

Intersection Safety Study SR20/US27 (Apalachee Pkwy) at CR 265 (Magnolia Drive)

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Presentation Overview:

- Purpose of Study
- Introduction/Location
- Data Collection
 - Crash History
 - Pedestrian/Bicycle Counts
- Qualitative Assessment Overview
- Recommendations / Design Concept
- Project Funding & Status

This intersection study has been conducted on behalf of FDOT District Three Safety Office to address Vulnerable Road User safety concerns.

Vulnerable Road Users = Pedestrians & Bicyclists

- Recent sidewalk improvements along Apalachee Parkway
- need for marked crosswalks on all four legs of urban signalized intersections
- Connectivity/coordination with adjacent sidewalk/trail improvements planned through Leon County.



SR20/US 27 (Apalachee Pkwy) at CR 265 (S. Magnolia Drive):

- Urban Divided roadways
 - Four and Six Lanes plus turn lanes
- AADT = 45,000 vehicles per day
- Posted Speeds:
 - Apalachee Pkwy: 45 MPH
 - Magnolia Drive: 30/40 MPH
- Adjacent Commercial/Retail,
Recreational

Study Location Map

Introduction/Location



Study Location Map

- Brief overview of crash stats....
 - 111 Total Crashes from 2009 – 2013
 - 48 Injury and no fatalities reported
 - Typical crash patterns for urban signalized intersection
- Study Analysis focused primarily on pedestrian and bicycle involved crashes

Crash History (2009-2013)

- 2009 – 2013:
 - No reported Pedestrian or Bicycle involved crashes at the intersection.
- In 2008:
 - One Bicycle Fatality (crossing against traffic; bicyclist reported Intoxicated)
 - Two (2) pedestrian involved crashes 400-feet & 900-feet east of intersection

- Pedestrian/Bicycle crossings
 - Data collected 11am – 8pm
 - Total of 120 Pedestrians & 17 Bicyclists
 - West side has most usage (about ½ of total)
 - East side also has recorded usage (no marked crosswalk)
 - Highest volume around lunchtime (11am-1pm)
 - Data indicates moderate pedestrian/bicyclist usage for the intersection

- A qualitative-based review of existing intersection conditions during peak period
 - Intersection Operations, queuing, conflict movements
 - ADA accessible pathways/ramps
 - Visibility and
 - Roadway conditions



Figure 4 – At SW Corner Service Road Crosswalk (Looking West)



Figure 5 – At SE Corner - Change in Grade at ADA Ramp



Figure 7 – No Backplates for EB/WB Right-Turn Signals

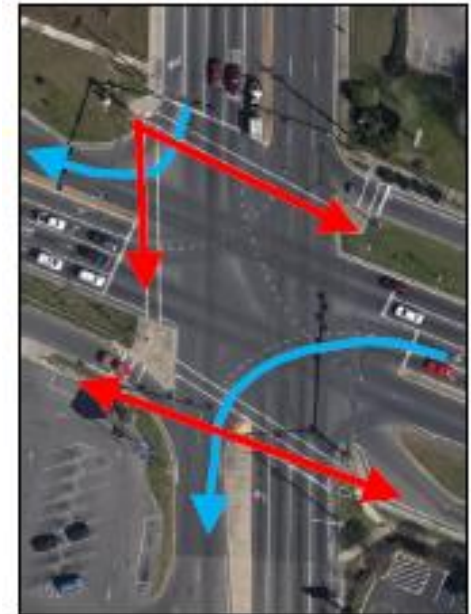
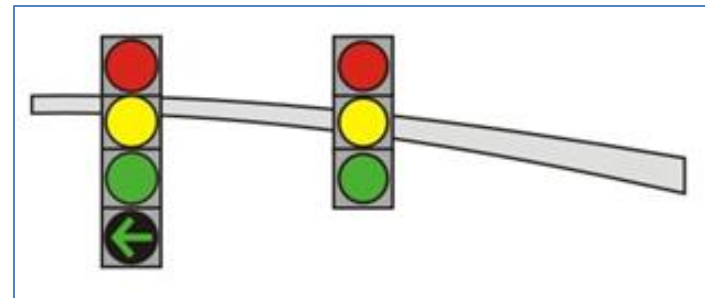


Figure 9 – Conflicts: Turning Vehicles (Blue) and Pedestrian Crossings (Red)

- Recommendations developed:
 - To add missing crosswalk on east leg
 - Address field conditions to enhance pedestrian/bicyclist experience
 - Encourage or increase proper usage of crosswalks and crossing devices
 - Reduce driver and pedestrian/bicyclist confusion at the intersection

