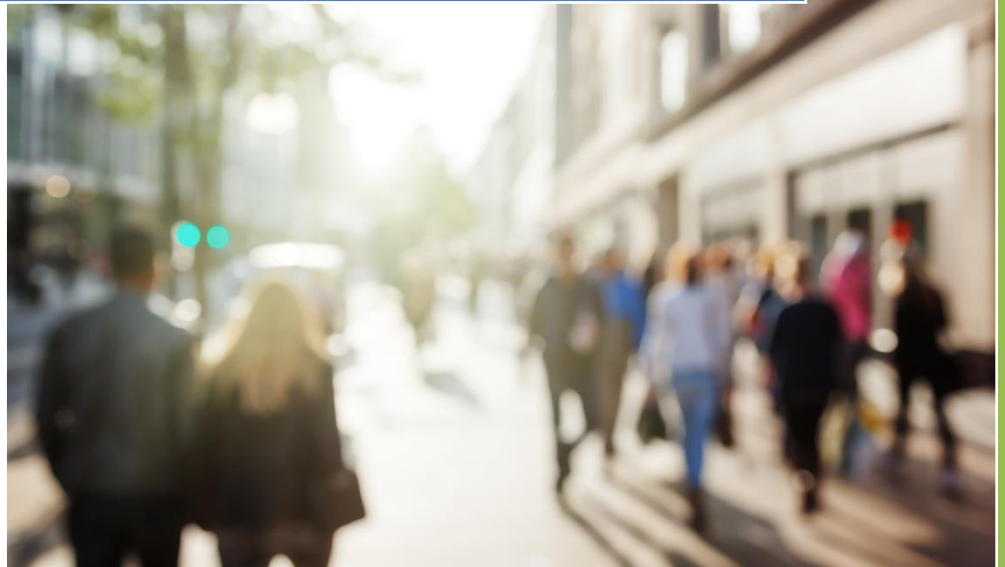




North Florida Pedestrian Safety Campaign Final Report, May 2019



Beach Boulevard Pedestrian Safety Campaign

Final Report

Prepared for:



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May 2019

Table of Contents

Executive Summary.....	1
1 - Introduction	3
Campaign Location	3
Regional Pedestrian and Bicycle Crash Analysis	6
Previous Pedestrian and Bicycle Safety Activities.....	8
2 – Existing Conditions	10
Pedestrian and Bicycle Crashes.....	10
Land Uses and Community Stakeholders.....	13
Demographic Conditions.....	16
3 – Stakeholder Input.....	21
Public Outreach Meeting	21
Walk-Review.....	22
Stakeholder Meetings	28
4 – Summary of Corridor Issues for Campaign Development	29
5 – Pedestrian Campaign Activities.....	30
Bilingual Communications.....	30
Branding and Messaging	30
Sidewalk Decals	31
Direct Mail	33
Website and Video	34
Social Media	35
Radio and Print.....	36
Additional Outreach and Media Coverage.....	37
Giveaways.....	38
Public Outreach Summary.....	39
6 - Concurrent Outreach Activities	40
7 - Campaign Metrics	42
Pedestrian Signal Activation.....	42
Rate of Pushbutton Usage.....	42
Crash Data	43
8 –Lessons Learned, Recommendations and Next Steps	44
Lessons Learned/Takeaways for Future Efforts	44
Programmed Modifications to Beach Boulevard	45
Recommendations	48
Next Steps.....	50

List of Tables

Table 1. Top 15 Pedestrian & Bicycle Crash Clusters.....	7
Table 2. Public Outreach Summary.....	39
Table 3. Count of Pushbutton Usage (Before and After).....	42
Table 4. Rate of Pushbutton Usage (Before and After).....	42
Table 5. Crash Data (Before and After).....	43

List of Figures

Figure 1. Regional Location.....	4
Figure 2. Beach Boulevard Campaign Corridor.....	5
Figure 3. Total Population.....	16
Figure 4. Percent Hispanic Origin.....	17
Figure 5. Median Household Income.....	18
Figure 6. Percent of Individuals in Poverty.....	19
Figure 7. Percent of Zero Car Households.....	20
Figure 8. FDOT Exhibit of proposed improvements at St. Johns Bluff Road (1).....	46
Figure 9. FDOT Exhibit of proposed improvements at St. Johns Bluff Road (2).....	46

Appendices

- A - Crash Tables, Pedestrian/Bicycle Collisions and Bus Stops/Roadway Features
- B - Land Use Map
- C - Additional Demographic Data
- D1 - Public Meeting Materials
- D2 - Walk Review Materials
- D3 - Steering Committee Meeting Notes
- D4 - Flea Market Outreach - Media Advisory
- E - Pre- and Post-Campaign Pedestrian Signal Activation (Push Button)
- F - Pedestrian and Bicycle Counts
- G - List of Intersections Missing Pedestrian Countdown Displays

Executive Summary

It's time to be more careful while driving and walking. The North Florida Transportation Planning Organization (TPO) recognizes the need to promote safe streets for everyone using the region's roadways including vulnerable pedestrians.

The Beach Boulevard corridor from Southside Boulevard to Interstate 295 (I-295) is a hotspot for pedestrian and bicycle crashes. Between 2012 and 2016, 66 people walking or riding bikes were killed or injured by motorists in this section of Beach Boulevard. Of the 66 crashes, pedestrian crashes were most severe as all four fatalities were pedestrians. A review of existing conditions reveals that pedestrians and drivers contribute to unsafe conditions. Drivers often don't look out for pedestrians or cyclists and fail to yield to them when turning. Many pedestrians don't use marked crosswalks or push the crossing button and follow signals. There also seems to be confusion about the benefits of using pedestrian pushbuttons at signalized intersections.



Driver not yielding to pedestrians crossing the roadway



Many pedestrians don't use marked crosswalks

To educate the public, change behaviors and ultimately reduce crashes along the corridor, the North Florida TPO implemented a Pedestrian Safety Campaign along Beach Boulevard. Campaign activities began the week of April 23, 2018 and continued through May 20, 2018. The project team and steering committee agreed that the campaign should focus on one central message: pedestrian safety. For pedestrians, the campaign promoted the benefits of using the pedestrian pushbuttons and marked crosswalks at signalized intersections. Drivers were encouraged to watch out for and yield to pedestrians, especially when turning.

The campaign corridor includes the highest percentages of Hispanic origin individuals within Duval County. Therefore, advertising and outreach featured bilingual materials and messaging. These materials included sidewalk decals, postcards mailed to nearby residents, social media, radio/print ads and a website. A major outreach initiative took place at the Beach Boulevard Flea Market, where a bilingual team spoke with over 100 people, many of whom were primarily Spanish speaking. The campaign also included outreach to businesses and churches.

Several recommendations and next steps are offered to improve safety along the corridor as a result of lessons learned from the campaign. Next steps include identifying more effective ways to plan and design roadways, incorporate technology, educate the community and enforce traffic laws and regulations. Engineering, education and enforcement are all important tools for traffic safety. Recommendations focus on improving pedestrian crosswalks and pedestrian signal displays on traffic signals; future studies to improve safety along the corridor (leading pedestrian intervals study and complete street corridor study); continued stakeholder coordination and education; and regular, on-going maintenance of roadway infrastructure.

1 - Introduction

The North Florida Transportation Planning Organization (TPO) completed the Beach Boulevard Pedestrian Safety Campaign, an educational campaign bringing awareness to pedestrian and bicycle safety along a high crash segment of Beach Boulevard (U.S. 90/State Road 212), in Jacksonville, Florida. This report describes the campaign’s development, implementation and results.

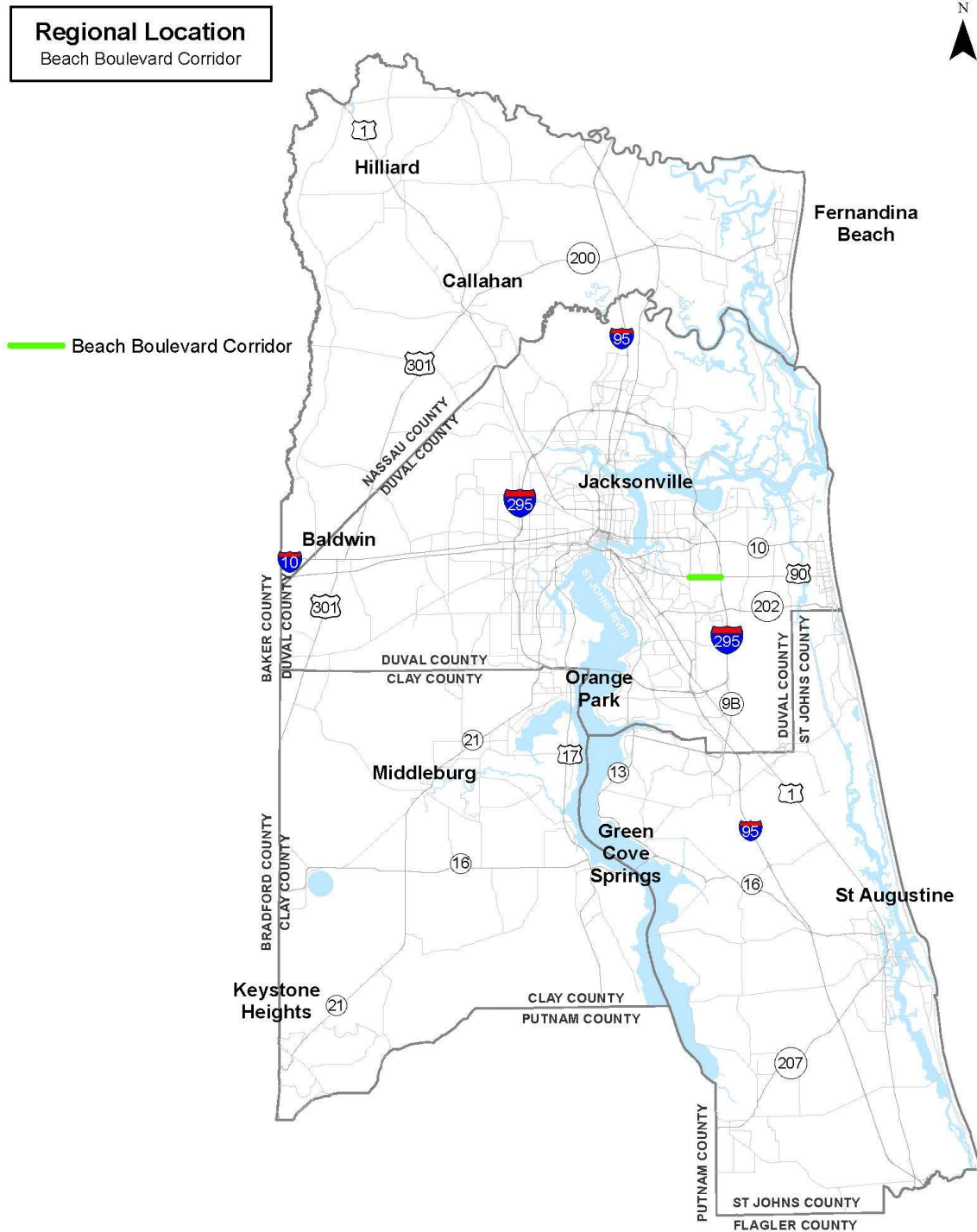
Campaign Location

Figures 1 and 2, on the following pages, illustrate the campaign corridor. Approximately 2.25 miles long, Beach Boulevard from Southside Boulevard to I-295 is a divided Urban Principal Arterial. The roadway is generally wide, with three lanes in each direction, paved shoulders and a raised median. With a posted speed limit of 45 miles per hour, speeds along the corridor are relatively high. Except for a small gap, sidewalks are located along both sides of the roadway. There are no bike lanes west of St. Johns Bluff Road. However, as mentioned, the corridor has paved shoulders.



