RIVER TO SEA TPO
Transportation Planning Organization
VISION - PLAN - IMPLEMENT

SR/CR A1A PEDESTRIAN SAFETY & MOBILITY STUDY

PEDESTRIAN / BICYCLE SAFETY REVIEW

Focus Area G / S 23rd Street to S 11th Street and at the Beverly Beach Camptown RV Resort (Flagler Beach)

Prepared for:
River to Sea Transportation Planning Organization
2570 West International Speedway Boulevard, Suite 100
Daytona Beach, FL 32114

Prepared by:
Kittelson & Associates, Inc.
225 E. Robinson Street, Suite 450
Orlando, FL 32801
407.540.0555
kittelson.com

October 2016

SR/CR A1A
Pedestrian Safety & Mobility Study

Pedestrian/Bicycle Safety Review Report for
SR A1A from S 23rd Street to S 11th Street and
At the Mid-Block Crossing in Beverly Beach Camptown RV Resort
(Flagler Beach/Beverly Beach)

Section Number: 73030000
Mile Post: 1.978 – 3.535 and 7.055
Flagler County

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Project Title: Focus Area G Pedestrian/Bicycle Safety Field Review

Field Review Dates: November 12th and 13th, 2015 (daytime/nighttime reviews and follow up meeting)

Participants:
Jack Freeman – Kittelson & Associates, Inc. – Team Leader
Stephan Harris – River to Sea Transportation Planning Organization
Chad Lingenfelter – Florida Department of Transportation, District 5
Joan Carter – Florida Department of Transportation, District 5
Mike Sanders – Florida Department of Transportation, District 5
Mayor Stephen Emmett – City of Beverly Beach
Jose Papa – City of Palm Coast
Bob Smith – City of Flagler Beach (November 12th morning only)
Faith Alkhatib – Flagler County
Greg Feldman – Flagler County Citizens Advisory Committee (November 12th only)
Sergeant Williams – Flagler County Sheriff
Travis Hills – Kittelson & Associates, Inc.

Project Characteristics:
Field Review Type: Pedestrian, Bicycle, Existing Road
Adjacent Land Use: Urban, Residential, Hotels
Posted Speed Limit: 45 miles per hour (MPH) along the length of the study corridor
Opposite Flow Separation: None
Service Function: Urban Minor Arterial
Terrain: Flat
Climatic Conditions: Sunny, Hot

Figure 1 – Focus Area G Study Corridor

Figure 2 – Beverly Beach Camptown RV Resort Mid-Block Crossing

Background

Volusia County is ranked in Florida's top 10 counties for pedestrian injuries and fatalities. Pedestrians and bicyclists are identified as Vulnerable Road Users in the Florida Strategic Highway Safety Plan (SHSP). The goal of the SR/CR A1A Pedestrian Safety & Mobility Study is to generate a list of suggested improvements at high pedestrian/bicycle crash locations to address the growing need for pedestrian/bicycle safety along SR A1A in Volusia and Flagler Counties. SR A1A from S 23rd Street to S 11th Street (**Figure 1**), a 1.55 mile corridor in Flagler Beach, was identified as one of these high crash locations. In order to suggest improvements along this high crash corridor, the crash history was evaluated and a field review was conducted. Also reviewed was the fatal crash occurring near the mid-block crossing at the Beverly Beach Camptown RV Resort approximately five miles north of the study corridor (**Figure 2**). The methodology for selecting high crash corridors is explained in the SR A1A Pedestrian Safety and Mobility Study Final Report. This report will be available on the River to Sea TPO's website upon the completion of the study: http://www.r2ctpo.org/bicycle-pedestrian-program/overview/.

The pedestrian/bicycle safety review process involves multi-disciplinary representatives from various stakeholders, potentially including representatives from transportation planning, traffic operations, roadway design, safety, and law enforcement. Pedestrian/bicycle safety reviews are conducted to identify potential safety issues and provide improvement suggestions in a team collaborative environment. This pedestrian/bicycle safety review was commissioned by the River to Sea Transportation Planning Organization (R2CTPO) to develop short-term, near-term, and long-term suggestions to improve pedestrian and bicyclist safety within the study limits. This safety review is limited in scope and should not be construed as a comprehensive safety study; nor is it a formal Road Safety Audit. It is intended to identify potential operational and safety related improvements related to pedestrians and bicyclists to be considered by R2CTPO staff and partner agencies (i.e. FDOT District Five (D5), Flagler Beach, Flagler County, Palm Coast, Beverly Beach, local law enforcement). Some improvements presented in this report may be implemented in the short-term while other suggested safety improvements may be considered for future study. Each suggestion identified in this study is classified into one of three categories:

- Short-Term Maintenance – 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 Improvement – activities that may be incorporated into an upcoming construction project in the area, including 3R milling and resurfacing projects.
- Long-Term Improvement – activities that may be incorporated into upcoming construction projects and may need to be programmed for funding as separate projects.

The field review was conducted on Thursday November 12, 2015. The team met in the morning at the Flagler Beach City Hall Commission Chambers to discuss the study corridor and crash history. After lunch, the study team drove the entire corridor twice, south to north then north to south, to gain an understanding of the facility characteristics from a driver's perspective. On the second drive, the study team stopped to review the mid-block crossing location in Beverly Beach. After reviewing that location, the team drove to the southern end of the study corridor and walked the length of sidewalk along the west side of the roadway (no sidewalks present on east side). The two Kittelson & Associates, Inc. team members reassembled in the evening, after sunset, to make observations in nighttime conditions. A follow-up debrief meeting was held at the Flagler Beach City Hall Commission Chambers the following

morning (November 13th) to discuss the corridor's issues and potential improvements identified by the team. Study corridor characteristics are reviewed below:

Flagler Beach from S 23rd Street to S 11th Street

- S 23rd Street to S 11th Street – 1.56 miles;
- Two-lane, undivided cross section along the length of the study corridor;
- The posted speed along the study corridor is 45 MPH;
- There are no signalized intersections along the study limits;
- No marked crosswalks are provided accommodating pedestrians crossing SR A1A along the length of the study corridor;
- Continuous sidewalks are provided on the west side of the roadway along the length of the study corridor;
- No marked bike lanes are provided along the length of the study corridor, but three to four foot paved shoulders are provided;
- No transit service is provided along the length of the study limits;
- Overhead street lighting is located along the west side of SR A1A along the corridor; and
- The study corridor has experienced an average AADT of 8,300 over the last six years (2009-2014).

Beverly Beach Camptown RV Resort

- Two-lane, undivided cross section;
- The posted speed in the vicinity of the mid-block crossing is 45 MPH;
- The crosswalk is marked with old special emphasis markings;
- A Pedestrian Warning sign (W11-2) and downward arrow plaque (W16-7P) are present on the right side of each roadway approach;
- No crosswalk lighting is present;
- Continuous sidewalks are provided on the west side of the roadway along the length of the study corridor;
- No marked bike lanes are provided along the length of the study corridor, but four foot paved shoulders are provided;
- No transit service is provided along the length of the study limits; and
- The study location experienced a 2014 AADT of 5,700.

Crash History (2009 – 2014) for Flagler Beach from S 23rd Street to S 11th Street

Six (6) years of available pedestrian and bicycle related crash data, 2009 to 2014, were utilized for the SR A1A crash analysis. Crash data was obtained from two sources: 1. The FDOT Crash Analysis Reporting System (CARS) database from 2009 to 2013 and 2. The Signal Four Analytics database, maintained by University of Florida from 2009 to 2014. At the time of the analysis, the 2014 CARS data was not yet FDOT certified thus the reason for six years of crash data instead of the traditional five. The additional crashes from the Signal Four database supplemented the CARS data along SR A1A.

