</sup> Avenue between West Flagler Street and NW Flagler Terrace is fractured in multiple places.

**Suggestions for Improvement:**

- Near-Term Project –  
Repair sidewalk along both sides of NW 21<sup>st</sup> Avenue.



**Location: WEST FLAGLER STREET WEST OF W 23<sup>RD</sup> AVENUE****Issue #26: Parking****Description of Issue:**

Vehicles illegally parked along the north side curb of West Flagler Street west of W 23<sup>rd</sup> Avenue encroach significantly upon the westbound marked bicycle lane. A bicyclist encountering these parked vehicles might swerve into a through traffic lane in front of trailing vehicles.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Install NO PARKING signs (R7-1) along this commercial section according to the MUTCD Section 2B.47.  
Conduct enforcement activities to prevent illegally parked vehicles on the north side of West Flagler Street.

**Location: WEST FLAGLER STREET AND THE U-TURN TO SW 1<sup>ST</sup> STREET****Issue #27: Curb Visibility****Description of Issue:**

The leftmost lane of West Flagler Street is designated as an exclusive left turn lane as it approaches a triangular island where West Flagler transitions from a one-way to a two-way configuration. There is evidence that vehicles have impacted the nose of the curbed, landscaped island. The maintaining agency has installed yellow raised pavement markers on top of the painted island nose to increase nighttime visibility, which is diminished by a large oak tree within the island.

**Suggestions for Improvement:**

- Near-Term Project –  
Install several chevrons (W1-8) according to the MUTCD Section 2C.09 within the island to enhance driver's perception of the obstruction and to emphasize the need to turn.

**Location: SW 22<sup>ND</sup> AVENUE AND SW 3<sup>RD</sup> STREET INTERSECTION****Issue #28: Pedestrian Facility****Description of Issue:**

The crosswalk and stop bar pavement markings on the east leg of SW 22<sup>nd</sup> Avenue and SW 3<sup>rd</sup> Street are worn out. In addition, half of the westbound lane has been repaved and no longer shows the pavement markings.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Refurbish the pavement markings on the crosswalk and stop bar on the east leg of the intersection.

**Location: SW 23<sup>RD</sup> AVENUE AND SW 1<sup>ST</sup> STREET INTERSECTION**

**Issue #29: Pedestrian Facility**



**Description of Issue:**

Eastbound traffic on the original alignment of SW 1<sup>st</sup> Street may make right turns onto SW 23<sup>rd</sup> Avenue from a short, one-way section controlled by a STOP sign. While a driver making this turn can clearly see a vehicle travelling southbound on SW 23<sup>rd</sup> Avenue, that driver would not be aware of a right turning vehicle approaching from SW 1<sup>st</sup> Street. Also, there are uncontrolled, marked crosswalks on both legs of the realigned SW 1<sup>st</sup> Street at the intersection.

**Suggestions for Improvement:**

- Short-Term or Maintenance Project –  
Replace the standard crosswalk pavement markings on the north and south legs with high emphasis crosswalk pavement markings.  
Install Yield Here To Pedestrians signs (R1-5) per MUTCD Section 2B.11 and yield lines per MUTCD Section 3B.15 in advance of the marked crosswalks for eastbound traffic on SW 1<sup>st</sup> Street.
- Long-Term Project –  
Conduct an intersection study to determine if the right turn access onto SW 23<sup>rd</sup> Avenue from SW 1<sup>st</sup> Street should be closed or reconfigured for improved visibility of oncoming or turning traffic. Also, evaluate the need for all-way stop controlled intersection.



## Summary of Suggestions

This assessment considers operational and safety related issues for all users near Jasmine assisted living facility. This study was commissioned by MDC TPO to develop recommendations to improve the safety of all users throughout the study area. The suggestions identified in this report are summarized as follows:

### Improvements:

Each suggestion identified in this study is classified into one of three categories:

- Short-Term or Maintenance Project – it is anticipated that issues identified for maintenance may be addressed by public agency staff on a short timeframe and at a relatively low cost.
- Near-Term Project – activities that may be incorporated into an upcoming construction project in the area, including milling and resurfacing projects, or programmed separately through a pushbutton design-build contract.
- Long-Term Project – activities that may be incorporated into upcoming construction projects or may need to be programmed for funding as separate projects.

### Education:

Potential corridor-focused education efforts are noted below:

- Educate Bicyclists: Warn bicyclists of the risks associated with riding on the sidewalk against the flow of traffic
- Educate Bicyclists: Educate bicyclists regarding best practices for nighttime riding and provide resources (e.g., bike lights, reflectors, wear bright or retroreflective clothing)
- Educate Motorists: Yield to pedestrians in crosswalks
- Educate Motorists: Watch for pedestrians and bicyclists at driveways (look both ways)
- Educate Pedestrians: Use of designated crosswalks and use of pedestrian signals
- Educate Pedestrians: Educate pedestrians regarding being visible at night

### Enforcement:

Potential corridor-focused enforcement efforts are noted below:

- Motorists: Consider investigating state or federal grants to increase speed enforcement in areas with high volumes of transit users, pedestrians, and bicycles.
  - Illegally parked vehicles were observed to be a recurring behavior which creates a safety concern for bicyclists in the area.

The issues and suggested improvements reflect the consensus of the safety assessment team and not necessarily that of the MDC TPO.

The following table lists each issue identified within the study area as well as its categorized improvement type.

## SUMMARY OF RECOMMENDATIONS

Issue Number	Issue Location	Issue Type	Improvement Type
1	Study Area-Wide	Vehicular Speed	Near-Term Project
			Long-Term Project
2	Study Area-Wide	Pedestrian Crossings	Short-Term or Maintenance Project
			Near-Term Project
3	Study Area-Wide	Roadway Lighting	Near-Term or Long-Term Project
4	Study Area-Wide	Nighttime Issues	Short-Term or Maintenance Project
			Near-Term Project
			Long-Term Project
5	Avenue and SW 3 <sup>rd</sup> Street Intersection	Pedestrian Facility	Near-Term Project
6	SW 22 <sup>nd</sup> Avenue and SW 3 <sup>rd</sup> Street Intersection	Pedestrian Facility	Long-Term Project
7	West side of SW 22 <sup>nd</sup> Avenue north of SW 6 <sup>th</sup> Street	Pedestrian Facility	Near-Term Project
8	SW 22 <sup>nd</sup> Avenue and SW 6 <sup>th</sup> Street Intersection	Pedestrian Facility	Near-Term Project
9	SW 22 <sup>nd</sup> Avenue and SW 1 <sup>st</sup> Street Intersection	Pedestrian Facility	Near-Term Project
10	NW 21 <sup>st</sup> Avenue and NW Flagler Terrace Intersection	Traffic Control	Long-Term Project
11	NW 21 <sup>st</sup> Avenue and NW Flagler Terrace Intersection	Pedestrian Facility	Near-Term Project
12	SW 22 <sup>nd</sup> Avenue and SW 2 <sup>nd</sup> Street Intersection	Pedestrian Facility	Long-Term Project
13	West Flagler Street between SW 22 <sup>nd</sup> Avenue and SW 20 <sup>th</sup> Avenue	Pedestrian Facility	Long-Term Project
14	SW 22 <sup>nd</sup> Avenue / Beacom Boulevard and West Flagler Street Intersection	Signal Timing	Long-Term Project
15	SW 22 <sup>nd</sup> Avenue / Beacom Boulevard and West Flagler Street Intersection	Pedestrian Crossing	Near-Term Project
16	SW 22 <sup>nd</sup> Avenue / Beacom Boulevard and West Flagler Street Intersection	Pedestrian Crossing	Near-Term Project