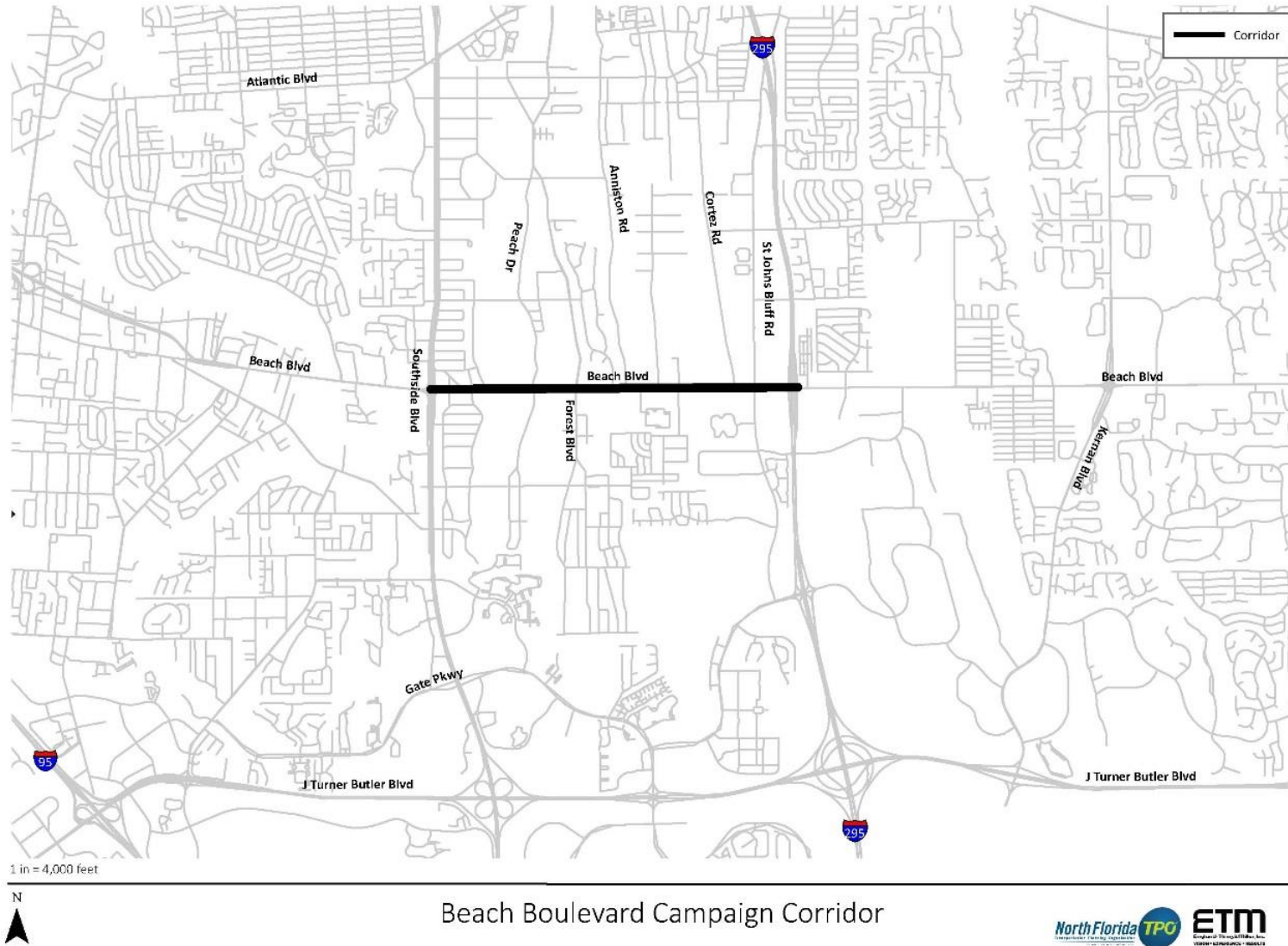
Beach Boulevard, west of St. Johns Bluff Road

Figure 1. Regional Location



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Figure 2. Beach Boulevard Campaign Corridor



Regional Pedestrian and Bicycle Crash Analysis

Ultimately, Beach Boulevard was selected for the campaign based on the relative density and severity of pedestrian and bicycle crashes, the presence of traditionally underserved communities and no upcoming construction projects along the corridor that would interfere with the safety campaign. Prior to the campaign, the project team identified the top 15 pedestrian and bicycle crash locations within the region (Table 1). Beach Boulevard from Southside Boulevard to St. Johns Bluff was the region's second most critical location based on an analysis of regional pedestrian and bicycle crashes. Additionally, demographic data revealed that this segment of Beach Boulevard contained potentially underserved communities. Approximately 25 percent of residents within a quarter-mile buffer were of Hispanic origin, over one-third of residents were minority¹ and 25 percent had annual household incomes below \$25,000.

The regional crash analysis identified high concentrations of pedestrian and bicycle crashes along state roadways, and then ranked these locations using total and severe crashes per mile. The process began by downloading University of Florida, Geoplan Center crash data (Signal Four Analytics data) for the region's four-county planning area (Clay, Duval, Nassau and St. Johns Counties). The dataset contained over 3,470 pedestrian and bicycle crash occurrences for the period of July 2012 through June 2016. The primary regional stakeholders involved during this phase of analysis were staffs from the North Florida TPO, Florida Department of Transportation (FDOT) District 2, City of Jacksonville, Clay County, Nassau County, St. Johns County and Jacksonville Transportation Authority (JTA).

¹ defined as nonwhite (such as Black/African American, American Indian/Alaska Native, Asian and Pacific Islander)

Table 1. Top 15 Pedestrian & Bicycle Crash Clusters

Score Rank	Score	Road Name	From	To	County	Length (miles)	Crashes	Crashes per Mile	% Bicycle	% Ped.	Severe Crashes per Mile	Crashes per Mile Rank	Bicycle Crashes per Mile Rank	Ped. Crashes per Mile Rank	Severe Crashes per Mile Rank	Injury per Mile Rank	Number of times ranked in the Top 5
1	33.48	103rd/Timuquana Road	Ricker Road	Seaboard Avenue	Duval	2.54	67	26.39	37%	63%	7.09	1	4	1	1	1	5
2	30.47	Beach Boulevard	Southside Boulevard	St. Johns Bluff	Duval	2.20	56	25.47	50%	50%	5.00	2	2	4	3	2	5
3	25.79	University Boulevard	St. Augustine Road	I-95	Duval	1.05	21	20.06	43%	57%	5.73	3	5	7	2	8	3
4	22.94	US-1	SR 207	SR 312	St. Johns	1.00	19	18.95	68%	32%	3.99	4	1	21	8	5	3
5	22.09	Beach Boulevard	Hodges Boulevard	San Pablo Parkway	Duval	1.27	22	17.36	64%	36%	4.73	7	3	18	5	6	2
6	21.39	University Boulevard	I-95	Beach Boulevard	Duval	1.82	31	17.00	26%	74%	4.39	8	19	5	6	7	1
7	20.78	Blanding Boulevard	I-295	Kingsley Avenue	Clay	1.88	35	18.65	31%	69%	2.13	5	13	3	26	4	3
8	20.09	State, Union, Beaver St.	I-95	Liberty St.	Duval	3.19	53	16.64	25%	75%	3.45	9	21	6	11	9	
9	19.72	Atlantic Boulevard	N Arlington Road	I-295	Duval	3.30	54	16.38	43%	57%	3.34	10	8	10	13	12	
10	19.27	Dunn Avenue	Biscayne Boulevard	I-95	Duval	1.04	19	18.31	21%	79%	0.96	6	23	2	42	3	2
11	18.98	Beach Boulevard	Hogan Road	Southside Boulevard	Duval	1.63	23	14.08	30%	70%	4.90	12	20	9	4	10	1
12	17.35	103rd/Timuquana Road	Shindler Drive	Ricker Road	Duval	1.50	23	15.35	35%	65%	2.00	11	16	8	29	11	
13	16.64	Blanding Boulevard	Camp Francis	Jefferson	Clay	1.44	20	13.86	40%	60%	2.77	13	14	11	19	15	
14	16.01	Blanding Boulevard	Kingsley Avenue	Camp Francis	Clay	1.87	23	12.27	57%	43%	3.73	18	9	23	9	19	
15	15.67	Atlantic Boulevard	Mayport Road/A1A	3rd Street	Duval	1.28	17	13.32	47%	53%	2.35	14	11	14	23	17	

Previous Pedestrian and Bicycle Safety Activities

Prior to the Beach Boulevard Pedestrian Campaign, the North Florida TPO completed several pedestrian and bicycle safety related activities. Described below, these efforts include a Regional Strategic Safety Plan, public safety campaigns/educational resources for agency partners and context sensitive guidelines and livability policy.

- The North Florida TPO's **Regional Strategic Safety Plan (2012)** revealed that although North Florida crashes involving vulnerable road users (pedestrians, bicyclists, mopeds) make up a small percentage of all vehicle crashes (3 percent), a higher percentage of fatal crashes involve vulnerable road users (19 percent) and **a significantly higher percentage of vulnerable road user crashes result in fatality or injury (90 percent)**. [The North Florida TPO is currently updating the regional safety plan.]
- To encourage safe mobility for multiple transportation modes, the North Florida TPO's Path Forward 2040 Long Range Transportation Plan (LRTP), adopted in 2014, incorporates Context Sensitive Solutions (CSS) guidelines and livability policy. CSS and livability improvements may offer an alternative to adding general-use travel lanes. The Plan includes a network of corridors where CSS are considered a priority and where the following CSS criteria are encouraged:
 - Limiting the number of lanes to six general-use lanes, with additional lanes for bus rapid transit or managed lanes;
 - Investing in projects that promote urban character;
 - Requiring land use/zoning regulations that encourage redevelopment consistent with the urban design characteristics established for the corridors; and
 - Investing in corridors where transit accessibility is a high priority.

[The North Florida TPO is currently completing a 2045 LRTP.]

- Over the past five years, the North Florida TPO has developed successful safety campaigns, training and educational resources for partner agencies and the public. These include the following safety campaigns:
 - Slow Your Roll St. Augustine - A pedestrian and bicycle public awareness campaign targeting St. Augustine residents and students;
 - Yield to Life/Look ALL-Ways - A bicycle and pedestrian safety campaign in Atlantic Beach along Atlantic Boulevard to increase awareness and reduce crashes involving motorists, bicyclists and pedestrians; and
 - CareMore Driving Argyle – A public awareness campaign in Argyle Forest to encourage careful and less distracted driving.

In addition to regional safety efforts, other significant activities are described below.

National

- The most recent Dangerous by Design report (January 2019) completed by Smart Growth America identifies Jacksonville as the sixth most dangerous “metro area” for walking, down from fourth most dangerous in the prior report. Additionally, the report identifies Florida as the most dangerous state in the nation for walking. Eight of the top ten most dangerous areas for pedestrians are in Florida. The report also states that people of color and older adults are overrepresented among pedestrian deaths.

State

- The Florida Department of Transportation’s (FDOT) Pedestrian and Bicycle Strategic Safety Plan (PBSSP) is the state’s five-year comprehensive implementation plan to decrease traffic-related pedestrian and bicycle fatalities. **To help guide safety initiatives over the next five years, FDOT’s plan identifies six areas including communication, outreach, and education.** In the recently updated PBSSP (May 2017) **Duval County ranks seventh among Florida’s 67 counties for pedestrian and bicycle fatalities and injuries.** To improve pedestrian and bicycle safety, FDOT has funded programs, such as Walkwise Florida, that partner with local stakeholders and use targeted grass roots approaches to provide safety education to adults within high-priority counties.

Local

- At the local level, the City of Jacksonville (COJ) recently completed a Pedestrian and Bicycle Master Plan that includes a Pedestrian Safety Action Plan and recommendations for improving bicycling infrastructure. The project’s discovery phase revealed that **serious and fatal crashes are heavily concentrated on major arterial roadways, especially FDOT roads, and that pedestrian and bicycle crashes are heavily concentrated on roads with higher speeds and multiple lanes.**
- In June 2017, the City of Jacksonville’s Context Sensitive Streets Standards Committee proposed pedestrian and bicycle related changes to Jacksonville’s roadway design standards. The proposed changes, which require sidewalks and bicycle facilities on new, reconstructed or resurfaced roadways and contain new bicycle parking standards, promote increased safety for roadway users.

Recognizing that pedestrian and bicycle crashes are a serious issue, the Beach Boulevard Pedestrian Safety Campaign expanded upon previous successful initiatives such as the North Florida TPO’s CareMore Driving Argyle Campaign and developed outreach activities specifically targeted to Beach Boulevard.

2 – Existing Conditions

The Beach Boulevard Corridor’s crash history, demographics and other existing conditions helped the project team develop campaign messaging and outreach activities that were specifically targeted to the corridor’s safety needs.

