

Technical Memorandum

To: Eric Almond, PE (Almond Engineering)

From: Wayne Petrone, PE (Peters and Yaffee)

Date: May 16, 2018

Re: Episcopal School (MM-18-03): Highlands Avenue

Introduction

Access to Episcopal School is provided via two City streets (St. Elmo Drive and Highland Avenue) and one private street (Munnerlyn Drive). St. Elmo Drive provides access to the middle school while Munnerlyn Drive and Highland Avenue (located to the west of the Hart Expressway) provide access to the high school. At the termination (north end) of both Munnerlyn Drive and Highland Avenue, is the Episcopal student parking lot. This lot is located under the Hart Expressway. A majority of the high school students that attend Episcopal and drive to campus utilize Highland Drive to access the student parking lot.

Existing Conditions

Highland Avenue and Art Museum Drive intersect Atlantic Boulevard to form a signalized four-way intersection. Highland Avenue is a two-lane road with a posted speed limit of 30 mph that serves two commercial businesses, several residential homes and the Episcopal School. Art Museum Drive provides access to the Hart Expressway Southbound and Beach Boulevard. The signalized Atlantic Boulevard/St. Elmo Drive intersection is located approximately 1000 feet east of the Atlantic Boulevard/Highland Avenue/Art Museum Drive intersection.

Proposed Project

Episcopal School is proposing to modify the St. Elmo Drive/Munnerlyn Drive intersection and add a raised landscaped island with an information kiosk within the intersection. Modifications include:

- The north leg of St. Elmo Drive will be realigned to intersect Munnerlyn Drive and St. Elmo Drive (east leg) at 90 degrees rather than at 45 degrees.
- The distance from Atlantic Boulevard to the new St. Elmo Drive/Munnerlyn Drive intersection will be increased from approximately 200 feet to 300 feet.
- The east leg of St. Elmo Drive will be widened to provide two westbound lanes and two eastbound lanes separated by a landscaped island.
- Two westbound lanes will be provided on the east leg of St. Elmo Drive; an exclusive through lane and an exclusive right turn lane. At least six vehicles will be able to queue in the through lane at the information kiosk without blocking vehicles from entering the right turn lane.
- On the east leg of St. Elmo Drive between the kiosk and Atlantic Boulevard, two eastbound lanes will be provided; separate left and right-turn lanes.
- A security guard will be stationed inside the information kiosk. Only those motorists needing directions, have questions or do not have the Episcopal vehicle sticker will stop at the information kiosk.
- Stop signs will be installed on both the north leg of St. Elmo Drive and Munnerlyn Drive approaches to the St. Elmo Drive/Munnerlyn Drive intersection.

Proposed Project's Impact on Highland Avenue

The existing school operation at the St. Elmo Drive/Munnerlyn Drive will not change once the improvements are in place. The two major changes include: the security guard will be inside an information kiosk rather than standing in the middle of the intersection and vehicles exiting the school on Munnerlyn Drive will have to stop at St. Elmo Drive. As such, the number of students using Highland Avenue to access the Episcopal School parking area is not expected to change.

The City of Jacksonville has asked Episcopal School of Jacksonville if they would support speed bumps on Highland Avenue to calm traffic. The Episcopal School of Jacksonville stated that they would support speed bumps wherever the City would like them placed along Highland Avenue. Depending on the number and severity of the speed bumps, some of the student traffic that currently uses Highland Avenue could reroute to use St. Elmo Drive/Munnerlyn Drive to access the student parking lot. The impact this most likely would have at the St. Elmo Drive/Munnerlyn Drive intersection, is that the delay for vehicles exiting St. Elmo Drive (from middle school/residential area) would increase.

Conclusions

Episcopal School is proposing to modify the St. Elmo Drive/Munnerlyn Drive intersection and add a raised landscaped island with an information kiosk within the intersection. The impact this modification will have on Highland Avenue include:

- Since the operation of the school entrance at the St. Elmo Drive/Munnerlyn Drive intersection will not change, the number of students using Highland Avenue to access the Episcopal School parking area is not expected to change.
- If the City of Jacksonville installs speed bumps on Highland Avenue, a portion of the student traffic that currently uses Highland Avenue could reroute to use St. Elmo Drive/Munnerlyn Drive to access the student parking lot. The result of this would be increased delay for vehicles exiting St. Elmo Drive (from middle school/residential area) at the St. Elmo Drive/Munnerlyn Drive intersection increase.