Nine (9) pedestrian or bicycle-related crashes were reported over the six-year study period, 67 percent of which involved pedestrians (6 crashes). Of the nine (9) pedestrian and bicycle crashes, there was one

(1) fatal crash (11 percent), seven (7) injury crashes (78 percent), and one (1) property-damage-only (PDO) crashes (11 percent) during the study period. The fatal pedestrian crash is summarized as follows:

- Crash Number 709371010
    - On June 16, 2009 at 3:44 PM a crash involving a pedestrian occurred approximately 135 feet north of the intersection of SR A1A and South 16th Street under daylight conditions. The pedestrian (8 year old boy) ran into the road from the east side of SR A1A. The vehicle was traveling northbound on SR A1A at approximately 45 miles per hour and attempted to avoid the pedestrian, but was unable to avoid striking him. The pedestrian was transported to the hospital where he was later pronounced deceased.

Crash diagrams were created along the corridor to summarize the pedestrian/bicycle-related crash history. The crash diagrams are included in **Appendix A**. The pedestrian/bicycle crash data was also summarized by the crash metrics displayed in the charts in **Appendix A**. A summary of these metrics, and locations with more than one crash, are provided below:

- Thirty-three percent of the crashes occurred in dark lighting conditions, and all nine crashes occurred under dry roadway conditions;
- There was 1 pedestrian or bicycle-related crash reported in 2009, 2010, and 2014 and 3 pedestrian/bicycle crashes reported in 2011-2012. No pedestrian/bicycle crashes were reported in 2013. Over this same time period, there was a decline in the Average Annual Daily Traffic (AADT) from 2009 to 2011 and an increase in AADT from 2011 to 2014 along the study corridor;
- Forty-four percent of the total crashes (4 crashes) were reported over the weekend;
- Six (6) of the 9 crashes occurred between 6:00 AM and 6:00 PM with the fatal crash occurring within that timeframe;
- None of the reported crashes involved alcohol, drugs, or a combination of the two;
- The vehicle had the right-of-way in all six (6) pedestrian crashes;
- The bicyclist had the right-of-way in all three (3) bicycle crashes;
- One (1) pedestrians and one (1) bicyclists was not from the state of Florida based upon their provided zip codes;
- Of the nine (9) crashes, there were five (5) crashes involving a pedestrian crossing at a mid-block location;
- Of the three (3) bicycle crashes, all three involved bicyclist traveling in the roadway; and
- Two (2) crashes occurred north of the unsignalized intersection of South 16th Street:
    - Both were mid-block pedestrian crashes
    - One resulted in a fatality
    - One resulted in an injury.

Crash History (2009 – 2014) at Beverly Beach Camptown RV Resort

One fatal bicycle crash occurred at the Beverly Beach Camptown RV Resort during the study period. The fatal crash is summarized below:

- Crash Number 820264340
    - On July 22, 2014 at 9:00 PM a crash involving a bicycle south of the mid-block crossing at the Camptown RV Resort under dark lighting conditions. The bicyclist was traveling north along SR A1A in the northbound travel lane. The vehicle was also traveling

northbound and struck the bicyclist in the rear. The bike was not equipped with lights or reflectors and the bicyclist was had a blood alcohol content (BAC) of 0.261. The bicyclist was pronounced deceased at the scene.

FIELD REVIEW FINDINGS

Location: Corridor-Wide

Issue #1: Lack of Bicycle Facilities

Figure 3

Figure 4

Figure 5

Description of Issue:
The study team observed a lack of formal bicycle facilities along SR A1A within the project limits. On the east side of the roadway nearest the dune, no shoulder is present except at beach access points (**Figure 3**). On the west side of the roadway, an approximate 4'-5' shoulder is present along the length of the study limits (**Figure 4**). The study team observed bicyclists riding off the roadway either on the sidewalk or within paved parking areas on the west side of SR A1A (**Figure 5**). The sidewalk on the west side was found to be no wider than 8'. Two bicycle crashes occurred between northbound traveling vehicles and bicycles riding in the northbound lane, where no shoulder or bicycle lane is present.

Suggestions for Improvement:
In the near term, consider reconstructing the sidewalk on the west side of the roadway to be a 10'-12' multi-use path. With the relatively high speeds (posted speed limit of 45 MPH), the study team observed most bicyclists utilizing the sidewalk. In order to accommodate the bicycle and pedestrian traffic in the

area, a wider multi-use path would serve both of those non-automobile modes. To help illuminate pedestrians/bicyclists utilizing the path, low level bollards with lights could be installed along the length of the study area, or at a minimum at unsignalized intersections. These low level bollard lights could be designed so they cannot be seen from the beach, thus reducing the risk of turtles being drawn to the roadway. Because the current sidewalk is approximately 5' to 20' from the edge of pavement, at unsignalized intersections the path can be brought closer to SR A1A so turning vehicles can better see pedestrians crossing the side street.

As a longer term suggestion, consider widening SR A1A to install buffered bicycle lanes. The group discussed the need to have facilities both on-street and off street to accommodate all types of bicyclists. For this suggestion, the eastern pavement line would remain in its current location (so the dune is not impacted) and SR A1A could be widened to the west by approximately 10' (7' for the northbound bicycle lane and an extra 3' for the southbound bicycle lane, because a 4' shoulder is already present). Because most of the existing buffer between the roadway and sidewalk (or multi-use path if the near term suggestion is constructed) would be utilized for new pavement, a curb and gutter cross section should be considered so a vertical obstruction is added between the roadway and pedestrian walking area.

Note both of these suggestions should be considered in conjunction with SR A1A north and south of the study corridor limits so there is consistency between bicycle facilities along the corridor.

Location: Corridor-Wide

Issue #2: Beach Parking Areas

Figure 6

Figure 7

Description of Issue:
Currently there are no designated beach parking lots along the study corridor and beachgoers need to either park in vacant lots (**Figure 6** and **Figure 7**) or park along the west side of SR A1A in areas not having parking restrictions. This leads to beachgoers parking anywhere along the corridor and creates variability in locations where pedestrians cross SR A1A to get to the beach.

Suggestions for Improvement:
Consider converting the vacant parcel on the southwest corner of SR A1A and 19th Street South to a beach access parking lot (**Figure 8**). As discussed in **Issue #3: Mid-Block Crossings**, a mid-block crossing is suggested at 19th Street to accommodate pedestrians crossing SR A1A to the beach access point. This mid-block crossing could be constructed in conjunction with the beach parking lot in order to concentrate pedestrian crossings at a specific location. The vacant parcels on the corners of 17th Street (**Figure 8**) and 13th Street could also be considered for beach parking areas. A mid-block crossing is suggested at 13th Street as discussed in **Issue #3: Mid-Block Crossings**.

If off street beach parking areas are constructed, consider installing NO PARKING (R8-3a) signs along the west side of SR A1A to encourage beachgoers to park in the designated beach parking areas.

Source: Google Earth

Figure 8

Location: Corridor-Wide

Issue #3: Mid-Block Crossings

Figure 9

Figure 10

Figure 11

Description of Issue:
In addition to numerous private beach access points, thirteen public beach access points are located along the study corridor (**Figure 9** and **Figure 10**). Five of the six pedestrian crashes occurred with a pedestrian crossing SR A1A at or near a beach access point, with two occurring at 16th Street (one being fatal) and one each occurring at 17th Street, 13th Street, and 11th Street. Even though the roadway is only two lanes wide, the 45 MPH speed limit makes it difficult for pedestrians to judge gaps when trying to cross the roadway (**Figure 11**).