Pedestrian and Bicycle Crashes

The project team performed a detailed evaluation of pedestrian and bicycle crash data to determine crash characteristics and contributing causes of crashes along Beach Boulevard from Southside Boulevard to I-295². The dataset represented pedestrian and bicycle crash occurrences for the period of July 1, 2012 through June 30, 2016. The data source was Signal Four Analytics, a statewide interactive web-based geospatial crash analytical tool developed by and hosted at the University of Florida’s GeoPlan Center and funded by the State of Florida.

A summary of pedestrian and bicycle crash characteristics based on a detailed review of the crash data is listed below.

General Crash Characteristics

- Sixty-six (66) total pedestrian and bicycle crashes occurred during the analysis period.
 - The crashes involved 29 pedestrians and 37 bicyclists (44 percent and 56 percent, respectively). One pedestrian crash involved a wheelchair.
- 58 crashes occurred on dry pavement (88 percent).
- 36 crashes occurred at night (55 percent). A greater percentage of pedestrian-only crashes occurred at night (83 percent representing 55 crashes).
- Six crashes were hit and run (nine percent).
- Four crashes involved alcohol by the vulnerable user (six percent).
- Four crashes resulted in fatalities (six percent); all four fatal crashes involved pedestrians.
- 58 crashes were injury crashes (88 percent).
- Nine crashes (14 percent) were incapacitating injury crashes.

² The detailed crash analysis extended slightly west of Southside Boulevard to Newell Boulevard, near the Walmart.

Driver Characteristics

- 82 percent of drivers were 21 to 64 years old (representing 54 of the 66 total crashes).
- 11 percent were 65 years old and older (representing seven crashes).
- Only one crash had a driver 15 to 20 years old.
- One-third of reported driver zip codes (representing 22 crashes) were in the 32246-zip code of Jacksonville. The 32246-zip code is along most of the campaign corridor and generally includes the area from Southside Boulevard to St. Johns Bluff Road and I-295 south of Beach Boulevard, and from Southside Boulevard to Hodges Boulevard north of Beach Boulevard.

Vulnerable User Characteristics

- 80 percent of vulnerable users (pedestrians and bicyclists) were 21 to 64 years old (representing 53 of the 66 total crashes).
- 12 percent were 15 to 20 years old (eight crashes).
- Only two crashes (three percent) had vulnerable users 65 years old and older.
- Like the driver zip codes, one-third of reported vulnerable user zip codes (representing 22 crashes) were also in the 32246-zip code of Jacksonville.

At Fault

- A driver was at fault for 25 of the 66 total crashes (38 percent).
- A vulnerable user was at fault for 38 of the crashes (58 percent).
 - A pedestrian was at fault for 38 percent (25 crashes).
 - A bicyclist was at fault for 20 percent (13 crashes).
- Fault for the remaining crashes was unknown.

Contributing Causes

- Driver failed to yield the right-of-way for 35 percent of crashes (23 crashes).
- Vulnerable user crossed against the don't walk signal for 14 percent of crashes (nine crashes).
- Vulnerable user failed to yield the right-of-way for 12 percent of crashes (eight crashes).
- Vulnerable user tried to cross midblock for nine percent of crashes (six crashes) or performed some other improper crossing for eight percent of crashes (five crashes).
- Vulnerable user was under the influence for six percent of crashes (four crashes).

Fatal Crashes

- Four crashes resulted in fatalities (six percent).
- All four fatal crashes occurred at night.
- A pedestrian was at fault for all four crashes (either under the influence, crossing midblock or other improper crossing).
- Three of four fatal crashes took place during late Fall/Winter months (November and January).
- Three of four fatal crashes took place on the weekend (Friday and Sunday).
- Three of four fatal crashes occurred on dry pavement.
- Two fatal crashes were alcohol related.

Pedestrian Crashes (29 crashes)

- 83 percent of pedestrian crashes (representing 24 crashes) occurred at night.
- 14 percent of pedestrian crashes were fatal crashes (four crashes), while 21 percent were incapacitating injury crashes (six crashes).
- Pedestrian at fault for 86 percent of pedestrian-related crashes (25 crashes); driver at fault for 10 percent (three crashes). Fault for the remaining crash was unknown.
- 21 percent of pedestrians crossed midblock (six crashes); 17 percent failed to yield right of way (five crashes); and 17 percent crossed against the signal (five crashes).

Bicycle Crashes (37 crashes)

- 68 percent of bicycle crashes (representing 25 crashes) occurred during the day.
- No fatal bicycle crashes; eight percent incapacitating injury crashes (three crashes).
- Bicyclist at fault for 35 percent of bicycle related crashes (13 crashes); driver at fault for 59 percent (22 crashes). Fault for the remaining two crashes was unknown.
- 11 percent of bicyclists crossed against the signal (four crashes); eight percent failed to yield the right of way (three crashes).

Appendix A lists the crashes included in the analysis and contains aerials illustrating the crash locations along the roadway. Pedestrian crashes generally clustered between Cortez Road and I-295, between Leon Road and Desalvo Road/Countryside Village and at Forest Boulevard. Regarding fatalities, two fatal pedestrian crashes occurred between St. Johns Bluff Road and I-295, one occurred at Forest Boulevard and one occurred at Peach Drive.

Land Uses and Community Stakeholders

Land uses immediately abutting the corridor are primarily commercial, along with industrial, office, institutional, residential and other land uses. The land uses include, but are not limited to, grocery, social service, storage, used car, extended stay hotels, gas station, liquor/convenience store, restaurants, fast food, drug store and two big-box stores.

Walmart is located near the southwest quadrant of Beach and Southside Boulevards. Additional notable land uses within the corridor include a Sam's Club, Flea & Farmers Market, U.S. Post Office, Winn Dixie, CVS and Walgreens. The Beach Boulevard Flea & Farmers Market offers over 200,000 square feet of shopping with over 500 vendors.

Several schools and churches are along or near the corridor such as Blessed Trinity Catholic Church and School, Windy Hill Elementary School, Cornerstone Christian School, M.A.A.M. Jacksonville Church and Iglesia Pentecostal Esmirna A.I.C. Social Service and thrift shops include the Salvation Army Rehab Center and Store/Donation Center, Community Hospice Thrift Shop, Goodwill and Career Source of Northeast Florida. There are several Hispanic/Latino and other ethnically diverse establishments such as churches, restaurants and grocery stores.

The list below provides a sample of community stakeholders along or near the Beach Boulevard corridor and within the study area.

Schools

- Windy Hill Elementary School
- Blessed Trinity Catholic School
- Cornerstone Christian School (just west of Southside Boulevard)

Churches

- Blessed Trinity Catholic Church
- Iglesia Pentecostal Esmirna A.I.C.
- Ministerio Apóstolico Avance Misionero (M.A.A.M.) Jacksonville
- Father's Heart Fellowship

Nonprofits and Thrift Shops

- Salvation Army
- Priority Love and Care
- Community Hospice Thrift Shop
- Goodwill Thrift Store
- CareerSource

Businesses

- St. Johns Pediatrics
- Crown Liquors
- Gun Gallery
- Beach Boulevard Motorsports
- Racetrac
- Bowl America
- Beach Blvd. Flea Market
- Speedway
- Sam's Club
- United States Postal Service
- Don Taco Charro Taco Truck
- Mr. Taco Truck
- Mi Pueblo Restaurant & Taqueria
- KFC (Kentucky Fried Chicken)
- Dollar Tree
- Little Caesars
- Sonic
- Arby's
- CVS
- Winn Dixie
- Taco Bell
- McDonald's
- Shell
- Checkers
- Wells Fargo
- Walgreens

Apartments, Extended Stay and Mobile Home Communities

- Pine Meadows Apartments
- Logan's Pointe Apartments
- InTown Suites (two locations)
- Woodsprings Suites
- Countryside Village Mobile Home Community

Appendix A contains several aerials identifying specific land uses along the roadway. In addition, Appendix B contains an Existing Land Use map of the corridor. There are many retail establishments, driveways, crosswalks (marked and unmarked) and bus stops along the roadway. Pedestrian and bicycle crashes are mapped in relation to these corridor features. Jacksonville Transportation Authority (JTA) has four bus routes along Beach Boulevard between Southside Boulevard and I-295, and approximately 17 bus stops. The bus stops represent a combined total of approximately 360 average weekday riders.

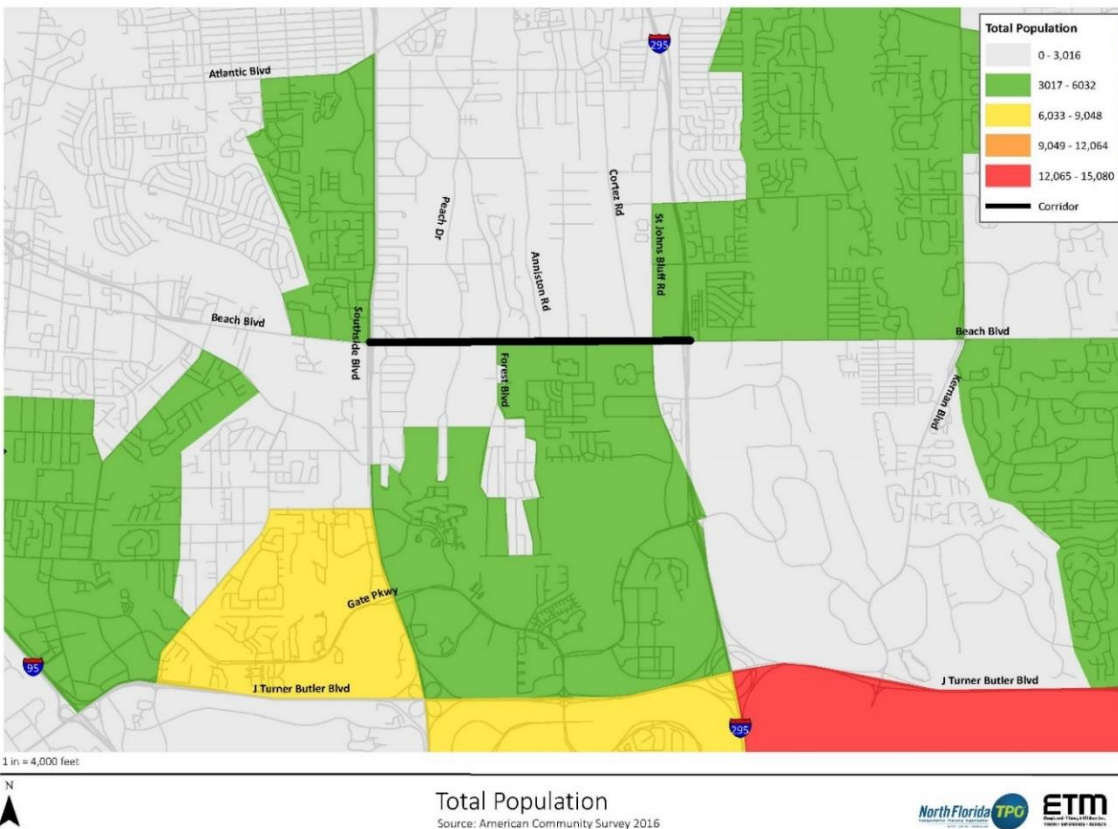
Demographic Conditions

The project team reviewed demographic data at the Census block group level from the U.S. Census Bureau’s American Community Survey.

Population

Considerable population is concentrated within the Beach Boulevard campaign corridor. Based on a one-quarter mile buffer around the corridor, the population density is approximately 2,000 persons per square mile, almost double the 1,095 per square mile average for all of Duval County. In addition to population density, a review of Census block groups reveals that the corridor has a relatively large number of people. At 5,855 people, the block group located south of Beach Boulevard between Forest Boulevard and St. Johns Bluff Road is one of Duval County’s most populated block groups, ranking in the top ten. This block group also has the highest number of Hispanic origin individuals within the County (1,667 individuals of Hispanic origin). Figure 3 illustrates total population by block group.

