

Frequently Asked Questions

**Project: Bayshore Boulevard Safety and Multi-Modal S&PM Improvements
(from W Hawthorne Road to W Platt Street, northbound lanes)
(from S Howard Avenue to W Platt Street, southbound lanes)**

This document addresses questions and comments regarding the proposed City of Tampa Bayshore Boulevard Signing and Pavement Markings Project. Attached are responses to frequently asked questions (FAQ) and comments which were raised during and after the February 23, 2017 public meeting for the project.

Question 1 – Why is the City doing this project?

The intent of this project is to implement low-cost improvements that can provide a safer and more equitable balance among the transportation modes and be more compatible with adjacent land use activities within the corridor. Rather than just replace the existing striping, the City plans to implement new standards that have been developed since the previous pavement markings were installed that can have a transformative impact on the corridor for all users (See examples under Figures 1-1 through 1-4).

The proposed improvements include:

- Replacing faded striping between Rome Avenue and Platt Street, with new striping including black contrast in the skip lines and pavement message markings;
- Adding a 2-ft buffer to the existing bicycle lanes;
- Reducing width of travel lanes to 10 feet;
- Providing green pavement markings at the right-turn lane conflict point at De Soto Avenue;
- Installing Rectangular Rapid Flashing Beacon's (RRFB) at several crosswalk locations to improve pedestrian safety and encourage vehicular compliance, including:
 - S. Dakota Avenue,
 - S. Delaware Avenue, and
 - between S. Brevard Avenue and W. Swann Avenue; and,
- Reducing the posted speed limit from 40 MPH to 35 MPH and to increase safety by reducing the number and severity of crashes.

(For more project information please reference the [Project Fact Sheet](#) on our website).