Suggestions for Improvement:
Consider constructing mid-block crossings at 16th Street and 13th Street. A mid-block crossing should also be considered at 19th Street if the vacant parcel on the southwest corner is converted to be a beach parking area. The following details considerations for the mid-block crossings:

- Conduct a mid-block crossing study per Section 3.8 of the FDOT *Traffic Engineering Manual (TEM)* to evaluate if a crosswalk is warranted based upon existing demands.
- Install an active warning device, such as Rapid Rectangular Flashing Beacons (RRFB), at the crosswalk. Due to the high speed of the roadway, RRFBs should also be considered on advanced crosswalk signs per FHWA's interim approval memorandum.
- Provide a median refuge island with a minimum length of 90 feet for pedestrians.
    - The roadway would have to be widened to fit the refuge island between the northbound and southbound lanes but this impact could be minimized by reducing the travel lanes to be 11' wide. By constructing a raised refuge island, traffic calming may be a positive byproduct, as discussed further in **Issue #7: Vehicular Speed**.
- Install lighting on the crosswalk's east side.
    - Directional lighting oriented towards the crosswalk could be provided; or
    - LED lighting could turn on when the RRFB is activated and flashing and could turn off when the flashers stop.
- Stripe the crosswalk with special emphasis crosswalk markings consistent with sheet 10 of the FDOT Design Index 17346.
- Reconstruct the beach access walkover to have a 90 degree bend in the ramp similar to what is displayed in **Figure 12**. While the figure displays the 90 degree bend facing north, it would be preferred to construct the bend facing south so the pedestrian can better see northbound oncoming traffic. With the bend in the beach access ramp, the risk of a child or inattentive adult walking out onto SR A1A when coming from the beach is reduced.

Source: Google Earth

Figure 12

Location: Corridor-Wide

Issue #4: Minor Street Intersections

Figure 13

Figure 14

Figure 15

Description of Issue:
Along the corridor, the unsignalized minor street approaches did not include marked crosswalks and most of the detectable warning surfaces were in disrepair (**Figure 13**). The study team also observed detectable warning surfaces were angled with the curve of the curb return leading to wear from vehicles off tracking onto the warning surface/sidewalk (**Figure 14**). The study team also noted faded stop bars and double yellow striping along the minor street approaches along the corridor (**Figure 15**).

Suggestions for Improvement:
As a maintenance-type suggestion, consider emphasizing the pedestrian realm across minor stop-controlled intersection approaches by adding crosswalk markings (standard or special emphasis to be determined on a case-by-case basis) as shown on sheet 9 of FDOT Design Standard Index 17346. Consider replacing/installing detectable warning surfaces at minor street intersections along the corridor per FDOT Design Standard Index 304. When replacing the detectable warning surfaces, consider

installing them perpendicular to the sidewalk instead of at an angle so they are less impacted by right turning vehicles. Also consider restriping minor street stop bars and double yellow lines as shown on sheets 2 and 4 of FDOT Design Standard Index 17346 to emphasize where the vehicle needs to stop before making their turning movement.

Location: Corridor-Wide

Issue #5: Signage

Figure 16

Figure 17

Figure 18

Description of Issue:
The street signs along the corridor were faded/worn, had a letter height of approximately 4", and lacked retro reflectivity, as displayed in **Figure 16** and **Figure 17**. Conflicts may occur at night if a vehicle is driving slowly trying to find a specific street and a following vehicle gets impatient and decides to pass them. If a pedestrian is attempting to cross the roadway at the same time, the passing driver may not see the pedestrian causing a pedestrian related crash.

The study team also observed numerous signs along the corridor, both in the number of signs along the corridor and the applicability/location of some of the signs. For example, **Figure 18** displays a pedestrian warning sign near a private beach access with little pedestrian crossing volume while other public beach access points have no warning signs.

Suggestions for Improvement:
In the near term, consider replacing street name signage (**D3-1**) with new retro-reflective signs using applicable font size following the guidance provided in section 2D-43 of the 2009 *Manual on Uniform Traffic Control Devices (MUTCD)*. Table 2D-2 specifies 6" letter height on post mounted street signs at intersections along two-lane roadways. The street signs closer to SR 100 were recently upgraded to have 6" letter height with a decorative border so consider replacing the street signs along the study corridor with the same signage type for consistency.

Also during the next resurfacing project, a signage study/plan for the study corridor to evaluate the amount of signage, applicability, retro-reflectivity, and location along the study corridor. This signage study/plan should include replacing the older signs with signs meeting current standards.

Location: Corridor-Wide

Issue #6: Sidewalk Maintenance

Figure 19

Figure 20

Description of Issue:
Along a majority of the corridor, the sidewalk was observed as having walkability issues due encroachment from grass/shrubbery (**Figure 19**) or sand partially covering the walking area (**Figure 20**). Vacant parcels along the corridor were the primary locations where grass/shrubbery was encroaching on the sidewalk because no one owned the property to maintain the landscaping.

Suggestions for Improvement:
Consider regular sidewalk maintenance (sweeping debris/sand) along the corridor. The maintenance may be scheduled (once every one or two weeks, etc.) or may be performed after a heavy rain event.

In lieu of regular sidewalk maintenance by a local jurisdiction, local businesses along the corridor could apply for the FDOT Adopt-A-Highway program. According to the website (found at http://www.dot.state.fl.us/statemaintenanceoffice/aah.shtm), volunteers would "*enter into a two-year agreement with DOT, during which they agree to conduct litter removal at regularly scheduled intervals. Many miles of highway are adopted statewide by various organizations, allowing civic-minded people to make a difference in their communities. This eases the load of DOT work crews, enabling them to devote more time to other road maintenance and special highway projects.*"

In addition to the program, the volunteers could also trim the grass/shrubbery within the right-of-way and removing sand from the sidewalk.

Location: Corridor-Wide

Issue #7: Vehicular Speed

Description of Issue:
The current posted speed along the study corridor is 45 MPH and during the field review, the study team observed many vehicles traveling at or above the posted speed. Local residents have complained about the excessive speeds along this portion of SR A1A. Locals have also brought up an issue when slower traveling vehicles (tourists looking at the ocean, local traffic not in a rush to get somewhere, etc.) are being passed by vehicles using SR A1A as a pass through route. This creates a hazard because the passing vehicle is sometimes traveling 10-20 MPH faster than the slower traveling vehicle.

Suggestions for Improvement:
FDOT has approved changing the posted speed limit from 45 MPH to 35 MPH from approximately 100' south of S 13th Street to approximately 50' south of S 8th Street. FDOT has also approved changing the posted speed limit from 35 MPH to 30 MPH from approximately 50' south of S 8th Street to N 3rd Street. The traffic regulation change letter regarding the speed zone study can be found in **Appendix B**.

To aid in slowing vehicles down through the study corridor, the characteristics of the roadway would also need to change. As discussed in **Issue #3: Mid-Block Crossings**, median refuge islands should be considered if any mid-block crossings are to be installed throughout the corridor. To install those medians, the roadway would need to be widened but the lane widths could be reduced to minimize the amount of extra pavement needed. If the lane widths are reduced and a raised median installed at the mid-block crossing locations, vehicles would need to navigate these areas at a slower speed than they do now. Installing two to three mid-block crossings with raised medians along the study corridor would give the driver visual cues they are approaching a higher pedestrian/bicycle activity area and prepare them for the speed limit reduction from 45 MPH to 35 MPH to 30 MPH.

Location: Corridor-Wide

Issue #8: Lighting

Figure 21

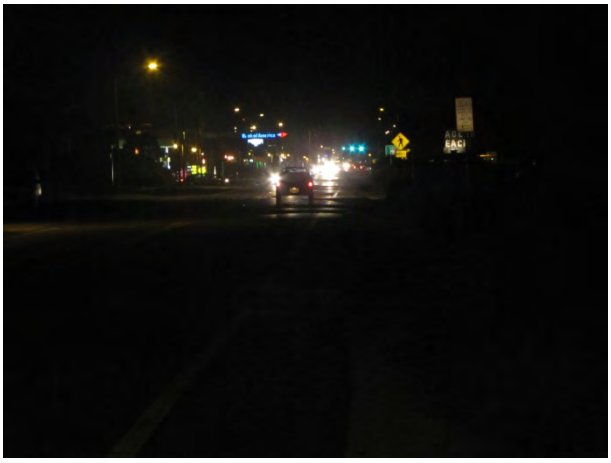


Figure 22

Figure 23

Description of Issue:

Flagler Beach is a destination for sea turtle nesting. The sea turtle nesting season is from May 1 to October 31. **Figure 21** displays 360 degree turtle shielding on an overhead light to minimize light emittance. Members of the study team also confirmed that during turtle season, the overhead lights along the corridor are turned off. Shutting off lights or using the turtle shields negatively impact the lighting conditions for the roadway users. Reducing the light can make it difficult for drivers to see pedestrians or bicyclists at night, especially those wearing dark clothing. **Figure 22** illustrates the lighting levels the safety team observed during the night field review. **Figure 23** displays the lighting from an overhead light that has 360 degree turtle shielding it is very concentrated just below the light. The safety study team observed the roadway lighting conditions and had the following observations:

- Inconsistent lighting levels along the corridor;
- Some of the street lights were either off or not working properly; and
- Shields still block light on the roadway even though the study was conducted outside of the turtle season.

