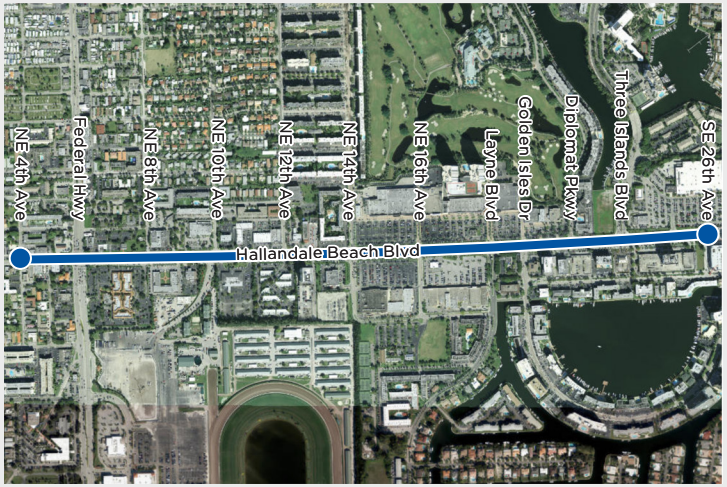
HALLANDALE BEACH BOULEVARD CORRIDOR SUMMARY

Hallandale Beach, FL

Broward MPO Metropolitan Planning Organization
Bicycle & Pedestrian SAFETY ACTION PLAN

Maintaining Agency: FDOT

FROM NE 4TH AVENUE TO NE 26TH AVENUE | 1.30 Miles



CRASH DATA

26 Pedestrian

62 Bicycle

1 Fatal

81 Injury

9 Property Damage Only

16% Occurred in Non-Daylight Lighting Conditions

35% Occurred in January, June, or August

35% Occurred Monday or Thursday

CALENDAR						
S	M	T	W	T	F	S
	X			X		
	X			X		
	X			X		
	X			X		

Peak Crash Time Periods

20% PM

10% PM

6% Involved Alcohol and/or Drugs

ROADWAY CHARACTERISTICS

Looking West

The corridor has a three lanes in each direction. It has intermittent right- and left-turn lanes. It also has a heavily landscaped median and both pedestrian and vehicular lighting. The corridor has 5' - 7' sidewalks and 4' - 5' marked bike lanes. The posted speed is 35 MPH. The land uses mainly consist of new and/or well kept auto-oriented shopping centers set behind large surface parking lots.

FIELD REVIEW OBSERVATIONS

- Narrow Bike Lanes
- Bicyclists Riding on Sidewalks
- Objects Blocking Sidewalks
- Frequent Driveways
- Poorly Marked Driveway Crossings
- Faded Pavement Markings
- ADA Noncompliant Sidewalks and Ramps
- Missing Crosswalks
- Lack of Bicycle Markings at Conflict Areas
- Skewed Intersection Geometry
- Poor Drainage
- Out of Date Pedestrian Signal Signage
- Obstructed Views at Crosswalks
- Long Signal Times


Objects Blocking the Sidewalk


Narrow Bike Lanes & Faded Markings


Bicyclists in sidewalks and Poorly Marked Driveway Crossings


Missing Pedestrian Crosswalks


Poor Visibility Due to Vegetation


ADA Noncompliance

HALLANDALE BEACH BOULEVARD DEMONSTRATION CORRIDOR REVIEW

From NE 4th Avenue to NE 26th Avenue | Hallandale Beach

Hallandale Beach Blvd Looking West

Bike Lane and Sidewalk on Hallandale Beach Blvd

Overview

Hallandale Beach Boulevard from NE 4th Avenue to NE 26th Avenue was chosen as a demonstration study site for the Broward MPO Bicycle and Pedestrian Safety Action Plan (BPSAP) based on a review of its pedestrian and bicycle crash history; land uses; propensity for active transportation; transit activity; and the decisions of the BPSAP Advocacy Team. It is generally a six-lane divided arterial with intermittent right- and left-turn lanes. It also has a heavily landscaped median and both pedestrian and vehicular lighting throughout the corridor. It has 5' to 7' sidewalks and 3' to 4' marked bike lanes throughout the corridor. The posted speed in 35 miles per hour (MPH). The land uses mainly consist of new and/or well kept auto-oriented shopping centers set behind large surface parking lots.