Issue Number	Issue Location	Issue Type	Improvement Type
17	SW 22 <sup>nd</sup> Avenue / Beacom Boulevard and West Flagler Street Intersection	Lane Geometry and Signing	Long-Term Project
18	SW 23 <sup>rd</sup> Avenue and West Flagler Street Intersection	Pedestrian Facility	Long-Term Project
19	SW 24 <sup>th</sup> Avenue and West Flagler Street Intersection	Pedestrian Facility	Short-Term or Maintenance Project
20	SW 23 <sup>rd</sup> Avenue and Beacom Boulevard Intersection	Pedestrian Facility	Long-Term Project
21	SW 20 <sup>th</sup> Avenue and West Flagler Street Intersection	Pedestrian Facility	Short-Term or Maintenance Project
22	SW 21 <sup>st</sup> Court and SW 3 <sup>rd</sup> Street Intersection	Pedestrian Facility	Near-Term Project
23	SW 20 <sup>th</sup> Avenue and SW 3 <sup>rd</sup> Street Intersection	Pedestrian Facility	Near-Term Project
24	SW 23 <sup>rd</sup> Avenue Between SW 5 <sup>th</sup> Street and SW 4 <sup>th</sup> Street	Pedestrian Facility	Near-Term Project
25	NW 21 <sup>st</sup> Avenue north of West Flagler Street	Pedestrian Facility	Near-Term Project
26	West Flagler Street west of W 23 <sup>rd</sup> Avenue	Parking	Short-Term or Maintenance Project
27	West Flagler Street and the U-Turn to SW 1 <sup>st</sup> Street	Curb Visibility	Near-Term Project
28	SW 22 <sup>nd</sup> Avenue and SW 3 <sup>rd</sup> Street Intersection	Pedestrian Facility	Short-Term or Maintenance Project
29	SW 23 <sup>rd</sup> Avenue and SW 1 <sup>st</sup> Street Intersection	Pedestrian Facility	Short-Term or Maintenance Project
			Long-Term Project

## Appendix A

### Historical Crash Summary



# Senior Living Facilities Road Safety Audit

## Jasmine Senior Living

## City of Miami

### Background

The Senior Living Facilities Road Safety Audit focused on the area surrounding Jasmine Senior Living Facilities includes several corridors as follows that were identified as focus areas based on their crash history:

- W Flagler St from 24th Ave to east of SW 20th Ave – 0.46 miles
- SW 1st St from NW 24th Ave to east of SW 20th Ave – 0.47 miles
- Beacon Blvd from east of SW 24th Ave to Flagler St – 0.35 miles
- SW 22nd Ave from north of SW 6th St to NW 1st Ter – 0.49 miles
- SW 23rd Ave from SW 5th St to NW 1st St – 0.43 miles

The general segment characteristics for the are reviewed below:

- SW 1st St (eastbound) and W Flagler St (westbound) function as a one-way pair through the study area.
- SW 22nd Ave is a 4-lane divided roadway, Beacon Blvd is a 4-lane undivided roadway, and the majority of the roads in residential areas a two-lane roads with no marked centerline.
- Posted speed limits of 30 mph on SW 1st Ave, 35 mph on Beacon Blvd, with remaining roadways through residential areas generally unsigned.
- There are no marked bicycle facilities.
- There are continuous sidewalks on both sides of the roadways throughout the majority of the study area.
- Overhead street lighting is present at some intersections and sporadic along segments.
- Curb and gutter is present throughout most of the study area.
- The land use is primarily commercial along Flagler St, SW 1st Ave, and SW 22nd Ave, with single-family and multi-family residential throughout the remainder of the study area. Miami Senior High School is located along the western edge of the study area.
- This area is served by bus routes 207 and 208 along Beacon Blvd, route 11 along W Flagler St, route 22 along SW 22nd Ave, and routes 11 and 207 along SW 1st Ave.
- There are four (4) signalized intersections throughout the study area:
  - W Flagler St/SW 1st Ave and 24th Ave
    - Special emphasis crosswalk markings
  - W Flagler St and SW 22nd Ave and Beacon Blvd
    - Standard crosswalk markings
  - SW 1st St and Beacon Blvd
    - Standard crosswalk markings, special emphasis on east leg
  - SW 1st St and SW 22nd Ave
    - Standard crosswalk markings

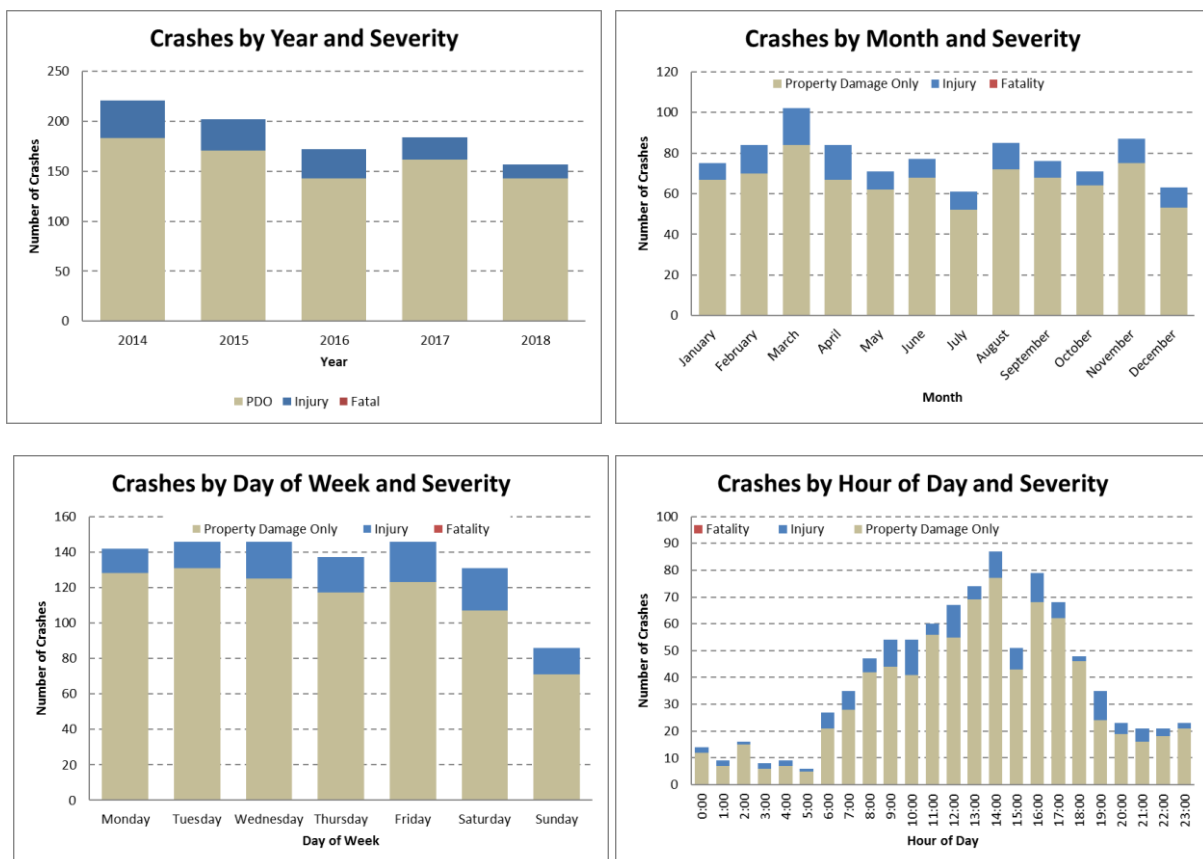
### Crash History (2014 – 2018):

Five (5) years of available vehicular crash data, 2014 to 2018, was obtained from the Signal Four Analytics database and utilized for historical crash analysis.

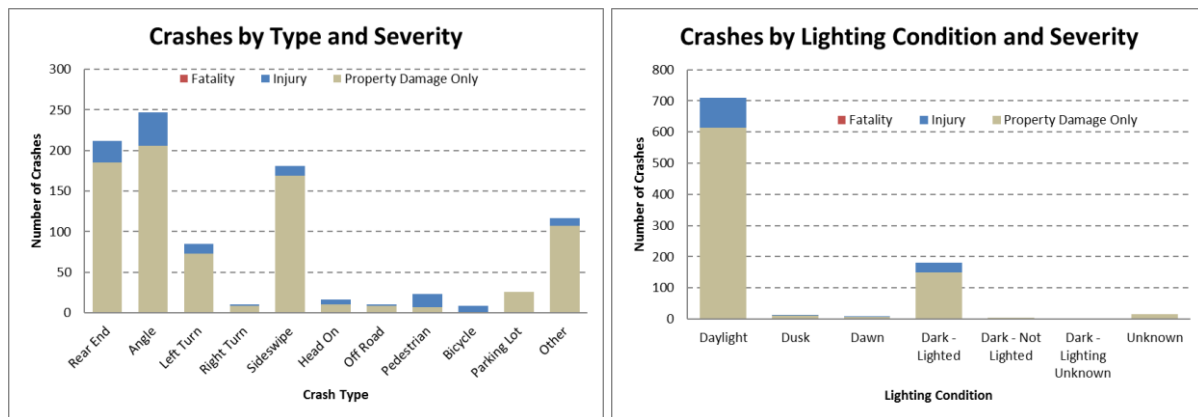
#### Overall Study Area

A total of 936 vehicular crashes were reported over the five-year study period. Of the 936 crashes reported during the study period, there were zero fatal crashes, 134 injury crashes (14 percent), and 802 property damage only (PDO) crashes (86 percent). There were 9 bicycle involved crashes (1 percent) and 23 pedestrian involved crashes (2 percent):

The reported crashes are displayed by different measures of time (year, month, day, and hour) below. Overall, the number of crashes has decreased between 2014 and 2018. March (102 crashes) and November (87 crashes) were the highest crash months during the year, while crashes were generally consistent throughout weekdays (137 to 148 crashes per weekday) and lower on weekends (especially Sunday). Seventy-four (77) percent of all crashes occurred between 7:00 AM and 7:00 PM.