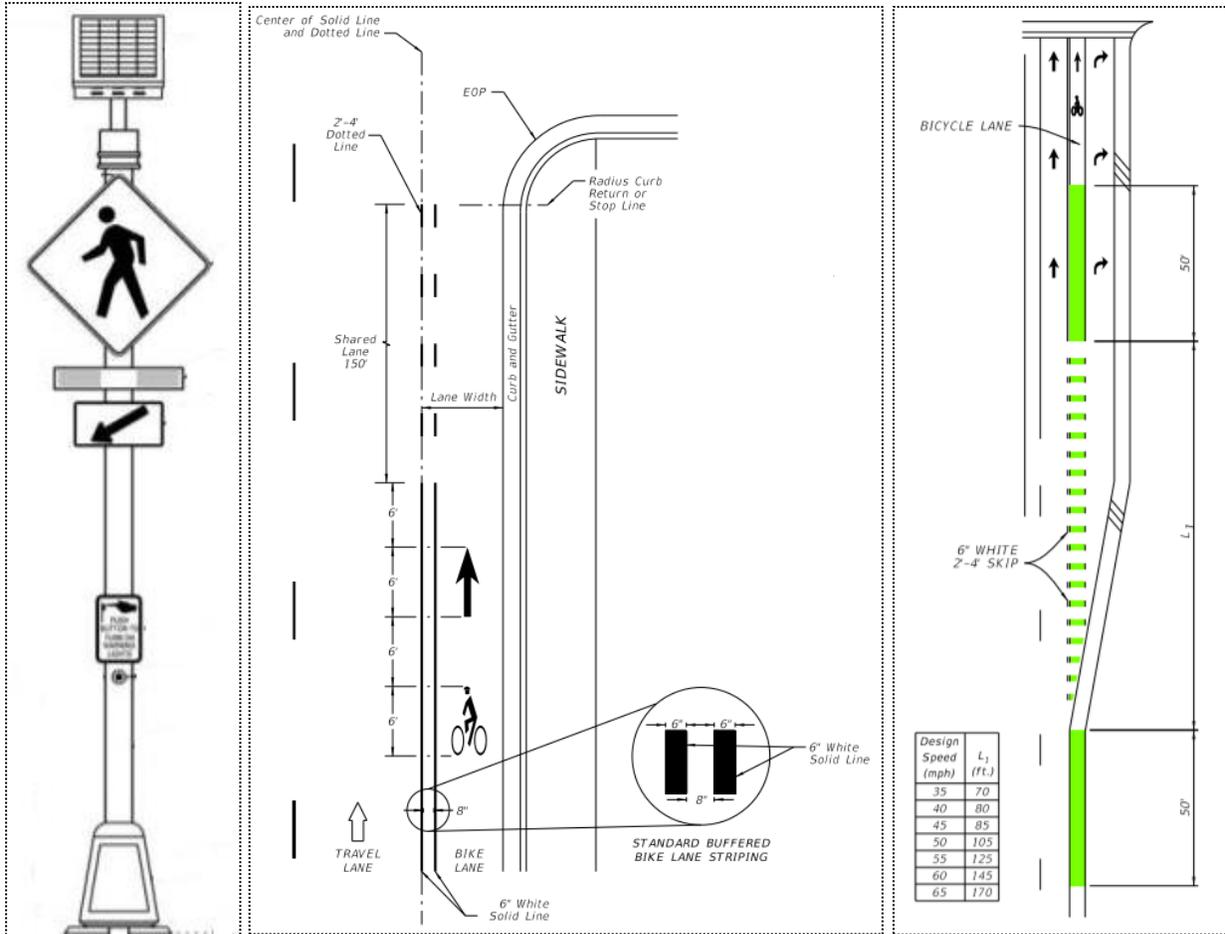


Figure 1-1

Figure 1-2

Figure 1-3

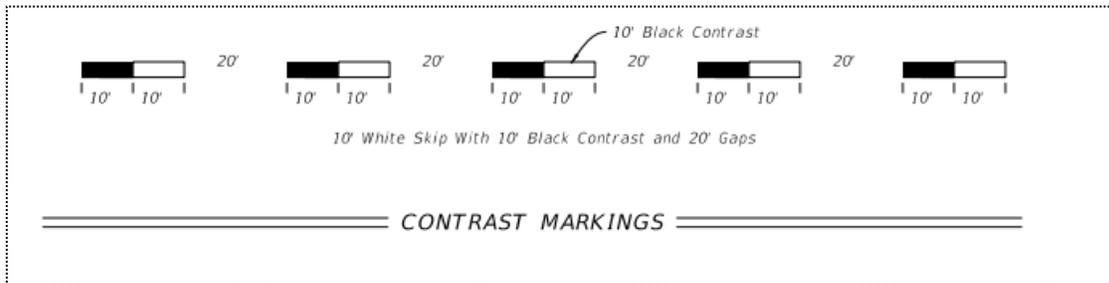


Figure 1-4

Figure 1-1 – Rectangular Rapid Flashing LED Beacon Detail

Figure 1-2 – Buffered Bicycle Lane Detail

Figure 1-3 Green Pavement Markings Detail

Figure 1-4 – Contrast Pavement Markings Detail

Question 2 – What is the timeline regarding these proposed changes?

The City anticipates project implementation to begin in late Summer/Fall 2018, depending on completion of the Bayshore Boulevard Enhancements Phase III project.

Question 3 – Will the Bayshore Boulevard southbound bicycle lane be completed first?

Yes. The extension of the southbound bicycle lane from Howard Ave to Hawthorne Road will be constructed first under our Bayshore Boulevard Enhancements Phase III project. Construction of this federally-funded project is scheduled to commence in September 2017 and be completed by summer 2018. After completion of the Phase 3 project, the City will then begin the signing and pavement marking project for the remainder of the corridor. For more information on the Bayshore Boulevard Enhancements Phase III Project please visit the project [webpage](#).

Question 4 – Is it possible to add a bike path or trail within the grass median area or widening of the existing sidewalk?

Adding a multi-use path or trail in the grassed median area would introduce additional conflict points at each median opening between motorized vehicles and bicyclists. A path in the median would also generate conflicts with irrigation system, trees, and lighting. The planning-level cost estimate for construction of a multi-use path or trail in the median would be approximately \$1,500,000.

Widening of the existing sidewalk is a viable long-term option. The cost estimate for constructing a widened sidewalk would be approximately \$700,000 and is currently beyond the scope of this project.

Questions 5 – Can the City install more street lights along Bayshore Boulevard or at least make the corridor more lighted at night and provide pedestrian level lighting at the crosswalks?

The City is currently coordinating with TECO on a lighting infrastructure improvements project for this corridor. The project will include replacing the equipment to improve reliability, replacing light poles and adding decorative bases, converting the existing fixtures to LED and increasing illumination at the existing crosswalks.