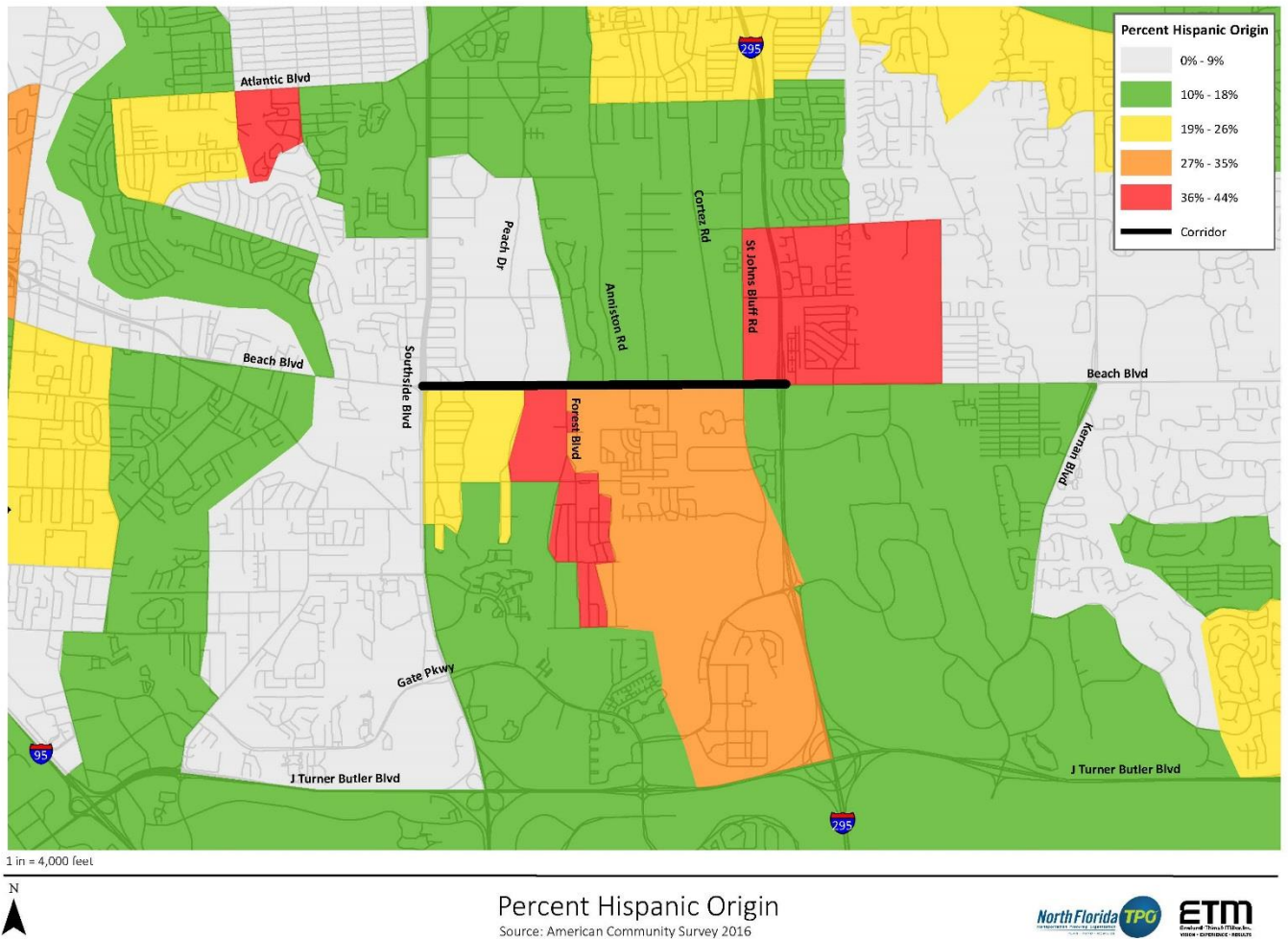
Figure 3. Total Population



Percent Hispanic Origin

Census block groups along the campaign corridor are among the highest percent Hispanic origin within Duval County. The two areas with the highest percent Hispanic origin adjacent to the corridor are shown in red in Figure 4. The area south of Beach Boulevard, generally between Peach Drive and Forest Boulevard, is 40 percent Hispanic origin, while the northeast corner of the corridor near St. Johns Bluff Road and I-295 is 44 percent Hispanic origin. These two areas also have a significant density of individuals with Hispanic origin, over 1000 persons per square mile.

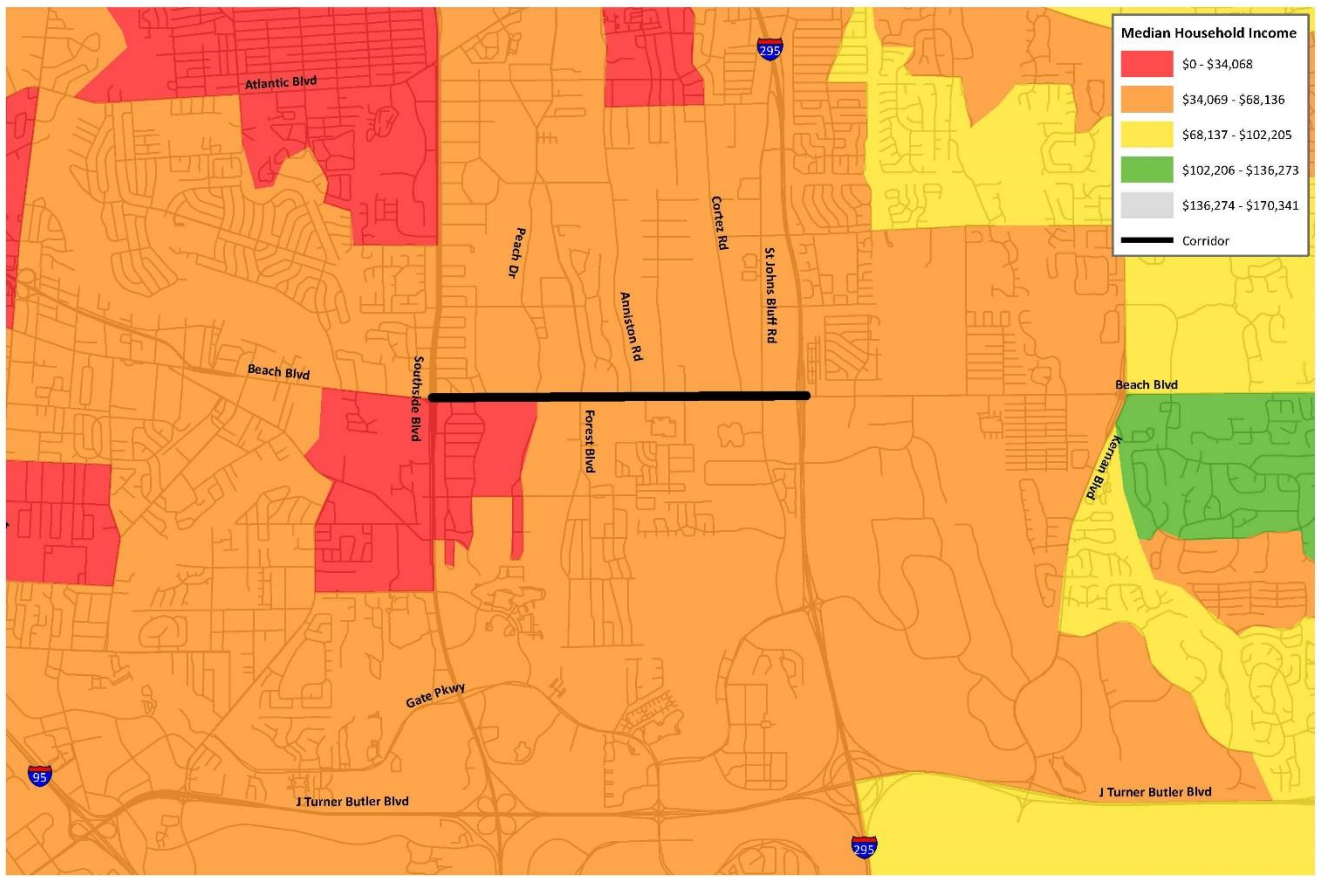
Figure 4. Percent Hispanic Origin



Median Income and Poverty Level

Figure 5 shows that block groups adjacent to the campaign corridor have relatively low median household incomes, averaging approximately \$42,500. Block groups adjacent to the corridor and with the lowest median household incomes (shown in red) are located on the west end of the corridor near Southside Boulevard. Median household incomes in these two block groups are \$19,200 and \$24,500 annually. These two block groups also have the highest percent of individuals in poverty, at approximately 30 percent (shown in yellow in Figure 6).