Of the three non-daylight crashes, only one occurred during turtle season (May through October).

Suggestions for Improvement:
The following are considerations for lighting along the corridor:

- Replace the lights on the corridor that are burnt out.
- Consider conducting field measurements of existing lighting levels to evaluate lighting uniformity levels and add lighting where necessary. Consider light poles on the east side that are angled westerly away from the beach. These light poles cast their light to the west and illuminate the roadway as needed. The light bulb is not seen by the turtles due to the angle and orientation of the light fixture.
- Consider implementing a lighting plan for the time the sea turtle nesting season is not active as roadway lighting levels should not be reduced at this time.
- Consider conducting a lighting justification study along unlit portions of the corridor to determine if additional lighting is justified.
- Consider implementation of pedestrian-level lighting, with less visibility from the beach, to supplement areas where street lighting is not able to provide adequate illumination.
- As a long-term consideration, upgrade to an adaptive roadway lighting system along the corridor. Lighting levels could be programmed to be reduced during the sea turtle nesting season and increased to normal levels outside of the nesting season. This could be coupled with replacing the current high pressure sodium lighting with LED lighting.

Location: Corridor-Wide

Issue #9: Residential Driveways

Figure 24

Figure 25

Description of Issue:
Many residential properties along the west side of the corridor had paved driveways but no formal driveway connection onto SR A1A, as displayed in **Figure 24**. Some properties did not have a paved driveway but the study team observed missing grass where it looked like vehicles had consistently turned from SR A1A, driven over the sidewalk, and parked on a property (**Figure 25**). In situations like these, a vehicle turning from SR A1A may not see a pedestrian or bicycle on the sidewalk. Also vehicles backing out from these properties will have a tough time seeing pedestrians or bicyclists on the sidewalk. In addition to the vehicular/non-motorist conflict, the vehicles driving over the unpaved portion of the driveway will track dirt, sand, and other debris onto the sidewalk.

Suggestions for Improvement:
Consider working with Flagler Beach code enforcement to identify properties having and not having approved driveway access onto SR A1A. For the properties having approved driveway access onto SR A1A, consider paving a driveway connection between the edge of pavement and the sidewalk during the next 3R project. For those properties not having approved access, work with the property owner to either get a driveway accessing SR A1A approved/formalized or see if they have access to their home on the west side of their parcel. If they have access to their home on the back side of the parcel, they should not need direct access to SR A1A. Some homes were observed to have both east and west access to the parcel.

Location: Corridor-Wide

Issue #10: Minor Street Sight Distance

Figure 26

Figure 27

Description of Issue:
The study team observed the stop bars at the minor streets to be set back 20'-25' from the edge of the travel lane, as displayed on **Figure 26** and **Figure 27**. The stop bar is set back due to the location of the sidewalk but this creates sight distance issues for vehicles turning from the minor street. The sight distance was observed to be restricted by walls along properties and by areas where vehicles are allowed to park on the west side of SR A1A. Because the sight distance is restricted, vehicles were seen driving through the stop bar and stopping near the roadway often on the unmarked crosswalk. This creates a conflict with pedestrians and bicyclists who may be attempting to cross the minor street as a vehicle is pulling out to make a turn onto SR A1A.

Suggestions for Improvement:
Consider limiting on street parking immediately adjacent to the minor street intersections. This suggestion could be performed in conjunction with making off street beach parking areas as described in **Issue #2: Beach Parking Areas**. In addition to limiting on street parking, consider moving the stop bars to be the minimum of 4' away from the marked crosswalks discussed in **Issue #4: Minor Street Intersections**, per sheets 2 and 4 of FDOT Design Standard Index 17346.

Location: Mid-Block between S 23rd Street and S 16th Street

Issue #11: Broken Sidewalk

Figure 28

Figure 29

Description of Issue:
The study team observed broken sidewalk just south of 22nd Street, as displayed in **Figure 28** and **Figure 29**. The broken sidewalk does not present a usable pedestrian walking surface in this section.

Suggestions for Improvement:
Consider reconstructing the sidewalk panels south of 22nd Street to replace the broken sidewalk and create a walkable pedestrian access route.

Location: Mid-Block between S 23rd Street and S 16th Street

Issue #12: Parked Cars on Sidewalk

Figure 30

Description of Issue:
Due to the angled parking for the Martin's Restaurant & Lounge, the handicapped spot forces drivers to park their vehicle over the sidewalk as displayed in **Figure 30**. Clear width for the sidewalk must be maintained per the Americans with Disabilities Act (ADA) Public Rights-of-Way Accessibility Guidelines (PROWAG).

Suggestions for Improvement:
Consider working with the Martins property owner to align their parking stalls so vehicles are not parked over the sidewalk. Consider working with parking enforcement to warn/cite drivers who still park over the sidewalk once the parking stalls have been realigned.

Location: Mid-Block between S 23rd Street and S 16th Street

Issue #13: Missing Pedestrian Facilities

Figure 31

Figure 32

Figure 33

Figure 34

Description of Issue:
No designated sidewalk area was noted at two locations along the study corridor:

- In front of the Oceanside Bar (**Figure 31**) and Pope Plaza (**Figure 32**) – 1800 block of SR A1A; and
- In front of Beach House Beanery and Café (**Figure 33** and **Figure 34**) – 1100 block of SR A1A.

A paved level surface was provided but any pedestrians walking on the west side of SR A1A at these locations did not have a specific path they needed to walk in.

Suggestions for Improvement:
Consider adding a concrete sidewalk in front of the Oceanside Bar. In order to not create a drop off hazard with the new concrete, consider removing an asphalt strip and constructing the sidewalk flush with the existing asphalt. The visual difference between the concrete and sidewalk will let the pedestrian/bicyclist know where they should be traveling. Alternatively, high visibility crosswalk markings could also be used to define the pedestrian area.

Concrete sidewalk is already located in front of the Pope Plaza buildings between the building face and the perpendicular parking stalls. While this sidewalk may be constructed on private property, consider working with the property owner to expand this sidewalk to be 6'-8' wide and connect to the sidewalk being considered in front of the Oceanside Bar. The two buildings in the Pope Plaza are offset, so a sidewalk connection would need to be made between the southernmost and the northernmost buildings as displayed in **Figure 35**.

Figure 35

A small sidewalk area is present in front of the Beach House Beanery and Café. Consider working with the property owner to widen this sidewalk and connect to the sidewalk on the north side of the property. In pavement concrete could be added on the south side of the property at the S 12th Street intersection to lead pedestrians/bicyclists to the sidewalk running in front of the building. Consider working with the property owner to remove the parking spaces in front the Café as the business has parking the rear of the building.

By enhancing/adding sidewalk between the parking stalls and buildings, a designated walking/bicycling area is created and potential conflicts between vehicles pulling into/out of the property from SR A1A are reduced.

Location: Mid-Block at the Beverly Beach Camptown RV Resort

Issue #14: Mid-Block Crossing Enhancements and Vehicular Speed

Source: Google Earth

Figure 36

Figure 37

Figure 38

Figure 39

Figure 40

Figure 41

Figure 42

Description of Issue:
The mid-block crossing at the Beverly Beach Camptown RV Resort is a heavily utilized crossing in Beverly Beach (general area and crosswalk location displayed in **Figure 36**). The crossing is striped with old special emphasis crosswalk markings and has pedestrian warning signs (W11-2) with downward arrows (W16-7P) at the crosswalk (**Figure 37** and **Figure 38**). Pedestrian warning signs with continuously flashing beacons are located approximately ¼ mile north and south of the crossing (**Figure 39**). The roadway has 12' wide lanes along with a 4'-6' paved shoulder and has a posted speed of 45 MPH (**Figure 40**). The crosswalk does not have lighting, as displayed in **Figure 41**).