Question 6 – Can rumble strips be placed on or within the buffer zone adjacent to the bike lane?

The Florida Department of Transportation (FDOT) uses three types of longitudinal rumble strips – (1) Ground-in rumble strip; (2) Raised Audible Pavement Marking; and (3) Rumble Stripe. Rumble strips are an effective countermeasure to prevent roadway departure crashes by providing an audible warning and a physical vibration to alert drivers that they are crossing into opposing traffic or leaving a lane. The purpose of these products is to reduce lane departure crashes on limited access and rural two-lane roadways. ***Rumble strips along Bayshore Boulevard would be challenging due to the amount of noise that would be generated within the residential corridor by vehicle tires hitting rumble strips. Rumble strips would also be extremely difficult and unsafe for bicyclist due to their raised or grooved patterns.*** The City is considering adding raised pavement markings (RPM's) at 40-foot intervals along the outside buffer stripe as a low-cost solution.

Question 7 – Could a concrete or physical barrier be added for greater protection for cyclists instead of a striped buffer?

Although a physical separator would provide a greater level of safety for cyclists, it is currently beyond the scope of this project. Additionally, a physical separator would make it difficult to perform roadway maintenance in the bicycle lane, such as street sweeping, due to the narrow 5-foot pavement width remaining. The striped buffer has been proven to be effective in improving safety for cyclists by creating more separation between vehicles and bicyclists. The City is considering adding raised pavement markings (RPM's) at 40-foot intervals along the outside buffer stripe as a low-cost solution.

Question 8 – Will reducing travel lane widths and lowering the speed limit impact traffic flow and capacity or increase congestion?

A reduction in lane widths is anticipated to have a corresponding reduction in free-flow travel speed; however, since no travel lanes will be eliminated, the overall capacity of the corridor, (which is determined by number of lanes, the saturation flow rate per lane, and the signalized intersection cycle lengths), should not be impacted.

The Florida Department of Transportation 2007 “Conserve by Bike Program Study” indicates: “so long as all other geometric and traffic signalization conditions remain constant, **there is no measurable decrease in urban street capacity when through lane widths are narrowed from 12 feet to 10 feet.**” The same motor vehicle traffic volume will continue to be accommodated within the corridor. A reduction in speed from 40 mph to 35 mph would increase the travel time through the entire 4.5-mile length of the corridor by less than one minute. The significant reduction in pedestrian fatality risk from a 5-mph reduction in speed more than offsets the minor increase in travel time.

Several roads in the City have reduced lane widths of 10 feet with no adverse effects including:

- 7th Avenue
- N/S Boulevard
- Cass Street
- Commerce Park Boulevard
- W. Davis Boulevard
- Florida Avenue
- Hyde Park Avenue
- Lake Avenue
- MacDill Avenue
- Osborne Avenue
- Palm Avenue
- Plant Avenue
- Platt Street
- Swann Avenue
- Tampa Palms Boulevard
- Tyler Street

Following figures are of N. Boulevard and Swann Avenue that have 10-foot travel lanes with adjacent bicycle lanes.



Figure 6-1 N. Boulevard



Figure 6-2 Swann Avenue

Question 9 – Will narrowing the vehicle travel lanes negatively affect safety or increase accidents?

The Federal Highway Administration (FHWA) has indicated that narrower lane widths may be chosen to manage speed and shorten crossing distances for pedestrians. Narrowing lanes has been demonstrated to reduce driving speeds and improve safety for all modes of travel. When lanes are wider cars move faster under free-flow conditions and pedestrians are required to walk longer distances at crosswalks which combined increase risk of incidents. Lower vehicle speeds decrease both the likelihood of a pedestrian being struck by a car and the severity of injury. The risk of fatality for pedestrians struck by vehicles decreases rapidly as the speed of the impact decreases.

Per FHWA, speed is a primary consideration when evaluating potential adverse impacts of lane width on safety for high-speed highways such as freeways and for rural two-lane highways; however, in a reduced-speed urban environment, the risk of lane-departure crashes is less. For those facilities, the design objective is often how to best distribute limited cross-sectional width to maximize safety for a wide variety of roadway users. Lane widths may be adjusted to incorporate other cross-sectional elements such as bike lanes. The adopted ranges for lane width in the urban, low-speed environment normally provide adequate flexibility to achieve a desirable urban cross section. At the proposed posted speeds, the 10-ft lanes should also be able to accommodate larger vehicles with low incident rates of off-tracking/encroachments onto adjacent lanes.