Figure 5. Median Household Income

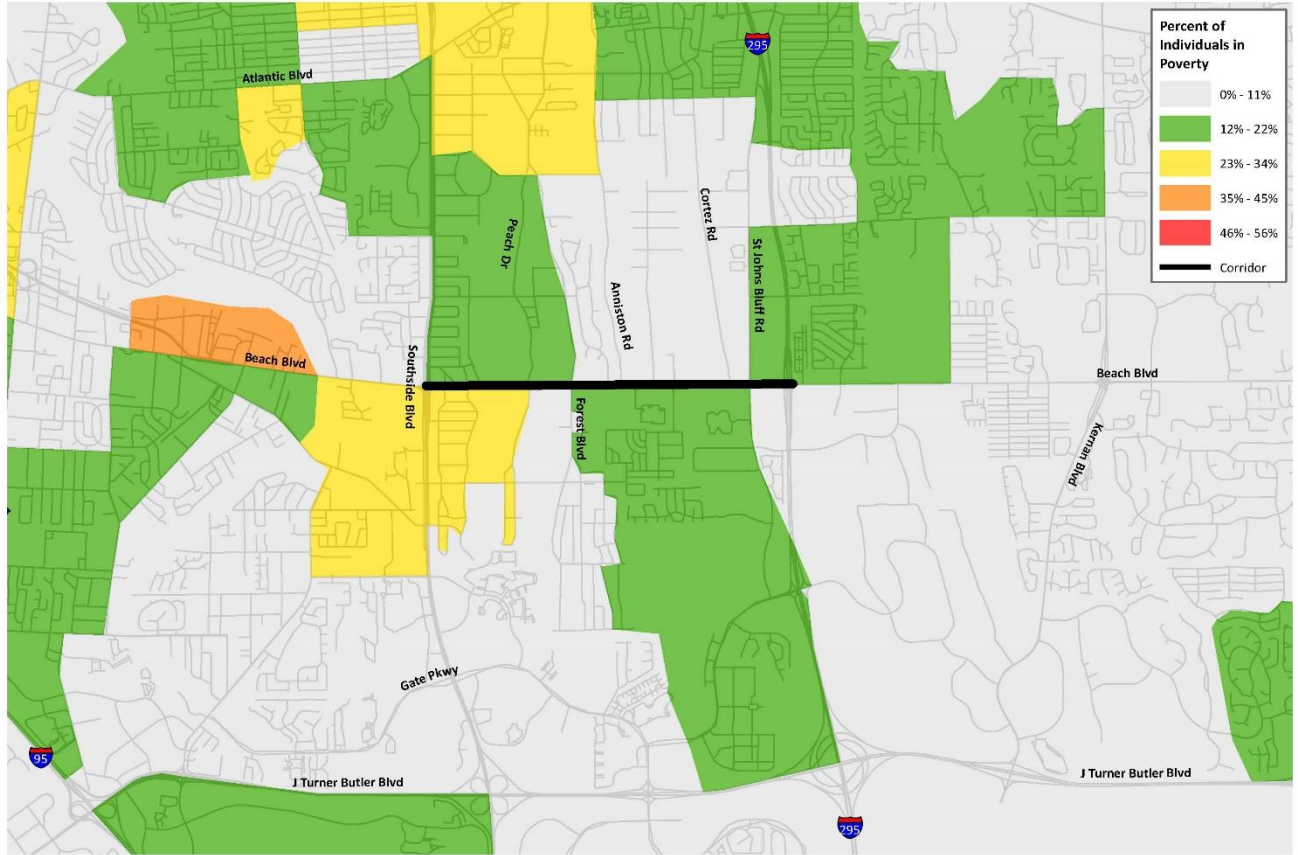


1 in = 4,000 feet



Median Household Income
 Source: American Community Survey 2016

Figure 6. Percent of Individuals in Poverty



1 in = 4,000 feet



Percent of Individuals in Poverty

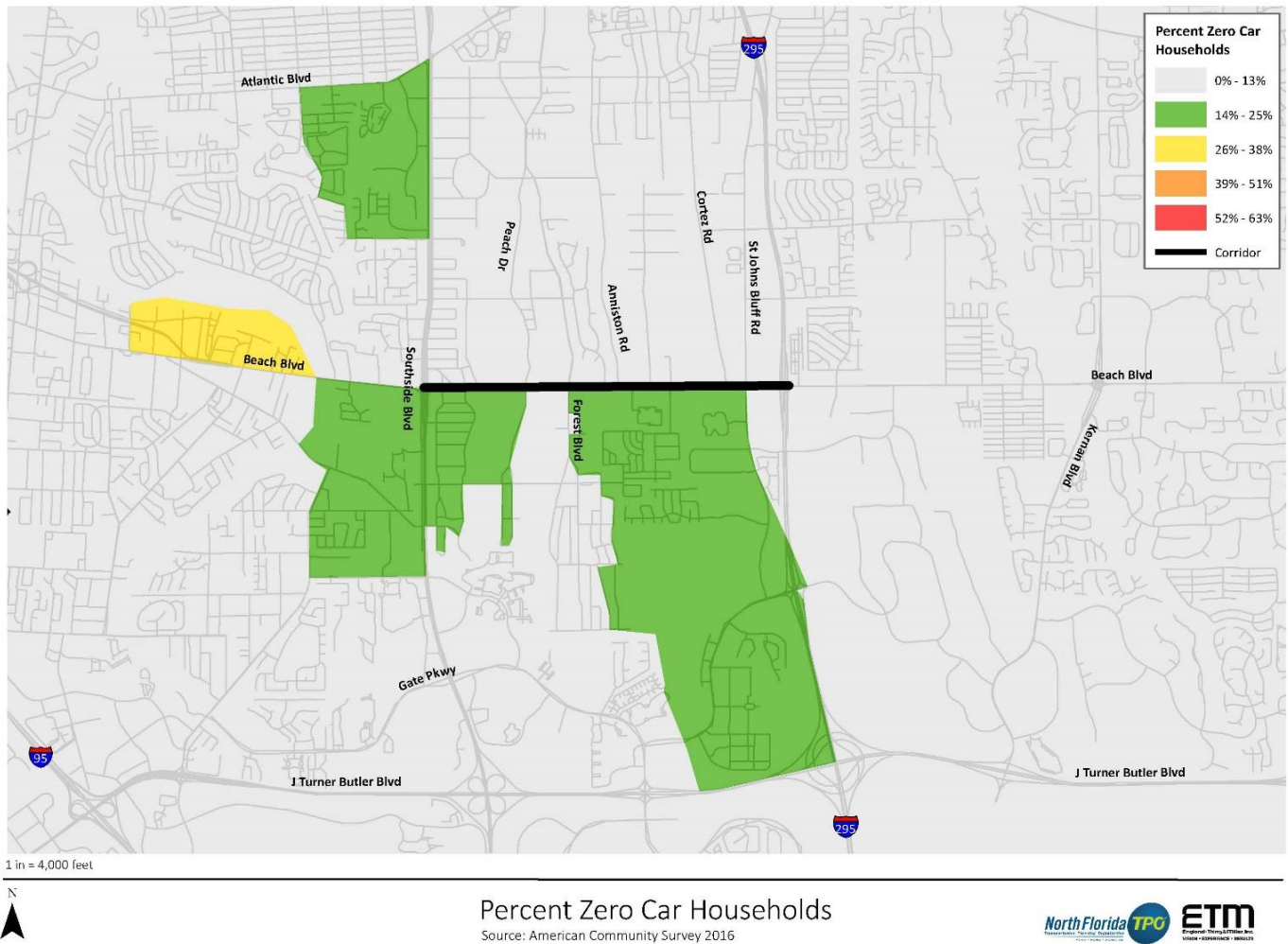
Source: American Community Survey 2016

Zero Car Households

Figure 7 illustrates percentages of households that do not have cars. For the block groups immediately adjacent to the campaign corridor, the highest percentages are 15 and 19 percent, and the average is approximately nine percent. The large area south of Beach Boulevard between Forest Boulevard and St. Johns Bluff Road (shown in green) is estimated to have over 320 households without cars.

Appendix C contains additional demographic data and maps completed during the project.

Figure 7. Percent of Zero Car Households



3 – Stakeholder Input

Several stakeholders provided their knowledge, expertise and ideas through meetings and a walk-review of the roadway.

Public Outreach Meeting

As the campaign was being developed, the team held a public outreach meeting in conjunction with the two Council Members for the corridor, Council Members Scott Wilson (District 4) and Danny Becton (District 11). The meeting was held Monday, April 9, 2018, 6 – 8 p.m. at Blessed Trinity Catholic Church. The purpose of the meeting was to inform and collect feedback from the community and agency partners on pedestrian safety issues and outreach ideas.

At the meeting the consensus was that pedestrian safety education was needed along the corridor. Meeting participants generally described several unsafe conditions along the corridor:

- driver behaviors (i.e., speeding, not yielding, distracted)
- pedestrian behaviors (i.e., crossing midblock, distracted)
- engineering/infrastructure needs

Infrastructure suggestions generally focused on promoting safer crossing conditions such as more visible crosswalks, safer traffic signals (i.e., countdown signals), refuge islands for pedestrians, designated signalized mid-block crossings, better lighting conditions and bilingual signage. A need for slower traffic on Beach Boulevard was mentioned. The need for better enforcement of the traffic laws was also mentioned. Campaign ideas suggested at the meeting included, but were not limited to, outreach to the surrounding neighborhoods and more walk audits so that people can experience and witness pedestrian challenges firsthand.

Located on Beach Boulevard within the campaign limits, the public meeting location was well known within the community. Among the church's ministries and activities, Blessed Trinity partners with St. Vincent de Paul Society to offer a food pantry, regularly holds several masses including a weekly Spanish Mass and is co-located with an elementary school.

A meeting announcement and media advisory were circulated prior to the public meeting. As a result, the meeting received media coverage, resulting in a televised story on News4JAX and news articles in the Florida Times-Union. The public meeting began with an open house format and several boards displaying pedestrian and bicycle crash locations, followed by a PowerPoint presentation and Q&A. Appendix D1 contains public meeting materials including a summary of written comments from comment forms, meeting notes, sign-in sheet, meeting announcement, media advisory and news articles.

Leading up to the public meeting, the project team engaged the two Council Members to educate them on the safety issues and obtain their feedback. Council Member Scott Wilson

(District 4) participated in a small-group meeting with the project team. Council Member Danny Becton (District 11) participated in a walk-review of the corridor.

Walk-Review

The project team held a walk-review of the corridor Thursday, February 15, 2018 to gather information that would help develop the educational campaign and bring awareness to pedestrian safety. The activity was also an excellent way for agency partners to witness and discuss safety issues. Sixteen people participated, representing the following entities: North Florida TPO, Jacksonville City Council, Jacksonville Planning Department, Jacksonville Sheriff's Office, FDOT District 2 and the North Florida TPO's General Services and Public Involvement Consultants.



Meeting Location for the Walk-Review: Winn Dixie Parking Lot

During the walk-review participants observed and discussed site elements and traffic behaviors that contribute to pedestrian and bicycle safety concerns. Several participants provided written notes on a checklist developed by the project team. The checklist prompted reviewers to identify walking conditions, such as sidewalk conditions, road crossing conditions, driver/pedestrian/bicyclist behaviors and bus stop conditions.

Participants witnessed behaviors from both pedestrians and drivers that contribute to unsafe walking conditions. For example, several pedestrians either did not cross Beach Boulevard at signalized intersections (i.e., crossed mid-block) or did not push the button to activate the pedestrian signal. Some participants commented that there are “long” walk distances between signalized intersections and suggested signalized pedestrian midblock crossings between signalized intersections. However, participants also observed people crossing Beach Boulevard within a very short walking distance of marked crosswalks.

Several drivers did not yield to pedestrians at or in crosswalks. For example, this behavior was particularly observed at the intersection of Beach Boulevard and St. Johns Bluff Road, at the channelized right-turn lanes, and at the intersection of Beach Boulevard and Desalvo Road/Countryside Village, where left-turning vehicles did not yield to pedestrians crossing Beach Boulevard. The two pedestrians at Desalvo Road/Countryside Village sought refuge near the center median until one of the Jacksonville Sheriff’s Officers (JSO) assisted.



Channelized right-turn lane at Beach Boulevard and St. Johns Bluff Road



**Driver not yielding at Beach Boulevard and Desalvo Road/Countryside Village
(Also, as shown, crosswalks need maintenance)**

Walk-review participants noted that many drivers appeared to be speeding, contributing to participants feeling unsafe while walking along Beach Boulevard.

In addition to observing pedestrian and driver behaviors, participants expressed engineering/infrastructure needs along the corridor, most commonly related to crosswalks and pedestrian signal needs, listed below:

- Better maintained crosswalks (i.e., visible crosswalks)
- More visible crosswalks such as special-emphasis crosswalks
- Additional marked crosswalks (particularly at signalized intersections that were missing crosswalks)
- Install yield to pedestrian signs (or other pedestrian warning signs) at/near crosswalks that cross channelized right-turn lanes, such as the intersection of Beach Boulevard and St. Johns Bluff Road
- Install more countdown pedestrian signals
- Better maintained pedestrian signals (replace dimly lit indications)
- Replace missing, worn or damaged detectable warning surfaces
- More or better maintained traffic controls at driveways and sidewalks (i.e., stop bars, crosswalks, stop signs)
- Potential need for additional crossing time for people crossing Beach Boulevard
- Install bilingual signage at pedestrian signals

Also, the buffer/separation from the roadway is narrow, and in some locations the sidewalk is immediately adjacent to and flush with the roadway shoulder or travel lane. And much of the Beach Boulevard corridor between St. Johns Bluff Road and Southside Boulevard had no curb and gutter. To help prepare for the walk-review and gain an understanding of corridor conditions, the project team referenced a Pedestrian Roadway Safety Audit for SR 212/Beach Boulevard from SR 115/Southside Boulevard to I-295, prepared for FDOT District 2, dated May 2016. Many of the same infrastructure concerns noted in that document were observed during the walk-review.



**Detectable Warning Surface that needs replacing
(east of St. Johns Bluff Road near Walgreens)**



**Sidewalk next to shoulder at Beach Boulevard and St. Johns Bluff Road
(Also, as shown, a narrow sidewalk width of approximately four feet)**



Sidewalk next to shoulder near the Community Hospice Thrift Shop



Pedestrian Signal with a dimly lit indication

The built environment may contribute to pedestrian/bicycle crashes. For example, during the walk-review, participants mentioned that liquor stores or other establishments selling alcoholic beverages may contribute to crashes involving pedestrians under the influence. For the two fatal crashes in which the contributing factor involved a pedestrian who was under the influence, both occurred near liquor stores. Also, much of the corridor land uses are commercial/retail uses that generally hire lower-wage employees who work in shifts, including late evening and/or early morning shifts when it is dark. All four fatal crashes occurred at night. The presence of workers who may not have access to personal vehicles increase the likelihood that there will be people walking along the corridor. The presence of support services, like social service agencies, and transit infrastructure, such as bus stops/shelters, also indicate that people walk along the corridor.



Bus Stop near Beach Bowl (bowling alley)

Another concern expressed during stakeholder coordination was that automobile-related businesses park vehicles on or near sidewalks and sometimes in the roadway right-of-way. Appendix D2 contains summary notes of the walk-review and a copy of the checklists.



Beach Boulevard, between Southside Boulevard and St. Johns Bluff Road

Stakeholder Meetings

In addition to the public outreach meeting and the walk-review activity, the project team held three agency stakeholder meetings. One meeting in December 2017 was held to confirm the campaign location and general crash conditions. Another meeting was held March 2018 following the walk-review to discuss more detailed corridor conditions and potential campaign activities. A third meeting occurred May 2018 to discuss the campaign's progress and potential ways to continue momentum beyond the campaign. Appendix D3 contains meeting notes of the stakeholder meetings.

4 – Summary of Corridor Issues for Campaign Development

The project team identified several corridor issues for campaign development and decided it would be most cost-effective for the campaign to focus on pedestrians, then drivers. Summary conditions are described below.

Dangerous crossing and driving behaviors:

- Both pedestrians and drivers contribute to unsafe conditions.
- Drivers often don't look out for pedestrians or cyclists when turning.
- Pedestrians are often not careful when crossing Beach Boulevard.
- Many pedestrians don't use marked crosswalks.
- There seems to be confusion about the benefits of using pedestrian pushbuttons at signalized intersections. For pedestrians crossing Beach Boulevard the pedestrian pushbutton must be pushed to activate additional time to cross the street.

