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.
HALLANDALE BEACH BOULEVARD DEMONSTRATION CORRIDOR REVIEW
From NE 4th Avenue to NE 26th Avenue | Hallandale Beach

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.
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.

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.
**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.

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

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

**Sign in the sidewalk.**

**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.
**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.
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.
**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.

**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.
**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.

**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.