The following review describes the results of the corridor safety review and general observations of the corridor. A field review was conducted on Wednesday, July 13th, 2016 from 9:00 AM to 12:00 PM and a night time field review was completed on Tuesday, July 12th, 2016 from 8:30 to 9:30 PM.

Crash Summary

Over the six-year period from 2010 through 2015, 88 pedestrian or bicyclist crashes occurred along the Hallandale Beach Boulevard study corridor. Seventy (70) percent of these crashes involved a bicyclist (62 crashes), and 30 percent involved a pedestrian (26 crashes). It has one of the highest concentrations of bicycle crashes in the county and has a higher percentage of bicycle crashes compared to pedestrian crashes than usually seen in similar corridors. One crash resulted in a fatality (1 percent) and 81 resulted in injury (92 percent). The majority of these crashes occurred during dry and daylight conditions (84 percent and 90 percent, respectively). Five of the crashes involved alcohol or drugs (6 percent).

Most of the crashes occurred at or near the crosswalks of the intersections (74 crashes, 84 percent). The greatest number of pedestrian crashes occurred at US 1 (5 crashes), NE 8th Avenue (4 crashes), and NE 10th Avenue (4 crashes). The greatest number of bicycle crashes occurred at US 1 and at NE 8th Avenue (9 crashes each). However, many bicycle crashes also occurred at driveways for bicyclists riding on the sidewalks (13 crashes, 15 percent). For detailed crash diagrams and statistics, please see Appendix A.

FIGURE 1 | Study Area Crashes

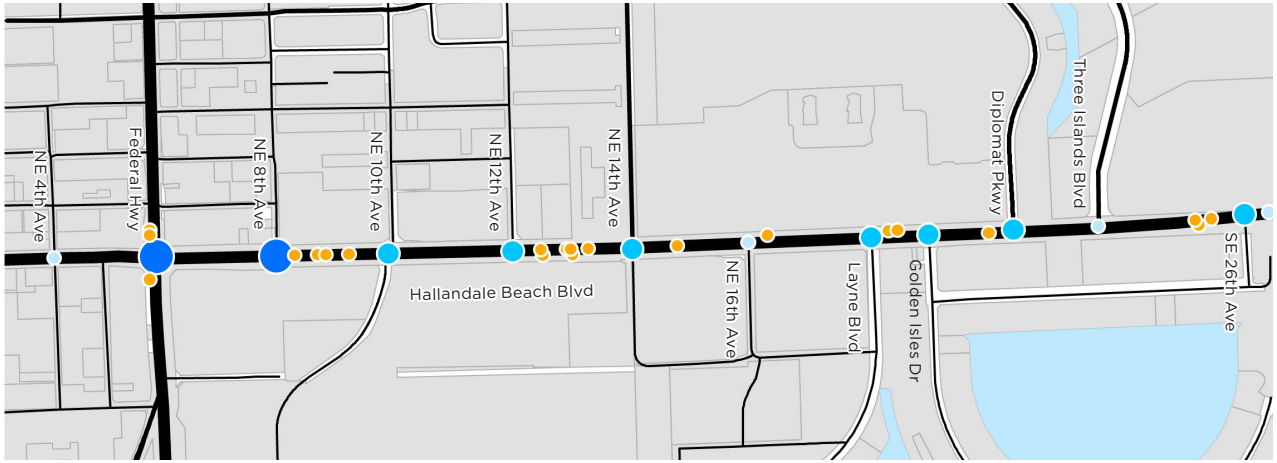
Legend

- 1 Segment Crash

Intersection Crash

- 1 - 5
- 6 - 6 - 10
- 11 - 15

Source: CARS 2010-2014 crash data; Signal Four Analytics 2010-2016 crash data



Transit Ridership & Land Use

Transit ridership is moderate in the Hallandale Beach Boulevard study area. The highest ridership is located at the intersection of Federal Highway and Hallandale Beach Boulevard, with transit stops that see over 250 boardings and alightings per day. However, ridership does not exceed 250 boardings and alightings per day anywhere else along the corridor, with the exception of the stop in front of the Walmart east of Three Islands Boulevard.