Pedestrian Crashes:

- Pedestrian crashes were more severe than bicycle crashes. All four fatal crashes involved a pedestrian.
- Many pedestrians were not visible at night as 24 of the 29 pedestrian crashes occurred at night (83 percent).
- A pedestrian was at fault for 25 of the 29 pedestrian crashes (86 percent). Common reasons why pedestrians were at fault were pedestrians crossed against the "Don't Walk" signal, failed to yield right-of-way or tried to cross midblock or outside of crosswalk. A pedestrian was under the influence in two of the four fatal crashes.
- When a driver was at fault, s/he mostly did not yield to the pedestrian.

Bicycle Crashes:

- A driver was at fault for most bicycle crashes (22 of the 37 bicycle crashes, 59 percent). Drivers mostly fail to yield to bicyclists.
- Many vehicles turn in and out of driveways along the Beach Boulevard corridor.
- Bicyclists primarily crossed against the signal and/or did not yield the right-of-way.

Community Characteristics: In addition to the issues described above, the corridor contains a considerable concentration of people, including individuals of Hispanic origin. Some areas along the corridor are among the highest percent Hispanic origin within Duval County (i.e., over 40 percent). The corridor is also home to many lower income individuals.

5 – Pedestrian Campaign Activities

Outreach focused on communicating important safety concerns to pedestrians and drivers along the corridor. Campaign activities began the week of Monday, April 23, 2018 and continued through Sunday, May 20, 2018. At the beginning of the campaign³, major outreach took place at the Beach Boulevard Flea Market where a bilingual team spoke with over 100 people, many of whom were primarily Spanish speaking. Advertising and outreach featured bilingual materials and messaging, including sidewalk decals, postcards mailed to nearby residents, social media, radio and print ads and a website. The campaign included presentations to community/stakeholder groups and television and newspaper coverage. Outreach materials (e.g., postcards, LED lights) were hand delivered to businesses and other community destinations, such as grocery stores, churches and thrift shops.

Beach Boulevard Pedestrian Campaign elements are described below.

Bilingual Communications

Since the corridor contains the highest percent of persons of Hispanic origin in Duval County, the project team developed campaign communications in English and Spanish. This was the first time the North Florida TPO provided Spanish language communications materials. The team hired a translator to assist with translating copy and provided materials for review by a native Spanish speaker on the North Florida TPO staff.

Branding and Messaging



The project team has conducted several successful safety campaigns and used that experience, along with detailed analysis of the campaign area, to develop the brand and messaging. The brand, Care More Crossing Beach Boulevard, reinforces the idea that this area requires greater attention when crossing the road. It is a place where one cannot be “careless” but should “care more.”

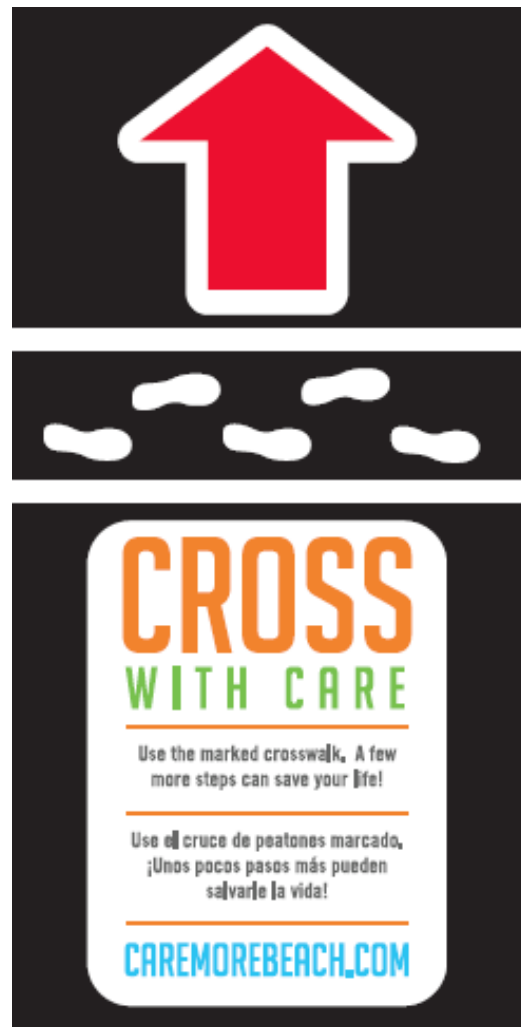
Based on the crash data evaluation, messaging was targeted primarily at pedestrians. Drivers were also addressed in key aspects of the campaign. The key pedestrian message was to “Cross with Care” by using the crosswalk, pushing the crosswalk button and following the crossing

³ Saturday, April 28, 2018

signal. Driver messaging focused on looking out for pedestrians and cyclists and stopping to wait for them to cross before turning.

Sidewalk Decals

Sidewalk decals were installed to remind pedestrians to use marked crosswalks and push the buttons on pedestrian signals. Sixteen “Push Wait Walk” and 16 “Cross with Care” decals were installed at high crash locations. The 32 sidewalk decals were printed with both English and Spanish messages.





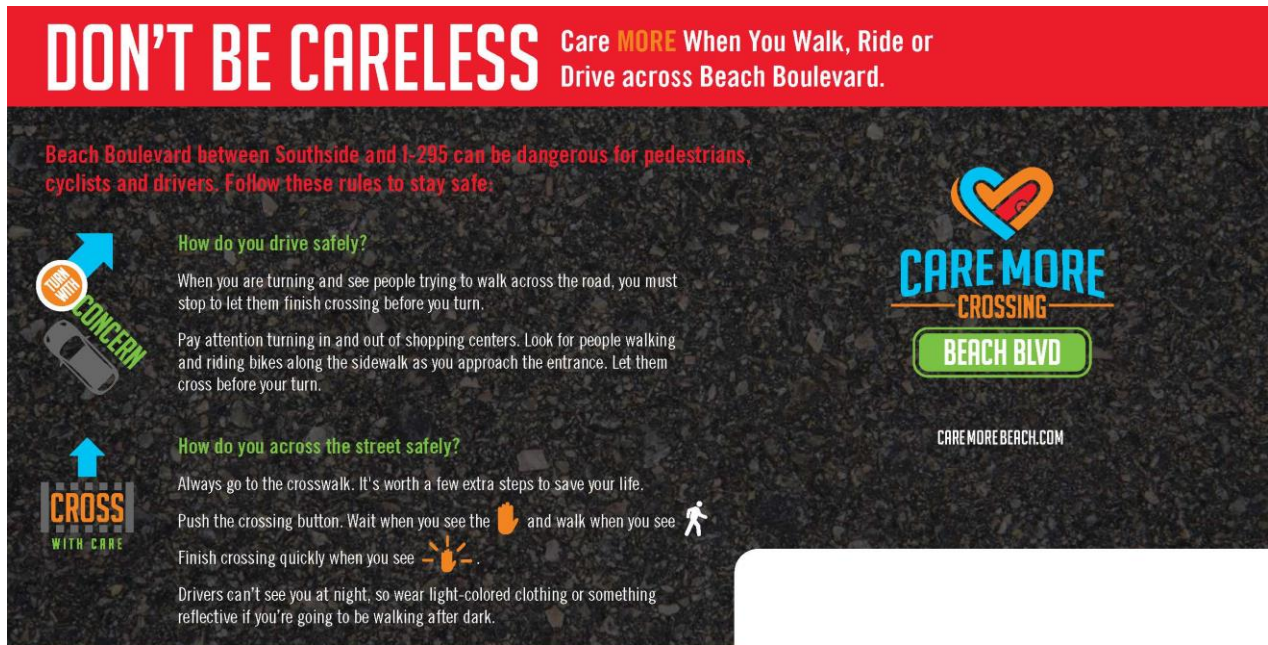
Sidewalk Decal along Beach Boulevard



Sidewalk Decal along Beach Boulevard

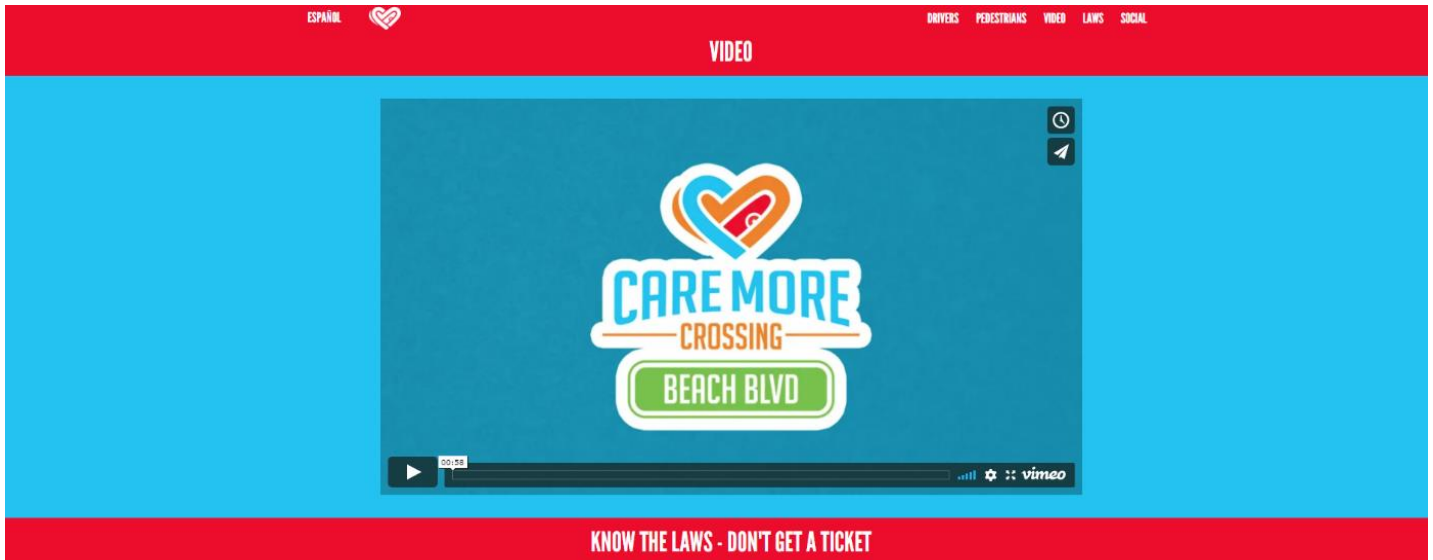
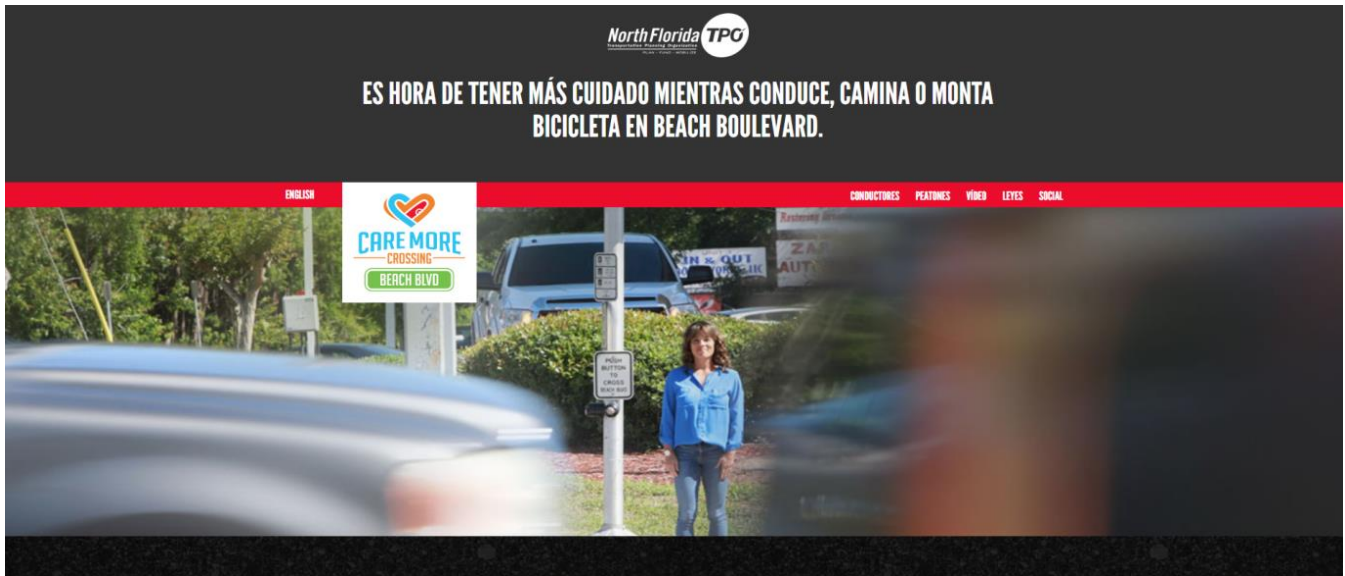
Direct Mail

A bilingual, direct mail postcard was sent to over 7,000 households in the corridor. The card size was larger than the typical postcard, approximately 14" x 8". The large size and bright colors contributed to making the card more noticeable. Additional cards were printed for distribution at outreach events and distributed to businesses and churches along the corridor. Below are images of the postcard, English on one side and Spanish on the other.