The reported crashes by crash type are displayed below. Twenty-six (26) percent (247 crashes) angle crashes, twenty-three (23) percent (212 crashes) were rear end crashes, and nineteen (19) percent (181 crashes) were sideswipe crashes. Twenty-four (24) percent of crashes occurred under non-daylight conditions.



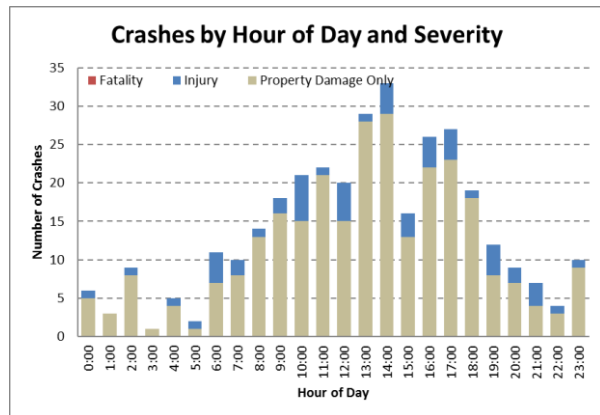
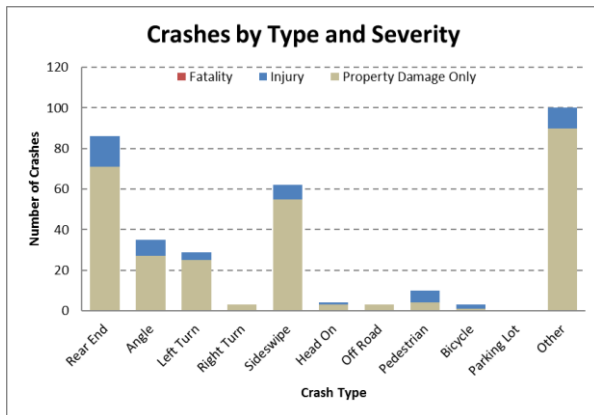
Among the crashes that occurred during non-daylight conditions, general trends are somewhat similar to those presented for all crashes in the study area. Total non-daylight crashes decrease from 2014 to 2018. Angle, rear end, and sideswipe remain the predominant crash types. Non-daylight crashes occur more heavily on Saturdays (55 crashes, 24 percent). Eight-four (84) percent of the non-daylight crashes were PDO crashes and 14 percent were injury crashes.

A total of 203 crashes in the study area involved elderly users, with 81 percent PDO crashes, 19 percent injury crashes, and zero fatal crashes. These crashes primarily occurred between 7am and 7pm (88 percent) and were more frequently occurring on Monday, Thursday and Friday, with the lowest number of crashes occurring on Sunday (11 crashes, 7 percent). The most prevalent crash types included angle (29 percent), sideswipe (19 percent), and rear end (13 percent).

Further details on crashes located within the five previously identified high-crash corridors in the study area are provided below.

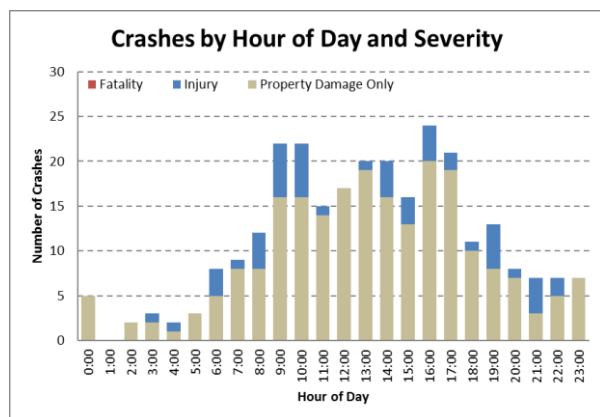
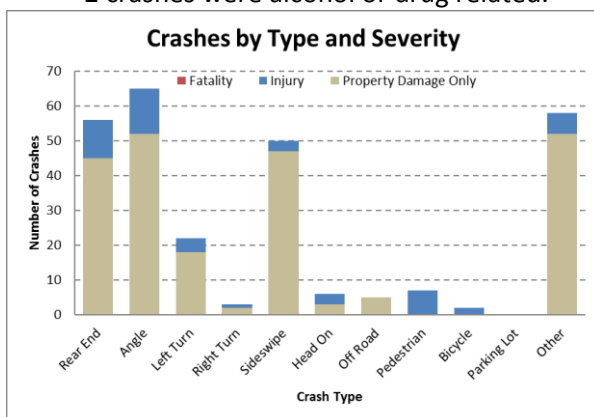
#### **W Flagler St from 24th Ave to east of SW 20th Ave (334 total crashes)**

- 16 percent (53 crashes) were injury-related, and 84 percent (282 crashes) were PDO.
- 30 percent (100 crashes) were classified as “other” crash type, 26 percent (86 crashes) were rear end, and 19 percent (62 crashes) were sideswipe.
- 25 percent (84 crashes) occurred in non-daylight conditions.
- 31 percent (102 crashes) occurred between 2:00 PM and 6:00 PM.
- 10 crashes were pedestrian involved and 3 crashes were bicyclist involved.
- 5 crashes were alcohol or drug related.



### **SW 1st St from NW 24th Ave to east of SW 20th Ave (274 total crashes)**

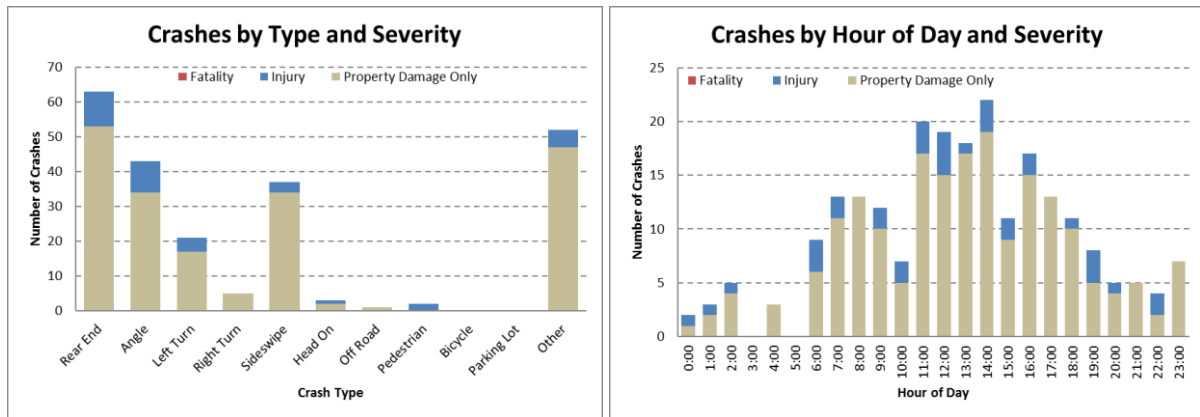
- 18 percent (50 crashes) were injury-related, and 82 percent (224 crashes) were PDO.
- 24 percent (65 crashes) were angle, 21 percent (58 crashes) were classified as “other”, and 20 percent (56 crashes) were rear end.
- 25 percent (67 crashes) occurred in non-daylight conditions.
- 28 percent (76 crashes) occurred between 9:00 AM and 1:00 PM.
- 7 crashes were pedestrian involved and 2 crashes were bicyclist involved.
- 2 crashes were alcohol or drug related.