The Transportation Research Board's National Cooperative Highway Research Program NCHRP Report 330 "Effective Utilization of Street Width on Urban Arterials," concluded, "*All projects evaluated during the study that consisted exclusively of lane widths of 10 feet or more resulted in accident rates that were either reduced or unchanged.*"

Question 10 – Will the Rectangular Rapid Flashing Beacons (RRFB) for crosswalks increase traffic and congestion?

The proposed locations for the RRFB's are primarily at existing crosswalk locations that already have high pedestrian and cyclist counts within the corridor. The main purpose of the RRFB's is to improve pedestrian and cyclist safety and mobility by increasing driver yielding behavior. The RRFB is a pedestrian-activated warning device that consists of yellow LED rectangular flashing lights that draw attention to the crossing and provides information to approaching traffic that a bicyclist or pedestrian intends to cross the street. Once the RRFB is activated, the rectangular-shaped beacons will begin to flash in an alternating pattern. The approximate time for a pedestrian to cross one direction of traffic on Bayshore Blvd will be approximately 10 seconds. When the RRFB is not activated, there is no vehicle wait time.

RRFB's are more effective than standard signing and pavement markings alone and enhance safety by increasing driver awareness of pedestrians and bicyclists who want to cross the travel lanes at a crosswalk. By State Law FS 316.130 (7)(b): *"The driver of a vehicle at any crosswalk where signage so indicates shall stop and remain stopped to allow a pedestrian to cross a roadway when the pedestrian is in the crosswalk or steps into the crosswalk and is upon the half of the roadway upon which the vehicle is traveling or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger."*

Since receiving approval from FHWA in December 2014, the City has been incrementally installing RRFB's at various locations throughout the City. Following are locations where RRBF's are currently in operation within City limits:

- E Busch Boulevard and N 12th Street
- W Cypress St between N Grady Avenue and N Clark Avenue
- Davis Boulevard between Adalia Avenue and Aegean Avenue
- W Dr. Martin Luther King, Jr. Blvd between N MacDill Avenue and N Gomez Avenue
- E Kennedy Boulevard and N 11th Street
- E Palm Avenue between N Lamar Avenue and N Taliaferro Avenue
- E Palm Avenue and N 14th Street
- E Palm Avenue and N 17th Street
- E Palm Avenue and N 19th Street

RRFB's along Bayshore Boulevard will be a significant change to the corridor, which will require various levels of behavioral changes from motorists, pedestrian and bicyclists alike. The Transportation Division will schedule a second public meeting as well as provide public outreach and educational campaign in close coordination with Tampa Police Department prior to installation of RRFB's and other changes within the corridor.



Figure 10-1 - E Palm Avenue and N 17th Street – Pedestrian using RRFB at mid-block crosswalk



Figures 10-2 & 3 - RRFB's in stationary mode and flash mode

For more information regarding RRFB's please visit the following sites:

- [How to Use an RRFB \(FDOT\) \(www.alerttodayflorida.com\)](http://www.alerttodayflorida.com)
- [RRFB Brochure \(FDOT\) \(www.alerttodayflorida.com\)](http://www.alerttodayflorida.com)
- [RRFB Summary \(USDOT/FHWA\)](http://www.fhwa.gov)
- [Efficacy of Rectangular-shaped Rapid Flash LED Beacons \(MUTCD\)](http://www.mutcd.com)
- [RRFB Information - Pedestrian and Bicycle Information Center \(PBIC\)](http://www.pbic.org)

Question 11 – Adding the RRFB’s to crosswalks will add more parking on my street. How will the city address additional parking on local streets adjacent to Bayshore Boulevard?

The proposed RRFB locations are at or near crosswalks where usage by large numbers of pedestrians and cyclists has been documented. The new RRFB controls are intended to improve the safety of these crossings for current pedestrians and cyclists. With the proposed number and spacing of these upgraded crosswalks, we expect the number of pedestrian and cyclist crossings to spread out rather evenly among these locations rather than concentrate at a single location. Likewise, we expect current parking demands and patterns to remain distributed throughout the area. The City will monitor these conditions after construction to ensure our improved pedestrian safety objective is accomplished without unintended impacts.