Staff and residents from the Town of Beverly Beach have requested FDOT to reduce the posted speed limit of 45 MPH through this area because vehicles tend to drive faster than the posted speed limit.

Suggestions for Improvement:
To slow vehicles down through the study corridor, the characteristics of the roadway would need to change because installing a lower speed limit sign will not reduce speeds. The following considerations may help slow speeds through Beverly Beach because vehicles would need to navigate at a slower speed than they are traveling now.

In the near term, consider the following mid-block crosswalk enhancements:

- Install an active warning device, such as RRFBs, at the crosswalk. Due to the high speed of the roadway, RRFBs should also be considered on advanced crosswalk signs per FHWA's interim approval memorandum.
    - The warning device should be installed at both the side of the roadway and in the median for both directions of travel.
- Provide a 6' wide median refuge island with a minimum length of 90 feet for pedestrians.
    - The roadway would need to be widened but the lane widths could be reduced to 11' to minimize the amount of extra pavement needed. The shoulder could be utilized for some of the extra pavement width, thus narrowing the roadway for the driver. By constructing a raised refuge island and narrowing the roadway, traffic calming may be a positive byproduct, as discussed below.
- Install lighting on the crosswalk's east side.
    - Directional lighting oriented towards the crosswalk could be provided; or
    - LED lighting could turn on when the RRFB is activated and flashing and could turn off when the flashers stop.
- Restripe the crosswalk with special emphasis crosswalk markings consistent with sheet 10 of the FDOT Design Index 17346.
- Install audible vibratory pavement markers along the centerline and shoulder striping to discourage driving on the shoulder.
- Construct a raised bulb out on the east side of the roadway to define where the pedestrian should be standing in order to cross. Currently the roadway, paved parking lot, and concrete sidewalk from the convenience store are at the same level thus leaving the pedestrian in a "no man's land" area if they are waiting to cross the roadway (**Figure 42**).

As a longer term suggestion, consider adding gateway features on the south and north sides of the town. The gateway feature could include a 6' median island similar to what is proposed at the mid-block crossing. Audible vibratory pavement markers could also be considered to discourage shoulder driving or a curbed section could be installed along the length of the gateway feature to visually narrow the roadway for the driver. Landscaping could be included both in the median and along the side of the roadway to also help visually narrow the roadway.

Location: Mid-Block at the Beverly Beach Camptown RV Resort

Issue #15: Golf Cart Crossings

Figure 43

Description of Issue:
Golf carts were observed crossing from the west side of Beverly Beach, where the mobile homes and RV parking is located, to the east side of Beverly Beach, where the RV park grocery store and beach is located. In talking with the mayor of Beverly Beach, he noted this is a common occurrence because residents and guests do not want to drive their cars across the roadway (**Figure 43**). Golf carts are not "street legal" thus are not legally permitted to cross SR A1A in Beverly Beach.

Suggestions for Improvement:
Consider a golf cart study to assess the feasibility of making golf carts "street legal" in the Town of Beverly Beach. In order to become "street legal", the Town could institute an ordinance that golf carts must have brakes, turn signals, a horn, rear-view mirror, reflectors on the front and rear, and seat belts. Golf carts operating at night would also need working headlights. To safety get the golf carts across SR A1A, they could be required to utilize the marked mid-block crossing at the Camptown Resort instead of being permitted to cross anywhere along SR A1A.

Summary of Suggestions

This pedestrian/bicycle safety review considers operational and safety related issues for pedestrians and bicyclists on SR A1A from S 23rd Street to S 11th Street and at the Beverly Beach Camptown RV Resort. This study was commissioned by the R2CTPO to develop suggestions to improve the safety of pedestrians and bicyclists within the study limits. Each suggestion identified in this study is classified into one of three categories:

- Short-Term Maintenance – 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 Improvement – activities that may be incorporated into an upcoming construction project in the area, including 3R milling and resurfacing projects.
- Long-Term Improvement – activities that may be incorporated into upcoming construction projects and may need to be programmed for funding as separate projects.

The following Short-Term Maintenance suggestion should be prioritized for implementation before the other suggestions identified in this report:

- Issue #6: Sidewalk Maintenance on page 17
- Issue #11: Broken Sidewalk on page 23

The following tables summarize the suggestions of this study by priority (maintenance, near-term, or long-term).

Location	Issue Number	Issue	Suggestion
SHORT-TERM MAINTENANCE			
Corridor Wide	4	Minor Street Intersections	Consider emphasizing the pedestrian realm across minor stop-controlled intersection approaches by adding crosswalk markings (standard or special emphasis to be determined on a case-by-case basis) as shown on sheet 9 of FDOT Design Standard Index 17346. Consider replacing/installing detectable warning surfaces at minor street intersections along the corridor per FDOT Design Standard Index 304. When replacing the detectable warning surfaces, consider installing them perpendicular to the sidewalk instead of at an angle so they are less impacted by right turning vehicles. Consider restriping minor street stop bars and double yellow lines as shown on sheets 2 and 4 of FDOT Design Standard Index 17346 to emphasize where the vehicle needs to stop before making their turning movement.
Corridor Wide	6	Sidewalk Maintenance	Consider regular sidewalk maintenance (sweeping debris/sand) along the corridor. The maintenance may be scheduled (once every one or two weeks, etc.) or may be performed after a heavy rain event. In lieu of regular sidewalk maintenance by a local jurisdiction, local businesses along the corridor could apply for the FDOT Adopt-A-Highway program. According to the website (found at http://www.dot.state.fl.us/statemaintenanceoffice/aah.shtm), volunteers would "enter into a two-year agreement with DOT, during which they agree to conduct litter removal at regularly scheduled intervals. Many miles of highway are adopted statewide by various organizations, allowing civic-minded people to make a difference in their communities. This eases the load of DOT work crews, enabling them to devote more time to other road maintenance and special highway projects." In addition to the program, the volunteers could also trim the grass/shrubbery within the right-of-way and removing sand from the sidewalk.
Corridor Wide	8	Lighting	Replace the lights on the corridor that are burnt out.
Mid-Block between S 23rd Street and S 11th Street	11	Broken Sidewalk	Consider reconstructing the sidewalk panels south of 22nd Street to replace the broken sidewalk and create a walkable pedestrian access route.