### **Beacon Blvd from east of SW 24th Ave to Flagler St (227 total crashes)**

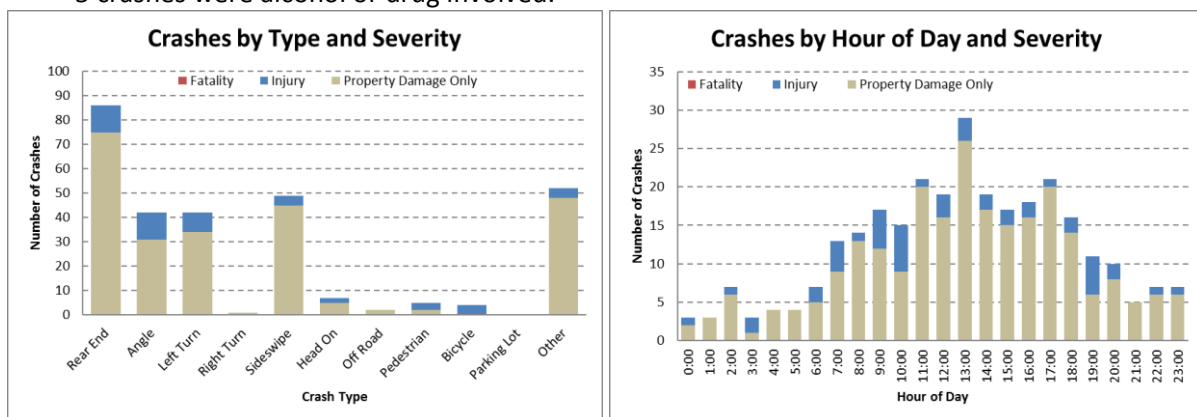
- 15 percent (34 crashes) were injury-related, and 85 percent (193 crashes) were PDO.
- 28 percent (63 crashes) were rear end, 23 percent (52 crashes) were classified as “other”, and 19 percent (43 crashes) were angle crashes.
- 22 percent (49 crashes) occurred in non-daylight conditions.
- 35 percent (62 crashes) occurred between 11:00 AM and 3:00 PM.
- 2 crashes were pedestrian involved and 0 crashes were bicyclist involved.
- 2 crashes were alcohol or drug involved.





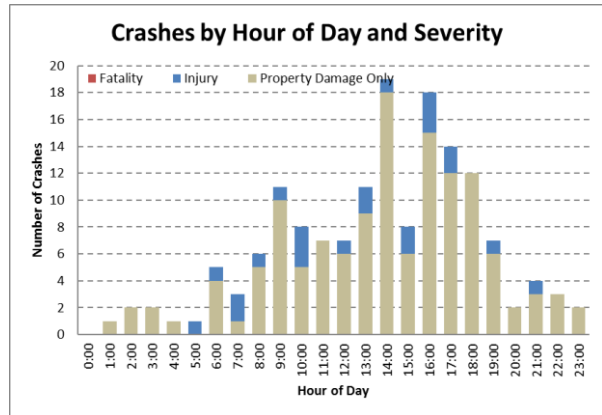
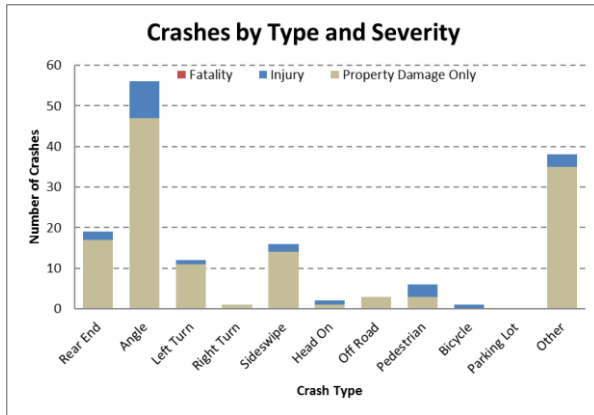
### **SW 22nd Ave from north of SW 6th St to NW 1st Ter (290 total crashes)**

- 16 percent (47 crashes) were injury, and 84 percent (243 crashes) were PDO.
- 30 percent (86 crashes) were rear end, 18 percent (52 crashes) were classified as “other”, and 17 percent (49 crashes) were sideswipe.
- 25 percent (73 crashes) occurred in non-daylight conditions.
- 30 percent (88 crashes) occurred between 11:00 AM and 3:00 PM.
- 5 crashes were pedestrian involved and 4 crashes were bicyclist involved.
- 5 crashes were alcohol or drug involved.

















### **SW 23rd Ave from SW 5th St to NW 1st St (154 total crashes)**

- 14 percent (22 crashes) were injury-related, and 86 percent (132 crashes) were PDO.
- 36 percent (56 crashes) were angle, 25 percent (38 crashes) were classified as “other”, and 12 percent (19 crashes) were rear end.
- 21 percent (32 crashes) occurred in non-daylight conditions.
- 38 percent (59 crashes) occurred between 2:00 PM and 6:00 PM.
- 6 crashes were pedestrian involved and 1 crash was bicyclist involved.
- 1 crash was alcohol or drug involved.



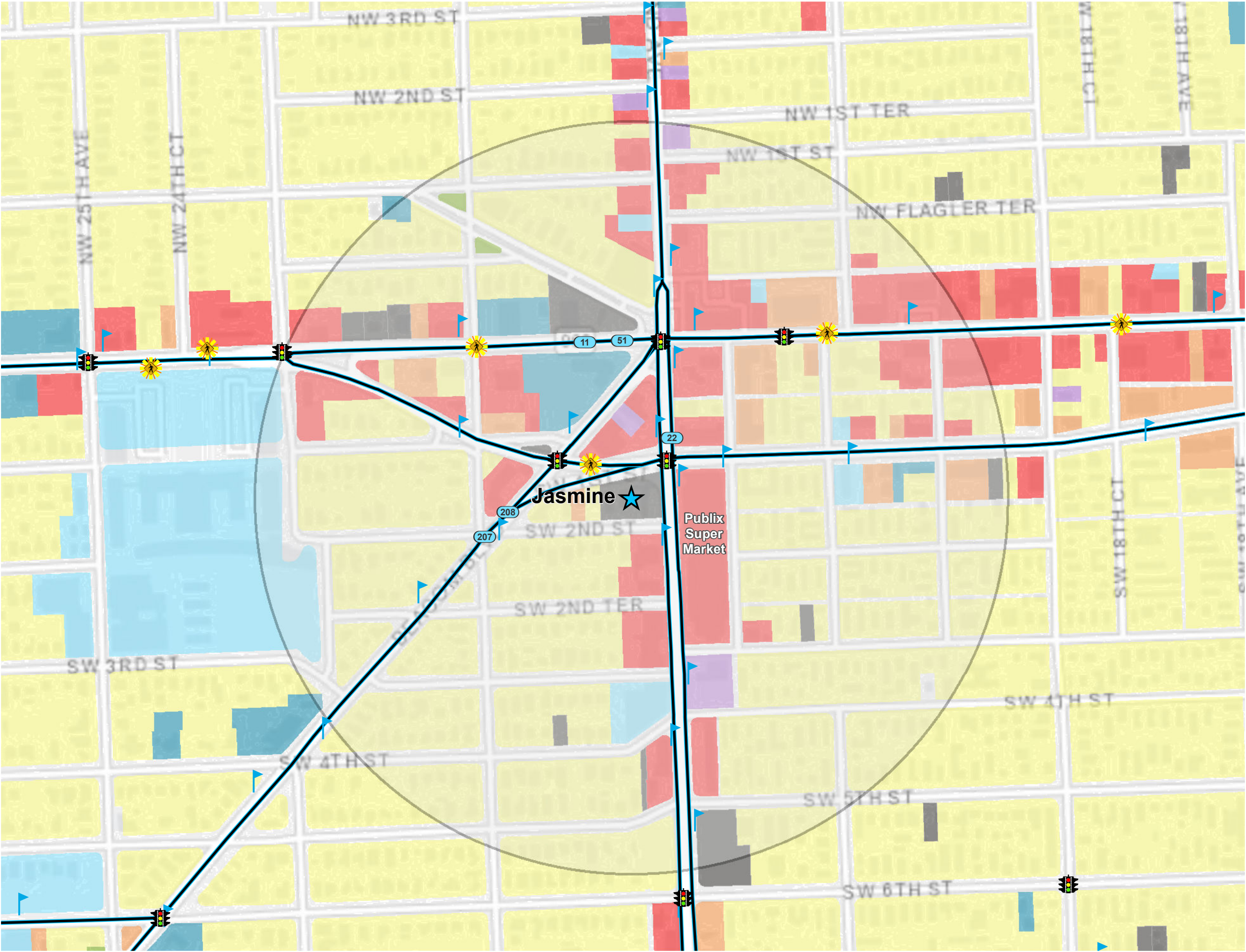
# Miami-Dade TPO

Figure 1  
Study Area

-  Traffic Signal
-  Flashing School Zone
-  Flashing Pedestrian Warning
-  Bus Stops
-  Bus Routes
-  Study Area
-  Parks
-  Education
-  Industrial
-  Institutional
-  Commercial
-  Residential
-  Office
-  Vacant