The land uses along the corridor, as noted previously, are generally auto oriented and provide large parking lots directly fronting the road. However, the portion of the corridor nearest Federal Highway is located in a Regional Activity Center, which is intended to have higher densities and transit supportive uses. These areas are intended to be the most walkable and bikeable in Broward County, and therefore deserve higher quality walking and bicycling infrastructure. According to demographic data, residents in the study area also have a high propensity for traveling on foot, by bike, or on transit in comparison to the rest of the county.

General Observations:

Based on the field review, several general issues were observed. Throughout the corridor, the inadequate bicycle infrastructure causes bicyclists to ride on the sidewalks instead of the road. Bicycle issues observed include: narrow bicycle lanes, lack of buffer between the bicycle lane and traffic, faded pavement markings, poorly marked driveways, and improper facility use (i.e., traveling against traffic and on sidewalks not intended for multi-use travel). In general, the pedestrian facilities do not comply with ADA requirements throughout the corridor. Pedestrian issues observed include: short signal crossing times, fixed objects mounted in sidewalks, missing or worn truncated domes at ramps, missing sidewalk connections, missing crosswalks, outdated signage at crosswalks, and drainage issues at ramps. The median vegetation generally prevents pedestrians from making mid-block crossings except at areas where there are breaks in vegetation. The vegetation on the along the sides of the street obstructs the sidewalks at some driveways and intersections. The following section describes the specific issues uncovered in the field review.

Typical Land Uses on Hallandale Beach Blvd

Sheltered Bus Stop on Hallandale Beach Blvd

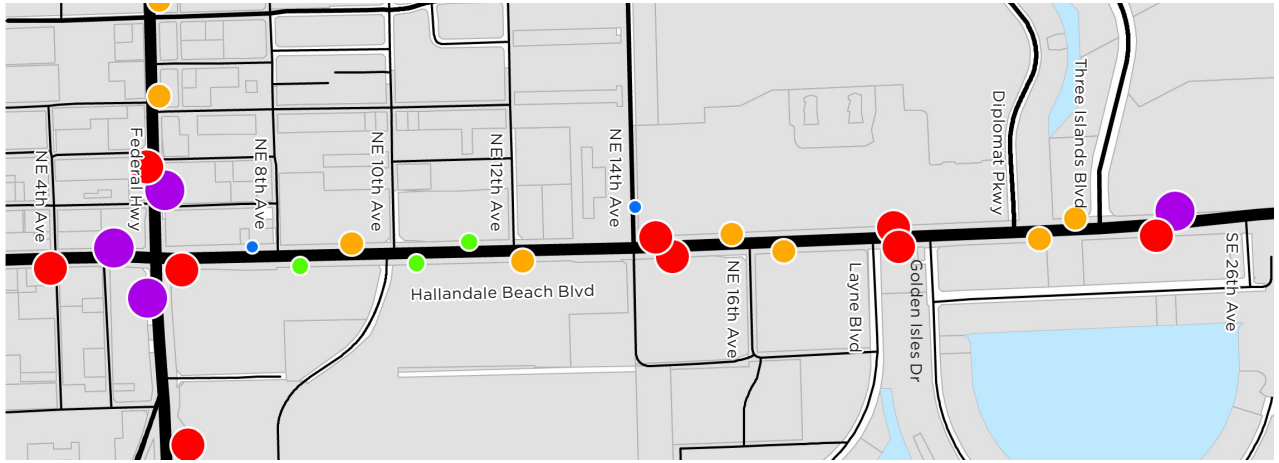


FIGURE 2 | Study Area Transit Ridership

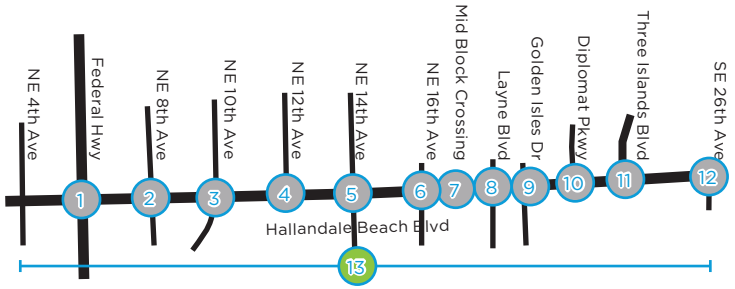
Legend

Daily Boardings + Alightings

- 1 - 25
- 26 - 50
- 51 - 100
- 101 - 250
- 250 +

Source: Broward County Transit, 2015

Issue: Bike Lane Deficiencies
Location: 13 (Corridor Wide)