Recommendations from Study

- Recommendations Included:
 - Upgrade pedestrian signal equipment
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 - Add signal heads for NB approach
 - Upgrade to LED blank out signs for NO RIGHT TURN
 - Add lighting on NW corner
 - Reconstruct ADA ramps



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- Upgrade pedestrian signal equipment
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- Add lighting on NW corner
- Reconstruct ADA ramps
- Realign existing crosswalks
- Add crosswalk on east leg
 - Analysis performed
 - Three (3) alternatives developed
- Public Education on new traffic devices (new technology!)
- Enforcement and Measurement

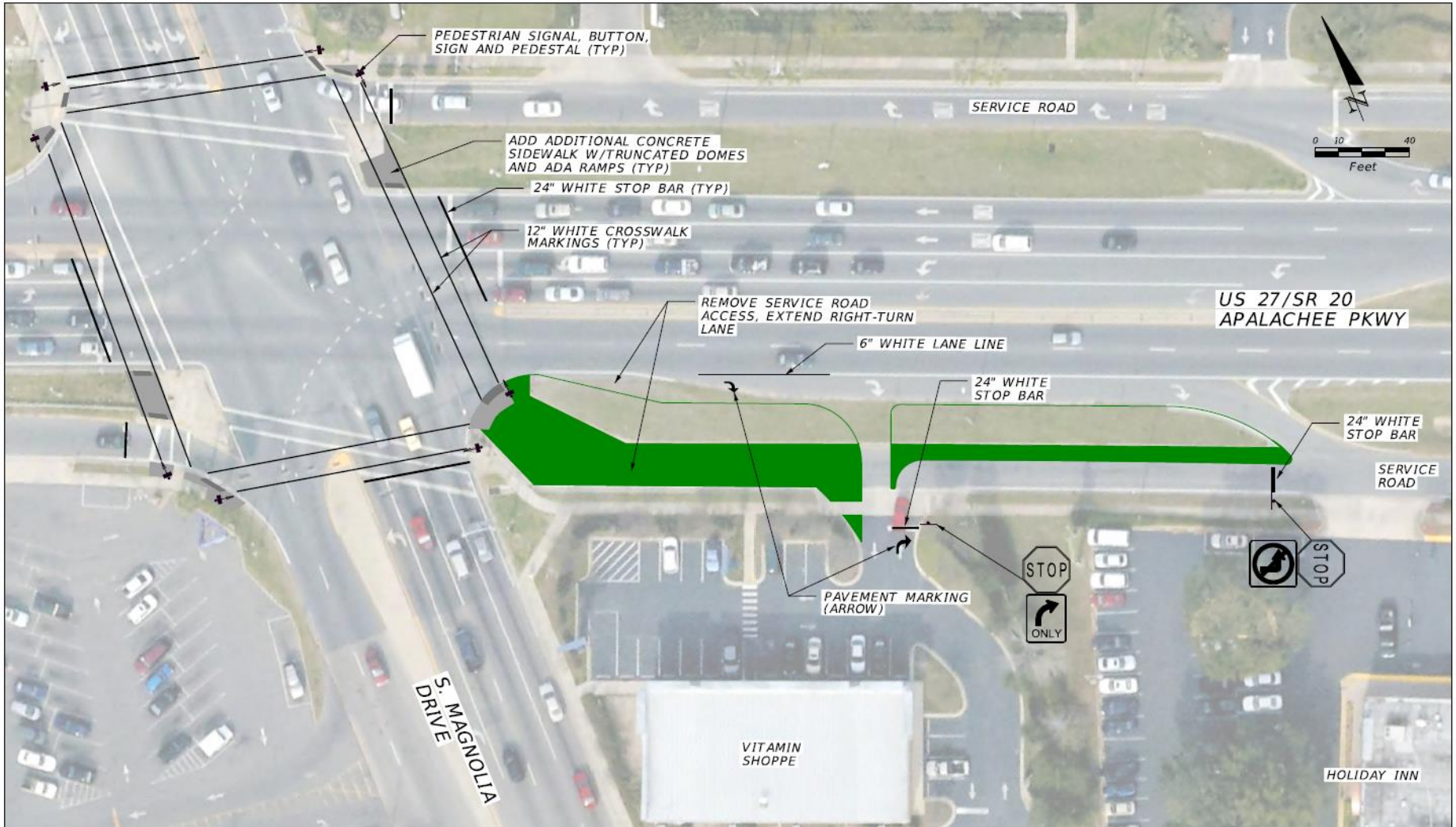