0 200 400 600 Feet





# Miami-Dade TPO

Figure 2  
Crash Frequency

- All Crashes
-  Traffic Signal
-  Flashing School Zone
-  Flashing Pedestrian Warning
-  Bus Stops
-  Bus Routes
-  Study Area



0 200 400 600 Feet









Data Source: Signal 4 Analytics (2014-2018)





# Miami-Dade TPO

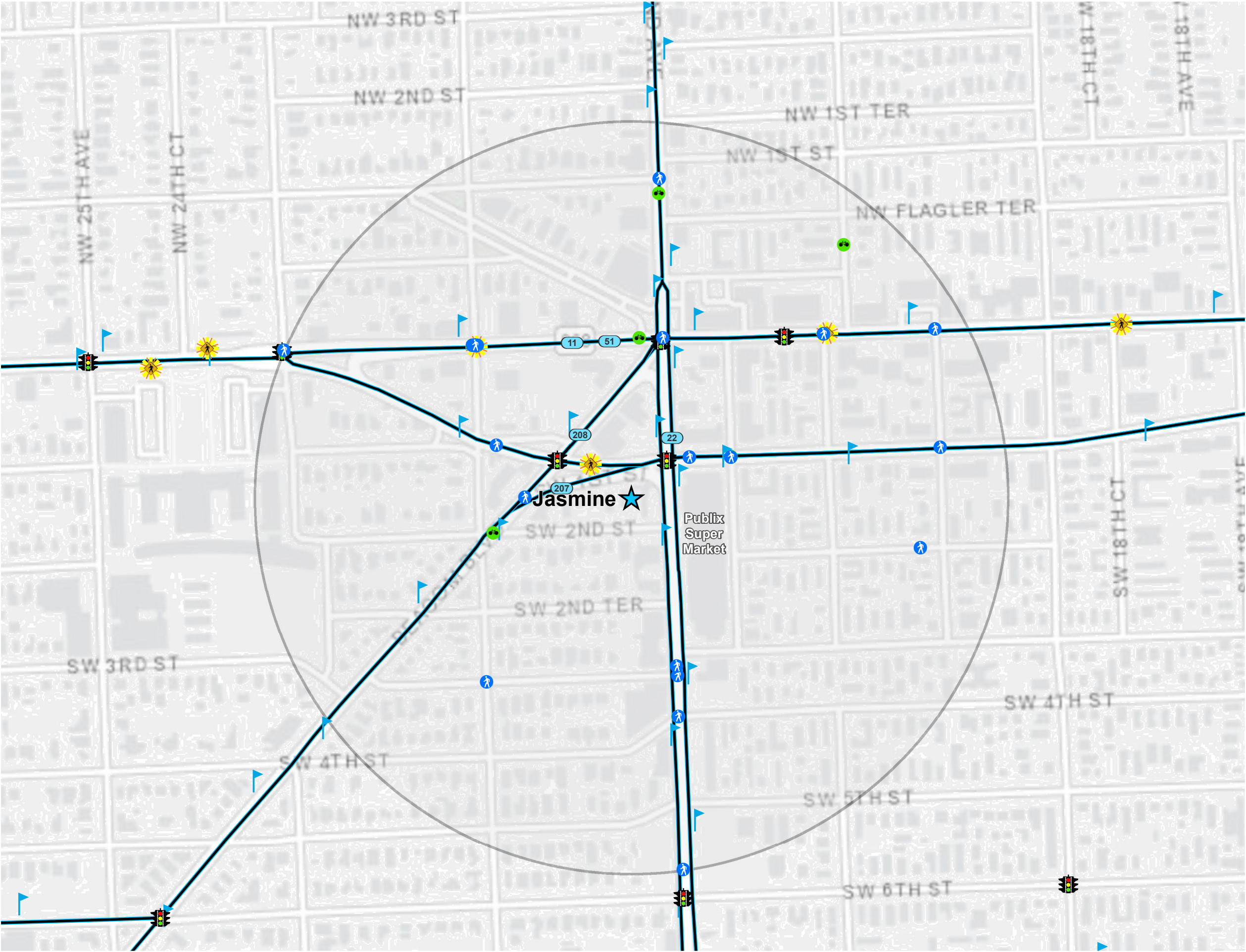
Figure 3  
Bicycle & Pedestrian  
Crashes

-  Pedestrian Involved Crashes
-  Bicycle Involved Crashes
-  Traffic Signal
-  Flashing School Zone
-  Flashing Pedestrian Warning
-  Bus Stops
-  Bus Routes
-  Study Area



0 200 400 600 Feet

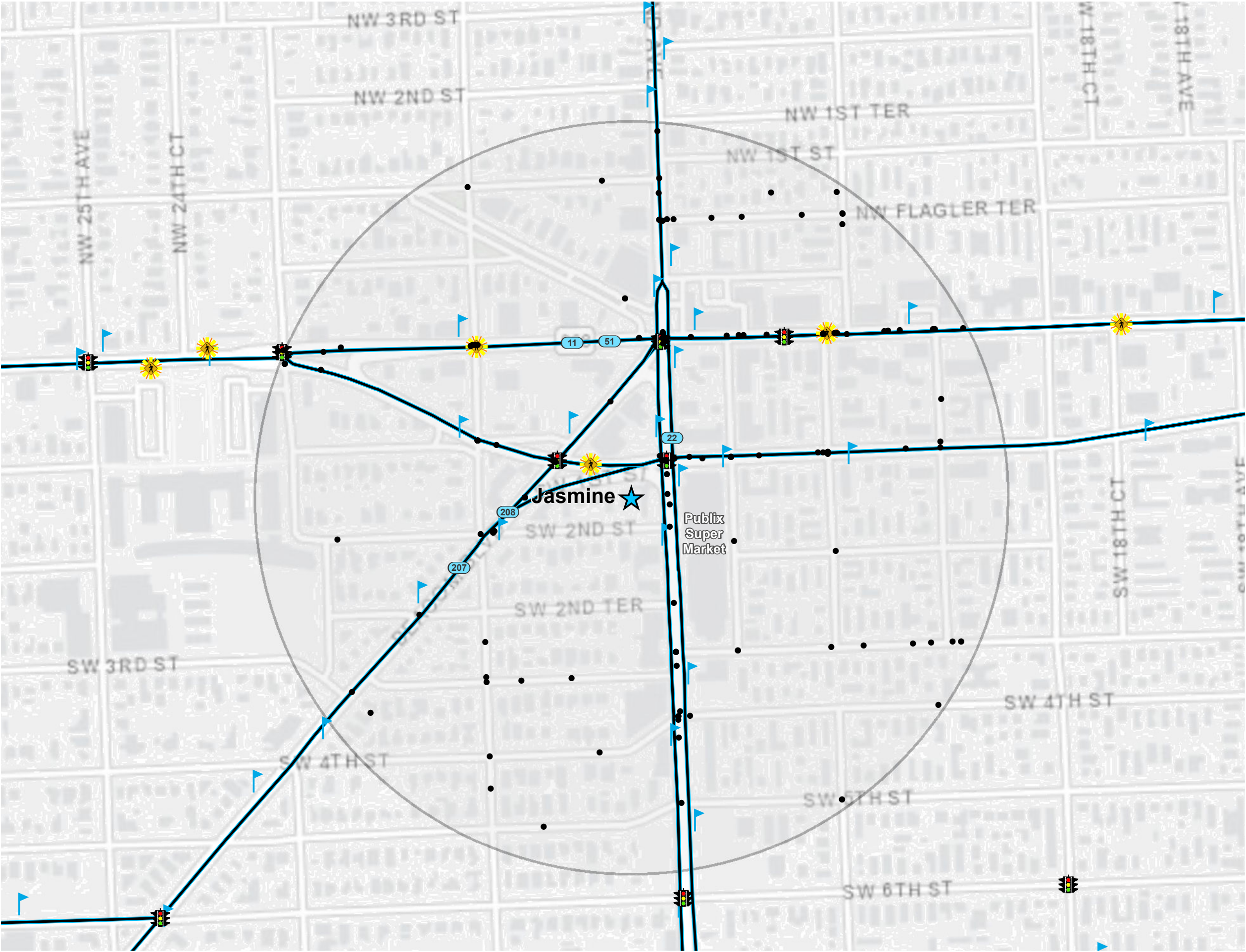
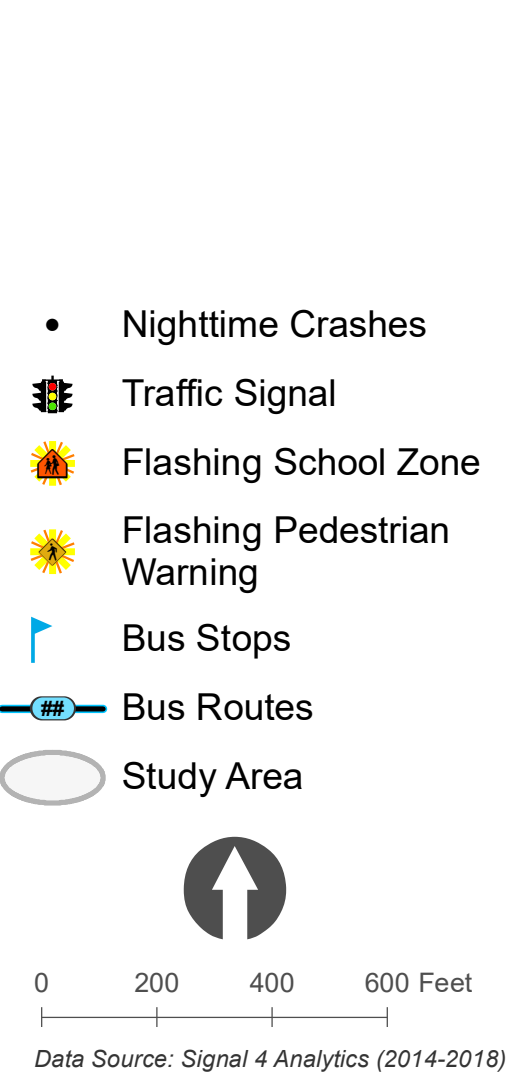
Data Source: Signal 4 Analytics (2014-2018)