Question 12 – Can other locations be considered for marked crosswalks or additional crosswalk enhancements to address pedestrian safety?

Additional locations recommended by the public for marked crosswalks or crosswalk enhancement such as at the Davis Islands Bridge ramps and location between Plant Avenue and Platt Street are being considered for implementation. At this time no additional RRFB’s are being considered south of Rome Avenue under this project.

Question 13 – If the 40-mph speed limit is not enforced, how will you enforce the 35-mph speed limit?

The speed limit is not being reduced arbitrarily, but rather in the context of the additional roadway modifications including reduction in lane widths and additional crosswalk and buffered bicycle lane improvements. The narrower lane widths and additional pedestrian and bicycle modifications will be implemented to encourage reduced speed for drivers and shorten crossing distances for pedestrians.

The Tampa Police Department (TPD) conducts selective traffic - speed enforcement based on requests made from the public. If the public feels this area requires ongoing speeding enforcement, anyone can report or request the posted limit be enforced by calling selective enforcement non-emergency unit at 813-231-6130, or visit: [Customer Service Center](#).

Question 14 – Can speed cameras be used to control speeding?

The City does not have a speed camera program and cannot install cameras for one specific project. Additionally, In the State of Florida, there is no state law or city ordinance that permits speeding cameras to “control” speeding.

Question 15 - Can the posted speed be reduced to 30-mph?

The City prefers to reduce the initial posted speed at 5-mph increments. The City can conduct post-construction speed studies to evaluate if a further reduction in posted speed is warranted within the corridor.

Question 16 – Have studies been completed to determine the number of vehicles using Bayshore Boulevard?

The City of Tampa coordinates with the Hillsborough Metropolitan Planning Organization (MPO) for collection of traffic counts and Level of Service (LOS) reporting for major roadways within City limits. The Hillsborough MPO conducted road counts during 2014 and 2015. Bayshore Boulevard currently has the following Average Annual Daily Traffic (AADT) volumes in vehicles per day (vpd):

1. from Swann Avenue to Platt Street – 30,700
2. from Bay to Bay Boulevard to Swann Avenue – 32,500
3. from Gandy Boulevard to Bay to Bay Boulevard – 26,000

The Level of Service (LOS) for the regulated roads is calculated using average daily volumes and capacities based on FDOT’s recommended methodology. Currently, these segments are all operating at an AADT LOS “C” which is above the City of Tampa Comprehensive Plan Mobility Goals LOS “D” for City roadways.

Question 17 – Have studies been completed on the number of bicyclists and pedestrians that use the corridor and the number of accidents involving pedestrians and bicyclists?

During 2016, the City of Tampa conducted a pedestrian and bicycle study for the segment of Bayshore Boulevard from Rome Avenue to Platt Street to identify current traffic conditions and evaluate the changes to improve pedestrian and bicycle safety while still accommodating existing traffic patterns. Results of the study can be found under [Pedestrian Crossing Study Final Report \(Oct 2016\)](#) on our website. The City may collect additional pedestrian and bicycle data as part of this project, prior to finalizing the plans.

Question 18 – Has the City considered future development on Bayshore Boulevard and South Tampa which could potentially generate more traffic and add to more traffic congestion on Bayshore Boulevard?

Any future development projects undergo an evaluation and review process in accordance with the Transportation Impact Analysis and Mitigation Plan Procedures Manual. Depending on the size of the proposed development and adjacent roadway capacity, a Developer may be required to provide traffic impact analyses reports to ascertain and address potential impacts to the transportation network. Any new development with potential impacts to the Bayshore Boulevard corridor would be subject to this evaluation and review process.

Additionally there are other regional transportation improvement projects in development (such as THEA's Selmon West Extension and Hillsborough County's MacDill Air Force Base Ferry) that may provide commuting alternatives and help reduce future traffic volumes within the corridor.

Question 19 - Can bicyclist be prohibited from riding on the sidewalk?

Section 25-185 of the City Code does not prohibit bicyclists on City sidewalks except within a business district (Reference: [City of Tampa Code of Ordinances Section 25-185](#)). When sidewalks and bike lanes are present a cyclists can use either option depending on his/her comfort level. However, if the cyclist chooses the sidewalk, they are required to yield to pedestrians and give audible warning when passing. Cyclists have the duty to apply pedestrian rules.