Design Concept - Existing

Primary Goal:
Add East Leg Crosswalk

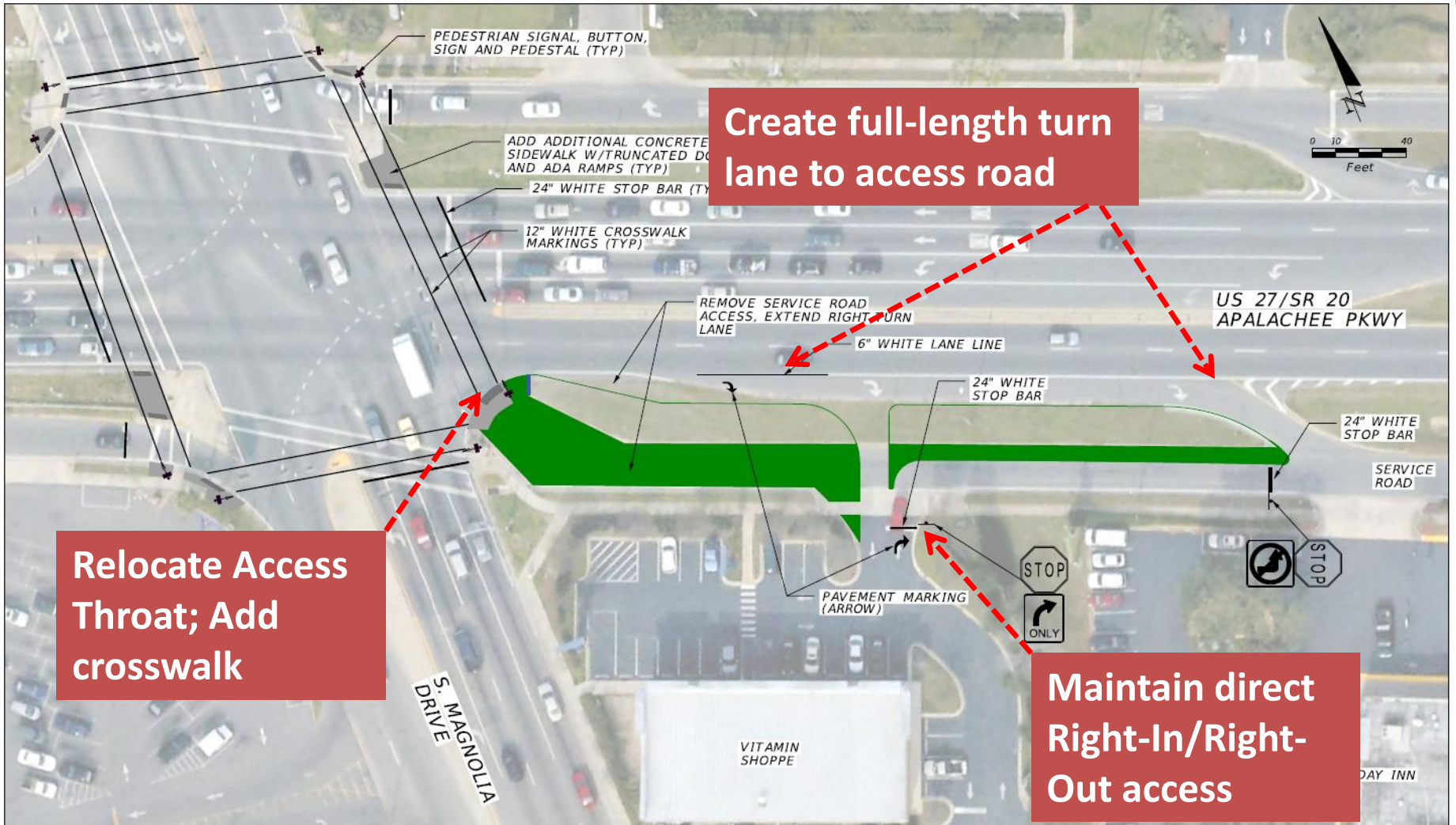
Requires relocation
of access point

Secondary Goal:
Avoid/Minimize Impacts
to driveway

Design Concept - Proposed



Design Concept - Proposed



Relocate Access Throat; Add crosswalk

Create full-length turn lane to access road

Maintain direct Right-In/Right-Out access

- Coordination with planned resurfacing/restoration (3R) project on US 27 (Apalachee Pkwy)
 - To include upgrade of ADA ramps, pedestrian signal equip., pavement markings
- Currently developing options to implement crosswalk concept for east side and other signal upgrades



Apalachee Pkwy at Magnolia Dr.

Thank you.

Questions?