# Miami-Dade TPO

Figure 4  
Nighttime Crashes





### Figure 5 Fatal & Severe Injury Crashes





# Miami-Dade TPO

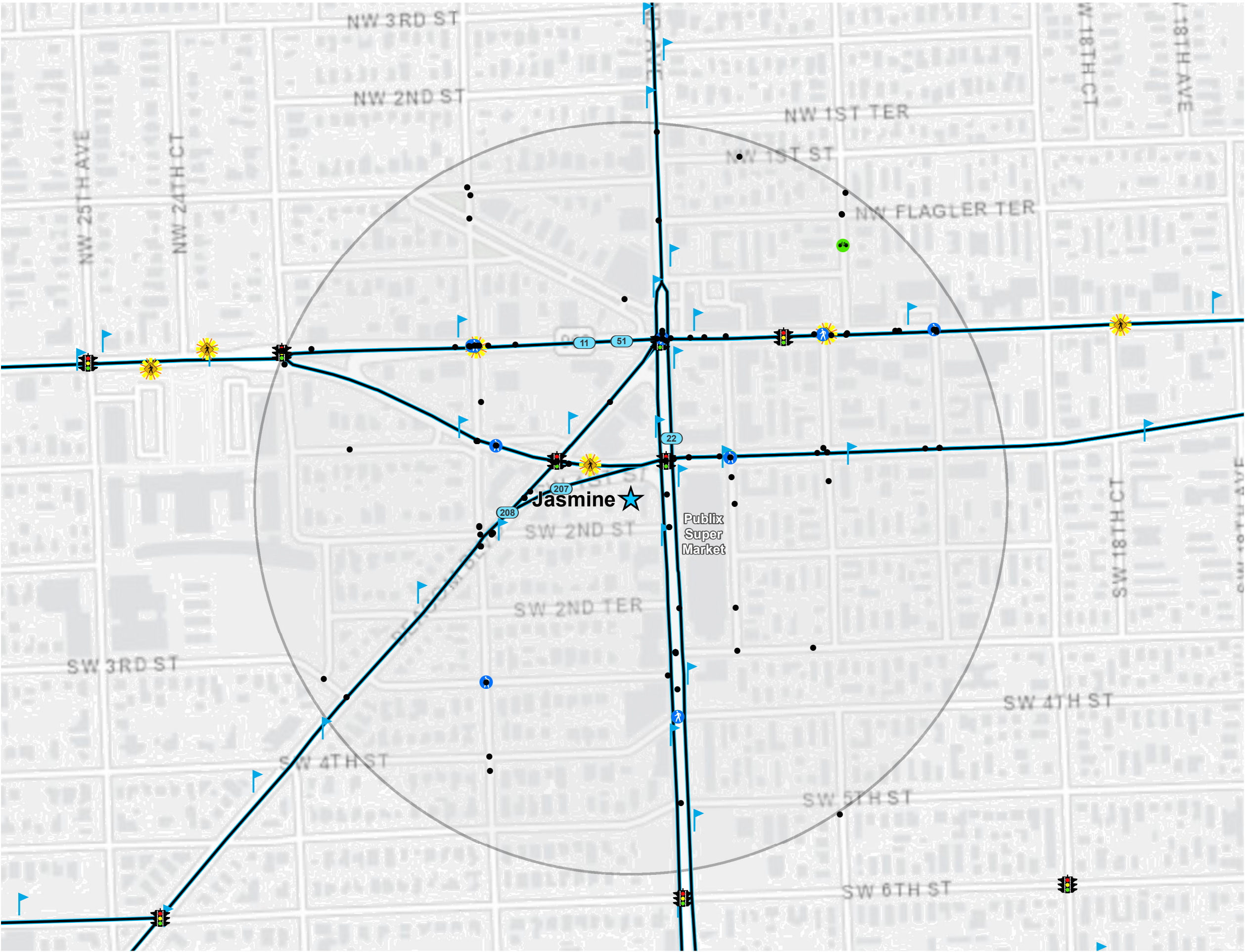
Figure 6  
Crashes with Elderly  
Road Users

- Elderly Crashes
- Pedestrian Involved Crashes
- Bicycle Involved Crashes
- Traffic Signal
- Flashing School Zone
- Flashing Pedestrian Warning
- Bus Stops
- Bus Routes
- Study Area



0 200 400 600 Feet

Data Source: Signal 4 Analytics (2014-2018)





## Appendix B

### Transit Ridership

## Transit Ridership Data by Route and Stops (weekday)

RouteID	BusTotalCount	StopID	StopName	Year	Direction	IsWeekday
11	446	1321	W FLAGLER ST & NW 22 AV	2018		TRUE
11	17399	1321	W FLAGLER ST & NW 22 AV	2018	West	TRUE
11	96	1321	W FLAGLER ST & NW 22 AV	2019		TRUE
11	11773	1321	W FLAGLER ST & NW 22 AV	2019	West	TRUE
11	378	8036	W FLAGLER ST & OP SW 20 AV	2018		TRUE
11	14518	8036	W FLAGLER ST & OP SW 20 AV	2018	West	TRUE
11	82	8036	W FLAGLER ST & OP SW 20 AV	2019		TRUE
11	9571	8036	W FLAGLER ST & OP SW 20 AV	2019	West	TRUE
11	2461	8037	W FLAGLER ST & NW 23 AV	2018		TRUE
11	10974	8037	W FLAGLER ST & NW 23 AV	2018	West	TRUE
11	741	8037	W FLAGLER ST & NW 23 AV	2019		TRUE
11	6651	8037	W FLAGLER ST & NW 23 AV	2019	West	TRUE
11	470	8105	SW 1 ST & SW 23 AV	2018		TRUE
11	15567	8105	SW 1 ST & SW 23 AV	2018	East	TRUE
11	71	8105	SW 1 ST & SW 23 AV	2019		TRUE
11	8873	8105	SW 1 ST & SW 23 AV	2019	East	TRUE
11	1147	8106	SW 1 ST & SW 21 CT	2018		TRUE
11	30309	8106	SW 1 ST & SW 21 CT	2018	East	TRUE
11	201	8106	SW 1 ST & SW 21 CT	2019		TRUE
11	18416	8106	SW 1 ST & SW 21 CT	2019	East	TRUE
11	331	8107	SW 1 ST & SW 21 AV	2018		TRUE
11	9906	8107	SW 1 ST & SW 21 AV	2018	East	TRUE
11	84	8107	SW 1 ST & SW 21 AV	2019		TRUE
11	7732	8107	SW 1 ST & SW 21 AV	2019	East	TRUE
22	20	163	NW 22 AV & W FLAGLER ST	2018		TRUE
22	6181	163	NW 22 AV & W FLAGLER ST	2018	South	TRUE
22	20	163	NW 22 AV & W FLAGLER ST	2019		TRUE
22	3741	163	NW 22 AV & W FLAGLER ST	2019	South	TRUE
22	1527	170	SW 22 AV & W FLAGLER ST	2018		TRUE
22	5776	170	SW 22 AV & W FLAGLER ST	2018	North	TRUE
22	513	170	SW 22 AV & W FLAGLER ST	2019		TRUE
22	2805	170	SW 22 AV & W FLAGLER ST	2019	North	TRUE
22	15	7313	SW 22 AV & SW 1 ST	2018		TRUE
22	1901	7313	SW 22 AV & SW 1 ST	2018	South	TRUE
22	46	7313	SW 22 AV & SW 1 ST	2019		TRUE
22	875	7313	SW 22 AV & SW 1 ST	2019	South	TRUE
22	44	7314	SW 22 AV & SW 2 ST	2018		TRUE
22	2876	7314	SW 22 AV & SW 2 ST	2018	South	TRUE
22	16	7314	SW 22 AV & SW 2 ST	2019		TRUE
22	2096	7314	SW 22 AV & SW 2 ST	2019	South	TRUE
22	14	7315	SW 22 AV & SW 4 ST	2018		TRUE
22	1543	7315	SW 22 AV & SW 4 ST	2018	South	TRUE
22	3	7315	SW 22 AV & SW 4 ST	2019		TRUE
22	990	7315	SW 22 AV & SW 4 ST	2019	South	TRUE
22	191	7351	SW 22 AV & SW 3 ST	2018		TRUE
22	998	7351	SW 22 AV & SW 3 ST	2018	North	TRUE
22	6	7351	SW 22 AV & SW 3 ST	2019		TRUE