Website and Video

The website www.caremorebeach.com includes safety messages for pedestrians and drivers, links to relevant state statutes and a video demonstrating the proper way to cross. The site and video are also provided in Spanish.



316.2065
 Bicycle regulations

316.304
 No headsets

Social Media

Campaign messages were posted on Facebook and Twitter throughout the campaign.





Radio and Print

When evaluating the Beach Boulevard Flea Market for outreach potential, members of the project team noted that multiple vendors were broadcasting local Spanish language radio stations and that many of the patrons were of Hispanic origin. A Spanish “slice of life” radio spot was produced and communicated on the Latina, LaRaza and Rumba radio stations. There were 114 Spanish radio spots. A print ad was included twice in the weekly Spanish language newspaper *Hola*.



Additional Outreach and Media Coverage

As the campaign was being developed, the team held a public outreach meeting in conjunction with the two Council Members for the area⁴. A meeting announcement and media advisory were circulated prior to the meeting. As a result, News4JAX and the Florida Times-Union provided news coverage.

A major outreach effort was held at the Beach Boulevard Flea Market Saturday, April 28, 2018 where the bilingual team spoke with over 100 people, many of whom were primarily Spanish speakers. One gentleman said that he was afraid to cross Beach Boulevard because he didn't understand the traffic signals. The news media interviewed members of the project team at the Flea Market event resulting in a televised story on News4JAX and news articles. Appendix D4 contains a media advisory for the flea market outreach.



Beach Boulevard Flea Market Event

Care More Crossing Beach Boulevard



Marking the spot, lighting the way to increase pedestrian safety
 2:27 PM, April 28, 2018

JACKSONVILLE, Fla. - A new pedestrian safety campaign called Care More Crossing Beach Boulevard was kicked off Saturday in an effort to reduce the high number of pedestrian deaths along that road. It's focused on a 2.3 mile stretch of Beach Boulevard between Southside Boulevard and I-295, an area that has proven to be dangerous and even deadly...

⁴ This meeting is described in section 3, Stakeholder Input of this report.

The project team made presentations to the City of Jacksonville’s Greater Arlington/Beaches and Southeast Citizens Planning Advisory Committees (CPACs), Glynlea/Grove Park Neighborhood Association and Duval County Community Traffic Safety Team. The Community Traffic Safety Team is a volunteer organization sponsored by the Florida Department of Transportation with the mission of helping to reduce crashes on area roadways. The project team also visited businesses and churches along the corridor and provided postcards to share with employees/congregations. Community and professional stakeholder representatives agreed that Beach Boulevard is a problem area for pedestrian/bicycle crashes.



Glynlea/Grove Park Neighborhood Association

Giveaways

Two giveaways were distributed during the outreach efforts. The North Florida TPO provided yellow slap bracelets which are worn to increase visibility at night. For the campaign, the project team produced branded LED clip-on lights that can be attached to shoes, clothing or even pet collars to increase night visibility. The LED lights were especially popular.



Public Outreach Summary

Table 2 contains a summary of public outreach activities.

Table 2. Public Outreach Summary

No.	Outreach Activity	Date/Location	Number of People Reached
1	Public Meeting (Before Official Campaign Began)	4-9-2018/ Blessed Trinity Catholic Church	Over 12 attendees; Three comment forms received
2	Southeast CPAC	4-23-2018/ NEF Assoc. Realtors @ Deercreek	Approximately 30 attendees
3	Direct Mailing - Postcards and Spanish Radio spots begin	4-27-2018/ Beach Boulevard Corridor	7,000 residents
4	32 Sidewalk Decal installations	Installed by 4-27-2018/ Beach Boulevard Corridor	Numerous pedestrians throughout the campaign
5	Flea Market Outreach	4-28-2018/ Beach Boulevard Flea Market	Over 100 people
6	Hand Delivered Materials	Week of 4-30-2018/ Beach Boulevard Corridor	Over 20 businesses, agencies and churches; several employees and church members
7	Glynlea/Grove Park Neighborhood Association	5-10-2018/ Holiday Hill Baptist Church	20 attendees
8	Greater Arlington/Beaches CPAC	5-14-2018/ Pablo Creek Regional Library	Approximately 30 attendees
9	Duval County Community Traffic Safety Team	5-16-2018/ FDOT Urban Office	Approximately 15 attendees

6 - Concurrent Outreach Activities

During the North Florida TPO’s Beach Boulevard Pedestrian Campaign, the project team became aware of three additional pedestrian/bicycle outreach efforts along the same segment of Beach Boulevard. This is likely due to the high number of pedestrian/bicycle crashes along the corridor and that pedestrian/bicycle crashes are more likely to result in fatal or serious injuries than other types of crashes. In addition to Beach Boulevard, these additional outreach efforts also targeted other top-ranked pedestrian crash corridors, such as SR 134/103rd Street and SR 109/University Boulevard.

The additional pedestrian/bicycle outreach efforts are described below.

- **FDOT High-Visibility Enforcement Grants** – In 2018, JSO was awarded a grant of \$41,750 from FDOT in conjunction with the University of South Florida - Center for Urban Transportation and Research (CUTR), with a goal of reducing crashes and fatalities/serious injuries on roadways by educating the public and enforcing related traffic laws. These efforts were scheduled for March through May, 2018 along portions of five Jacksonville roadways: Beach Boulevard, 103rd Street, University Boulevard, Atlantic Boulevard and the downtown Jacksonville area. JSO has been awarded High-Visibility Enforcement Grants since 2014.
- **FDOT Traffic Signal Cabinet Wraps** – In 2016, FDOT began wrapping traffic control boxes with safety reminders to pedestrians. The wrapped boxes contain messages like “Push, wait, walk,” “No regrets when you cross with care” and “If only I’d been looking out for cars.” This initiative includes over 70 intersections across Jacksonville.



- North Florida Bicycle Club message at JTA bus shelter – The North Florida Bicycle Club’s “Our Ride Bright at Night” initiative began in 2015 by placing posters on bus shelters, targeting corridors identified by JSO with high citation rates for bicyclists riding without lights. Working with JSO, lights were distributed to cyclists riding at night without lights, instead of citations. Posters were also placed at local bike shops and on public bulletin boards at receptive businesses.



7 - Campaign Metrics

This section of the report describes campaign metrics before and after the campaign.

Pedestrian Signal Activation

Utilizing traffic signal data, the project team examined pedestrian push-to-walk button usage before and after the campaign. A four-day sample, two pre-campaign days and two post-campaign days, was examined for two intersections (at Southside Boulevard and at Cortez Road) along the corridor. Using traffic signal data⁵, the project team examined signal timings consistent with pedestrian push-to-walk button usage. When someone pushes the button at a crosswalk it activates the longer timing for the pedestrian signal, which also holds the green time for the cross street. Pedestrians cross when the cross-street signal is green. In Table 3, pre- and post-campaign data are compared. On average, this data sample shows pedestrians pushed the button slightly more before the campaign (34) than after the campaign (31). This comparison does not consider if more pedestrians were walking the corridor on pre-campaign days than post-campaign days. Appendix E contains pedestrian pushbutton data.

Table 3. Count of Pushbutton Usage (Before and After)

	Daily Count of Pushbutton Use
Average PRE days	34
Average POST days	31
% Change from PRE to POST	-9%

Rate of Pushbutton Usage

In Table 4, however, the project team utilized pedestrian counts to create a rate of pedestrian pushbutton usage that considers pedestrian counts. Four hours of pre- and post-pedestrian counts were collected at one intersection, Cortez Road. This data sample revealed a slightly higher rate of pushbutton usage after the campaign (42 percent) than before (33 percent). Appendix F contains this count data.

Table 4. Rate of Pushbutton Usage (Before and After)

	PRE	POST
Count of Pushbutton Use	21	13
Count of Peds Crossing Beach Boulevard	64	31
Rate	33%	42%

⁵ Intersection “split history” reports from the ATMS (Advanced Traffic Management System) network. The reports list the signal timing (in seconds) of all movements at the intersection on a cycle by cycle basis.

Crash Data

Another potential metric is number of crashes. The project team compared pre- and post-campaign traffic crashes along Beach Boulevard, from the Walmart driveway (west of Southside Boulevard) to Beachwood Court (east of I-295). Table 5 utilizes average annual crashes to compare five-years of pre-campaign data with 11 months of post-campaign data. After the campaign, average annual pedestrian crashes decreased by about half (50 percent), from six to three crashes. Average annual pedestrian crashes resulting in death remained about the same (one crash).

Table 5. Crash Data (Before and After)

	PRE	POST
Crash Years	2012-2016	2018-2019
Range of Crash Years	5	0.92
Pedestrian Crashes	29	3
Bicycle Crashes	37	10
Fatal Crashes	4	2
Fatal Pedestrian Crashes	4	1
Percent Pedestrian Crashes	44%	23%
Percent Bicycle Crashes	56%	77%
Average Annual Pedestrian Crashes	5.8	3.3
Average Annual Bicycle Crashes	7.4	10.9
Average Annual Fatal Crashes	0.8	2.2
Average Annual Fatal Pedestrian Crashes	0.8	1.1

These metrics (i.e., rate of pushbutton use and average annual crashes) are not conclusive as they do not establish a definitive relationship between the campaign’s outreach activities, pushbutton use and the presence of crashes. Regarding pre- and post-campaign crashes, the one-year review period following the campaign may need to be revisited and extended (as time passes) to confirm results. In addition, periodic outreach activities that reinforce safety messages along the corridor may help improve results.

8 –Lessons Learned, Recommendations and Next Steps

Lessons Learned/Takeaways for Future Efforts

- Adults lack understanding and require education and outreach concerning pedestrian-related traffic laws and regulations.
- Crash data often shows one side. Crash reports generally do not consider poor walking conditions that often exist along arterial streets.
- Many pedestrians do not feel safe crossing the road, even with pedestrian signals at signalized intersections and marked crosswalks. They feel cars will not stop for them and that they do not have enough time to cross.
- Some pedestrians feel it is safer to try and cross mid-block, especially if there is a raised median, because they can see cars coming from a distance and only must worry about cars coming from one direction at a time. At a signalized four-way intersection, pedestrians may have to worry about cars coming at them and/or turning at them from both sides of the road.
- Some drivers display a lack of respect towards pedestrians and cyclists. This was observed during the initial walk-review and during video filming. It was also shared by citizens who commented during outreach.
- Some drivers are not aware of traffic laws pertaining to pedestrians and cyclists. As a result, drivers often do not acknowledge their role in contributing to unsafe conditions.
- As our region becomes more diverse, we need to be aware that immigrants may not understand traffic signals and laws. Interactions between pedestrians and motorists may be different in their home countries.
- A walk audit/review is an effective tool to educate adults concerning traffic laws. It provides first-hand personal walking experience (along a high speed, wide and busy arterial) and opportunity for participants to learn from each other. To enhance usefulness, walk audits/reviews should include diverse types of stakeholders and follow up opportunity to debrief/discuss observations. The various types of stakeholder participants should include local government agency staff, North Florida TPO staff, roadway engineers and planners, law enforcement and elected officials. The walk audit/review provided the first part of a two-pronged approach, educating traffic and civic professionals. The second part is educating the public.
- For pedestrians crossing Beach Boulevard, the pedestrian pushbutton must be pushed to activate additional time to cross the street. Typically, pedestrians are provided approximately 40 seconds of combined WALK AND FLASHING DON'T WALK to cross Beach Boulevard. If they fail to push the button and cross on a green signal provided for a vehicle instead, that time could be as short as 12 to 15 seconds before returning to green for Beach Boulevard.