General Observations:

- Bike lanes are approximately 3- to 4-feet wide throughout the corridor and provide no separation from vehicular traffic. This is not comfortable for most bicyclists.
- Bike lanes are worn throughout corridor.
- More bicyclists were observed riding on sidewalks than in bike lanes. The sidewalks are not wide enough to accommodate bicyclists and pedestrians at the same time, which causes potential for conflicts.
- Vehicles were observed driving in bike lanes.
- Many bicycle crashes occurred at intersections or driveways.

Recommendations:

- The relatively high number, percentage, and concentration of bicycle crashes in comparison to the rest of the county suggests that this corridor warrants protected or separated facilities to accommodate the needs of riders. A study should be completed that considers right-of-way, utilities, and other impacts so that these facilities can be constructed. This may require reconstruction.
- Repaint pavement markings.
- Provide additional visual separation of bike lanes through buffers.
- Use green paint at intersections, driveways, or other conflict points to highlight to drivers that bicyclists may be crossing.
- Create an outreach campaign to alert bicyclists of the dangers of riding on the sidewalks and to alert drivers of the need to look for bicyclists when turning in to and out of driveways.
- Create a progressive enforcement campaign where officers educate, warn, and finally ticket drivers who drive in bike lanes and bike riders who cross the street against the signal.

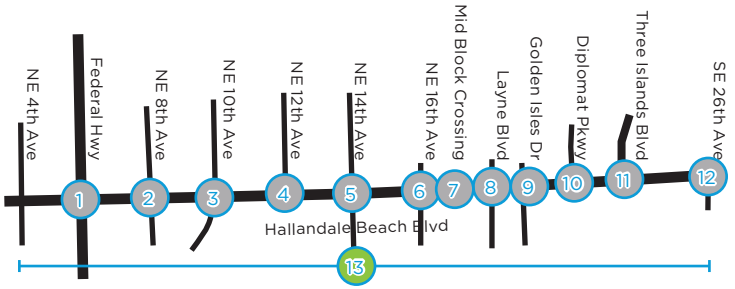
Faded bicycle lanes markings on Hallandale Beach Boulevard; issue persists throughout the corridor.

Bicyclist moves from bike lane to sidewalk after passing pedestrians.

Bicyclists riding on sidewalk as driver turns into driveway.

Bus rides next to bicycle on Hallandale Beach Blvd.

Issue: Fixed-Objects in Sidewalks
Location: 13 (Corridor Wide)

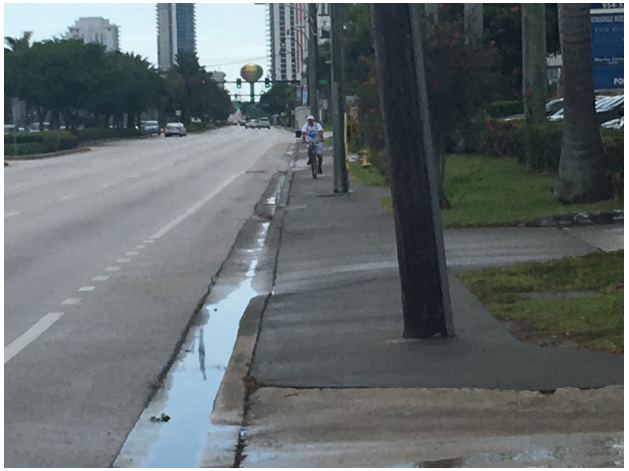


General Observations:

- Utility poles, sign poles, fire hydrants, and bus stop benches are mounted within the sidewalks or on approaches throughout the corridor.
- Metal support wires for utility poles create potential tripping hazards in several locations.

Recommendations:

- Relocate fixed objects off of sidewalks or provide additional sidewalk width to bypass. There should be a minimum of 4-feet clearance around fixed objects in accordance with forthcoming Public Right of Way Accessibility Guidelines.