22	650	7351	SW 22 AV & SW 3 ST	2019	North	TRUE
22	343	7352	SW 22 AV & SW 1 ST	2018		TRUE
22	10220	7352	SW 22 AV & SW 1 ST	2018	North	TRUE
22	291	7352	SW 22 AV & SW 1 ST	2019		TRUE
22	6395	7352	SW 22 AV & SW 1 ST	2019	North	TRUE
22	960	7353	NW 22 AV & W FLAGLER ST	2018		TRUE
22	16009	7353	NW 22 AV & W FLAGLER ST	2018	North	TRUE
22	664	7353	NW 22 AV & W FLAGLER ST	2019		TRUE
22	11436	7353	NW 22 AV & W FLAGLER ST	2019	North	TRUE
207	181	8106	SW 1 ST & SW 21 CT	2018		TRUE
207	71	8106	SW 1 ST & SW 21 CT	2019		TRUE
207	19	8107	SW 1 ST & SW 21 AV	2018		TRUE
207	7	8107	SW 1 ST & SW 21 AV	2019		TRUE
207	4275	8138	BEACOM BD & SW 2 ST	2018		TRUE
207	642	8138	BEACOM BD & SW 2 ST	2019		TRUE
208	322	8036	W FLAGLER ST & OP SW 20 AV	2018		TRUE
208	139	8036	W FLAGLER ST & OP SW 20 AV	2019		TRUE
208	8	8135	BEACOM BD & SW 2 TE	2018		TRUE
208	4623	8139	BEACOM BD & SW 1 ST	2018		TRUE
208	1095	8139	BEACOM BD & SW 1 ST	2019		TRUE

## Transit Ridership Data by Route and Stops (all)

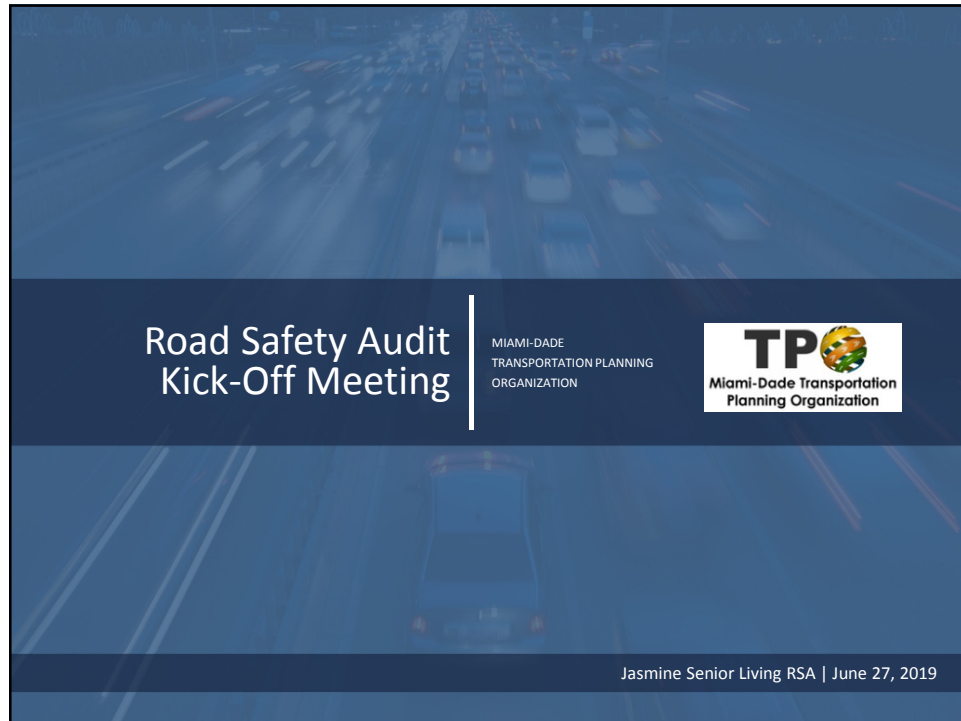
RouteID	BusTotalCount	StopID	StopName	Year	Direction
11	446	1321	W FLAGLER ST & NW 22 AV	2018	
11	17399	1321	W FLAGLER ST & NW 22 AV	2018	West
11	96	1321	W FLAGLER ST & NW 22 AV	2019	
11	11773	1321	W FLAGLER ST & NW 22 AV	2019	West
11	378	8036	W FLAGLER ST & OP SW 20 AV	2018	
11	14518	8036	W FLAGLER ST & OP SW 20 AV	2018	West
11	82	8036	W FLAGLER ST & OP SW 20 AV	2019	
11	9571	8036	W FLAGLER ST & OP SW 20 AV	2019	West
11	2461	8037	W FLAGLER ST & NW 23 AV	2018	
11	10974	8037	W FLAGLER ST & NW 23 AV	2018	West
11	741	8037	W FLAGLER ST & NW 23 AV	2019	
11	6651	8037	W FLAGLER ST & NW 23 AV	2019	West
11	470	8105	SW 1 ST & SW 23 AV	2018	
11	15567	8105	SW 1 ST & SW 23 AV	2018	East
11	71	8105	SW 1 ST & SW 23 AV	2019	
11	8873	8105	SW 1 ST & SW 23 AV	2019	East
11	1147	8106	SW 1 ST & SW 21 CT	2018	
11	30309	8106	SW 1 ST & SW 21 CT	2018	East
11	201	8106	SW 1 ST & SW 21 CT	2019	
11	18416	8106	SW 1 ST & SW 21 CT	2019	East
11	331	8107	SW 1 ST & SW 21 AV	2018	
11	9906	8107	SW 1 ST & SW 21 AV	2018	East
11	84	8107	SW 1 ST & SW 21 AV	2019	
11	7732	8107	SW 1 ST & SW 21 AV	2019	East
22	20	163	NW 22 AV & W FLAGLER ST	2018	
22	6181	163	NW 22 AV & W FLAGLER ST	2018	South
22	20	163	NW 22 AV & W FLAGLER ST	2019	
22	3741	163	NW 22 AV & W FLAGLER ST	2019	South
22	1527	170	SW 22 AV & W FLAGLER ST	2018	
22	5776	170	SW 22 AV & W FLAGLER ST	2018	North
22	513	170	SW 22 AV & W FLAGLER ST	2019	
22	2805	170	SW 22 AV & W FLAGLER ST	2019	North
22	15	7313	SW 22 AV & SW 1 ST	2018	
22	1901	7313	SW 22 AV & SW 1 ST	2018	South
22	46	7313	SW 22 AV & SW 1 ST	2019	
22	875	7313	SW 22 AV & SW 1 ST	2019	South
22	44	7314	SW 22 AV & SW 2 ST	2018	
22	2876	7314	SW 22 AV & SW 2 ST	2018	South
22	16	7314	SW 22 AV & SW 2 ST	2019	
22	2096	7314	SW 22 AV & SW 2 ST	2019	South