- Confusion exists about the benefits of using pedestrian pushbuttons at signalized intersections. This confusion could be a result of signal operations that vary by time of day (i.e., day versus night) and by crossing location (i.e., crossing Beach Boulevard versus crossing a side street).
- In addition to education needs, there are infrastructure challenges (i.e., engineering and design challenges) along Beach Boulevard and similar roadways.
- Based on a review of pedestrian signals and crosswalks along the Beach Boulevard campaign corridor during the campaign, the crosswalk pavement markings and pedestrian signals are inconsistent. Some locations have special-emphasis crosswalks and some do not. Some locations have countdown type indications and some do not. Some intersections have pedestrian crosswalks on all four legs and some on only two or three legs.
- Pedestrians appear to need more signal time to cross Beach Boulevard. Some pedestrians choose to jog/run across the street, either to cross the street before the signal changes and/or to move away from turning vehicles. Turning vehicles often do not yield to pedestrians, effectively decreasing the amount of time pedestrians have to cross the street.
- Maintenance of pedestrian-related infrastructure is important for continued safety.
- For future campaigns that examine pre- and post-campaign pedestrian pushbutton data, consider applying specific equipment settings, ahead of pre- and post-campaign periods, to log pedestrian pushbutton pushes. Suggest that the City of Jacksonville traffic management system (ATMS.NOW) be configured to log pedestrian pushbutton actuations for future retrieval.

Programmed Modifications to Beach Boulevard

As a result of the walk-review completed prior to the pedestrian campaign, FDOT District 2 staff identified two intersections that need special-emphasis markings: 1) Beach Boulevard and Desalvo Road and 2) Beach Boulevard and St. Johns Bluff Road. As of the end of 2018, Desalvo Road was undergoing traffic signal updates as part of a safety project and scheduled to receive special-emphasis markings in 2019. Also, a work order was completed for St. Johns Bluff Road in August 2018. Now St. Johns Bluff Road has special-emphasis markings, pedestrian warning signs with plaques about 300 feet ahead of the channelized right-turn lane crossings, and pedestrian warning signs with arrow plaques at the channelized right-turn lane crossings.

Figure 8. FDOT Exhibit of proposed improvements at St. Johns Bluff Road (1)

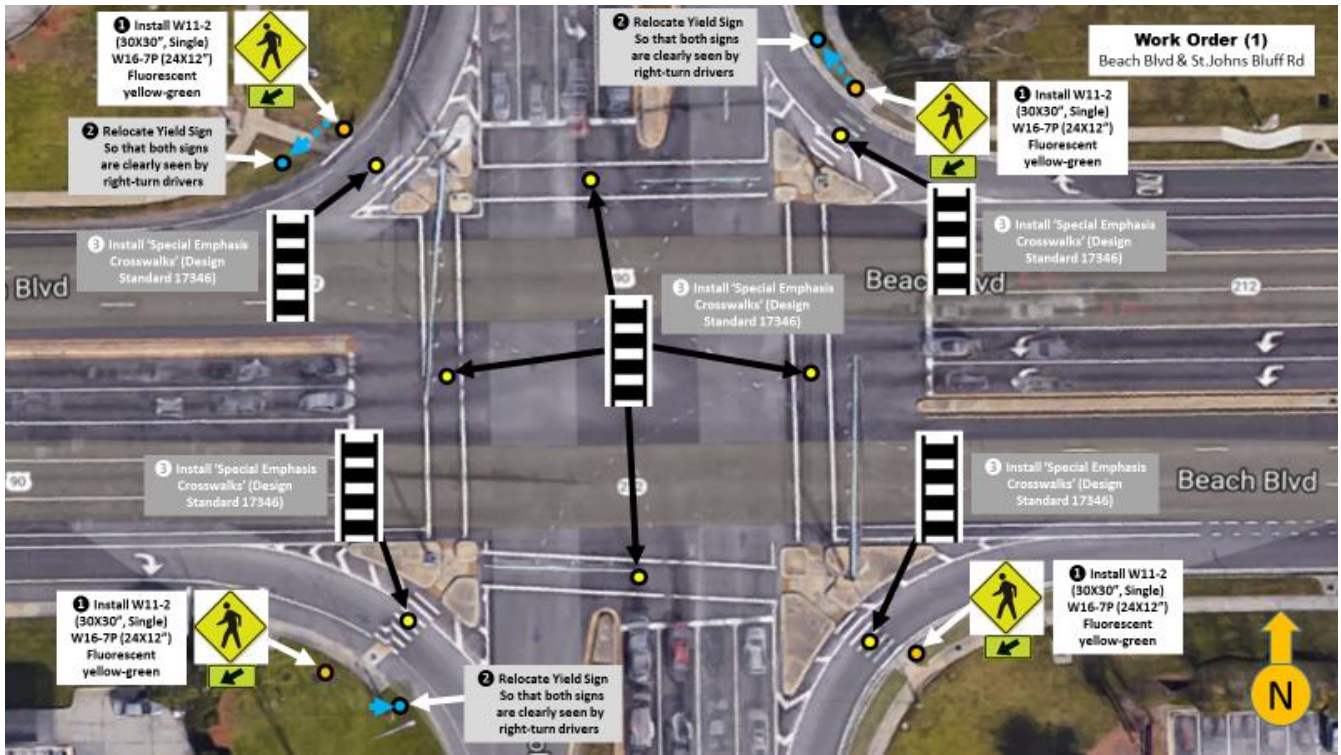


Figure 9. FDOT Exhibit of proposed improvements at St. Johns Bluff Road (2)



During the campaign, other projects were also anticipated along Beach Boulevard within the pedestrian campaign area.

- 432404-1 - Beach Boulevard from Parental Home Road to Cortez Road - Traffic Signal Update (Parental Home Road, Foster Drive, Grove Park Boulevard, Eve Drive East, Peach Drive, Forest Boulevard, Anniston Road, De Salvo Drive, Cortez Road)
Letting August 2018, Construction anticipated by 2019
- 439503-1 - Beach Boulevard from Parental Home to St. Johns Bluff Road - Landscaping (Trees in Median on Beach Boulevard)
Construction anticipated to begin November 2020
- 439368-1 – Beach Boulevard and Southside Boulevard – Intersection improvement (Adding right-turn lanes for northbound and southbound traffic traveling to Beach Boulevard; creating two right-turn lanes in the southeast quadrant that will eliminate the channelized right-turn lane)
Letting September 2020

Recommendations

Consider the following recommendations to improve safety along the corridor.

- **Install Consistent Pedestrian Infrastructure** - Make pedestrian crossings as consistent as possible along the corridor, particularly pedestrian crosswalks and pedestrian signal displays on traffic signals. It is anticipated that consistent treatment of pedestrian crosswalks and traffic signals along the corridor would improve safety by helping people better anticipate traffic conditions. During the study, the project team noticed that some intersections had special-emphasis⁶/high-visibility crosswalks while some did not. Some intersections had pedestrian crosswalks on all four legs and some on only three or two legs. Some intersections had countdown type signal displays and some did not.
- **Install Countdown Pedestrian Signals** - Install countdown displays on all traffic signals along the corridor. Studies have shown countdown displays are more effective in encouraging pedestrians to clear the crosswalk than the traditional flashing hand signal. A countdown display shows or “counts down” the amount of crossing time remaining for pedestrians as they cross the street. During the campaign, not all corridor intersections had countdown signals, most (if not all) may have them now.

Appendix G contains a list of locations that were missing pedestrian countdown displays during the campaign.

- **Leading Pedestrian Intervals** –Perform a study to determine whether there are locations along the corridor and/or times of the day when leading pedestrian intervals would increase safety for pedestrians. Traffic signals with leading pedestrian intervals provide pedestrians opportunity to enter an intersection 3-7 seconds before vehicles are given a green signal. With this head start, pedestrians can better establish their presence in the crosswalk before vehicles have priority to turn. During the study, the project team observed several turning drivers not yielding to pedestrians. For example, this behavior was observed at the intersection of Beach Boulevard and Desalvo Road/Countryside Village, where left-turning vehicles did not yield to pedestrians, and at Beach Boulevard and Forest Boulevard, where both right- and left-turning vehicles did not yield.

⁶ Special-emphasis crosswalks are a series of longitudinal markings in the same direction as the vehicle...which at high speeds are helpful because you can see crosswalks from a greater distance

- **Complete Street Corridor Study** - Implement a study along the Beach Boulevard corridor to improve safety and evaluate potential multimodal mobility strategies. The study could evaluate important pedestrian safety topics such as vehicular travel speeds, marked crosswalks (including midblock crossing opportunities), pedestrian scale lighting, signage, other infrastructure and access management.
- **Continued Stakeholder Coordination and Education** - Coordinate with law enforcement, local government and roadway agencies to identify ways to promote and encourage safer walking conditions along major arterials. This includes identifying and promoting solutions to barriers that hinder safe walking conditions. Barriers may include engineering/physical, enforcement, institutional/policy, social/cultural, legal and other barriers.
 - Identify effective ways to provide pedestrian safety education to drivers. Those who primarily drive often do not fully understand the challenges associated with walking. Consider walk audits/reviews as an outreach and education tool. However, since everyone cannot directly participate in a walk audit/review, consider television, website and social media PSAs with video showing what pedestrians endure. Additionally, to encourage drivers to yield to pedestrians at crosswalks consider coordinating with law enforcement to implement targeted enforcement/educational campaigns incorporating pedestrian-focused efforts.
 - One strategy to address language and social/cultural barriers may include partnering with community organizations, churches, etc. to provide pedestrian safety education. During the study, the project team learned that, for some individuals, a limited understanding of pedestrian crossing laws and infrastructure may be because they do not speak, read and/or understand English very well. If they are originally from another country, they also may not understand certain social norms related to pedestrian, bicycle and vehicular traffic.
 - An approach to address general pedestrian safety knowledge barriers, may be to coordinate with the Department of Motor Vehicles (and/or other agencies). There may be an opportunity to increase pedestrian safety education through the driver's license renewal process, such as by placing more effective pedestrian and bicycle safety questions on the driver's exam and by requiring more frequent written testing/refresher courses.
 - Consider implementing additional outreach along Beach Boulevard to reinforce the message of pedestrian safety, increase awareness and work toward eliminating crashes.
- **Maintenance** - Implement regular maintenance of marked roadway lines, including crosswalks, and pedestrian signals. During the study, the project team observed numerous intersections throughout the corridor requiring either fresh markings and/or new lights in pedestrian signal displays.

Next Steps

Identify safer ways to plan and design roadways, incorporate technology, educate the community and enforce traffic laws and regulations. Engineering, education and enforcement are all important tools for traffic safety. Next steps and recommendations will require continued coordination with FDOT, local government and law enforcement to enhance safety.

- **Engineering** - Follow up with FDOT, COJ and other stakeholders to define upcoming projects, including ways to incorporate SMART technology. Consider pedestrian needs as part of routine planning. This means incorporating the lighting, signing, striping and intersection design appropriate to enhance pedestrian safety and work toward eliminating serious injuries and fatalities.
- **Education** – Share experience with COJ and other agency stakeholders for their potential campaigns. Continue education of all road users to ensure safe travel habits, knowledge of traffic laws/regulations and awareness about the needs of all road users, especially the needs of pedestrians and/or bicyclists.
- **Enforcement** – Follow up with JSO and COJ to develop ways to incorporate targeted enforcement activities with educational campaigns. During the study, stakeholders discussed the potential for implementing pedestrian-focused activities like Orlando’s Best Foot Forward. A pedestrian-focused initiative may require three officers per site and a plain clothes officer acting as a decoy.

Following the campaign, the steering committee met and discussed the need to make traffic laws clearer, particularly those relating to pedestrians and bicyclists. The following comments from the meeting, addressing traffic laws and policies, are provided as additional next steps.

- Continue promoting pedestrian safety as a North Florida TPO legislative priority and encourage awareness and education at the statewide level.
- Engage the Florida MPO Advisory Council (MPOAC) and other organizations such as AAA, AARP and the Florida Sheriff’s Association.
- Coordinate with the Department of Motor Vehicles to ensure that all drivers know the laws. The driver’s license renewal process is an opportunity to educate people. Consider requiring a refresher course, placing more effective bike/ped questions on the driver’s education test, and more frequent written testing.
- Encourage research, testing and appropriate use of SMART technologies that will enhance safety.
- Incorporate pedestrian safety concerns in the North Florida TPO’s revised Regional System Safety Plan.