Pole in the sidewalk that leaves little room for pedestrians and bicyclists.

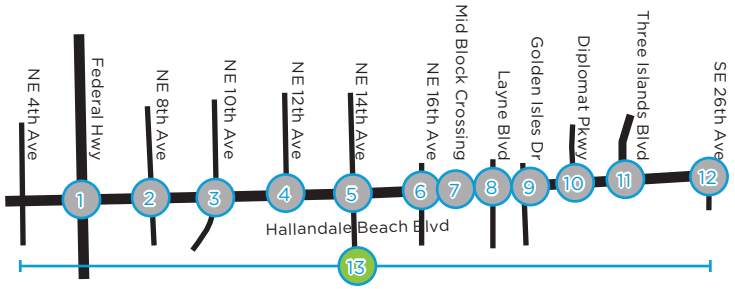
Sign in the sidewalk.

Bench and sign in sidewalk at bus stop; could be moved back on to slab behind the sign and bench.

Poles in the sidewalk on opposite sides; create the need to dodge poles for pedestrians.

Support wires cause a tripping hazard in the sidewalk.

Issue: Driveway Frequency & Design
Location: 13 (Corridor Wide)



General Observations:

- There are a number of driveways between intersections along the corridor. Many of these driveways are poorly marked from the bike lanes and sidewalks.
- In several locations, the sidewalks across the driveways are set back from the street and create potential safety issues.
- Driveways are oversized and encourage fast turning movements.

Recommendations:

- Refresh pavement markings to emphasize driveway locations.
- Use green paint at intersections, driveways, or other conflict points to highlight to drivers that bicyclists may be crossing.
- Upgrade sidewalks at driveways to meet ADA requirements.
- Create an outreach campaign to alert bicyclists of the dangers of riding on the sidewalks and to alert drivers of the need to look for bicyclists when turning in to and out of driveways.
- Encourage cross access agreements between developments to limit the number of driveways approved along the corridor.
- Consider narrowing driveways where possible and ensure that driveway width is considered in development review for new developments.

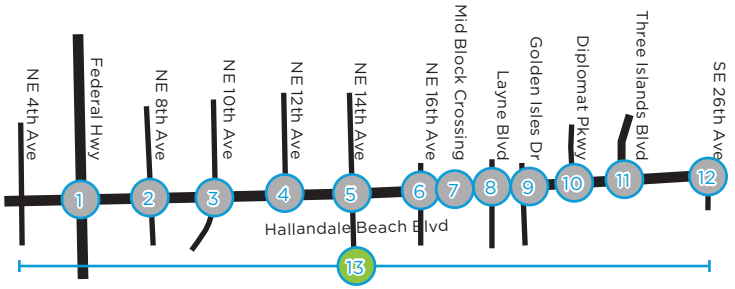
Oversized driveway.

Bicyclists riding through driveway that meets ADA requirements with no bicycle markings.

Driveway designed for high speed access.

Driveway that meets ADA requirements.

Issue: Noncompliant ADA Sidewalks and Ramps
Location: 13 (Corridor Wide)



General Observations:

- Fixed objects are mounted within the sidewalks,
- Sidewalk ramps do not comply with ADA requirements at every intersection along the corridor.
- In general, the truncated domes are missing, worn, or outdated.
- In several areas, accessible sidewalk connections are not present between the sidewalk and driveways or private parking lots.
- In several locations, the pedestrian signal push buttons are located far from the crosswalk ramps.

Recommendations:

- Update all ADA ramps along corridor to meet requirements.
- Relocate pedestrian signal push button near crosswalks.
- Expand sidewalk network to connect sidewalks with safe driveway crossings.

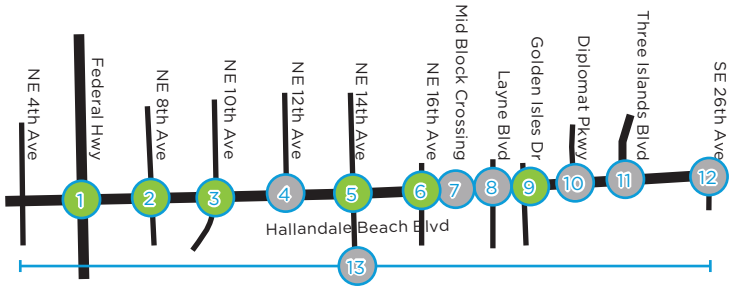
Ramp does not meet ADA requirements; detectable warning surfaces are cracked/inadequate,

Cracked sidewalk and missing detectable warning surfaces on ramp. Crosswalks do not line up properly.