22	14	7315	SW 22 AV & SW 4 ST	2018	
22	1543	7315	SW 22 AV & SW 4 ST	2018	South
22	3	7315	SW 22 AV & SW 4 ST	2019	
22	990	7315	SW 22 AV & SW 4 ST	2019	South
22	191	7351	SW 22 AV & SW 3 ST	2018	
22	998	7351	SW 22 AV & SW 3 ST	2018	North
22	6	7351	SW 22 AV & SW 3 ST	2019	
22	650	7351	SW 22 AV & SW 3 ST	2019	North
22	343	7352	SW 22 AV & SW 1 ST	2018	
22	10220	7352	SW 22 AV & SW 1 ST	2018	North
22	291	7352	SW 22 AV & SW 1 ST	2019	
22	6395	7352	SW 22 AV & SW 1 ST	2019	North
22	960	7353	NW 22 AV & W FLAGLER ST	2018	
22	16009	7353	NW 22 AV & W FLAGLER ST	2018	North
22	664	7353	NW 22 AV & W FLAGLER ST	2019	
22	11436	7353	NW 22 AV & W FLAGLER ST	2019	North
207	181	8106	SW 1 ST & SW 21 CT	2018	
207	71	8106	SW 1 ST & SW 21 CT	2019	
207	19	8107	SW 1 ST & SW 21 AV	2018	
207	7	8107	SW 1 ST & SW 21 AV	2019	
207	4275	8138	BEACOM BD & SW 2 ST	2018	
207	642	8138	BEACOM BD & SW 2 ST	2019	
208	322	8036	W FLAGLER ST & OP SW 20 AV	2018	
208	139	8036	W FLAGLER ST & OP SW 20 AV	2019	
208	8	8135	BEACOM BD & SW 2 TE	2018	
208	4623	8139	BEACOM BD & SW 1 ST	2018	
208	1095	8139	BEACOM BD & SW 1 ST	2019	

## Appendix C

### Field Material and Presentation



1

## Schedule

Jasmine Senior Living RSA

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Mid-Day Field Review – Jasmine Senior Living (9:30 – 11:30 AM)

PM Peak Field Visit (1:00 PM – 3:00 PM)

Debrief on Field Observations – Jasmine Senior Living (3:15 PM – 4:15 PM)

- Discuss safety issues observed during field review
- Summarize and record observations by intersection and segment
- Discuss and record potential improvements/countermeasures

Jasmine Senior Living  
2222 SW 1<sup>st</sup> St  
Miami, FL 33135

2

2

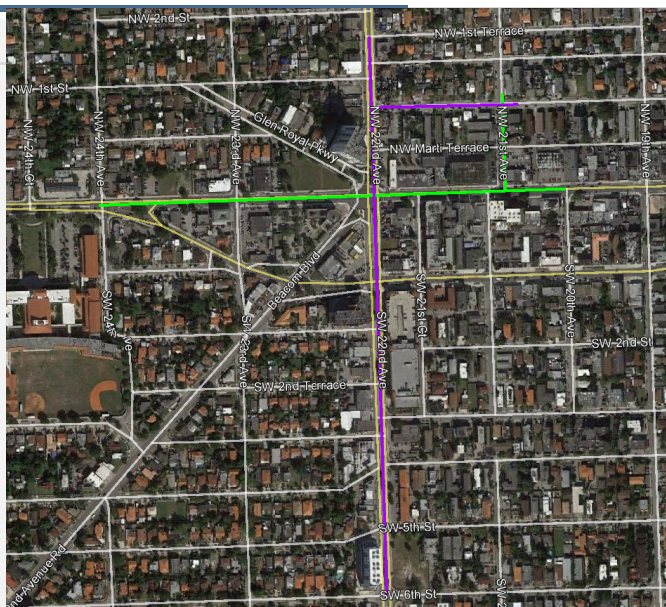
## » Field Review Responsibilities – Mid-Day Review

- Wear your safety vest!
- Everyone should take as many notes and pictures as they can!
- Divide into two teams:
  - **Team A will observe:**
    - W Flagler St from 24<sup>th</sup> Ave to SW 20<sup>th</sup> Ave
    - NW 21<sup>st</sup> Ave from Flagler St to NW Flagler Ter
  - **Team B will observe:**
    - SW 22<sup>nd</sup> Ave from north of SW 6<sup>th</sup> St to NW 1<sup>st</sup> Ter
    - NW Flagler Ter from NW 22<sup>nd</sup> Ave to NW 21<sup>st</sup> Ave

3

3

## » Team Field Assignments – Mid-Day Review



4

4



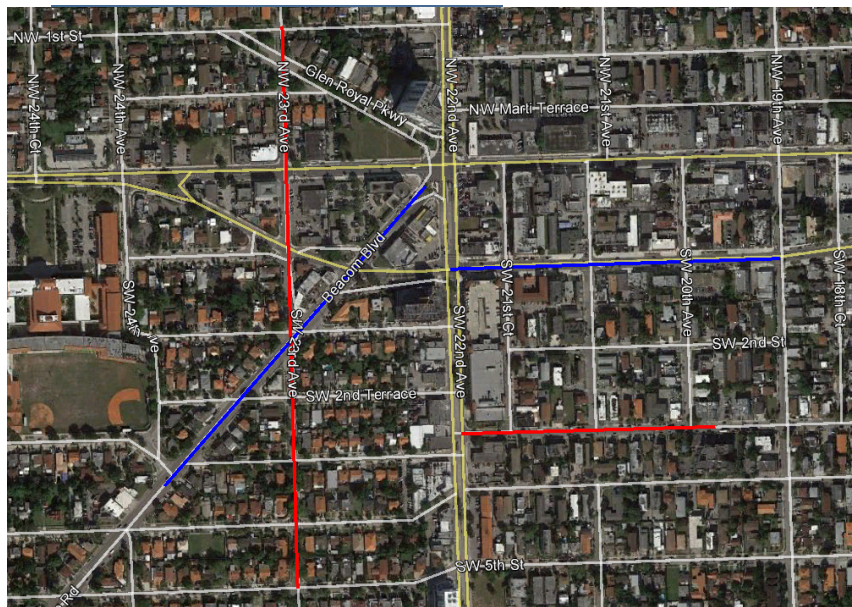
## » Field Review Responsibilities – PM Peak Review

- Wear your safety vest!
- Everyone should take as many notes and pictures as they can!
- Divide into two teams:
  - **Team A will observe:**
    - SW 23<sup>rd</sup> Ave from SW 5<sup>th</sup> St to NW 1<sup>st</sup> St
    - SW 3<sup>rd</sup> St from SW 22<sup>nd</sup> Ave to SW 20<sup>th</sup> Ave
  - **Team B will observe:**
    - Beacon Blvd from south of SW 3<sup>rd</sup> St to W Flagler St
    - SW 1<sup>st</sup> St from SW 22<sup>nd</sup> Ave to SW 19<sup>th</sup> Ave

5

5

## » Team Field Assignments – PM Peak Review



6

6







## Jasmine: Signal Timing Observations

Name:  
 Organization  
 Date:  
 Time:

W Flagler St / SW 1st Ave at 24th Ave								
	Movement							
	EBT		WBT	WBL			SBT	
Actual Yellow Time (from field review)								
Actual All Red Time (from field review)								
Walk Time	Eastbound		Westbound		Northbound		Southbound	
Flash Don't Walk								

W Flagler St at SW 22nd Ave and Beacon Blvd								
	Movement							
			WBT / WBL		NBT	NBL	SBT	
Actual Yellow Time (from field review)								
Actual All Red Time (from field review)								
Walk Time	Eastbound		Westbound		Northbound (Beacon)		Northbound (22nd Ave)	
Flash Don't Walk								

SW 1st St at Beacon Blvd								
	Movement							
	EBT / EBL				NBT		SBT	
Actual Yellow Time (from field review)								
Actual All Red Time (from field review)								
Walk Time	Eastbound		Westbound		Northbound		Southbound	
Flash Don't Walk								

SW 1st St at SW 22nd Ave								
	Movement							
	EBT / EBL				NBT		SBT	SBL
Actual Yellow Time (from field review)								
Actual All Red Time (from field review)								
Walk Time	Eastbound		Westbound		Northbound		Southbound	
Flash Don't Walk								