Location	Issue Number	Issue	Suggestion
NEAR-TERM IMPROVEMENT			
Corridor Wide	1	Lack of Bicycle Facilities	Consider reconstructing the sidewalk on the west side of the roadway to be a 10'-12' multi-use path. To help illuminate pedestrians/bicyclists utilizing the path, low level bollards with lights could be installed along the length of the study area, or at a minimum at unsignalized intersections. These low level bollard lights could be designed so they cannot be seen from the beach, thus reducing the risk of turtles being drawn to the roadway. Because the current sidewalk is approximately 5' to 20' from the edge of pavement, at unsignalized intersections the path can be brought closer to SR A1A so turning vehicles can better see pedestrians crossing the side street.
Corridor Wide	3	Mid-Block Crossings	Consider constructing mid-block crossings at 16th Street and 13th Street. A mid-block crossing should also be considered at 19th Street if the vacant parcel on the southwest corner is converted to be a beach parking area. The following details considerations for the mid-block crossings: • Conduct a mid-block crossing study per Section 3.8 of the FDOT Traffic Engineering Manual (TEM) to evaluate if a crosswalk is warranted based upon existing demands. • Install an active warning device, such as Rapid Rectangular Flashing Beacons (RRFB), at the crosswalk. Due to the high speed of the roadway, RRFBs should also be considered on advanced crosswalk signs per FHWA's interim approval memorandum. • Provide a median refuge island with a minimum length of 90 feet for pedestrians. o The roadway would have to be widened to fit the refuge island between the northbound and southbound lanes but this impact could be minimized by reducing the travel lanes to be 11' wide. By constructing a raised refuge island, traffic calming may be a positive byproduct, as discussed further in **Issue #7: Vehicular Speed**. • Install lighting on the crosswalk's east side. o Directional lighting oriented towards the crosswalk could be provided; or o LED lighting could turn on when the RRFB is activated and flashing and could turn off when the flashers stop. • Stripe the crosswalk with special emphasis crosswalk markings consistent with sheet 10 of the FDOT Design Index 17346. • Reconstruct the beach access walkover to have a 90 degree bend in the ramp, preferably facing south towards oncoming northbound traffic.
Corridor Wide	5	Signage	Consider replacing street name signage (D3-1) with new retro-reflective signs using applicable font size following the guidance provided in section 2D-43 of the 2009 Manual on Uniform Traffic Control Devices (MUTCD). Table 2D-2 specifies 6" letter height on post mounted street signs at intersections along two-lane roadways. The street signs closer to SR 100 were recently upgraded to have 6" letter height with a decorative border so consider replacing the street signs along the study corridor with the same signage type for consistency. During the next resurfacing project, consider a signage study/plan for the study corridor to evaluate the amount of signage, applicability, retro-reflectivity, and location along the study corridor. This signage study/plan should include replacing the older signs with signs meeting current standards.
Corridor Wide	7	Vehicular Speed	FDOT has approved changing the posted speed limit from 45 MPH to 35 MPH from approximately 100' south of S 13th Street to approximately 50' south of S 8th Street. FDOT has also approved changing the posted speed limit from 35 MPH to 30 MPH from approximately 50' south of S 8th Street to N 3rd Street. As discussed in **Issue #3: Mid-Block Crossings**, median refuge islands should be considered if any mid-block crossings are to be installed throughout the corridor. To install those medians, the roadway would need to be widened but the lane widths could be reduced to minimize the amount of extra pavement needed. If the lane widths are reduced and a raised median installed at the mid block crossing locations, vehicles would need to navigate these areas at a slower speed than they do now. Installing two to three mid-block crossings with raised medians along the study corridor would give the driver visual cues they are approaching a higher pedestrian/bicycle activity area and prepare them for the speed limit reduction from 45 mph to 30 mph.

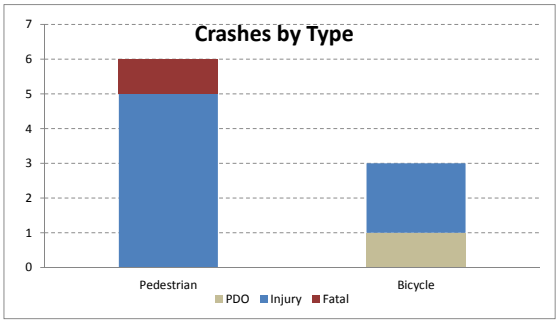
Location	Issue Number	Issue	Suggestion
NEAR-TERM IMPROVEMENT			
Corridor Wide	8	Lighting	The following are considerations for lighting along the corridor: • Consider conducting field measurements of existing lighting levels to evaluate lighting uniformity levels and add lighting where necessary. Consider light poles on the east side that are angled westerly away from the beach. These light poles cast their light to the west and illuminate the roadway as needed. The light bulb is not seen by the turtles due to the angle and orientation of the light fixture. • Consider implementing a lighting plan for the time the sea turtle nesting season is not active as roadway lighting levels should not be reduced at this time. • Consider conducting a lighting justification study along unlit portions of the corridor to determine if additional lighting is justified. • Consider implementation of pedestrian-level lighting, with less visibility from the beach, to supplement areas where street lighting is not able to provide adequate illumination.
Corridor Wide	10	Minor Street Sight Distance	Consider limiting on street parking immediately adjacent to the minor street intersections. This suggestion could be performed in conjunction with making off street beach parking areas as described in **Issue #2: Beach Parking Areas**. In addition to limiting on street parking, consider moving the stop bars to be the minimum of 4' away from the marked crosswalks discussed in **Issue #4: Minor Street Intersections**, per sheets 2 and 4 of FDOT Design Standard Index 17346 .
Mid-Block between S 23rd Street and S 11th Street	12	Parked Cars on Sidewalk	Consider working with the Martins property owner to align their parking stalls so vehicles are not parked over the sidewalk. Consider working with parking enforcement to warn/cite drivers who still park over the sidewalk once the parking stalls have been realigned.
Mid-Block between S 23rd Street and S 11th Street	13	Missing Pedestrian Facilities	Consider adding a concrete sidewalk in front of the Oceanside Bar. In order to not create a drop off hazard with the new concrete, consider removing an asphalt strip and constructing the sidewalk flush with the existing asphalt. Alternatively, high visibility crosswalk markings could also be used to define the pedestrian area. Consider working with the property owner of the Pope Plaza to expand this sidewalk to be 6'-8' wide and connect to the sidewalk being considered in front of the Oceanside Bar. The two buildings in the Pope Plaza are offset, so a sidewalk connection would need to be made between the southernmost and the northernmost buildings. Consider working with the property owner to widen this sidewalk and connect to the sidewalk on the north side of the property. In pavement concrete could be added on the south side of the property at the S 12th Street intersection to lead pedestrians/bicyclists to the sidewalk running in front of the building. Consider working with the property owner to remove the parking spaces in front the Café as the business has parking the rear of the building.

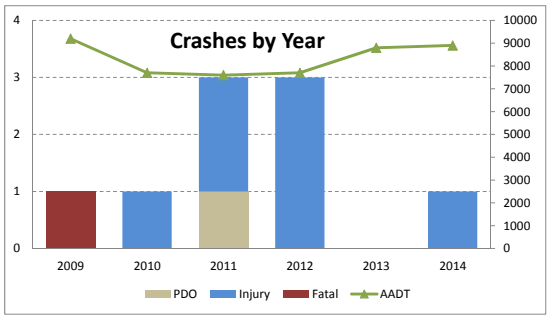
Location	Issue Number	Issue	Suggestion
NEAR-TERM IMPROVEMENT			
Mid-Block at the Beverly Beach Camptown RV Resort	14	Mid-Block Crossing Enhancements and Vehicular Speed	Consider the following mid-block crosswalk enhancements: • Install an active warning device, such as RRFBs, at the crosswalk. Due to the high speed of the roadway, RRFBs should also be considered on advanced crosswalk signs per FHWA's interim approval memorandum. o The warning device should be installed at both the side of the roadway and in the median for both directions of travel. • Provide a 6' wide median refuge island with a minimum length of 90 feet for pedestrians. o The roadway would need to be widened but the lane widths could be reduced to 11' to minimize the amount of extra pavement needed. The shoulder could be utilized for some of the extra pavement width, thus narrowing the roadway for the driver. • Install lighting on the crosswalk's east side. o Directional lighting oriented towards the crosswalk could be provided; or o LED lighting could turn on when the RRFB is activated and flashing and could turn off when the flashers stop. • Restripe the crosswalk with special emphasis crosswalk markings consistent with sheet 10 of the FDOT Design Index 17346. • Install audible vibratory pavement markers along the centerline and shoulder striping to discourage driving on the shoulder. • Add potential landscape features in the median that do not obstruct the sight lines for both vehicles and pedestrians utilizing the crossing. • Construct a raised bulb out on the east side of the roadway to define where the pedestrian should be standing in order to cross.
Mid-Block at the Beverly Beach Camptown RV Resort	15	Golf Cart Crossings	Consider a golf cart study to assess the feasibility of making golf carts "street legal" in the Town of Beverly Beach. In order to become "street legal", the Town could institute an ordinance that golf carts must have brakes, turn signals, a horn, rear-view mirror, reflectors on the front and rear, and seat belts. Golf carts operating at night would also need working headlights. To safety get the golf carts across SR A1A, they could be required to utilize the marked mid-block crossing at the Camptown Resort instead of being permitted to cross anywhere along SR A1A.