Properly design connection between sidewalk and building.

No accessible sidewalk connection between sidewalk and parking lot.

Issue: Drainage / Flooding
Location: 1, 2, 3, 5, 6, 9



General Observations:

- Drainage is poor throughout the study area. Flooding was found at sidewalk ramps, in bike lanes, and otherwise throughout the corridor.

Recommendations:

- Update drainage system throughout corridor. Complete a study to determine specific locations where drainage issues are occurring. Consider options such as elevation modifications and improving draining through landscaping and other opportunities.


Flooding at mid-block crossing.

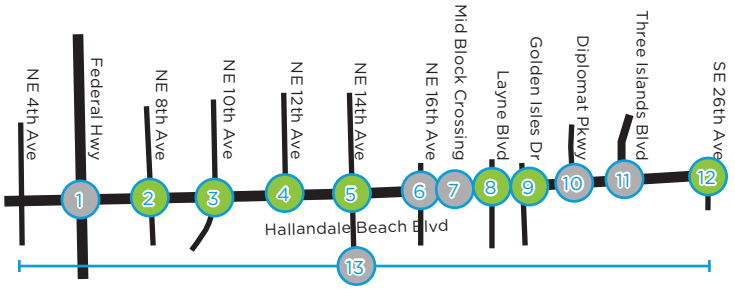
Flooding covering sidewalk ramp.


Flooding covering sidewalk ramp.


Flooding in crosswalk.


Flooding between bike lane and sidewalk.

Issue: Pedestrian Facility Deficiencies
Location: 2, 3, 4, 5, 8, 9, 12



General Observations:

- The pedestrian crossing signal timing is too short for slower pedestrians at several of the intersections along the corridor.
- Many of the crosswalks are faded, worn, or uneven.
- Most intersections do not have crosswalks across all four approaches. For example, no crosswalk is present near the eastbound bus stop that is located about one-half block east of Three Islands Boulevard, and there is a Walmart located directly north of the bus stop.
- The medians have some paved separations between landscaping, which allow pedestrians to cross through the median at mid-block locations.
- Sidewalks are directly adjacent to travel lanes without any separation from vehicles.

Recommendations:

- Review signal timing plans for corridor and extend pedestrian crossing times to meet minimum requirements.
- Add crosswalks to intersection legs where possible.
- Use lush landscaping to close off the medians to prevent pedestrians from making illegal mid-block crossings.
- Consider moving the eastbound bus stop that is located about one-half block east of Three Islands Boulevard closer to Three Islands Blvd to better facilitate access to Walmart.
- Consider adding a landscaped buffer between the sidewalk and the street.

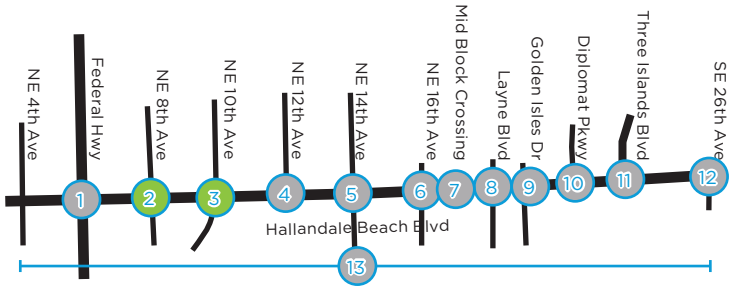
Pedestrian crossing mid-block at break in vegetation.

Pedestrian crossing mid-block at break in vegetation.

Pedestrian crossing at missing crosswalk.

Missing crosswalk.

Issue: Skewed Intersection Geometry
Location: 2, 3



General Observations:

- Off-set intersections create additional conflict points.
- Vehicles were observed driving turning onto the wrong lanes on the south leg of SE 8th Avenue.
- Wide turning radii allow for higher speed right turns across crosswalks.
- The off-set alignment of NE 10th Avenue/ Gulfstream requires a less effective signal timing plan than an aligned intersection.