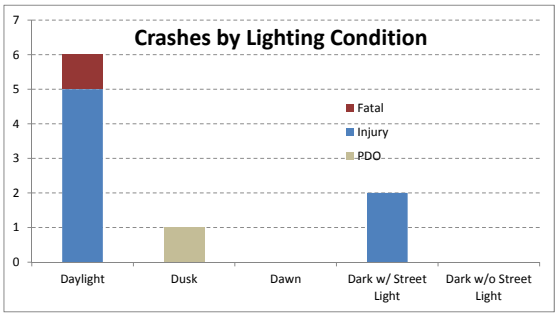
Location	Issue Number	Issue	Suggestion
LONG-TERM IMPROVEMENT			
Corridor Wide	1	Lack of Bicycle Facilities	Consider widening SR A1A to install buffered bicycle lanes. The eastern pavement line would remain in its current location (so the dune is not impacted) and SR A1A could be widened to the west by approximately 10' (7' for the northbound bicycle lane and an extra 3' for the southbound bicycle lane, because a 4' shoulder is already present). Because most of the existing buffer between the roadway and sidewalk (or multi-use path if the near term suggestion is constructed) would be utilized for new pavement, a curb and gutter cross section should be considered so a vertical obstruction is added between the roadway and pedestrian walking area.
Corridor Wide	2	Beach Parking Areas	Convert the vacant parcel on the southwest corner of SR A1A and 19th Street South to a beach access parking lot. As discussed in **Issue #3: Mid-Block Crossings**, a mid-block crossing is suggested at 19th Street to accommodate pedestrians crossing SR A1A to the beach access point. This mid-block crossing could be constructed in conjunction with the beach parking lot in order to concentrate pedestrian crossings at a specific location. The vacant parcels on the corners of 17th Street and 13th Street could also be considered for beach parking areas. A mid-block crossing is suggested at 13th Street as discussed in **Issue #3: Mid-Block Crossings**. If off street beach parking areas are constructed, consider installing NO PARKING (R8-3a) signs along the west side of SR A1A to encourage beachgoers to park in the designated beach parking areas.
Corridor Wide	8	Lighting	Consider upgrading to an adaptive roadway lighting system along the corridor. Lighting levels could be programmed to be reduced during the sea turtle nesting season and increased to normal levels outside of the nesting season. This could be coupled with replacing the current high pressure sodium lighting with LED lighting.
Corridor Wide	9	Residential Driveways	Consider working with Flagler Beach code enforcement to identify properties having and not having approved driveway access onto SR A1A. For the properties having approved driveway access onto SR A1A, consider paving a driveway connection between the edge of pavement and the sidewalk during the next 3R project. For those properties not having approved access, work with the property owner to either get a driveway accessing SR A1A approved/formalized or see if they have access to their home on the west side of their parcel.
Mid-Block at the Beverly Beach Camptown RV Resort	14	Mid-Block Crossing Enhancements and Vehicular Speed	Add gateway features on the south and north sides of the town. The gateway feature could include a 6' median island similar to what is proposed at the mid-block crossing. Audible vibratory pavement markers could also be considered to discourage shoulder driving or a curbed section could be installed along the length of the gateway feature to visually narrow the roadway for the driver. Landscaping could be included both in the median and along the side of the roadway to also help visually narrow the roadway.

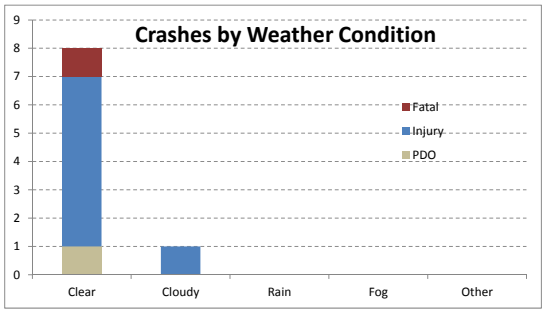
Appendix A – Crash Analysis Reference Materials

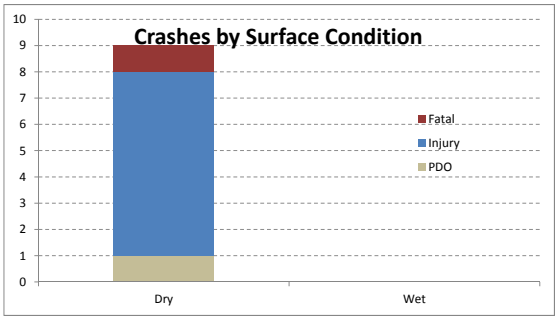
CRASH ANALYSIS - SR A1A from S 23rd St. to S 11th St.

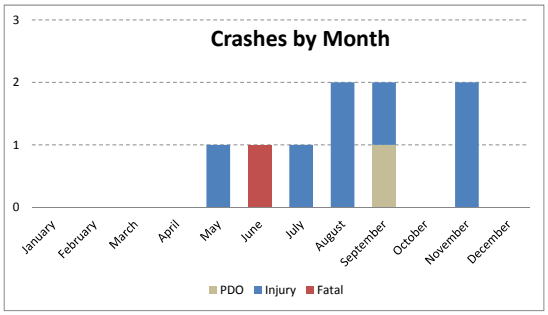


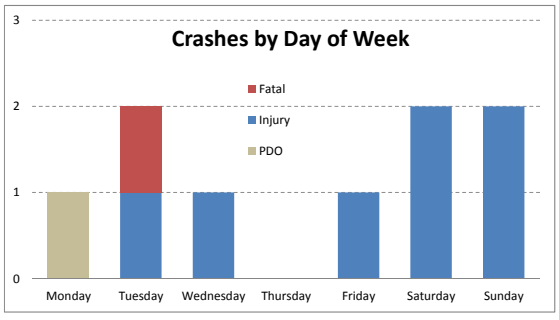


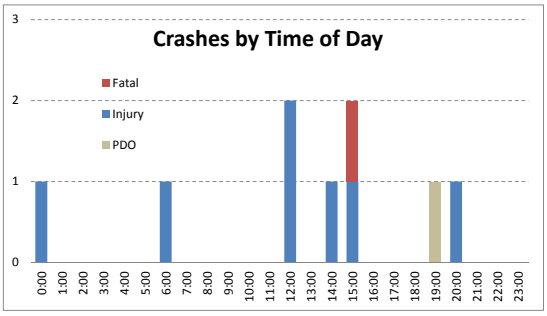


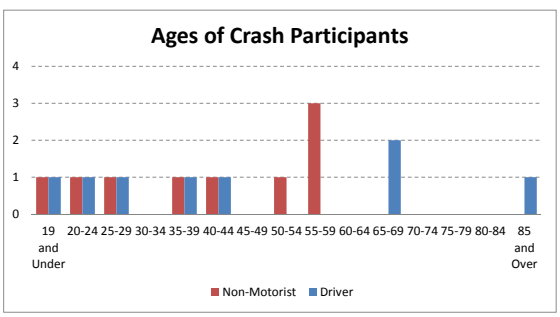


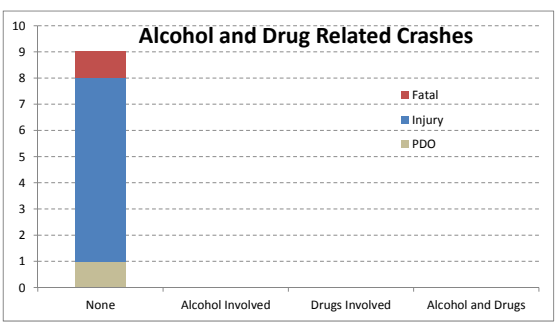












SR/CR A1A Pedestrian Safety & Mobility Study
Collision Diagram (2009 – 2014)
Focus Area G: S. 23rd St. to South of 22nd St. S.

Figure **1**

SR/CR A1A Pedestrian Safety & Mobility Study
Collision Diagram (2009 – 2014)
Focus Area G: 22nd St. S. to 21st St. S.

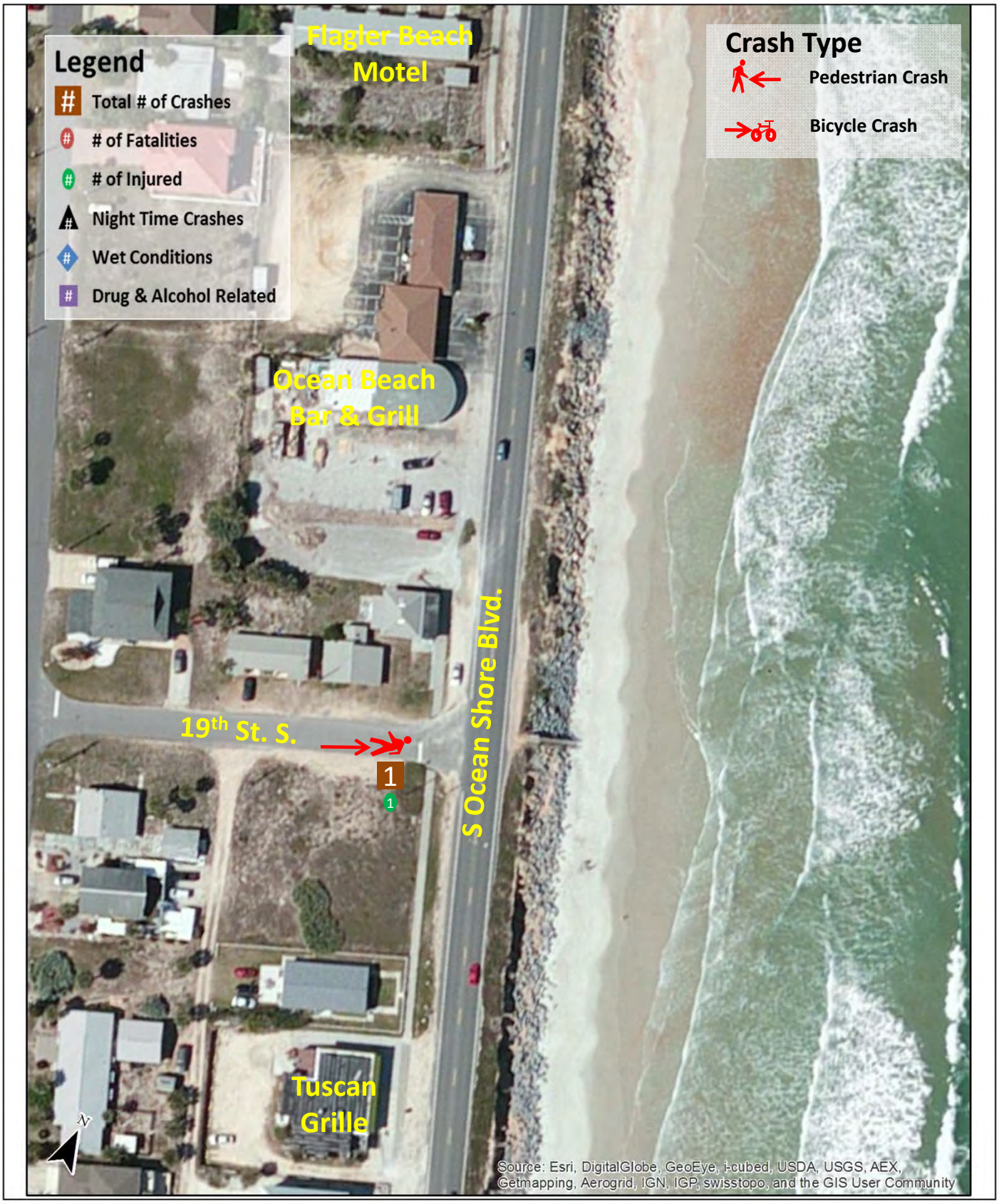
Figure **2**

SR/CR A1A Pedestrian Safety & Mobility Study
Collision Diagram (2009 – 2014)
Focus Area G: 21st St. S. to 20th St. S.

Figure **3**

SR/CR A1A Pedestrian Safety & Mobility Study
Collision Diagram (2009 – 2014)
Focus Area G: 20th St. S. to 19th St. S.

Figure **4**



SR/CR A1A Pedestrian Safety & Mobility Study
Collision Diagram (2009 – 2014)
Focus Area G: 19h St. S. to the Flagler Beach Motel

Figure **5**

SR/CR A1A Pedestrian Safety & Mobility Study
Collision Diagram (2009 – 2014)
Focus Area G: Flagler Beach Motel to 18th St. S.

Figure **6**

SR/CR A1A Pedestrian Safety & Mobility Study
Collision Diagram (2009 – 2014)
Focus Area G: 18th St. S. to 17th St. S.

Figure **7**

SR/CR A1A Pedestrian Safety & Mobility Study
Collision Diagram (2009 – 2014)
Focus Area G: 17th St. S. to 16th St. S.

Figure **8**

SR/CR A1A Pedestrian Safety & Mobility Study
Collision Diagram (2009 – 2014)
Focus Area G: 16th St. S. to 14th St. S.

Figure **9**

SR/CR A1A Pedestrian Safety & Mobility Study
Collision Diagram (2009 – 2014)
Focus Area G: 14th St. S. to 13th St. S.

Figure **10**

SR/CR A1A Pedestrian Safety & Mobility Study
Collision Diagram (2009 – 2014)
Focus Area G: 13th St. S. to 12th St. S.

Figure **11**

SR/CR A1A Pedestrian Safety & Mobility Study
Collision Diagram (2009 – 2014)
Focus Area G: 12th St. S. to 9th St. S.

Figure **12**

SR/CR A1A Pedestrian Safety & Mobility Study
Collision Diagram (2009 – 2014)
Location G: Beverley Beach Camptown RV Resort

Figure **13**

Appendix B – FDOT Traffic Regulation Change Letter

Centennial FDOT 1915 ★ 2015

Florida Department of Transportation

RICK SCOTT
GOVERNOR

719 South Woodland Boulevard
DeLand, Florida 32720

JIM BOXOLD
SECRETARY

December 21, 2015

Certified Mail 7015 0920 0001 4557 0389
Mr. Bruce Campbell
City of Flagler Beach
Post Office Box 70
Flagler Beach, Florida 32136-0070

Certified Mail 7015 0920 0001 4557 0396
Mr. Craig Coffey
Flagler County Administrator
1769 E. Moody Boulevard, Bldg. 2
Bunnell, Florida 32110

RE: Traffic Regulation Change – Speed Zone Study – 5SL15-10
Section 73030 - State Road A1A from just North of 13th Street to just North of State Road 100

Dear Messrs. Campbell and Coffey:

This notice is to inform you of pending traffic regulation changes on portions of the State Highway System within your governmental entity. Please see the following table for specific locations and speed zone changes.

These changes are being made in accordance with the federal Manual on Uniform Traffic Control Devices as amended and adopted by the Department under Rule 14-15.010. They have evolved from recommendations determined from an approved engineering study and report.

These regulations shall become effective upon placement of the implementing traffic control devices (F.S. 316.074) but no sooner than 14 days from the date of this notice pursuant to F.S. 335.10.

Regulation No. Date Approved	Section County	Route Number	Location Milepost	Regulation
5SL15-10 12/21/2015	73030 Flagler	SR A1A	from approximately 100' South of S. 13th St. to approximately 50' South of S. 8th St. (MP 3.337 to MP 3.620)	Change from 45 MPH to 35 MPH
			from approximately 50' of S. 8th St. to N. 3rd St. (MP 3.620 to MP 4.101)	Change from 35 MPH to 30 MPH

Sincerely,

Richard B. Morrow, P.E.
District Traffic Operations Engineer
District Five

RBM:dgm:cac

cc: Mr. Roger Smith
Ms. Faith Alkhatib
Flagler Beach Police Department
Flagler County Sheriff's Office
Florida Highway Patrol
Ms. Christine Barone (w/attachment)