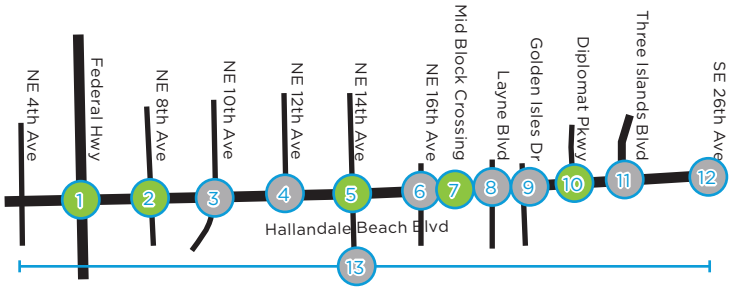
Recommendations:

- Reconstruct intersections to align north and south legs.

The geometry of the intersection at NE 8th Ave allows for high speed turns and is confusing for drivers.

Skewed intersection at NE 10th Ave.

Issue: Out-of-Date Pedestrian Signal Signage
Location: 1, 2, 5, 7, 10



General Observations:

- Many of the pedestrian signal push button signs do not provide the street names.
- At the legal mid-block crosswalk east of SE 16th Avenue, minimal warning signage is present.

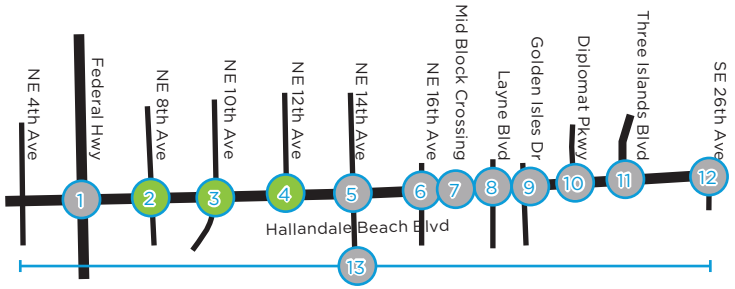
Recommendations:

- Update pedestrian signal push button signs as necessary to meet standards.
- Upgrade bike lane signage to alert drivers of the presence of bicyclists and to encourage the use of the bike lanes instead of the sidewalks.
- Upgrade pedestrian crossing signs and add Rectangular Rapid Flash Beacons (RRFBs) at the mid-block crosswalk east of SE 16th Avenue.

Signage does not indicate which street push button refers to.

Minimal warning signage at mid-block crosswalk.

Issue: Obstructed Views at Crosswalks
Location: 2, 3, 4



General Observations:

- Vegetation or other objects block view of pedestrians or bicyclists on sidewalk.

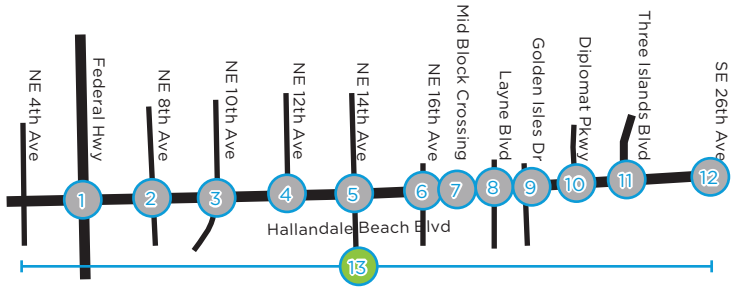
Recommendations:

- Cut back vegetation or move objects blocking views.

Object blocking view of pedestrians at SE corner of NE 8th Ave intersection.

Vegetation blocking view at NW corner of the NE 10th Ave intersection.

Issue: Signal Timing
Location: 13 (Corridor Wide)



General Observations:

- Signal times are long, which causes long wait times for pedestrians when crossing the street at intersections.
- It was observed that pedestrians cross the street against the signal even in crosswalks instead of waiting for the Walk signals.

Recommendations:

- Consider retiming signals with a focus on pedestrian and bicycle mobility.

Pedestrian crossing against the signal.